



Integrated Annual Report 2019





Welcome to Aegon's 2019 Integrated Annual Report

To prosper, we believe companies must create long-term value for the societies and communities in which they operate, their shareholders, customers and business partners.

Aegon makes economic and social contributions through returns to shareholders, tax and support for local communities, as well as through investments both for our own account and on behalf of our customers. Our aim is to be a responsible corporate citizen, fully aware of the impact we have on our stakeholders, society as a whole and environment.

This is Aegon's Integrated Annual Report for the year ended December 31, 2019. Aegon's aim in producing this report is to provide a clear, balanced overview of the Company's operations, strategy and performance. In this report, we look at the trends and challenges our business is facing, at our strategy, at how we create and share value – and at how we safeguard this value through a responsible approach to our business. This report

also contains the 2019 consolidated financial statements and Company financial statements for Aegon N.V. (from page 148).

We have prepared this report in accordance with the International Financial Reporting Standards, as adopted by the European Union (IFRS-EU), as well as the International Integrated Reporting Council (IIRC) framework. This report also conforms to relevant reporting requirements under the Dutch Corporate Governance Code and Dutch Civil Code (Part 9, Book 2).

This Integrated Annual Report is also used as the basis for our Form 20-F (in compliance with our listing on the New York Stock Exchange).

If you have comments or suggestions about this report, please contact our offices in The Hague. Contact details may be found on page 440.

References

Throughout this document, Aegon N.V. is referred to as either 'Aegon' or 'the Company'. Along with its member companies, Aegon N.V. may be referred to as 'Aegon Group' or 'the Group'. For the purposes of this report, 'member companies' shall mean, with respect to Aegon N.V., those companies consolidated in accordance with Dutch legislation relating to consolidated accounts.

References to 'NYSE' and 'SEC' relate to the New York Stock Exchange and the US Securities and Exchange Commission respectively. Aegon uses 'EUR' and 'euro' when referring to the lawful currency of European Monetary Union member states; 'USD' and 'US dollar' when referring to the lawful currency of the United States and 'GBP', 'UK pound' and 'pound sterling' when referring to the lawful currency of the United Kingdom.

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2019: A year of progress

In 2019, Aegon continued its realignment for growth, launched new propositions, further improved customer service, and made important executive management appointments to guide us into our next phase of development. We set ambitious 3-year financial targets. Milestone moments included:



February

Aegon set new financial targets for 2019-2021 focused on growing capital generation and dividends.

March

Transamerica announced agreement with LTCG for administration of long-term care insurance.

Transamerica designated as a Best Place to Work for LGBTQ equality and received perfect score from Human Rights Campaign.

April

Transamerica launched fifth Deltashares Managed Risk ETF.

Aegon issued EUR 500 million of Solvency II Restricted Tier 1 Perpetual Contingent Convertible Securities to replace USD 500 million of grandfathered Restricted Tier 1.



Transamerica organized itself for further growth by establishing two dedicated business lines – Workplace Solutions and Individual Solutions.

May

Aegon signed a deal to divest its stake in its Japan-based joint ventures with Sony Life.

Bas NieuweWeme appointed CEO of Aegon Asset Management, succeeding Sarah Russell.

August

Announcement that Lard Friese will succeed Alex Wynaendts as Aegon's CEO at the AGM in May 2020.

Transamerica reduced fees for multiple investments, helping to maximize overall value for customers.



September

Announcement that Mike Holliday-Williams will succeed Adrian Grace as CEO of Aegon UK.

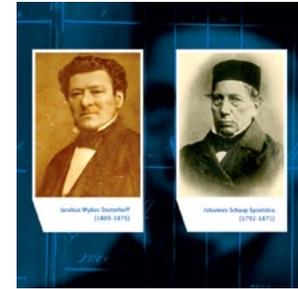
Aegon announced it will establish an International division encompassing its Asian and Southern and Eastern European businesses as of January 1, 2020.

Maarten Edixhoven appointed to the Management Board as of October 2019.

Transamerica named one of the best 100 companies in the US for working mothers and enters Diversity Best Practices Inclusion Index.

October

Aegon the Netherlands reorganized itself to become a more agile company to improve effectiveness and efficiency of service delivery.



Announcement that Thomas Wellauer will be proposed to join Aegon's Supervisory Board at the AGM in May 2020.

Aegon issued USD 925 million of Solvency II Tier 2 Subordinated Notes to replace USD 1 billion of grandfathered Restricted Tier 1.

November

Aegon celebrated its 175th anniversary.

December

Aegon Asset Management announced realignment of its organization as a truly global asset manager set up for future growth.

Aegon reinsured about one quarter of its longevity exposure in the Netherlands with Canada Life Reinsurance.

Performance highlights

At a glance

29.9

Number of customers
(in millions)

29%

Percentage of digitally connected customers
(% of total customers)

88%

NPS Coverage
(% of the business covered in our relational NPS program)

+4.3

Number of new customers
(in millions)

19%

Percentage of customers with two or more products
(% of total customers)

67

Employee engagement score



Dividend pay-out ratio¹
(in %)



Return on equity
(in %)



Normalized capital generation²
(in EUR millions)



Solvency II ratio
(in %)



Holding excess cash
(in EUR billions)



Gross financial leverage ratio
(in %)



Gross remittances
(in EUR millions)

1 % of normalized capital generation.
2 After holding expenses.

Value creation

Safeguarding value creation

Financial information

Other non-financial information

Letter from our CEO

Continued
commitment
to purpose

Alex Wynaendts
CEO Aegon



2019 was a special year in which we marked Aegon's 175th anniversary. Throughout all of these years, and despite many changes inside and outside our organization, we have remained strongly committed to our purpose of helping people achieve a lifetime of financial security.

The need for solidarity and financial security has only grown. This is particularly true in recent years as increasing longevity and lower birth rates, combined with other trends in society, have added to the strain on social security and other government benefits. The responsibility for financial security up to and into retirement is increasingly shifting to the individual, who is often not prepared for the task.

These trends are global and Aegon is proud that we use our long years of expertise to help 29.9 million customers in over 20 countries to secure their financial futures. Our contribution to our customers' lives can clearly be seen as Aegon paid over EUR 59 billion in claims, benefits and plan withdrawals globally in 2019 alone. While our local businesses have their own unique cultures and business models, we all share the same purpose.

Looking back at 2019

Aegon operated in a challenging environment in 2019, with persistent low interest rates in our key markets negatively impacting underlying earnings. We also experienced net outflows in our US retirement and annuity businesses. As a result we achieved a return on equity of 9.5%, below our target of 10%. However, we increased our normalized capital generation which, combined with a number of management actions we have taken, enabled us to maintain a strong capital position.

At the same time, we continued to execute on our strategy and we reached a number of important milestones, by simplifying Aegon's structure and adopting an even more proactive approach to managing our portfolio of businesses.

We announced in February 2019 that we were grouping our businesses into three strategic categories – *Manage for Value*, *Drive for Growth*, and *Scale-up for Future*. The categories recognize the different maturities, varying growth dynamics and

capital generation patterns of our businesses – and the need to manage them in distinct ways.

Manage for Value

Manage for Value consists of our at-scale, mostly spread-based businesses, which we manage by optimizing capital generation. In this category, we have, for instance, accelerated the release of capital from our mature businesses in the Netherlands by reinsuring a quarter of our longevity risk. In the Netherlands we also moved from a defined benefit plan to a defined contribution plan for new pension accruals of Aegon's own employees. This switch reduces volatility in Aegon's pension expenses and helps to protect our capital position.

Drive for Growth

The *Drive for Growth* businesses are the cornerstone of our growth strategy as they have the highest potential for future capital generation growth. Therefore we direct the vast majority of our investments into these businesses. I am pleased to see positive momentum in the second half of 2019 in Life and Accident & Health sales, as well as gross deposits. We also continued to make investments to improve our customer experience and increase retention rates, in particular in our Transamerica Workplace Solutions business.

Aegon Asset Management continued to grow in 2019 and recorded its eighth consecutive year of positive net inflows from third parties. Under new leadership, this business has been realigned as a fully global asset management organization and is set up for future growth.

And finally in the UK, in the *Drive for Growth* category, we completed the Cofunds integration, thereby achieving the targeted expense savings and confirming our position as the largest player in the UK platform market.

Scale-up for Future

The *Scale-up for Future* category brings new platforms, technology and business models to capture meaningful new growth opportunities.

In 2019, we announced the creation of Aegon International, which brings together our businesses in Asia and Southern and Eastern Europe. This new division is designed to accelerate growth and further leverage cross-border synergies by developing new business models and realizing operational efficiencies. We are also reaching out to customers directly as we continue expanding our digital platforms. In this regard I would like to point out an interesting development in China, where our insurance joint venture is partnering with a major e-commerce player to offer term life products on its platforms. The first product launch in October 2019 led to the sale of 150,000 new term life policies in the fourth quarter of 2019, indicating the strong potential of the e-commerce model.

If a *Scale-up for Future* business does not fulfil our expectations, we review the position in order to optimize our capital allocation. As a result, we decided to sell our stake in the partnership with Sony Life in Japan.

Investing in the future

Looking ahead, the macroeconomic environment as a whole remains uncertain. And, at the time of writing this letter in March 2020, the full impact from the coronavirus outbreak is not yet clear. We are, however, seeing disruption to the global financial market as both stock markets and interest rates have declined significantly. We have taken the necessary measures aiming to provide for the safety and the wellbeing of our colleagues and customers around the world.

In order to keep Aegon future ready and be able to quickly adjust to changing circumstances, we keep transforming our organization and make investments to become increasingly innovative, customer-centric and data-driven. These investments contribute towards more of our employees becoming aware of digital opportunities, with training programs geared towards knowledge building in data and analytics. Over a thousand Aegon leaders participated in the *Analytics for Leaders* program. This is in addition to other data and analytics programs available for all our employees.

We are also running a number of projects at business-unit level to further streamline our operations. These projects create opportunities to inspire new business ideas, leading to better service for our existing customers and opening of new markets.

Responsible business

We take our responsibility to society seriously and it is a good sign that Aegon's voice is increasingly being heard on issues subject to public debate. During 2019, we re-examined our approach to sustainability, and important social, environmental and economic aspects of our operations.

Investments

As a major institutional investor entrusted with the management and servicing of almost EUR 900 billion in customer assets, we strive to deliver on our promise of a secure and healthy financial

future while caring about the environment in which we all live. We are proud to contribute to the UN Sustainable Development Goals and continue acting in the spirit of Principles for Responsible Investment, to which Aegon Asset Management is a signatory. For example, our updated Responsible Investment Policy – finalized in December 2019 – expands the criteria for excluding companies with coal-related activities from our investments.

Longevity research

Healthy aging is at the heart of our business, and Aegon has developed insights into longevity and retirement. These insights are crucial, as government-supported retirement schemes are coming under increasing strain as individuals face more responsibility to safeguard their financial futures. We believe that the solution is a combination of collective action and empowerment. I was honored to deliver this message to the Organization for Economic Co-operation and Development Forum in May 2019 when presenting our annual Retirement Readiness report, *The New Social Contract: Empowering individuals in a transitioning world*.

Supporting our communities

We also take steps to help improve the communities in which we operate. During 2019, Aegon and Transamerica contributed over EUR 9 million in support of local communities through cash donations and employee volunteering. For instance, colleagues built affordable houses in Denver with Habitat for Humanity, and helped people address the problem of excessive debt in the Netherlands with a financial coaching program.

Conclusion

This is my last contribution to the annual report after twelve years as CEO of Aegon. Looking back over this period, I am proud of what we have achieved together. We have transformed the company and ensured that we can continue to make good on our purpose of *helping people achieve a lifetime of financial security* long into the future.

Like other companies operating around the world, Aegon is exposed to the challenges resulting from the coronavirus pandemic. We are taking measures aimed at safeguarding the interests of all our stakeholders in this difficult time.

I recognize that Aegon's long-term transformation has at times asked a lot of our investors, as well as our employees. Mindful of everything we have experienced together over the last 12 years, I want to express sincere thanks, also on behalf of the Management Board, to everyone who has contributed to Aegon's journey, serving millions of customers around the globe. Together, we impact people's lives in the moments that matter.



Alex Wynaendts

Chief Executive Officer and Chairman
of the Executive Board of Aegon N.V.

Letter from our Supervisory Board Chairman

Supporting growth

William Connelly
Supervisory Board Chairman



Aegon made significant progress in its transformation in 2019 and the Supervisory Board is committed to supporting the focus on accelerating sustainable growth to benefit all of Aegon's stakeholders.

Societal trends

The insurance and pensions industry is being changed fundamentally due to the societal trends and rapid-paced digital innovation impacting our daily lives. People are living longer and face challenges in maintaining their financial security at a time when national social security systems are under increasing strain. Long-held expectations about well-funded retirement for all are under threat. At the same time, much of our daily transactions and activities now occur in digital form and in the cloud, and innovation is accelerating.

Now, more than ever, people need the right solutions and tools, coupled with an understanding of how to use them, to ensure their financial security.

This makes Aegon – with roots stretching back 175 years – and its expertise in pensions, life insurance, asset management and other financial services more relevant than ever before for customers. We are proud to provide important insights to policymakers on shaping retirement systems fit for the 21st Century. Aegon can fulfill these important functions due to our mutually beneficial relationships with a wide range of stakeholders. For instance, our 23,757 employees received EUR 2.1 billion in salaries and other benefits in 2019 and we delivered approximately EUR 899 million to investors in dividends and interest payments.

Long-term view

As we are entrusted with overseeing the Company strategy, the Supervisory Board plays an important role in helping Aegon remain relevant to all our stakeholders and wider society, while growing sustainably. We perform this task by taking

the long-term view. The members of the Supervisory Board, who come from a range of industries and disciplines, keep a close eye on today and tomorrow's trends and have been engaging in productive and insightful dialogues with Aegon's management.

We did not see the expected growth in earnings and sales in 2019. Yet, the Supervisory Board was pleased to note that Aegon realized key elements of its transformation strategy to position the Company for long-term value creation. It is encouraging to see how Aegon is bringing innovative solutions to customers in large developing markets such as Turkey, India and China. The activities in Southern and Eastern Europe and Asia have been brought together in a new division called Aegon International. This organizational change is designed to accelerate growth, foster new business models and enable operational efficiencies.

The full Supervisory Board held a meeting in New York with the Management Board in June to further discuss the grouping of Aegon's portfolio of businesses into three distinct categories: *Manage for Value*, *Drive for Growth*, and *Scale-up for Future*. Supervisory Board members also visited offices of our US business, Transamerica, during the year to connect with the business and staff. We were particularly interested in talking to people directly involved in partnerships with third-party administrators to administer our US annuity, insurance and long-term care business lines. These partnerships enable Transamerica to accelerate the enhancement of its digital capabilities and the modernization of its platforms to serve all customers. Similarly, the Supervisory Board went to Spain and the Netherlands to evaluate how transformation processes are being implemented in our businesses there and how they impact employees.

The coronavirus outbreak has introduced new uncertainty, and the Supervisory Board is being kept informed of the measures Aegon is taking to prioritize the health and wellbeing of its employees and customers.

Corporate governance

The Supervisory Board, supported by its four committees – covering the topics of Audit, Risk, Remuneration and Nomination – had a busy agenda in 2019. Key topics included corporate governance, compliance, reputation, human capital, as well as overseeing and advising on the Company strategy. The Audit and Risk Committees evaluated internal reports and engaged with Aegon's senior management and regulators to ensure the integrity of Aegon's financial statements, internal control systems and processes to deal with risks as diverse as how Aegon does business, the security of our IT systems and how we comply with existing and planned regulations.

Remuneration at publicly owned companies has been the subject of much discussion in recent years. The EU's new Shareholder Rights Directive has mandated some changes to remuneration policies, and at Aegon we value the opinions of our various stakeholders on this important subject. Therefore, the Remuneration Committee was involved in a major consultation process with shareholders, proxy advisors and employee representatives in 2019 in regard to amending our remuneration policies for the Executive Board and the Supervisory Board. The amended policies, reflecting both the new Directive and the dialogue with our stakeholders, will be presented for approval at the Annual General Meeting of Shareholders (AGM) in May 2020.

The Remuneration Committee also oversaw the update of Aegon's Group Global Remuneration Framework and the Remuneration Policy for Material Risk Takers which is designed to limit excessive risk-taking by key employees.

CEO succession

An important responsibility for the Supervisory Board is CEO succession. Finding the right candidate is essential when a CEO is to set hand over the baton to a successor tasked with leading the Company to the next stage of development. The Supervisory Board as a whole, and the Nomination Committee in particular, therefore devoted significant attention to managing the succession process, which was first announced in late 2018. After thorough assessments of a strong bench of internal and external candidates, we announced in August that Lard Friese will be proposed for appointment as CEO at the AGM in May 2020.

With shareholder approval, Lard will build on the hard work done by Alex Wynaendts and his team. Alex has led the successful strategic and financial transformation of Aegon over the last 12 years. As a result, Aegon is now well-positioned for the next phase of development and to realize its full potential. Both Alex and the Supervisory Board agreed this to be the natural moment for him to hand over to a new CEO. I would like to express, also on behalf of the entire Supervisory Board, our sincere gratitude and appreciation to Alex for guiding Aegon through its major transformation and the great dedication he has shown to the Company, its employees and all its stakeholders.

The Supervisory Board was also involved in discussions in 2019 concerning important appointments of Management Board members, including for Aegon Asset Management, Aegon International and Aegon UK.

Nominations and appointments

The Supervisory Board continually evaluates its own composition and effectiveness, and mindful of Aegon's commitment to diversity, we will over time propose the appointment of new members. We are delighted to propose the appointment of Caroline Ramsay to the Supervisory Board at the AGM in May 2020. Caroline has substantial experience in finance and auditing, as well as extensive managerial expertise acquired in executive roles with several large insurance companies. We have also proposed that Thomas Wellauer, who has an in-depth knowledge of the insurance industry, will be appointed to the Supervisory Board at the AGM in May 2020.

In conclusion, I would like to compliment all Aegon staff for the commitment they have shown during 2019. I am also grateful to my Supervisory Board colleagues for their ongoing contributions and support. Finally, I invite you all to turn to page 46 of this Integrated Annual Report for a comprehensive report of the Supervisory Board's priorities and activities during 2019.

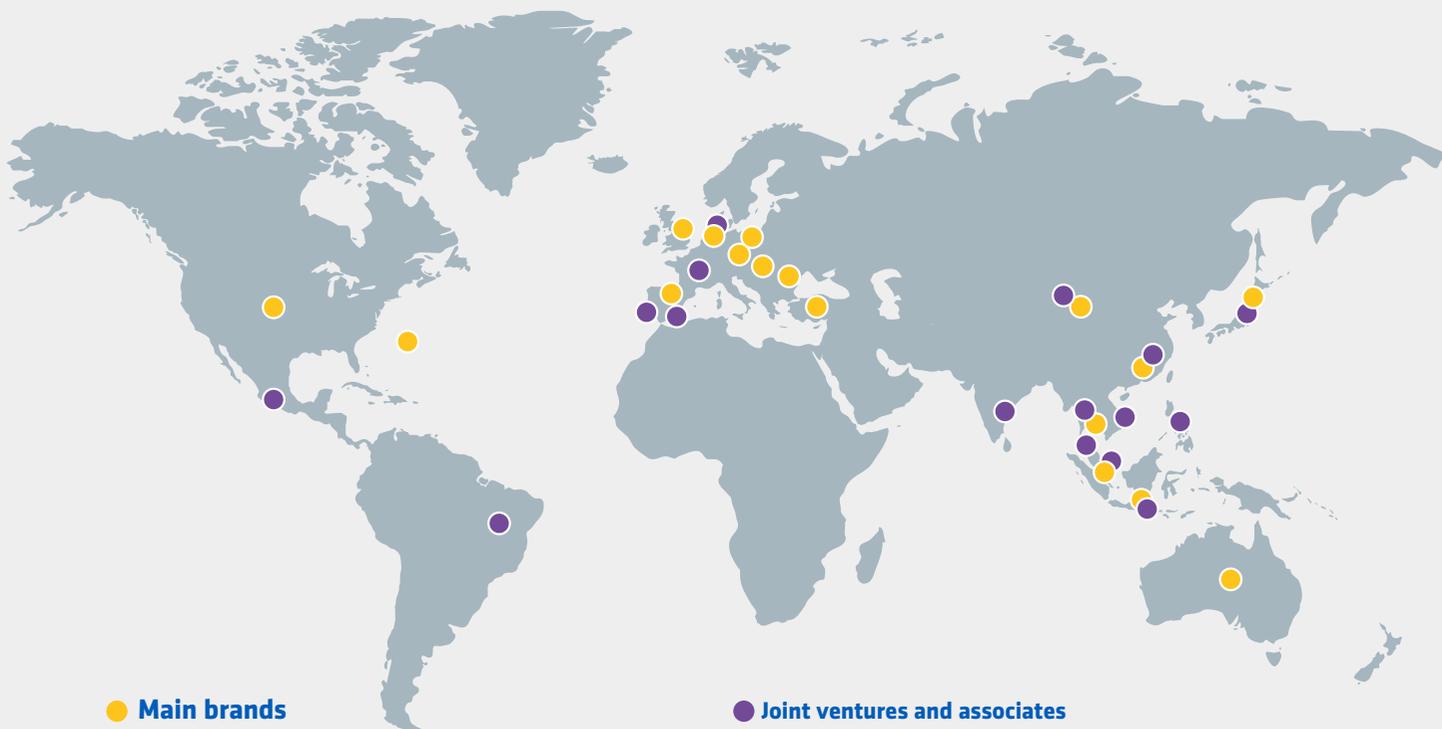


William Connelly
Supervisory Board Chairman

Aegon: A global provider of financial solutions

Aegon today

Aegon is an integrated, diversified financial services group that offers innovative and effective savings and protection solutions for customers worldwide. Aegon traces its roots back to the 19th century. We now serve more than 20 countries, with 29.9 million customers and EUR 898 billion of revenue-generating investments. Our holding company, Aegon N.V., is headquartered in The Hague, the Netherlands.



● Main brands

Aegon

Australia, China, Hong Kong, Hungary, Indonesia, Japan, the Netherlands, Poland, Romania, Spain, Thailand, Turkey, UK

Transamerica

Bermuda, Hong Kong, Singapore, US

Aegon Asset Management

Germany, Hong Kong, Hungary, Japan, the Netherlands, Spain, UK, US

● Joint ventures and associates

Brazil, China, France, Hong Kong, India, Indonesia, Japan¹, Malaysia, Mexico, the Netherlands, Philippines, Portugal, Singapore, Spain, Thailand, Vietnam

- The Aegon brand operates as Aegon Insights in Australia, China, Indonesia, Japan, Thailand and Hong Kong.
- The Transamerica brand operates as Transamerica Life Bermuda in Hong Kong, Singapore and Bermuda.
- Aegon Asset Management operates in the US, the Netherlands, Hungary, Spain, Germany, Hong Kong and Japan, Kames Capital brand in the UK and TKP Investments in the Netherlands will be re-branded to Aegon Asset Management in 2020.
- We also operate under several other brands, including: Knab, TKP, Robidus, Cappital and Nedasco (Netherlands); World Financial Group (US, Canada); Origen Financial Services (UK); Futuready (Indonesia); Transamerica Ventures and Blue Square Re (Global).

¹ Business divested in January 2020.

Aegon's markets

For 2019, we are continuing to report Aegon's business by the following reporting segments:

- Americas
- Europe
- Asia
- Asset Management (Global)

As of January 1, 2020, a new reporting segment, Aegon International has been established to bring together our activities in Southern and Eastern Europe (SEE), and all our Asian businesses to focus on growth. Aegon the Netherlands and Aegon UK, currently reported under Europe, will become separate reporting segments.

As a global financial services group, we are equipped to share capital, talent, knowledge, processes and technologies across geographies and business lines. To this end, at the beginning of 2019, we grouped our businesses into three distinct strategic categories:

- Drive for Growth
- Manage for Value
- Scale-up for Future

These categories support our systematic and proactive approach of reallocating capital towards attractive and profitable market opportunities.

Aegon's products and services

Aegon's services and products include:

	Insurance	Long-term savings related	Banking	Asset Management
Products and services	<ul style="list-style-type: none"> • Life (universal, whole and term) • Accident and health • Property and casualty 	<ul style="list-style-type: none"> • Retirement plan services • Annuities • Mutual funds • Stable value solutions 	<ul style="list-style-type: none"> • Digital banking services • Residential mortgages 	<ul style="list-style-type: none"> • Retail and institutional investment management solutions • Retirement savings vehicles and strategies

Diversified distribution channels

Aegon offers both direct and intermediary-assisted access to products throughout all its divisions. This allows us to both benefit from direct relationships with our customers while continuing to offer our customers more sophisticated solutions which require financial advice.

Aegon distributes its products and services through brokers, agents, banks, employee benefit consultants and independent financial advisors. Our multi-channel approach to intermediary distribution serves a diverse customer universe and allows us to build tailored solutions requiring advice based on input we receive from our network of informed business partners.

Growth businesses in China and India

In 2008, Aegon formed Aegon Industrial Fund Management Company (AIFMC), an asset management joint venture based in Shanghai. We own 49% of the partnership. AIFMC now has more than EUR 45 billion (at 100%) assets under management (AuM) in mutual funds, separately managed accounts and advisory accounts. Between 2012 and 2019, AuM increased at a 36% compound annual growth rate (CAGR) and earnings before tax have grown at a 20% CAGR.

Aegon also owns a 50% share of a life insurance JV with Chinese conglomerate THTF. We serve more than 730,000 individual customers and approximately 270,000 group life clients, across 11 provinces in China. We make use of traditional distribution through intermediaries as well as direct online channels. New premium production has grown at a 34% CAGR since a change in JV partner at the end of 2014.

Internet sales are also driving positive momentum in India where we own 49% of Aegon Life. We were amongst the first in the market to launch online term insurance sales and are now expanding our e-commerce capabilities and offerings through partnerships with payments platforms PAYtm, Mobikwik, firstcry.com and Flipkart that combined give us access to approximately 600 million users.

Our network of partnerships in China and India positions us for growth in markets where financial protection and investment management are fast-growing markets.

Some of the distribution channels are owned by Aegon: we serve customers through Origen Financial Services in the UK and World Financial Group in the US and Canada. We also develop e-commerce partnerships, for example in India and China.

We have also developed and are growing our direct distribution capabilities for simpler types of solutions where we can engage with customers directly – e.g., in our Dutch digital bank, Knab.

Sources of revenues and earnings

Aegon derives revenues and earnings from insurance premiums, investment returns, fees and commissions. Aegon is well-diversified across these sources of revenues and earnings which positively contributes to our ability to both pay attractive dividends and to invest in future growth.

Ownership

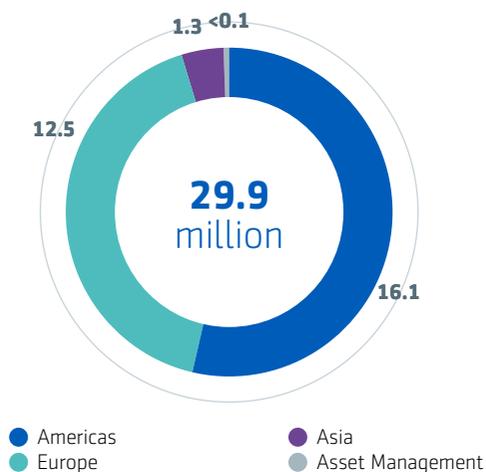
Aegon N.V. is a Dutch public limited liability company. Its shares are listed in both Amsterdam (Euronext) and New York (NYSE). Around three-quarters of our shareholders are from our three main markets: the US, the Netherlands and the UK. Shareholders meet at least once a year at our offices in The Hague. Aegon's largest shareholder is Vereniging Aegon, which holds 14.1% of the common shares.

Capital position

We carefully manage our capital position to protect Aegon and its customers against fluctuations in global financial markets and changing business conditions. At the end of 2019, our Solvency II ratio – a measure of our capital strength – stood at 201%, above our 150%-200% target range. Meeting our capital targets increases our ability to deploy capital to pay attractive dividends and to invest in future-ready business opportunities.

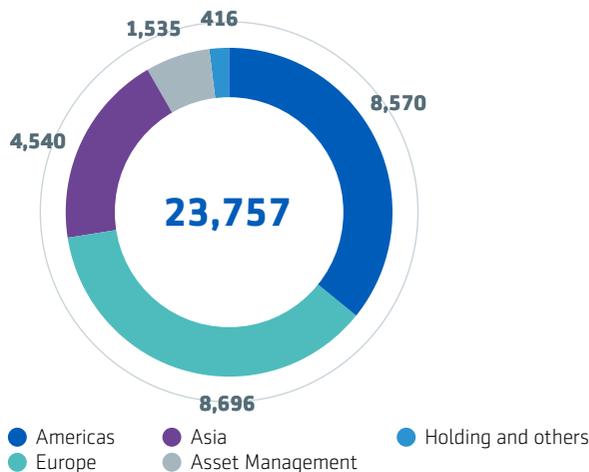
Where our customers are

(total number of customers by location, in millions, end-2019)



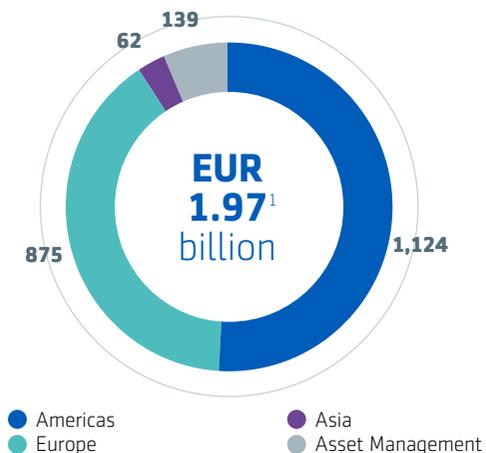
Where our employees work

(by reporting segment, end-2019)



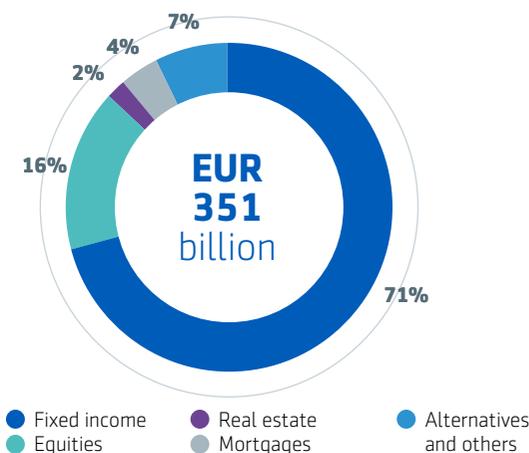
Where our earnings come from

(underlying earnings before tax, in EUR millions)



How we invest

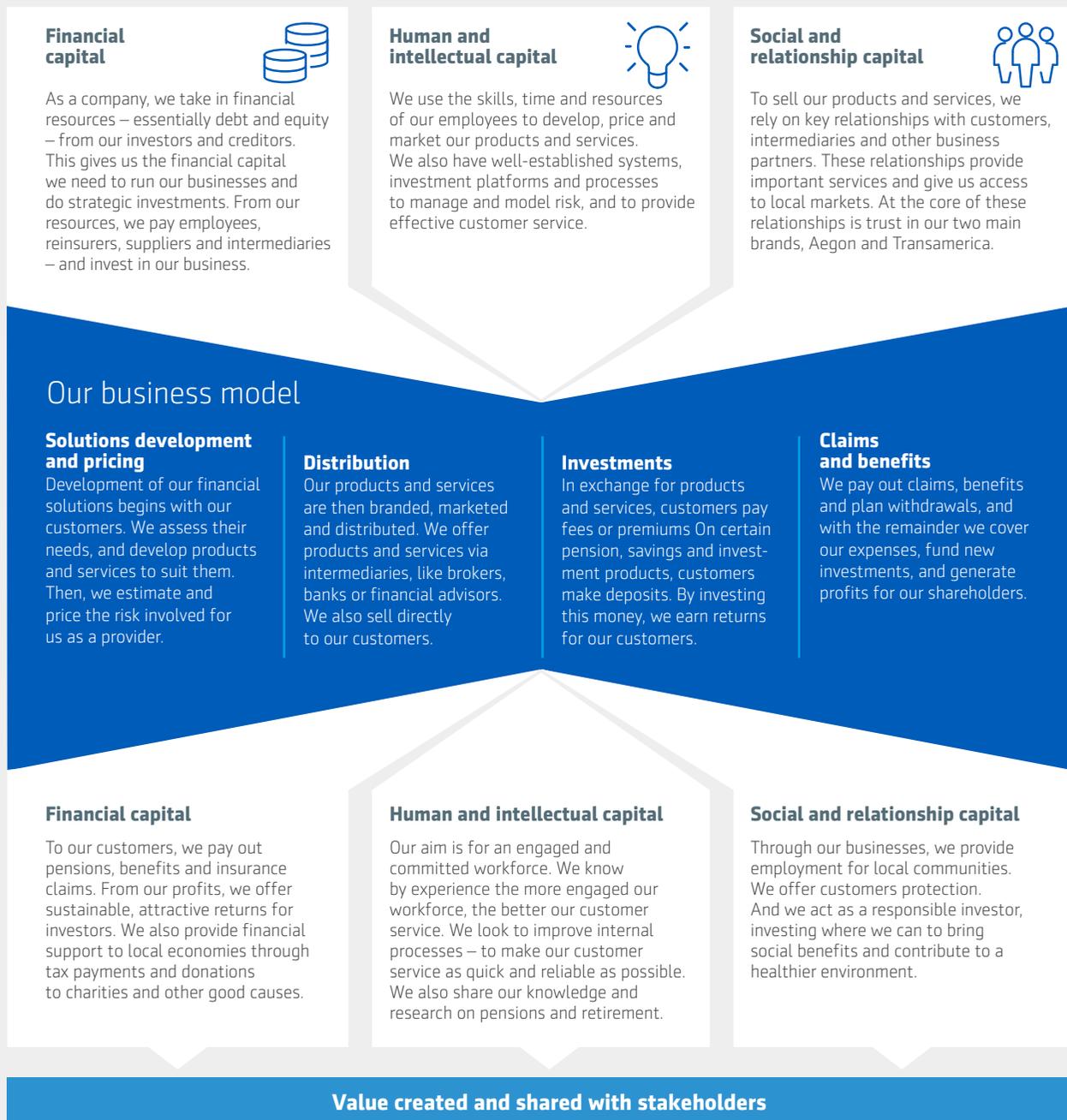
(assets under management by asset class², end-2019)



¹ Total number includes Holding and others (not shown in chart).

² Figures relate to Aegon Asset Management only.

Value creation



Explanatory note

This chart is based on the International Integrated Reporting Council's IR framework. Each capital represents a store of value, which companies use and transform through their business activities. In this process, value may be created or depleted. For the purposes of this value chain, we have chosen the capitals most relevant to our business (financial, human and intellectual, and social and relationship). In the chart, the process is shown from the perspective of Aegon's business. Both natural and manufactured capital are also part of the IR framework. Neither, however, is directly relevant to Aegon's core businesses (as a services company, we do not use natural or manufactured products in our business, though of course we may affect the value of both through our investments). For more information on the IR framework, see www.integratedreporting.org.

Definitions

Financial capital represents the funds to which Aegon has access. This includes debt and equity capital. **Human and intellectual capital** refers to individual knowledge, skills and capacities in Aegon's workforce, as well as the company's institutional knowledge, processes and expertise. **Social and relationship capital** covers relationships both within and outside the company. These include relationships with customers, employees, suppliers and other business partners.

Aegon's business environment



A detailed and practical understanding of our operating environment is essential to successfully running our business. Our ecosystem is shaped by complex demographics, socioeconomic, macro-financial, regulatory, and technological trends, which we capture and systematically analyze in a formal Business Environment Scan process.

Global macroeconomic climate

2019 was another strong year for the global economy, where continued growth was driven by strong momentum in services, partially offset by selective weakness in manufacturing. However, political uncertainty remained elevated with Sino-US trade conflicts, uncertainties around Iran, and the outbreak of a novel coronavirus towards the end of the year.

While stock markets hit new highs, interest rates reached new lows in Europe and declined to 2016 levels in the US. Low interest rates make savings fundamentally less attractive and represent a major headwind to our businesses, particularly in the US and Europe. Low expectations of inflation persist, which, combined with an abundance of savings, means that 'lower for longer' interest rates are more likely and will shape our business strategies going forward.

Wealth and health

Demographic trends support Aegon's continued efforts to build its business based on the concept of providing long-term solutions related to wealth and health to its customers.

As the worldwide population ages, individuals and societies contend with the need to fund longer lifespans. This challenge can be addressed through a number of coherent measures which Aegon calls a 'New Social Contract'. This requires solidarity between generations and sustainable solutions for retirement provisions that are highly adaptable to the rapid pace of change.

Individuals may delay retirement and/or engage in part time or flexible contract work after reaching traditional retirement age. If well designed, this improves both the retirement outcome for individuals and improves the sustainability of governments' budgets. It will also support health and happiness by keeping people more closely engaged with society as they age.

To achieve this, the parties involved should tap into innovation and technology. They should promote healthy lifestyles, financial literacy, lifelong learning and age-friendly communities.

The goals of the New Social Contract can only be achieved through a collaboration among all social partners including governments, employers, and individuals along with a broader group of stakeholders such as nonprofit organizations,

academia, communities, and for-profit companies that share Aegon's ambitions in this respect.

As part of the New Social Contract, individuals may delay retirement and/or engage in part time or flexible contract work after reaching traditional retirement age. This will have financial benefits, but will also support health and happiness by keeping people more closely engaged with society as they age. Our research has shown that physical and psychological well-being and personal financial security exist symbiotically and are mutually supportive.

We can help to support comfortable and healthier retirements by providing effective long-term investment and protection solutions, including financial solutions that can augment the income promised by public pension plans.

On wealth

The world's aging population requires asset accumulation solutions that pursue stable asset growth, and insurance solutions to protect that capital. We seek to serve our customers from the accumulation phase of life up and through retirement. During the accumulation phase, we provide well-managed, competitively priced investment solutions that seek long-term capital appreciation. We also provide vital services to public and corporate pension funds, and retirement programs that people contribute to throughout their working lives.

In retirement, we offer decumulation solutions like annuities and other services that contribute to lifetime income and security. We see development of the new-age decumulation and older-age healthcare solutions as key priorities for society as a whole and the financial services industry in particular.

On health

The United Nations reports that the 2019 global population of people aged over 65 will more than double to 1.5 billion by 2050. It is our societal obligation to prepare our customers for longer lifespans and longer and healthier retirements.

As a provider of financial security, we understand that health spend is the the largest cost category in people's later years. We therefore have a vested interest in the health and well-being of our customers. If we can encourage customers to adopt healthy lifestyles and behaviors, we can alleviate some of this future financial burden.

Working with regulators, worldwide Evolving regulatory landscape

Over the past decade, financial services regulation has become increasingly sophisticated. After the financial crisis, financial regulators focused on increasing financial stability, both of individual companies and of the financial system as a whole. More recently, regulatory focus has shifted to the role the financial sector can play in supporting the real economy (through initiatives such as European Capital Markets Union),

or transition to a more sustainable world (e.g. through the European Sustainable Finance Action Plan).

In addition, the increased expectations for the financial sector with respect to protection of data, data privacy, the use of data by the financial sector and the gatekeeper role of the financial sector with respect to anti-money laundering and combating terrorism financing have resulted in a significant increase in regulation in these areas.

Changes in regulation can have a profound effect on the way we manage our business, our profitability and the products and services that we offer. We work with regulators around the world to understand what changes are coming, to have a voice in what those changes will be, and to learn how to benefit from upcoming opportunities.

Key regulations for Aegon

A significant change for our business was the introduction of new capital rules in Europe in 2016 with Solvency II, which is currently already subject to a fundamental review (so-called Solvency II 2020 review). This review may potentially lead to some important changes in the way Aegon calculates its regulatory capital. At the international level, reference can be made to the initiatives of the International Association of Insurance Supervisors (IAIS), such as the initiative that may lead to International Capital Standards for Insurers, the Common Framework for the Supervision of Internationally Active Insurance Groups and the Holistic Framework for Systemic Risk in the Insurance Sector. These three initiatives were recently adopted by the IAIS.

In May 2018, the European Union's General Data Protection Regulation (GDPR) became effective. In 2017, new cyber security regulations went into effect in the US state of New York; and in 2020, new privacy legislation went into effect in the US state of California. In 2018 the fifth European Anti-Money Laundering Directive was adopted, and recently the European Banking Authority was given a prominent coordinating role in Europe in the supervision in this area. As a result of the European Market Infrastructure Regulation on derivatives, central counterparties and trade repositories (EMIR), additional requirements were introduced to improve transparency and reduce the risks associated with the derivatives markets. In this context, recently additional collateral/margin requirements came into effect.

In the area of market conduct regulation, the EU Insurance Distribution Directive – the IDD – became effective in the fourth quarter of 2018 replacing the Insurance Mediation Directive (IMD). IDD provides for enhanced consumer protection in the purchasing of insurance products, as well as facilitating competition between distributors. We are also seeing further efforts to open Europe's financial services market via MiFID II. IFRS 17, which is expected to become effective per 2023, will significantly change the accounting for insurance contracts in financial statements, and this is expected to impact Aegon.

Business Environment Scan

Aegon conducts a biennial Business Environment Scan (BES) to identify material topics and issues for our business. This scan brings together the expert-driven emerging risk identification process and the materiality assessment as described in Aegon's Integrated Annual Report 2018.

The aim of BES is to identify topics, including new and developing opportunities and risks, that could significantly impact Aegon's value creation, financial strength, competitive position or reputation. We conduct this scan by engaging with relevant internal and external experts, as well as selected stakeholders

like NGOs, business partners and customers. While we see many opportunities for our business, we are also mindful of potential challenges ahead. The BES was last completed in the third quarter of 2019, and since then a pandemic has been declared as a result of the coronavirus outbreak.



Through BES, we seek to better understand the material opportunities and risks that affect our worldwide operations, including, but not limited to, these high impact themes:

<p>1 Evolving regulations</p> <p>Opportunity</p> <p>We pro-actively identify regulation-driven opportunities for the benefit of our customers, business partners and shareholders. We engage with regulators in our markets to prepare us for upcoming changes, and to gather insights from our businesses for regulators to help them shape a legislative landscape conducive to our ability to serve society. For example, Transamerica, our US subsidiary, strongly advocated the adoption of the SECURE Act. This Act among other things, will make it easier for small business owners to establish retirement plans through multi-employer plans (MEPs). MEPs are less expensive and easier to administer. Furthermore, the SECURE Act pushes back the age at which plan participants must take required minimum distributions, and remove the age limit at which the contributions to traditional individual retirement accounts can be made.</p>	<p>Opportunity</p>	<p>Risk</p> <p>If we are not well prepared for new regulations, we may miss on commercial opportunities or will need to invest substantial additional resources into regulatory-driven internal changes. This diverts limited resources from identifying and satisfying customer needs, and may also increase our cost-of-service.</p>
<p>2 Changing competitive landscape</p> <p>Opportunity</p> <p>Not only do we face competition from established companies, but also increasingly from technology-driven and digitally-enabled start-ups, fintechs and insurtechs. As a global business, we are increasingly learning from these innovative start-ups, investing in them, and collaborating with them. We have established two venture arms – Aegon Growth Capital and Transamerica Ventures – to capture this opportunity. Also, the competition amongst established companies remains intense. Industry consolidation might provide an opportunity for Aegon, particularly in mature markets. This could add up to economies of scale that allow for more profitable operations at less cost to customers.</p>	<p>Opportunity</p>	<p>Risk</p> <p>New technologies may arise quickly and disrupt our markets by making our offerings less competitive or relevant to customers. Furthermore, intense competition in individual markets or segments can lead to the decisions to downsize or exit our operations, or to close them for new business.</p>
<p>3 Data protection and information security</p> <p>Opportunity</p> <p>Information security, data privacy and protection, and fraud prevention are essential for building customer trust and for delivering services that customers value and rely upon. We are subject to multiple regulations pertaining to data protection and stewardship within each geography in which we operate. These include, for example, the GDPR in the EU, the New York DFS Cybersecurity Rule, and new privacy legislation in California in the US. As Aegon, we are bringing values and practices learned from the implementation of these regulations to other jurisdictions where we have activities: e.g., to our e-commerce partnerships in Asia.</p>	<p>Opportunity</p>	<p>Risk</p> <p>These and other relevant laws and regulations, as well as our responsibility to safeguard client and employee data from malicious actors worldwide are our priorities and require our focus. We aim to uphold security standards to protect the confidentiality, integrity and availability of data, and to avoid the risk of business disruptions and reputational damage.</p>
<p>4 Technological developments</p> <p>Opportunity</p> <p>Aegon aims to stay abreast of changes in technologies so that we can offer improved solutions and better, more efficient service to our customers. We continuously optimize our IT architecture, modernize the technologies in use, and work with suppliers of state-of-the-art technological solutions. For example, in our workplace-related businesses we have focused on enhancing the transparency for, and experience of, pension plan participants by creating simple technology-driven solutions, and by systematically enhancing their customer journeys across online and offline spaces.</p>	<p>Opportunity</p>	<p>Risk</p> <p>If we are not deploying the latest technologies, we risk trailing our competitors in efficiency and may disappoint our business partners and customers, who increasingly expect a seamless digital experience for their financial matters. Since fragmented and complicated 'legacy' IT systems are costly and often do not provide required services, we seek strategic partnerships with technology firms like TCS and Atos to consolidate and update our systems where relevant.</p>

At a glance

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Safeguarding value creation

Financial information

Other non-financial information

5 Data analytics**Opportunity**

Our ability to gather and analyze data to translate it into better customer offerings and improved service levels is an essential component of building our competitive edge. As part of our commitment to investing in technology, we are increasingly incorporating AI (including big data analysis and machine learning) into our businesses. To foster the use of AI, we are rapidly building our internal data analytics capabilities through our *Analytics for All* and *Analytics for Leaders* programs.

Risk

Use of data is highly regulated across a number of different regulatory regimes, and so at Aegon we are carefully considering which data can be used, and to what purpose we may use that data. As our competitors also invest substantially in advanced data analytics capabilities, we risk falling behind if we invest too slowly or in the wrong projects. Furthermore, data-related projects can be complex, and therefore can be subject to execution risk.

6 Trade wars, de-globalization and protectionism**Opportunity**

Though the forces behind trade wars and the slow rollback of globalization are beyond our control, our geographic diversity is an asset. It allows us to better access capital markets, diversify our earning streams geographically and across different types of business, and realize skill synergies and global economies of scope. At Aegon we invest in strong local management teams, business models that are geared towards local markets, and we act quickly and decisively as local situations change – for example, as demonstrated last year by the sale of our stake in the Japanese JVs to our partner, Sony Life.

Risk

Protectionism makes cross-border capital flows inherently more difficult, potentially restricting our ability to reallocate capital – either by impediments to investing in profitable opportunities or by restrictions on repatriating dividends from our business units. Our influence over the global political processes is limited, and so we could find our access to markets curtailed or made more expensive. For example, we are active in both the US and China markets which makes us potentially more vulnerable if trade disputes between both countries will escalate.

7 Reputation**Opportunity**

Aegon's business is reliant on the trust of its customers and regulators. We earn that trust by conducting our business ethically and by fulfilling our financial obligations. In today's world, our customers increasingly rely on peer references – for example, in social media – which continuously increases the importance of customer experience and Net Promoter Score (NPS). 88% of our businesses by customer count have adopted NPS as one of the main steering metrics.

Risk

In a networked world, reputations can be easily and quickly damaged. To mitigate this risk, Aegon must vigilantly and proactively protect its reputation. For example our Dutch business unit has established a dedicated task force, the Reputational Board, to safeguard our brand value and to swiftly address challenges.

8 Genomics and underwriting**Opportunity**

As our data analytic and AI capabilities grow, we may benefit from more accurate underwriting of risk, but will need to be mindful of our obligation to make financial and insurance services widely available. Genome mapping (genomics) creates opportunities to offer more individualized insurance solutions and offer more targeted pricing of the underlying risk. Ethical discussions, however, are taking place worldwide about what data to share and how. The development of these discussions will influence insurance solutions and access to them. In many markets, lifestyle is increasingly intertwined with insurance products; as an insurer, we have an opportunity to inform and engage customers about lifestyle choices, and consider how we can also reflect those in our underwriting and pricing.

Risk

Wide availability and the rapidly declining cost of genomic testing increases the 'information gap' in underwriting: consumers may know more about their health than their insurers. This potentially could lead to adverse risk selection in our insurance portfolios. Therefore, we aim to use new technologies and knowledge to strengthen our underwriting without materially reducing the availability of our solutions for customers. WinSocial, the solution for diabetes patients piloted by our Brazilian joint venture, is a vivid example of our attempts.

9 People skills**Opportunity**

Talent is a scarce and valuable resource for Aegon, especially as global cross-industry competition for rare skill sets intensifies. Our diversity and inclusion initiatives seek to make Aegon an attractive employer that can recruit employees with diverse backgrounds and career goals. To stay competitive, we need to continuously develop and train our employees. For example, we maintain ongoing internal and external programs, including worldwide efforts such as PULSE leadership development initiative and Digital Marketing Academy as well as local programs.

Risk

Failure to properly train and motivate our employees can result in high attrition of valuable talent and thereby materially affect Aegon's competitiveness. Failure to embrace and practice inclusion and diversity can limit creativity, quality of decision making, and hurt our attractiveness as an employer of choice.

Further risk factors are discussed on pages 376-396.

Aegon's strategy

Aegon's purpose

Aegon is a diversified financial services group that focuses on helping people achieve a lifetime of financial security by providing insurance, asset management, banking and pension services. We are highly attuned to the needs of a world where lifespans are increasing, careers and retirement are lengthening and becoming more flexible. Although healthcare is becoming more effective, it is also becoming expensive as public and corporate sources of lifelong pension and care are transferring risk to individuals in the face of financial pressure.

Active portfolio management

Our strategy is to reallocate capital towards attractive and profitable business opportunities by building on a number of global societal, macroeconomic and technological trends, and evolving our operating model in order to achieve substantial growth. Aegon's businesses are grouped into three distinct strategic categories – Manage for Value, Drive for Growth, and Scale-up for Future. The first category consists of at-scale businesses, which are mostly spread-based, and we manage these for value, optimizing capital generation. Most of our new investments will be directed to Drive for Growth businesses which are at the core of our strategy as they have the highest potential for future capital generation growth. The third part of our portfolio – Scale-up for Future businesses – is aimed at capturing meaningful new growth opportunities.

If businesses do not fulfil our expectations, we may close them down, put them in runoff, or divest from them. In 2019, we sold our stake in the partnership with Sony Life in Japan. This allows us to fully focus on the most promising businesses, customer segments and opportunities in Asia.

Drive for Growth

Drive for Growth businesses are at-scale enterprises with leading market positions, deriving mostly fee-based revenues from products that offer strong elements of protection to our customers. Generally, they have multi-product relationships with customers and are digitally-enabled (e.g. platform-based).

The largest part of our US businesses, operated under the Transamerica brand, is part of this category, next to UK Digital Solutions, Aegon Asset Management, and our High-Net-Worth Asian business, Transamerica Life Bermuda (TLB). Across these businesses, we continue working with partners to simultaneously improve the customer experience and to modernize our operations.

Within Transamerica, we made further strides in transferring the administration of its life and annuity business to a third-party, TCS. In 2019, we also announced that the administration and

claims management for the long-term care insurance business line would be transferred to LTCG.

Similarly, we successfully completed the migration of the Nationwide portfolio onto our digital platform in the UK. This makes us nimbler and allows for investments in customer propositions in order to drive future growth.

Scale-up for Future

This is a portfolio of businesses that aims to capture meaningful new growth opportunities. Our joint ventures in India, China and Brazil, digital banking and services business in the Netherlands, as well as the US Mutual Funds business all belong to this category.

These enterprises bring new business models into Aegon and allow us to increase our presence in rapidly growing markets and niches. We are reaching out to end-customers directly as we continue expanding the digital platforms that allow our customers to take more control in managing their investments and insurance coverages. For simpler products, we develop direct to-consumer access; in India and China, for instance, we provide multiple offerings through major e-commerce platforms.

Manage for Value

Manage for Value businesses are at-scale enterprises that generally derive spread-based revenues from a single product. Our goal is to optimize capital generation for each business. In line with our strategy to accelerate the release of capital from the Manage for Value businesses, we entered into a transaction to reinsure approximately one quarter of our longevity exposure in the Netherlands.

In these businesses, it is also important to maintain a low and variable cost base. In 2019, we began the process of moving the administration of Aegon UK's Existing Business to an external partner. In the Netherlands, we are transferring administration of the pension book from our life insurance company to our in-house administrator, TKP.

Focused on profitable growth

We have sought to emphasize fee-based and capital efficient spread-based businesses. As an example, we are offering tailored advice and solutions to corporate and individual retirement and pension plan customers in the US, the UK, the Netherlands. We also continue expanding our Aegon Asset Management business globally. Asset management is both highly scalable and complementary to Aegon's worldwide life insurance and pension offerings.

We are accessing individuals both through our technology platforms and relationships with business partners in markets around the world. We are also designing new investment capabilities, building on our long-established responsible investment capabilities to serve our customers' long-term needs.

Investing in the future

In 2019, we continued to make investments intended to make us a more data-driven, innovative, customer-centric, and agile company.

Last year, we invested in training programs to ensure that our employees are developing to become knowledgeable analysts and skilled stewards of Aegon's data. Over a thousand Aegon employees have already participated in the Analytics for Leaders program and we believe their skills will drive our future growth.

We are also running initiatives at business unit level to streamline our operations. We are building a work environment that inspires and values new business ideas that can lead to better service for existing customers while opening new markets for Aegon. This approach enhances our processes, cuts costs, and benefits our customers in areas such as sales & distribution, pricing, claims management, fraud detection, risk analysis and service. We have built analytical teams in all major country units to ensure close alignment of this competency with the local businesses.

We have also ramped up the Aegon Analytical Academy and are inspiring our leaders of the future with the PULSE program.

Seeking meaningful customer relationships

We seek to forge lifelong, multi-product relationships with our customers. We believe that we can best help our customers achieve a lifetime of financial security if they are willing and eager to work with us through each phase of their personal and professional lives. We believe that the way to achieve this is by creating trust. We are hence committed to improving customer experience by nurturing a stronger emotional connection with our customers, and making it simple and convenient for them to work with us.

We measure our performance in terms of the experience we offer to our customers through the Net Promoter Score (NPS). Our comprehensive NPS program covers the majority of our customers in all relevant geographies in which we operate, and is embedded in our internal processes and remuneration targets.

In our key markets, we benchmark NPS scores against peers. In 2019, in two out of three of our main markets, the Netherlands and the UK, our businesses saw an increase in both the absolute NPS scores as well as in the relative position in the market. In the US, however, despite the stable absolute score, our relative position in the market has somewhat deteriorated. On a positive note, we were pleased to see improved relative NPS scores in several of our businesses which previously significantly trailed their peer groups (i.e. were in the fourth quartile).

Looking forward

Because we have built a diverse and efficient financial services business, we believe that we are able to utilize our capital efficiently, which allows us to invest back in the business in pursuit of sustainable growth:

- **Reach new customers:** We utilize both intermediaries and our direct-to-customer distribution channels, where applicable, worldwide. We strive to expand every relationship so that Aegon can continue to serve its customers with appropriate solutions during all phases of working and retired life. We seek to introduce our products and solutions to new users and to make every customer a life-long customer. We also seek to reach new customers through our thought leadership in the areas of financial planning and insurance issues, particularly our annual deep dive into retirement readiness around the world, and our advocacy for new ways of thinking about retirement and later life entrepreneurship.
- **Continue to realize efficiency gains:** Our technology investments create lasting benefits for Aegon. Automation and artificial intelligence also create better and safer experiences for our customers, which aids in asset gathering and retention.
- **Foster innovation:** We continue to invest in Scale-up for Future businesses, and we also have two venture capital arms, Transamerica Ventures Fund and Aegon Growth Capital, that enable us to benefit from the opportunities to invest in and collaborate with fintechs and insurtechs.

The goal of these investments is to increase return on equity through our sustainable, organic growth strategy. Such higher earnings could be returned to shareholders through higher dividend payments going forward. We have increased dividends for shareholders in each of the past eight years, while reducing company leverage and further strengthening our financial position. Also going forward our ability to continue to pay an increasing dividend is tied closely to our ability to maintain a solid capital position and grow our capital generation, but also depends on the macroeconomic environment.

Performance in 2019

Financial markets were turbulent during the year. Interest rates dropped considerably worldwide, whereas equity markets rose and credit spreads were volatile, in particular in the Netherlands. We sought to execute on our return to growth strategy, having reorganized much of the company in recent years. Efficiencies and lower one-time charges led to a rise in net income, while our return on equity was impacted by the lower interest rate environment. Our normalized capital generation was strong and our Solvency II ratio demonstrated resilience.

During the year, we paid more to investors – combined, our dividends and interest payments increased by over 4%. Our employee engagement score – at 67 – increased from 65 the previous year. In relation to customers, we welcomed 4.3 million new customers in 2019, a rate 13% higher than the previous year.

Our aim is to maintain very strong financial strength ratings in our main operating units (for our current ratings, see page 100).

Financial targets and performance

In 2019 Aegon introduced new three-year financial targets, covering the period 2019-2021. These targets focus on sustainable growth, capital generation and ensuring attractive returns for the Company's shareholders. The Company is continuously monitoring the market and economic turbulence that has arisen as a consequence of the COVID-19 outbreak, and its impact on Aegon. It remains too early to quantify the potential impact on Aegon's financial performance arising from COVID-19. The effect on Aegon's financial results will depend on a range of factors, including financial markets and underwriting results.

Metric	Target	2019	Performance	2018
Normalized capital generation after holding expenses (cumulative, 2019-2021)	EUR 4.1 billion	EUR 1.6 billion	Normalized capital generation was strong and increased by 12% in 2019. This was in part due to positive experience variance and higher release of required capital.	EUR 1.4 billion
Dividend pay-out ratio (% of normalized capital generation)	45%-55%	41%	The pay-out ratio was below target despite the 2 cents increase in dividend per share, compared to 2018. This was driven by the strong normalized capital generation.	43%
Return on equity (annual target) ¹⁾	>10%	9.5%	Return on equity (RoE) was below target, mainly as a consequence of the impact of lower interest rates on net underlying earnings.	10.2%

Aegon remained within or above its key target ranges as described by its capital framework.

Metric	Target	2019	Performance	2018
Solvency II ratio	150-200%	201%	The Solvency II ratio remained above the target range, supported by strong normalized capital generation and management actions lowering risks.	211%
Holding excess cash	EUR 1.0 billion – EUR 1.5 billion	EUR 1.2 billion	Holding excess cash is in the middle of the target range per year end 2019, which provides financial flexibility.	EUR 1.3 billion
Gross financial leverage ratio	26%-30%	28.5%	The Gross financial leverage ratio is within the target range and has improved over the year due to higher retained earnings and debt deleveraging.	29.2%

Financial results

In EUR million	2019	2018	% change	Performance
Underlying earnings before tax	1,973	2,074	(4.9%)	During the year, we had higher earnings from the Netherlands, the UK, Asia and Asset Management. This was offset, however, by the effects of lower interest rates, investments to support business growth in the US, and by a change in the recognition of interest expenses related to debt refinancing.
Net income	1,528	744	105.3%	Net income increased mainly as a result of high one-time charges in 2018 and realized gains on investments in 2019: <ul style="list-style-type: none"> • Other charges in 2018 were high and driven by restructuring charges, book losses on divestments and a litigation settlement in the US • Realized gains were driven by capital optimization of the asset portfolio in the Netherlands <p>For further details on 2019 results, refer to Results 2019 worldwide starting from page 127.</p>
Gross deposits	144,660	121,700	18.9%	Gross deposits increased primarily because of the successful asset management joint venture in China which was supported by a new mandate, the launch of new equity funds and increased inflows in money market funds.
Net deposits	(25,130)	(4,656)	NM	Net deposits were negative mainly because of outflows in the US Retirement Plans business, following contract discontinuances and higher participant withdrawals.
New life sales	861	820	5.0%	New life sales were up mainly driven by The Netherlands on the back of a pension buy-outs and purchase of additional yearly pension increases by existing customers.

pp – percentage points
 NM – not measured

Non-financial performance

Aegon has six global non-financial indicators; which are tied directly to specific aspects of our strategy. They also

help us address material topics and measure progress toward our objectives as both an employer and a provider of financial services.

Metric	2019	2018	% change	Aspect of strategy supported by indicator
Net Promoter Score (NPS) coverage ¹	88%	89%	-1 pp	Customer centricity
Number of customers	29.9 million	29.3 million	2.1%	Growth/customer centricity
Number of new customers	4.3 million	3.8 million	13.4%	Growth/customer centricity
Percentage of customers with two or more products ²	19%	18%	1 pp	Lifecycle approach
Percentage of digitally connected customers	29%	27%	2 pp	Digitization/customer centricity
Employee engagement score	67	65	2 pp	Customer centricity ('winning outside starts inside')

¹ NPS coverage includes businesses which use relation NPS (rNPS) for steering.

² Percentage of total number of customers with two or more products for 2019 and 2018 does not include Aegon's operations in UK.

pp – percentage points

For more information on these indicators, please refer to pages 31 (Customers) and 31 (Employees).

Responsible business

Our approach

Everybody deserves a healthy and financially secure future. Aegon's commitment to helping its customers achieve this requires a sustainable, long-term-oriented business that can fulfil our purpose and considers our obligations to individuals, society, and the environment. We believe that doing business in a responsible way will create sustainable positive financial, social and environmental results that serve all stakeholders.

In August 2019, we established the Responsible Business and Investment Committee (RBIC), which succeeds the Responsible Business Committee and the Responsible Investment Strategy

Committee. The RBIC consists of selected Management Board members, Chief Investment Officers and other senior managers, who discuss matters related to responsible business, including responsible investing, on a quarterly basis. They review the progress Aegon is making against its responsible business vision and commitments, and provide advice to Aegon's Executive Board and Management Board.

The way we do business is underpinned by a comprehensive responsible business approach, i.e. our environmental, social and governance (ESG) commitments that provide for our license to operate:

We operate in a responsible way catering to the needs of individuals, society and the environment



Individual

For us, this encompasses smart financial planning, healthy lifestyles, and relevant solutions for every stage of our customers' lives.



Society

We as Aegon believe that a thoughtful approach to secure retirement and healthy aging is essential for our progress as a society.



Environment

We aim at creating a lasting contribution to a healthy environment through our investments.

ESG Foundation

A strong ESG foundation provides us with a license to operate by meeting our stakeholders' additional expectations.

Individual Responsible products

Aegon engages with stakeholders through polls and surveys, conferences, perception studies, workshops and face-to-face meetings so that we can learn about their lives, aspirations and unmet needs. These engagements, alongside panels with our customers and employees, help us to improve our products and services, to price our offerings appropriately and to reach untapped or underserved customer needs around the world.

In this way Aegon serves individuals with specific needs in markets around the world. Aegon seeks to serve a wide array of customers, which includes the traditional middle- and upper-class clients worldwide, while making efforts to bring financial services and products to under-served lower-income ones.

Aegon offers specific financial solutions for vulnerable groups. In several countries, we sell products for customers on low incomes – for example: our 'My Family' micro-insurance product

in Brazil and low-cost life insurance in Romania. We also provide support to those facing chronic illness. In China, for example, our critical illness coverage offers protection against both diabetes and cancer; we also have products that help customers suffering from cervical and breast cancer.

Smart financial planning

In addition to our products, we also support financial education programs for individuals – especially as people are taking more personal responsibility for their finances. In the Netherlands, for example, we partnered with the *Van Schulden naar Kansen* Foundation to administer their 'From Debt to Opportunities' program, where Aegon employees volunteer as budget coaches to help customers in financial difficulty. In the US, we work closely with the National Foundation for Credit Counseling. We also offer lessons and online seminars for public.

Insuring the formerly uninsurable



Lack of access to financial services, including banking, investment management and insurance, is a cause of wealth inequality and day-to-day stress for millions around the world. Within life insurance, certain populations have been deemed practically uninsurable by traditional underwriting standards. With new technology, however, we can gain clarity that can allow us to offer insurance to formerly uninsurable populations at a fair price.

Mongeral Aegon's WinSocial bundles the power of innovative technology, global underwriting skills, reinsurance and social media influencers to offer life insurance for the first time to people with diabetes in Brazil. In 2019, Brazil's population topped 210 million but its insurance industry remains constrained by traditional underwriting techniques and technologies. Fewer than 10% of Brazilians have life insurance and Brazilians with diabetes – estimated to number 16-17 million – are regularly refused coverage.

WinSocial, which operates as a start-up within Aegon's Brazilian business Mongeral Aegon, draws on our global digital underwriting platform – highlighting the benefits of bringing a global knowledge network to bear on a local issue. "We validated the assumption after a few months that people with diabetes understand that it's important to look after your health and to have life insurance for the benefit of family members should the worst happen," says WinSocial director Rafael Rosas.

Through an app and website interface, WinSocial builds an underwriting framework around the applicant's responses to questions about health, fitness, lifestyle and well-being, and then validates those responses using resting and active heart rate recordings and a simple glucose test. While we are in the early stages of a pilot program in one market, we do see potential here for data analytics and digital technology to be employed jointly to improve the underwriting process for people who need insurance while living with chronic diseases.

Society

Retirement research

Healthy aging and financial security are at the heart of our business, as longer lifespans are transforming societies around the world. Aegon serves society by engaging in deep yet practical research on financial planning, retirement, health and insurance issues so that society at large can effectively plan for longer and more active retirement.

The Aegon Center for Longevity and Retirement (ACLR) was established to increase awareness and stimulate dialogue on trends, issues and opportunities around longevity, population aging and retirement security. Our ambition is to bring these themes on the agenda of policymakers across the globe. ACLR works in collaboration with nonprofits Transamerica Center for Retirement Studies and Instituto de Longevidade Mongeral Aegon to conduct an annual survey of retirement readiness in 15 countries around the world. The survey is currently in its ninth year.

Policy advocacy

Supported by findings from our multi-year research, we advocate worldwide for people to have access to insurance and financial services, for people to be aware of opportunities for flexible employment in old age and for governments to plan and provide for their citizens in an age of increasing longevity.

Aegon also encourages financial literacy around the world and engages with individuals, non-profit organizations, and policymakers in charge. This includes, for example, partnerships with the World Economic Forum, the American Association of Retired Persons, the Milken Institute, the Global Coalition on Aging and the Organization for Economic Co-operation and Development.

Aegon encourages 'olderpreneurship'



In 2019, we launched an effort called Start-up Plus. This is an 8-week online learning and coaching program developed by Aegon and the Leyden Academy on Vitality and Ageing in the Netherlands. In 2019, we invited participants older than 50 to learn principles of entrepreneurship. Aegon's commitment to 'olderpreneurship' is part of our drive to help people achieve a lifetime of financial security.

In December, Han van Doorn secured funding from Aegon to continue to build his venture, the 'Are you OK today' app. The 82-year-old Dutchman received a check for EUR 10,000 as winner of Start-up Plus.

Han developed a self-learning app that connects to the electricity meter box and tracks user behavior. If the app detects a change from normal behavior which could indicate a fall or other emergency, it asks the user to check in. If there is no reply, the app sends a signal to a caregiver.

In Poland, Aegon has become a partner of Silver Starters, a program similar to Start-up Plus. The Silver Starters final took place on November 28. The winning idea was 'Virtual Experts', a cooperative that would bring together seniors who, as freelancers, can provide services and assistance to businesses with some activities that can be outsourced, such as document organization, data entry, concierge services.

Environment

We take our responsibility towards society also by caring about the environment. Back in 2015, Aegon signed the Paris Pledge for Action which affirms our commitment to taking actions supportive of keeping global warming well below 2 degrees Celsius. We are a supporter of the Taskforce on Climate-related Financial Disclosures (TCFD). Our Dutch subsidiaries have also supported local climate-related initiatives like the Dutch National Climate Agreement and Spitsbergen Ambition.

Green investing

Environmentally-friendly investments are at the core of our responsible investing philosophy discussed separately in this report (see page 28). We promote active ownership by engaging on topics of climate risk. For example, we encourage the companies in which we invest to report following TCFD guidelines. We look into climate-related risk as part of the investment process for our general account, where our customers have delegated investment decisions to Aegon.

Throughout 2019, we refreshed our group-wide Responsible Investment Policy which we put into force as of January 2020. In this policy, next to reiterating all our previous environmental commitments, we further limit any new coal-related investments.

We strongly support impact investing. In 2019, for example our own and managed investments in green bonds reached the new high of EUR 709 million, and our own and managed investments into renewables amounted to EUR 718 million.

Carbon neutrality of own operations

Aegon's operations in the Netherlands, the UK and the US have been carbon neutral since 2016 through a combination of reductions in facility-level emissions and the supporting of offset projects. For 2019, we extended the scope of our carbon offsetting to cover all our wholly-owned operations.

We further detail our activities related to Responsible Business in the section 'Aegon: A partner to the world' (see page 30).

Contribution to the UN Sustainable Development Goals

Aegon is committed to supporting the UN Sustainable Development Goals (SDGs) where we can, both as a financial services provider and as an investor. We recognize that sustainable development is in the long-term interest of business and the global economy, and that genuine

sustainable development will not be possible without cooperation between the private and public sectors, worldwide.

We focus on the SDGs most relevant to our business. Within these SDGs, we have selected specific goals and targets linked to our strategy. This is where we believe we can make a significant contribution to the international development agenda.

Sustainable Development Goal (selected)	Aegon contribution to relevant SDG targets (examples)
 <p>1 No poverty End poverty in all its forms everywhere</p>	<p>Contribution to target 1.2</p> <ul style="list-style-type: none"> • Products for low-income customers, including micro-insurance in Brazil and low-cost life insurance in Romania. • Working with customers in financial difficulty – budget coaches in the Netherlands / cooperation with National Foundation for Credit Counseling in the US. • Strengthening financial literacy and empowerment through local initiatives and programs, e.g., Start-up Plus.
 <p>3 Good health and well-being Ensure healthy lives and promote well-being for all at all ages</p>	<p>Contribution to target 3.4</p> <ul style="list-style-type: none"> • Cover for customers facing chronic illnesses, including diabetes and cancer. • Investment in care homes for the elderly in UK and the Netherlands. • Support for research into chronic illnesses, including cancer, heart diseases and Alzheimer's. • Exclusion of tobacco from investments to help address health concerns over smoking.
 <p>7 Affordable and clean energy Ensure access to affordable, reliable, sustainable and modern energy for all</p>	<p>Contribution to target 7.2/7.3/7.a</p> <ul style="list-style-type: none"> • Investments in renewable energy. • Investments in green bonds.
 <p>8 Decent work and economic growth Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>	<p>Contribution to target 8.10</p> <ul style="list-style-type: none"> • Support for economic growth and job creation through our businesses and investments. • Providing a long-term source of employment for communities in which we operate. • Inclusion of minimum labor standards in Aegon's responsible investment and procurement policies. • Inclusion & Diversity-related commitments and actions. • Equal pay.
 <p>13 Climate action Take urgent action to combat climate change and its impacts</p>	<p>Contribution to target 13.2</p> <ul style="list-style-type: none"> • Support for Paris Pledge for Action and Dutch National Climate Agreement, working to reduce carbon emissions. • Engagement with investee companies on climate-related topic including encouragement to report following TCFD guidelines. • Exclusion of oil sands extraction and transportation from new investment in the updated Responsible Investment Policy. • Exclusion of thermal coal production from investment, and further limit coal-related new investment. • Aegon's major operation in the Netherlands, UK and US have been carbon neutral since 2016 through a combination of reductions in facility-level emissions and the supporting of offset projects.

Responsible investment

Through our investments, we aim to contribute to general economic growth and a sustainable future for the world. We apply this ethos to our own proprietary investments and use our influence to encourage similar standards in accounts that we manage for customers. By taking an active approach to responsible investment, we seek to minimize risks and explore new opportunities to serve our customers' interests and society at large.

We recognize several recurring topics that prompt questions from clients, employees and other stakeholders where we feel compelled to take a company position: climate change, biodiversity, human rights, labor rights, good health & well-being, corporate governance, weapons & arms trade, financial institutions, and animal welfare. In developing our company position on these topics we follow internationally recognized standards and norms where possible.

To support our responsible business objectives, Aegon via its subsidiary Aegon Asset Management actively applies a global set of responsible investment principles that define and guide our approach. These principles act as a set of building blocks that account for local differences while reflecting market-leading standards. They are arranged in a way that mirrors our policy:

- **ESG integration** – The integration of material environmental, social and governance (ESG) factors in investment decision-making across all portfolios.
- **Active ownership** – Active engagement with investees to improve their ESG profile and address sustainability issues.
- **Solutions** – ESG-focused strategies and products, ranging from exclusions and best-in-class approaches to sustainability-themed and impact investments.

Aegon Asset Management is a signatory of the UN Principles for Responsible Investment (PRI). In 2019, Aegon Asset Management scored the highest possible rating (A+) for strategy and governance of responsible investment activities for the third consecutive year.

ESG integration

We believe responsible investing creates value and helps contribute to long-term outperformance. As a result, our investment process integrates material ESG factors into the bottom-up research and decision making.

By integrating ESG considerations in traditional financial analysis, the research team arrives at an independent view of an issuer's fundamentals. Our ESG-integrated fundamental research is a critical element of all our investment decisions.

Active ownership

Our responsible investment framework encourages engagement with companies in an effort to advocate for positive change, mitigate ESG risks and promote best practices. Aegon Asset Management's responsible investment team works with issuers to deepen their understanding of ESG issues and improve corporate responsibility performance.

We focus primarily on three main types of engagement with issuers: those based on minimum standards outlined in our Responsible Investment Policy, thematic engagements driven by our view of long-term ESG risks and opportunities, and product support engagements targeted at driving change according to specific investment strategies. When possible, we work with other investors to maximize our influence. In 2019, we engaged with 564 companies in 37 countries. We engaged on several issues, including climate risk and reporting, critical health issues and corporate governance. When engaging, our aim is to improve companies' business practices, and reduce investment risk for ourselves and our customers.

Aegon regards engagement as increasingly important. We expect sound behavior, strategies and actions from companies in which we invest, and emphasize investments in companies and countries who are making better choices and continuous improvement with respect to sustainability.

Solutions

ESG integration and active ownership are principles we follow across all investments and portfolios. Furthermore, Aegon Asset Management provides a range of responsible investment solutions to pursue ESG objectives alongside financial returns. These solutions are categorized into four types:

- ▀ **Exclusion-based strategies** – Exclusion-based strategies utilize negative screening to avoid certain sectors, companies or practices based on specific criteria. Exclusions can also be applied in combination with the other types of responsible investment solutions.
- ▀ **'Best-in-class' methodology** – A best-in-class methodology seeks outperformance by emphasizing positive selection of issuers with better or improving ESG profiles, based primarily on the sustainability of their operations. One example of this is our US High-Yield ESG strategy, which incorporates positive screening based on our proprietary ESG rating alongside traditional financial analysis to tilt the portfolio toward issuers with more favorable ESG profiles.
- ▀ **Sustainability-themed strategies** – Sustainability-themed strategies focus on selecting issuers or sectors which contribute to solving sustainability issues while maintaining the primary objective to generate long-term financial returns. One example of this is our Sustainable Fixed Income strategy, which uses our proprietary sustainability assessment to identify issuers with products, services and assets that aim to contribute to the long-term sustainability of the global economy, environment and society.
- ▀ **Impact investments** – Impact investments focus on targeted investment themes to pursue financial returns alongside positive social and/or environmental impact. Examples include affordable housing, care homes, and renewable energy.

Responsible investment solutions by type, AuM
As of December 31, 2019 (in EUR)



Aegon: A partner to the world

We strive to create long-term value for multiple stakeholders, including customers, business partners, employees, equity and debt investors, and society as a whole. Our core belief is that our business is beneficial to society and that the value we create is widely shared.

To meet the expectations of our stakeholders, we are committed to building a strong ESG foundation which we see as a license to operate. For us, this foundation encompasses, amongst others, investing and paying taxes in a responsible way, safeguarding data privacy and information security, respecting human rights, living up to the principles of sustainable procurement, and promoting inclusion and diversity.

Aegon defines its stakeholders as any individual or organization affected, or likely to be affected, by its business or that may, in turn, affect the environment in which the Company operates. We recognize five main stakeholder groups:



By delivering reliable insurance solutions and effective investment management services, we help our **customers** protect their lives, legacies and property.

As our business progresses and grows, we are better able to provide our **employees** with fulfilling careers, advancement opportunities, and educational support.

Our **business partners**, including brokers and financial advisors, reinsurance companies, as well as service providers throughout our supply chain, can sustain their own businesses by working with Aegon. We support them not only through creating revenue streams but by sharing intelligence and perspective from markets around the world. In turn, we learn from our partners and optimize our business so that we can work together better.

Our **investors** similarly benefit. Our bondholders have received timely coupon payments and principal repayment at maturity. Our equity holders have enjoyed years of rising dividends and can potentially benefit from capital appreciation.

Society is supported by dependable insurance solutions that help individuals protect their assets and aspirations. When we enable people to save for their own retirements, we also help reducing future burdens on public pension systems. We also support the communities where we do business through our tax payments, charitable donations, and volunteer work.

In 2019, the value we have delivered includes:

- EUR 59.4 billion to our customers in claims, benefits and plan withdrawals
- EUR 6.4 billion in commission, fees and other payments to intermediaries, suppliers and reinsurers
- EUR 2.1 billion to our employees in salaries, benefits and training
- EUR 899 million to our investors in dividends and interest payments
- EUR 615 million in tax payments across the globe
- EUR 9.0 million in support for local communities
- 19,500 hours of volunteer work
- EUR 235 billion of investments in responsible investment solutions.

Customers

Customer-centric solutions

Customer needs and preferences are continuously evolving, and we at Aegon seek to respond to this by working in an agile and customer-centric way. We strive to provide faster and simpler digitally-enabled solutions and experiences to meet those needs. However, most of our propositions are low-engagement and high-complexity, and so we believe in also providing the valuable human touch around the moments that really matter to our customers.

The solutions we offer to our customers are about providing peace of mind, as well as protecting what's important to them – their loved ones, their health, savings, and property. We help customers plan and build for the future by providing financial benefits such as pensions, (mortgage) loans, insurance claims, and returns on savings and investments. In 2019, we administered EUR 898 billion on behalf of our customers and paid out EUR 59 billion in claims, benefits, and plan withdrawals.

Effective and empathetic interactions

Customers make use of our services at the most important moments of their lives. Therefore, effective and empathetic communication with our customers is essential to us, and we continuously improve the quality of interactions with our customers to build real connections, and, as a result, trust.

For example, we have designed and rolled out a program to improve the quality and relevance of our customer interactions in our contact centers across the globe. We incorporate customer feedback to improve how we communicate with our customers. Most recently, the implementation of an 'Extreme Makeover' initiative in Transamerica (covering process optimization in US call centers) has led to significantly improved customer feedback.

Where relevant, we use technology and artificial intelligence to make customer interactions more flexible and effective. As an example, the virtual assistant on our web portal in the Netherlands offers the maximum level of convenience to customers for simple inquiries. Our efforts to improve customer service have been recognized by several external organizations. For example, Aegon UK has won Contact Center Awards for the second consecutive year in 2019.

Satisfaction and loyalty

Customer retention and extension of customer relationships to multiple services are indispensable for our commercial success, and so continuously improving customer satisfaction and loyalty is our clear priority. To measure our performance, we use Net Promoter Score (NPS). NPS is measured following selected interactions ('touchpoint NPS'), aggregated in the logic of customer journeys ('journey NPS'), and complemented by more in-depth surveys focusing on the overall quality of customers experience with Aegon ('relational NPS'). All of the above measurements are used for steering, improving

quality of our internal processes and the customer experience we deliver. NPS measurements are included in targets at different management levels.

In 2019, relational NPS increased further in many of our markets including the Netherlands, UK, Brazil, India, and Turkey. It remained stable in the US, and somewhat decreased in Hungary and Spain (yet staying at historically high levels). In our key markets, we benchmark relational NPS scores against peers through systematic consumer surveys conducted by an independent third party. In 2019, in the Netherlands and the UK our businesses saw an increase in their relative positions in the market. In the US, however our relative position has deteriorated.

Employees

Salaries and benefits

While we have emphasized the need to improve efficiency gains throughout Aegon's organization, we are aware that we must pay competitive salaries if we are to attract and retain talented staff in a highly competitive industry. Aegon's Global Remuneration Framework stresses 'pay for performance,' where compensation is tied directly to regular performance appraisals. To assess performance, we use both financial and non-financial metrics, with the mix between the two depending on an individual's position and seniority.

We have provisions ensuring that incentives and variable pay do not compromise integrity, and do not encourage excessive risk-taking. In 2019, we paid out EUR 2.1 billion in salaries and benefits to our 23,757 employees.

We offer benefits, including flexible working arrangements, regular health checks, parental leave and company retirement plans. We also provide paid time-off for employees who wish to volunteer on local community projects. We work to keep absenteeism to a minimum. Most of our businesses have health programs; these include fitness programs and screening for serious illnesses like cancer and heart disease, as well as programs to reduce workplace stress.

Culture and values

Aegon aims to create an environment where employees can bring their authentic selves to work to realize their full potential. We believe that to truly serve our customers and achieve our purpose – to help people achieve a lifetime of financial security – we must be agile, and continuously evolve and adapt to the changing needs of our people and our customers. Aegon recognizes that this promise can only be delivered in an environment where our employees and other stakeholders share personal accountability for building an inclusive and diverse organization.

The vitality of our mission feeds our culture. Aegon's employees know that they are performing important work that can improve lives around the world. To help our employees accomplish

these aims in a fast-changing world, we adopted a Future Fit program back in 2016. This is based on four principles that stress cooperation, intellectual flexibility, focus and responsibility:

- Acting as One
- Agility
- Customer Centricity
- Accountability

These principles, integrated across the Company and administered at the local level, help us evaluate employees and determine compensation. They are also essential to our recruitment and retention programs for all employees.

We have also long fostered a culture of ethical compliance. Aegon's Code of Conduct sets out rules and guidelines that provide a mandatory framework to shape and govern the actions of all our employees. The aim is to ingrain the principles of the protection of personal data and fair, non-discriminatory treatment of our employees, customers and other stakeholders in everything we do. The Code of Conduct also commits us to comply with all legal and regulatory requirements and the prevention of insider dealing, corruption and bribery. Aegon has a 24-hour Global Ethics Line to enable employees and other stakeholders to report in confidence suspected violations of the Code of Conduct.



Analytics for leadership

Our employees are critical stakeholders as their labor, insight and innovation is central to Aegon's overall value proposition. As such, we invest in their personal and professional development, and seek to encourage a spirit of lifelong learning.

Aegon has administered its Analytics for Leaders training to more than 1,000 senior employees around the world. The program combines analytics and leadership training so that our senior leaders gain fluency in analytic techniques and, most importantly, have guidance about how to apply data analytics in the day-to-day management of their teams. We are especially interested in helping executives understand the ways in which leveraging data can create new options for better decision-making.

Employee engagement

Our goal is that all Aegon employees will form a worldwide community of talented and driven individuals who are deeply engaged with our purpose to help people achieve a lifetime of financial security. We measure employee engagement annually, and our latest survey was carried out in the fourth quarter of 2019 with the company-wide employee engagement score being 67, slightly up from 2018.

An engaged workforce can only be effective if it is a healthy and happy community. To promote health and welfare of our employees we:

- Seek opportunities for their career development;
- Use a new performance management process that has a stronger focus on development;
- Promote greater diversity within an inclusive workplace; and
- Foster training and development to equip our employees with future-ready capabilities.

We offer extensive training and career development.

Our programs include online courses, seminars and lectures. We provide specialized training in areas including products and sales, new regulations, risk management, responsible investment, and information security and data privacy. We also offer leadership training and awareness programs in diversity, health and safety. All employees have access to our Global Learning Catalogues and are encouraged to use it to help shape their development journeys. In 2019, we spent a total of EUR 17 million on training and development, equivalent to over EUR 700 for each employee.

In 2019, our employee turnover rate improved to 32%, down from 33% in 2018. Elevated turnover rates include the transfer of selected operational activities to our strategic partners TCS, LTCCG and Atos.

Inclusion and diversity

As Aegon is a global company, we understand the importance of embedding inclusion and diversity in who we are and everything we do. In July 2019, Aegon updated its Statement on Inclusion & Diversity to create a truly safe and inclusive working environment.

Inclusion and diversity, and non-discrimination are built into our Code of Conduct. In the Netherlands, our latest collective labor agreement stipulates equal pay for men and women performing the same functions. We monitor our business for potential pay disparities and found that so far, we have achieved parity among employees with identical job functions. Similarly, a pay equality analysis was undertaken in 2019 by Transamerica which did not identify any significant areas of concern.

We have initiatives to support gender diversity. In the Netherlands, for example, we are signatories to the Talent to the Top program, which works to increase the number of women in senior management. Two of our current six Supervisory Board

members are women – in line with Dutch government objectives. We seek to identify one or more women candidates for each open position.

In February 2019, Aegon UK signed the UK's HM Treasury Women in Finance Charter, wherein we committed to a gender target of 33% female representation in our CEO-2 population by the end of 2021. On top of this, we made an additional commitment that all candidate shortlists for appointments to the Board and CEO-2 population will contain at least 33% from each gender.

In the US, we have a dedicated team focusing on creating more diversity in terms of both ethnic backgrounds and genders. In August 2019, Transamerica was named to the Diversity Best Practices Inclusion Index by Diversity Best Practices. Transamerica was one of only 80 organizations that earned a score of 60% or higher.

Aegon has mentoring programs and supports company-wide groups like Aegon Proud and Young Aegon. We are also members of external organizations, like Women in Financial Services and Workplace Pride. Aegon was awarded the Workplace Pride 'Ambassador' certificate in November 2019 for our ongoing efforts to set the tone for the financial services industry. The certificate also recognizes how Aegon shows a positive and direct impact on the lives of LGBT people through policies and practices both within the organization and the communities we work in. In the latest US Corporate Equality Index, we were ranked as one of the best places to work for LGBT employees. In 2019, we rolled out unconscious bias training for all employees worldwide.

Aegon is also a member of the Agora Network, a foundation that convenes talents with roots from all over the world. Agora facilitates the exchange of knowledge, experiences and networks. In this way, the foundation inspires organizations to benefit from the power of all their constituent backgrounds and perspectives.

To ensure that action on inclusion and diversity ambitions continues to gain momentum, targets have been included in the global CEO's objectives and this approach has been replicated in other markets; for example, Aegon UK has included Inclusion & Diversity targets in the objectives of all senior leaders for 2020.

Partners and suppliers

Aegon enables the businesses of its partners and suppliers. Brokers and financial advisors who work in partnership with Aegon can build sustainable financial services practices of their own as they draw on our insights and products to serve their customers. The relationship is symbiotic as this network of independent financial intermediaries brings insurance and investment assets to Aegon, along with market intelligence that helps us to create and distribute targeted offerings to the end customer.

We seek long-term strategic supplier partnerships where we believe a third-party possesses superior capabilities or can deliver better quality of service to our customers at a lower cost. Across our major business units, we recently entered a number of multi-year strategic partnership agreements with TCS, Atos, LTCG and a number of other trusted partners.

We also seek to develop strong business relationships with suppliers and aim to use suppliers that serve our communities well. We currently have over 650 suppliers who are subject to our minimum supplier standards; as such, they have agreed to our Supplier Sustainability Declaration. We monitor our key partners regularly using a state-of-the-art procurement risk management system, and our procurement function measures the value we create via long-term relationships with our suppliers.

Investors

In 2019, we delivered a total of EUR 899 million to Aegon investors. Of this, EUR 611 million was in dividends to shareholders and the remaining EUR 288 million was delivered to Aegon bondholders.

Our shareholders receive regular dividends, subject to customary approvals. An interim dividend is generally paid following half-year results. Final dividends are generally paid after approval by Aegon's General Meeting of Shareholders in May, where shareholders are asked to approve the total dividends for the preceding financial year. Shareholders can opt for payment of dividends in cash or stock and we generally engage in share buyback programs to neutralize the effects of stock elections on the total outstanding shares, if our capital position allows.



Equal pay

Last year, Aegon was the first company in the Netherlands to make agreements with the trade unions in its collective labor agreement on equal pay for men and women.

Through AnalitiQs, we conducted a study of gender pay disparity with Aegon the Netherlands and the Group Corporate Center and found zero divergence in pay for men and women performing the same jobs, when accounting for age, work experience, and length of service. We are committed to improving on that result worldwide and recognize that for some women, having a shorter tenure or work history is the direct result of unaddressed inequalities throughout history.

Payment of dividends depends ultimately on the Company's capital position and capital generation. Before deciding on dividends, management will also assess prospects for financial performance. Our goal is to deliver sustainable dividend growth for our shareholders over time. Since 2012, we have increased dividends every year by either one or two cents – equivalent to a 48% increase over seven years.

Shareholders may also derive (or lose) value from the performance of our shares. In 2019, Aegon's stock price increased by 0.3%. The European insurance sector in general performed better with the Stoxx Europe 600 Insurance index ending the year up by 24.4%. We believe the reasons for the relative underperformance include the lower interest rates in the US – to which we are more exposed than other European insurers – and the regulatory overhang from the upcoming Solvency II 2020 review, potentially impacting insurers with longer dated liabilities. Our total shareholder return for the year came to 8% (this measure considers payment of dividends as well as share price performance).

Society

Community investment

We support local communities through charitable donations and volunteer work. The goals of our charitable and community investment programs are to:

- Serve and strengthen the communities where we do business;
- Engage and motivate employees;
- Promote Aegon's Responsible Business vision to all stakeholders.

We have created a thematically driven community program and donations framework that reflects Aegon's purpose and values. We support two key themes:

- **Financial security and education**, which includes promoting financial literacy and later life employment solutions;
- **Well-being and longevity**, which includes promotion of physical fitness, mental vitality, disease prevention and support for livable communities.

This brings us closer to our customers and gives our employees an opportunity to share their knowledge and expertise. In 2019, we donated a total of EUR 9.0 million mostly covering our key themes of financial security and education, and well-being and longevity. In the Netherlands for instance, we are part of a *From debt to opportunity* program; that works with 7,000 in-debt families across the country.

In the US, our donations are channeled through the Aegon Transamerica Foundation. This foundation donates at least 5% of its assets each year. In the UK, local donation decisions are taken by our employee Charity Committee.

Volunteer work

We also encourage our employees to volunteer, and the vast majority of our staff worldwide can claim paid time-off to work on local community projects. In 2019, Aegon employees volunteered approximately 19,500 hours – equivalent of EUR 0.9 million, based on their average salaries.

Through our businesses, we support more than 500 local charities and good causes. Among the largest recipients in 2019 were United Way and Habitat for Humanity in the US, the VUMC Alzheimer Center in the Netherlands, and Sick Kids Friends Foundation and the Teenage Cancer Trust in the UK.

Human rights

Aegon is committed to the UN Universal Declaration of Human Rights and the core standards of the International Labor Organization. This is explicitly incorporated in numerous policies, such as the Code of Conduct (applicable to all Aegon employees across the globe), the Statement on Inclusion & Diversity, the Human Rights Policy and the Aegon Operational Risk Taxonomy. Aegon faces the most potential risks in indirect business relationships, which is why human rights are core to the Responsible Investment and Sustainable Procurement policies.

Responsible tax

We are firmly committed to making a valuable economic and social contribution to the communities in which we operate, both through our own tax payments and through collection and payments of third-party taxes. We seek to pay 'fair taxes', which for us means paying the right amounts of tax in the right places.

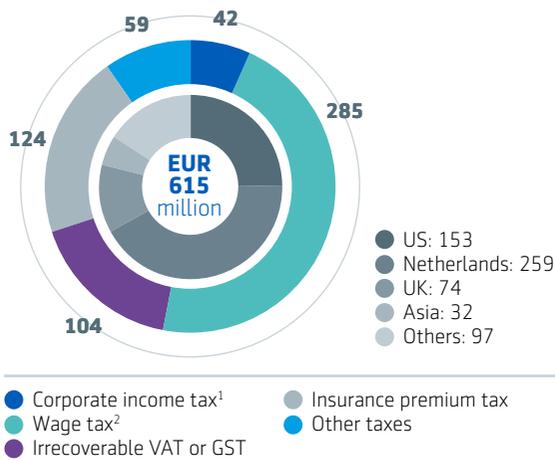
It is our policy to allocate profits where value is created through our commercial business activities. For us, tax follows business, which means that our decisions are taken for business reasons and not for tax advantages.

Following discussion with stakeholders, we published our Global Tax Policy online. This policy outlines Aegon's approach to responsible tax, which seeks to align the long-term interests of all our customers, employees, business partners, investors, and wider society. We also hold regular meetings with NGOs to discuss Aegon's tax strategy and policy.

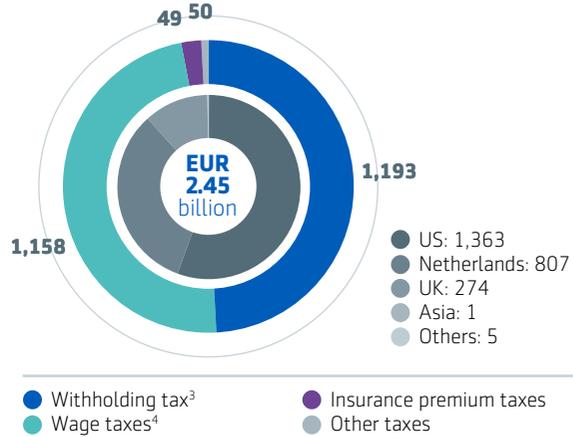
We strive to work together with tax authorities in a constructive and transparent manner. Our Horizontal Monitoring Agreement with the Dutch tax authorities shows our commitment to this principle. This includes public discussion and disclosure of policies and principles, as well as the overall governance and oversight of our tax position.

Aegon Global Tax focusses on tax technology in setting its strategic targets. We believe that technology could be an effective means of achieving process efficiency and automated control. In the Netherlands, a proof of concept for a tax data management system and automated tax reporting is in

Taxes borne by Aegon, 2019
(in EUR million)



Taxes collected on behalf of others, 2019
(in EUR million)



¹ Includes state and withholding tax

² Related to company's own personnel (including social security tax)

³ Includes dividends, interest, royalties and others

⁴ Policyholders (including social security tax)

For a breakdown of corporate income tax by country/region, please see page 415. Some numbers may not add up due to rounding.

the process of being built. We strive for this technology to make tax compliance such as preparation of Dutch corporate income tax and value added tax returns more automatic.

Disclosures are provided in our financial statements and cover tax payments in our main markets. We provide country-by-country tax reporting in a transparent and accurate manner to the tax authorities. We also provide details of our total tax contribution company-wide and by region in the charts above. Taxes borne are a cost of business and affect our financial results. Taxes collected are not a direct cost of business but are collected on behalf of governments from others. The reported numbers are on cash payment or accrual basis.

Aegon's tax function maintains an adequate staff of qualified and trained tax professionals to provide timely and high-quality tax support to our commercial decision-makers. In this regard, proper governance and procedures are in place to ensure that:

- the tax team understands and is engaged in the tax effects of day-to-day business operations and involved in all significant business developments, investments and transactions;
- the tax consequences are considered as part of every major business decision; and
- Aegon's tax control framework is constantly evolving to a higher maturity level.

The Aegon Global Tax team is continuously trained on tax law, jurisprudence and/or other relevant developments. To ensure that tax dilemmas are dealt with in accordance with our Global Tax Policy, compliance with the Global Tax Policy is part of a quarterly attestation and our Global Tax training program. The Tax Risk Oversight Committee has been established to have a final say on dilemmas that have been escalated to it.

Aegon's tax function reports regularly to the Executive Board and Management Board on day-to-day operations and the status and effectiveness of the function. At least once a year, the tax function reports to the Supervisory Board's Audit Committee.

Corporate governance

Aegon is incorporated and based in the Netherlands. As a company established and listed in the Netherlands, Aegon must comply with Dutch law and is subject to the Dutch Corporate Governance Code.

Aegon is governed by three corporate bodies:

- General Meeting of Shareholders
- Supervisory Board
- Executive Board

Aegon also has a Management Board. This works in unison with the Executive Board, and helps to oversee operational issues and the implementation of Aegon's strategy. Aegon's corporate governance structure is the responsibility of both the Supervisory Board and the Executive Board. Any substantive change to this structure is submitted to the General Meeting of Shareholders for discussion.

The shareholders

Listing and shareholder base

Aegon's common shares are listed on Euronext Amsterdam and the New York Stock Exchange. Aegon has institutional and retail shareholders around the world. More than three-quarters of shareholders are located in Aegon's three main markets, the Netherlands, United States and the United Kingdom. Aegon's largest shareholder is Vereniging Aegon, a Dutch association with a special purpose to protect the broader interests of the Company and its stakeholders.

General Meeting of Shareholders

A General Meeting of Shareholders is held at least once a year and, if deemed necessary, the Supervisory or Executive Board of the Company is able to convene an Extraordinary General Meeting of Shareholders. The main function of the General Meeting of Shareholders is to decide on matters such as the adoption of annual accounts, the approval of dividend payments and (re)appointments to the Supervisory Board and Executive Board of Aegon.

Convocation

General Meetings of Shareholders are convened by public notice at least 42 days before the meeting. The convocation states the time and location of the meeting, the record date, the agenda items, and the procedures for admittance to the meeting and representation at the meeting by means of a written proxy. Those shareholders who alone or jointly represent at least 1% of Aegon's issued capital or a block of shares worth at least EUR 100 million may request items be added to the agenda of a General Meeting of Shareholders. In accordance with Aegon's Articles of Association, such a request will be granted if it is received in writing at least 60 days before the meeting,

and if there are no important interests of the Company that dictate otherwise.

Record date

The record date is used to determine shareholders' entitlements with regard to their participation and voting rights. In accordance with Dutch law, the record date is 28 days before the day of the General Meeting of Shareholders.

Attendance

Every shareholder is entitled to attend the General Meeting to speak and vote, either in person or by proxy granted in writing. This includes proxies submitted electronically. All shareholders wishing to take part must provide proof of their identity and shareholding, and must notify the Company ahead of time of their intention to attend the meeting. Aegon also solicits proxies from New York registry shareholders in line with common practice in the United States.

Voting at the General Meeting

At the General Meeting, each common share carries one vote. In the absence of a Special Cause, Vereniging Aegon casts one vote for every 40 common shares B it holds.

Supervisory Board

Aegon's Supervisory Board oversees the management of the Executive Board, in addition to the Company's business and corporate strategy. The Supervisory Board must take into account the interests of all Aegon stakeholders. The Supervisory Board operates according to the principles of collective responsibility and accountability.

Composition of the Supervisory Board

Members of the Supervisory Board are appointed by the General Meeting of Shareholders, following nomination by the Supervisory Board itself. Aegon aims to ensure that the composition of the Company's Supervisory Board is in line with Aegon's diversity policy for the Supervisory Board, Executive Board and Management Board and is as such well-balanced in terms of professional background, geography, gender and other relevant aspects of the diversity policy. A profile, which is published on aegon.com, has been established that outlines the required qualifications of its members. Supervisory Board members are appointed for a four-year term, and may then be reappointed for another four-year period. Subsequently, a Supervisory Board member can be reappointed again for a period of two years, and then extended by two

years at the most. Supervisory Board members are no longer eligible for (re)appointment after reaching the age of 70, unless the Supervisory Board decides to make an exception. Remuneration of the Supervisory Board members is determined by the General Meeting of Shareholders. In 2019, no transactions were concluded between the Company and any of the Supervisory Board members. Furthermore, the Company did not provide loans or issue guarantees to any members of the Supervisory Board. At present, Aegon's Supervisory Board consists of six members, all of whom qualify as independent in accordance with the Dutch Corporate Governance Code. During the Annual General Meeting of Shareholders on May 15, 2020, it will be proposed to the shareholders to appoint Thomas Wellauer and Caroline Ramsay as members of the Supervisory Board.

Committees

The Supervisory Board also oversees the activities of its committees. These committees are composed exclusively of Supervisory Board members and deal with specific issues related to Aegon's financial accounts, risk management, executive remuneration and appointments. These committees are the:

- Audit Committee;
- Risk Committee;
- Remuneration Committee; and
- Nomination and Governance Committee.

Executive Board

Aegon's Executive Board is charged with the overall management of the Company and is therefore responsible for achieving Aegon's aims and developing the strategy and its associated risk profile, in addition to overseeing any relevant sustainability issues and the development of the Company's earnings. Each member has duties related to his or her specific area of expertise.

Aegon's Articles of Association determine that for certain decisions the Executive Board must seek prior approval from the Supervisory Board and/or the approval of the General Meeting of Shareholders. In addition, the Supervisory Board may also subject other Executive Board decisions to its prior approval.

Composition of the Executive Board

Aegon's Executive Board consists of Alexander R. Wynaendts, who is Chief Executive Officer (CEO) and Chairman of the Executive Board, and Matthew J. Rider, who is Chief Financial Officer (CFO), and member of the Executive Board. During the Annual General Meeting of Shareholders on May 15, 2020, it will be proposed to the shareholders to appoint Lard Friese as member to the Executive Board and succeed Alex Wynaendts as CEO. Following his appointment, Mr. Wynaendts will resign as member of the Executive Board and Mr. Friese will succeed Mr. Wynaendts as Chief Executive Officer of the Company.

The number of Executive Board members and their terms of employment are determined by the Company's Supervisory Board. Executive Board members are appointed by the General Meeting of Shareholders for a four-year term, following nomination by the Supervisory Board.

The members of the Executive Board have an engagement agreement with the Company rather than an employment contract. The Company's Remuneration Policy for the Executive Board limits exit arrangements to a maximum of one year of the fixed component of the salary.

In 2019, no transactions were concluded between the Company and either member of the Executive Board. Furthermore, the Company did not provide any loans to or issue guarantees in favor of either of the members of the Executive Board.

Management Board

Aegon's Executive Board is assisted in its work by the Company's Management Board, which has 11 members, including the members of the Executive Board. Aegon's Management Board is composed of Alex Wynaendts, Matthew Rider, Mark Bloom, Maarten Edixhoven, Adrian Grace, Allegra van Hövell-Patrizi, Marco Keim, Onno van Klinken, Carla Mahieu, Mark Mullin and Bas NieuweWeme. Mike Holliday-Williams will be appointed to the Management Board, and succeed Adrian Grace who will retire from the company on March 31, 2020.

Aegon's Management Board works in unison with the Executive Board, and helps oversee operational issues and the implementation of Aegon's strategy. Members are drawn from Aegon's business units and from Aegon's global functions. The members have both regional and global responsibilities. This ensures that Aegon is managed as an integrated international business. While the Executive Board is Aegon's sole statutory executive body, the Management Board provides vital support and expertise in pursuit of the Company's strategic objectives.

In the relationship between the Supervisory Board and the Management Board, the CEO shall be the first contact for the Supervisory Board and its Chairman. Further, the members of the Boards will act in accordance with the provisions provided therefore in the Management Board Charter, the Executive Board Charter and the Supervisory Board Charter.

Capital, significant shareholders and exercise of control

As a publicly-listed company, Aegon is required to provide the following detailed information regarding any structures or measures that may hinder or prevent a third party from acquiring the Company or exercising effective control over it.

The capital of the Company

Aegon has an authorized capital of EUR 1,080 million, divided into 6 billion common shares and 3 billion common shares B, each with a nominal value of EUR 0.12. As of December 31, 2019, a total of 2,105,138,885 common shares and 585,022,160 common shares B had been issued.

Depository receipts for Aegon shares are not issued with the Company's cooperation.

Each common share carries one vote. There are no restrictions on the exercise of voting rights by holders of common shares.

All issued and outstanding shares B are held by Vereniging Aegon, the Company's largest shareholder. The nominal value of the common shares B is equal to the nominal value of a common share. This means that common shares B also carry one vote per share. However, the voting rights attached to common shares B are subject to restrictions as laid down in the Voting Rights Agreement, under which Vereniging Aegon may cast one vote for every 40 common shares B it holds in the absence of a Special Cause.

The financial rights attached to a common share B are one-fortieth (1/40th) of the financial rights attached to a common share. The rights attached to the shares of both classes are otherwise identical. For the purpose of the issuance of shares, reduction of issued capital, the sale and transfer of common shares B or otherwise, the value or the price of a common share B is determined as one-fortieth (1/40th) of the value of a common share. For such purposes, no account is taken of the difference between common shares and common shares B in terms of the proportion between financial rights and voting rights.

Significant shareholdings

On December 31, 2019, Vereniging Aegon, Aegon's largest shareholder, held a total of 288,702,769 common shares and 559,712,240 common shares B.

Under the terms of the 1983 Merger Agreement as amended in May 2013, Vereniging Aegon has the option to acquire additional common shares B. Vereniging Aegon may exercise its call option to keep or restore its total stake to 32.6% of the voting rights, irrespective of the circumstances that caused the total shareholding to be or become lower than 32.6%.

During 2019, two transactions were concluded between Aegon N.V. and Vereniging Aegon. All requirements determined by Best Practice 2.7.5 of the Dutch Corporate Governance Code were complied with in the execution of these transactions.

On December 23, 2019, Aegon N.V. repurchased 13,227,120 common shares B from Vereniging Aegon for the amount of EUR 1,384,046 based on 1/40th of the Value Weight

Average Price of the common shares of the five trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate holding of voting shares by Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6%.

On May 17, 2019, Vereniging Aegon exercised its options rights to purchase in aggregate 1,773,680 common shares B at fair value (1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by Aegon's issuance of shares on May 17, 2019 in connection with the Long Term Incentive Plans for senior management.

In this section below where reference is made to any filings with the Dutch Autoriteit Financiële Markten or the SEC the terms 'capital issued' and 'votes' are used as defined in the Wet op het Financieel Toezicht.

To Aegon's knowledge based on the filings made with the Dutch Autoriteit Financiële Markten, Dodge & Cox International Stock Fund, BlackRock, Inc. and Franklin Resources, Inc. each hold a capital or voting interest in Aegon of 3% or more.

Based on its last filing with the Dutch Autoriteit Financiële Markten as at June 20, 2018, Dodge & Cox International Stock Fund stated to hold 131,792,024 common shares, which represent 4.9% of the issued capital as at December 31, 2019.

On February 13, 2020, Dodge & Cox's filing with the US Securities and Exchange Commission (SEC) shows that Dodge & Cox holds 235,569,910 common shares, representing 9.1% of the issued and outstanding capital as at December 31, 2019, and has voting rights for 230,578,490 shares, representing 8.9% of the votes as at December 31, 2019.

Based on its filing with the Dutch Autoriteit Financiële Markten as at November 14, 2019, BlackRock, Inc. stated to hold 116,325,180 shares, representing 4.3% of the issued capital as at December 31, 2019 and 136,885,389 voting rights, representing 5.1% of the issued capital as at December 31, 2019.

On February 5, 2020, BlackRock, Inc.'s filing with the US Securities and Exchange Commission (SEC) shows that BlackRock holds 149,073,955 common shares, representing 5.7% of the issued and outstanding capital as at December 31, 2019, and has voting rights for 129,834,767 shares, representing 5.0% of the votes as at December 31, 2019.

Based on its filing with the Dutch Autoriteit Financiële Markten as at June 10, 2015, Franklin Resources, Inc. (FRI), a US based investment management firm, stated to hold 81,510,408 shares, representing 3.0% of the issued capital as at December 31, 2019.

Special control rights

As a matter of Dutch corporate law, the common shares and the common shares B offer equal full voting rights, as they have equal nominal value (EUR 0.12). The Voting Rights Agreement entered into between Vereniging Aegon and Aegon provides that under normal circumstances, i.e. except in the event of a Special Cause, Vereniging Aegon is not allowed to exercise more votes than is proportionate to the financial rights represented by its shares. This means that in the absence of a Special Cause, Vereniging Aegon may cast one vote for every common share it holds and one vote only for every 40 common shares B it holds. In the event of a Special Cause, Vereniging Aegon may cast one vote for every common share and one vote for every common share B.

A Special Cause may include:

- The acquisition by a third party of an interest in Aegon N.V. amounting to 15% or more;
- A tender offer for Aegon N.V. shares; or
- A proposed business combination by any person or group of persons, whether acting individually or as a group, other than in a transaction approved by the Company's Executive and Supervisory Boards.

If Vereniging Aegon, acting at its sole discretion, determines that a Special Cause has arisen, it must notify the General Meeting of Shareholders. In this event, Vereniging Aegon retains full voting rights on its common shares B for a period limited to six months. Vereniging Aegon would, for that limited period, command 32.6% of the votes at a General Meeting of Shareholders.

Issue and repurchase of shares

New shares may be issued up to the maximum of the Company's authorized capital, following a resolution adopted by the General Meeting of Shareholders. Shares may also be issued following a resolution of the Executive Board, subject to approval by the Supervisory Board, providing, and to the extent that, the Board has been authorized to do so by the General Meeting of Shareholders. A resolution authorizing the Executive Board to issue new shares is usually presented at Aegon's Annual General Meeting of Shareholders.

Aegon is entitled to acquire its own fully paid-up shares, providing it acts within existing statutory restrictions. Shareholders usually authorize the Executive Board to purchase the Company's shares under terms and conditions determined by the General Meeting.

Transfer of shares

There are no restrictions on the transfer of common shares. Common shares B can only be transferred with the prior approval of Aegon's Supervisory Board.

Aegon has no knowledge of any agreement between shareholders that might restrict the transfer of shares or the voting rights pertaining to them.

Significant agreements and potential change of control

Aegon is not party to any significant agreements that would take effect, alter or terminate as a result of a change of control following a public offer for the outstanding shares of the Company, other than those customary in financial markets (for example, financial arrangements, loans and joint venture agreements).

Share plan

Senior executives at Aegon companies and some other employees are entitled to variable compensation of which part is granted in the form of shares. For further details, please see the Remuneration Report on page 54 and note 50 of the notes to Aegon's consolidated financial statements of this Annual Report. Under the terms of existing share plans the vesting of granted rights is predefined. The shares shall vest as soon as possible in accordance with payroll requirements of the relevant subsidiary after the adoption of the Company's Annual Report at the Annual General Meetings of Shareholders in the year of vesting of these shares.

Appointing, suspending or dismissing Board members

The General Meeting of Shareholders appoints members of both the Supervisory and Executive Boards, following nominations by the Supervisory Board. These nominations are binding providing at least two candidates are nominated. The General Meeting of Shareholders may cancel the binding nature of these nominations with a majority of two-thirds of votes cast, representing at least one half of Aegon's issued capital. The General Meeting may, in addition, bring forward a resolution to appoint someone not nominated by the Supervisory Board. Such a resolution also requires a two-thirds majority of votes cast, representing at least one half of Aegon's issued capital.

Members of Aegon's Supervisory and Executive Boards may be suspended or dismissed by the General Meeting of Shareholders with a two-thirds majority of votes cast, representing at least one half of Aegon's issued capital, unless the suspension or dismissal has first been proposed by the Company's Supervisory Board. A member of the Executive Board may also be suspended by the Supervisory Board, although the General Meeting of Shareholders has the power to annul this suspension.

Amending the Articles of Association

The General Meeting of Shareholders may, with an absolute majority of votes cast, pass a resolution to amend Aegon's Articles of Association or to dissolve the Company, in accordance with a proposal made by the Executive Board and approved by the Supervisory Board.

Dutch Corporate Governance Code

As a company based in the Netherlands, Aegon adheres to the Dutch Corporate Governance Code. The version of the code applicable to the financial year 2019 is the version that came into force on January 1, 2017. Aegon endorses the Code and strongly supports its principles for sound and responsible corporate governance and long-term value creation. Aegon regards the Code as an effective means to help ensure that the interests of all stakeholders are duly represented and taken into account. It is the responsibility of both the Supervisory Board and the Executive Board to oversee Aegon's overall corporate governance structure.

In general, Aegon applies the best practice provisions set out in the Code. There is one best practice provision with which Aegon does not fully apply. In this case, Aegon adheres, as much as is possible, to the spirit of the Code.

Best Practice 4.3.3

The Dutch Corporate Governance Code recommends that the General Meeting of Shareholders may cancel the binding nature of nominations for appointments of members of the Executive Board and Supervisory Board with an absolute majority of votes and a limited quorum.

Aegon's position on Best Practice 4.3.3

Aegon's Articles of Association provide for a larger majority and a higher quorum than those advocated by the Code. Given that the Company has no specific anti-takeover measures, the current system is deemed appropriate within the context of the 1983 Merger Agreement under which Aegon was formed. However, to mitigate any possible negative effects stemming from this, the Supervisory Board has decided that, in the absence of any hostile action, it will only make nominations for the appointment of members to the Executive and Supervisory Boards that are non-binding in nature.

Corporate Governance Statement

For an extensive review of Aegon's compliance with the Dutch Corporate Governance Code, please refer to the Corporate Governance Statement on Aegon's corporate website.

Differences between Dutch and US company laws

Dutch company law is different from US law in the following respects: Aegon, like most large Dutch public companies, has a two-tier governance system comprising an Executive Board and a Supervisory Board. The Executive Board is the executive body. Its members are not Aegon employees and have an engagement agreement with the Company. Members of the Executive Board are appointed and dismissed by the General Meeting of Shareholders, as inside directors are in the United States. The Remuneration Policy as regards the members of the Executive Board is adopted by the General Meeting of Shareholders. The number of the Executive Board members and the terms of their engagement are determined by the Supervisory Board within the scope of the adopted Remuneration Policy.

The Supervisory Board performs supervisory and advisory functions only, and its members are outsiders that are not employed by the Company. The Supervisory Board has the duty to supervise the performance of the Executive Board, the Company's general course of affairs and the business connected with it. The Supervisory Board also assists the Executive Board by giving advice. Other powers of the Supervisory Board include the prior approval of certain important resolutions of the Executive Board. Members of the Supervisory Board are appointed for a four-year term and may be dismissed by the General Meeting of Shareholders. The remuneration of Supervisory Board members is fixed by the General Meeting of Shareholders. Resolutions entailing a significant change in the identity or character of the Company or its business require the approval of the General Meeting of Shareholders.

Composition of the Boards

Members of the Executive Board

Alexander R. Wynaendts (1960, Dutch)¹

CEO and Chairman of the Executive and Management Boards of Aegon N.V.

Alex Wynaendts began his career in 1984 with ABN AMRO Bank, working in Amsterdam and London in the Dutch bank's capital markets, asset management, corporate finance and private banking operations. In 1997, Mr. Wynaendts joined Aegon as Senior Vice President for Group Business Development.

He was appointed as a member of Aegon's Executive Board in 2003, overseeing the Company's international growth

strategy. In April 2007, Mr. Wynaendts was named Aegon's Chief Operating Officer. A year later, he became CEO and Chairman of Aegon's Executive Board and Management Board.

Mr. Wynaendts has been appointed as Independent Director of the Board of Air France-KLM S.A. since May 2016, as Independent Director of the Board of Citigroup Inc. since September 2019 and as Chairman of the Supervisory Board of Puissance B.V. (not listed) since May 2017.

Matthew J. Rider (1963, American)

CFO and member of the Executive and Management Boards of Aegon N.V.

Matt Rider began his career at Banner Life Insurance Company and held various management positions at Transamerica, Merrill Lynch Insurance Group and ING before joining Aegon. From 2010 to 2013, he was Chief Administration Officer and a member of the Management Board at ING Insurance,

based in the Netherlands. In this role he was responsible for all of ING's insurance and asset management operations, and specifically for Finance and Risk Management. Mr. Rider joined Aegon on January 1, 2017, and was appointed as CFO and member of the Executive Board of Aegon at the Annual General Meeting of Shareholders of Aegon N.V. of May 19, 2017.

Members of the Management Board

Alexander R. Wynaendts: see above

Matthew J. Rider: see above

Mark Bloom (1964, American)

Global Chief Technology Officer and member of the Management Board of Aegon N.V.

Mark Bloom has over 30 years' experience in information technology. He joined Aegon from Citi in February 2016, where he served as Global Head of Consumer Digital and Operations Technology, responsible for digital, data and operations technology solutions and innovations. Prior to that, he held a number of technology leadership positions in financial services and the aerospace industry.

As Global Chief Technology Officer at Aegon, Mr. Bloom is responsible for leading the Company's technology and innovation activities, including leveraging technology to drive efficiency and enhancing the customer experience. Mr. Bloom was appointed as a member of Aegon's Management Board in August 2016. Mr. Bloom is a member of the Board of Directors of Freddie Mac since November 2019.

¹ On August 12, 2019, Aegon announced that its Supervisory Board intends to propose the appointment of Mr. Lard Friese as CEO to the Annual General Meeting in 2020.

Maarten Edixhoven (1971, Dutch)

CEO of Aegon the Netherlands and member of the Management Board of Aegon N.V.

Maarten Edixhoven has over 25 years of experience in the financial services industry. He was head of corporate compliance at ING Group N.V. from 1995 to 2010, and served as a director of ING the Netherlands and Nationale Nederlanden in the period 2004 to 2008.

Mr. Edixhoven was appointed CEO of Dutch life insurance company Zwitserleven in 2010 and held that position prior

to joining Aegon the Netherlands as a board member in 2014. He was appointed CEO of the Dutch business in January 2017. He is also a board member at both the Dutch Association of Insurers and the Confederation of Netherlands Industry and Employers.

Mr. Edixhoven was appointed member of Aegon N.V.'s Management Board in October 2019.

Adrian Grace (1963, British)¹

CEO of Aegon UK and member of the Management Board of Aegon N.V.

Adrian Grace held various roles at GE Capital and Sage Group Inc. before joining Barclays Bank as Chief Executive of the Insurance Business in 2004, and HBOS as Managing Director of Commercial Businesses in 2007.

He joined Aegon UK in 2009, and was appointed CEO of Aegon UK in 2011 and as a member of the Management Board of Aegon in 2012. Mr. Grace is a non-executive Director at Clydesdale Bank and a member of the Financial Conduct Authority practitioners' panel. He was member of the Board of Scottish Financial Enterprise until June 2013.

Allegra van Hövell-Patrizi (1974, Italian and Belgian)

Chief Risk Officer of Aegon N.V. and member of the Management Board of Aegon N.V.

Allegra van Hövell-Patrizi began her career in 1996 at McKinsey & Company, specializing in financial institutions. After several years as a partner there, she joined F&C Asset Management in 2007 as a member of the Management Committee. In 2009, she joined Prudential plc where she was part of the CEO Office

and then later became Group Risk Director, and a member of the Group Executive Risk Committee, as well as the PUSL Board (within the Prudential plc Group). Ms. van Hövell-Patrizi joined Aegon at the end of 2015. She was appointed Chief Risk Officer of Aegon N.V. and a member of Aegon's Management Board in January 2016. Ms. van Hövell-Patrizi is a member of the Supervisory Board of LeasePlan (not listed) since 2018.

Marco Keim (1962, Dutch)

CEO Aegon International and member of the Management Board of Aegon N.V.

Marco Keim began his career with accountancy firm Coopers & Lybrand/Van Dien, before moving to the aircraft manufacturer Fokker Aircraft and NS Reizigers, part of the Dutch railway company, NS Group. In 1999, he joined Swiss Life in the Netherlands as a Member of the Board, and was appointed

CEO three years later. Mr. Keim was appointed CEO of Aegon the Netherlands and member of Aegon's Management Board in June 2008. From 2017 to 2020, Mr. Keim headed Aegon's operations on mainland Europe. Since January 2020, Mr. Keim is responsible for Aegon's business in Southern and Eastern Europe as well as Asia. Mr. Keim is a member of the Supervisory Board of Eneco Holding N.V..

¹ On September 10, 2019, Aegon announced that Mr. Grace would retire from the company on March 31, 2020. Mr. Mike Holliday-Williams has been appointed as the successor of Mr. Grace.

Onno van Klinken (1969, Dutch)

General Counsel and member of the Management Board of Aegon N.V.

Onno van Klinken has over 25 years' experience providing legal advice to a range of companies and leading Executive Board offices. Mr. Van Klinken started his career at Allen & Overy, and previously worked for Aegon between 2002 and 2006. He then served as Corporate Secretary for Royal Numico, before it was acquired by Groupe Danone. His next position was as General Counsel for the Dutch global mail and express

group TNT, where he served from 2008 until the legal demerger of the group in 2011. This was followed by General Counsel positions at D.E. Master Blenders 1753 and Corio N.V.. Mr. Van Klinken rejoined Aegon in 2014 as General Counsel responsible for Group Legal, Regulatory Compliance, the Executive Board Office, and Government and Policy Affairs. Mr. Van Klinken has been a member of Aegon's Management Board since August 2016. Mr. Van Klinken was appointed member of the Board of Stichting Continuïteit SBM Offshore in December 2016.

Carla Mahieu (1959, Dutch)

Global Head Human Resources and member of the Management Board of Aegon N.V.

Carla Mahieu started her career in 1984 at Royal Dutch Shell, where she held various management positions within Human Resources, Communications and Corporate Strategy.

Following several years as a consultant – during which time she worked for Spencer Stuart, among other companies – Ms. Mahieu was appointed Senior Vice President Corporate Human

Resource Management at Royal Philips Electronics in 2003. Ms. Mahieu joined Aegon in 2010 as Global Head Human Resources, and has been a member of Aegon's Management Board since August 2016.

Ms. Mahieu has been a member of the Supervisory Board of the Royal BAM Group since 2011, and the Supervisory Board of VodafoneZiggo Group B.V. since 2017.

Mark Mullin (1963, American)

CEO of Aegon Americas and member of the Management Board of Aegon N.V.

Mark Mullin has spent more than 20 years with Aegon in various management positions in both the United States and Europe. Mr. Mullin served as President and CEO of one of Aegon's US subsidiaries, Diversified Investment Advisors, and as head of the Company's US annuity and mutual fund businesses.

He was named President of Aegon Americas in 2009, and became President and CEO of Aegon Americas and a member of Aegon's Management Board in 2010. Mr. Mullin was appointed Chairman of the Board of Directors of the American Council of Life Insurers for the period October 2017-October 2018 and was a member of the Board of Directors and Executive Committee through October 2019.

Bas NieuweWeme (1972, Dutch)

Global CEO of Aegon Asset Management and member of the Management Board of Aegon N.V.

Bas NieuweWeme was appointed Global CEO of Aegon Asset Management and Member of the Aegon N.V. Management Board in June 2019. Having obtained a Master of Laws (2000) and an Executive MBA in 2007, Mr. NieuweWeme has worked in global investment management for 20 years.

The majority of this time was spent in various management positions within ING Investment Management Americas and Voya Investment Management. In 2016, he was named Global Head

of the Client Advisory Group and a member of the management team at PGIM Fixed Income and Global Head of the Institutional Relationship Group at PGIM, Prudential Financial's global investment management business. He serves as vice-chairman of the supervisory board of La Banque Postal Asset Management.

He is also a member of the Board of Directors of The Netherlands-America Foundation (NAF) and a member of the Leadership Council of AmeriCares, a non-profit disaster relief and global health organization.

Members of the Supervisory Board

William L. Connelly (1958, French)

Chairman of the Supervisory Board

Chairman of the Nomination and Governance Committee

Member of the Remuneration Committee

Mr. Connelly started his career at Chase Manhattan Bank, fulfilling senior roles in commercial and investment banking in France, the Netherlands, Spain, the United Kingdom and the United States. He was appointed to Aegon's Supervisory Board in 2017 and became Chairman in May 2018 and his current term ends in 2021.

He is also chairman of the Supervisory Board Nomination and Governance Committee and member of the Supervisory Board Remuneration Committee. Mr. Connelly is also an independent director at the Board of Directors of Société Générale, an independent non-executive director at the Board of Directors of Self Trade Bank SA (not listed) and an independent director at Amadeus IT Group S.A..

Robert W. Dineen (1949, American)

Member of the Remuneration Committee

Member of the Risk Committee

Robert W. Dineen was Vice Chairman of Lincoln Financial Network (LFN) and a member of the Senior Management Committee of Lincoln Financial Group (LFG), before retiring in 2013. Before joining Lincoln Financial Group, Mr. Dineen was Senior Vice President and head of Merrill Lynch's Managed Asset Group. Mr. Dineen was the non-executive Chairman of the Board of Aretec Inc. (not listed, US-based) and was a member of Lincoln New York Life Company Board. He was appointed to Aegon's Supervisory Board in May 2014, and stepped down as per October 11, 2019.

Mark A. Ellman (1957, American)

Member of the Audit Committee

Member of the Risk Committee

Mark A. Ellman is a former Vice Chairman Global Origination of Bank of America/Merrill Lynch. Before joining Bank of America/Merrill Lynch, he held various roles in the US insurance industry. These mostly entailed working in corporate finance at large US financial institutions, where he was engaged in M&A advice and transactions, together with equity and debt raisings for insurance companies. He was a founding partner of Barrett Ellman Stoddard Capital Partners.

Mr. Ellman was appointed to Aegon's Supervisory Board in 2017, and his current term ends in 2021. He is a member of the Supervisory Board Audit Committee and the Supervisory Board Risk Committee. Mr. Ellman was a non-executive director of Aegon USA from 2012 to 2017.

Ben J. Noteboom (1958, Dutch)

Chairman of the Remuneration Committee

Member of the Risk Committee

Ben J. Noteboom worked for Randstad Holding N.V. from 1993 until 2014, where he was appointed member of the Executive Committee in 2001 and became CEO in 2003. Before joining Randstad, Mr. Noteboom worked for Dow Chemical in several international management functions between 1984 and 1993.

He started his career in 1982 at Zurel as management assistant. He was appointed to Aegon's Supervisory Board in May 2015, and his current term ends in 2023. He is Chairman of the Supervisory Board Remuneration Committee and a member of the Supervisory Board Risk Committee.

Mr. Noteboom is also a member of the Supervisory Board of Royal Ahold Delhaize N.V. and Chairman of the Supervisory Board of Royal Vopak N.V. In addition, Mr. Noteboom is a member of the Board of Directors of VUmc Cancer Center Amsterdam and the Chairman of Stichting Prioriteit Ordina Groep. Mr. Noteboom is a former member of the Supervisory Board of Wolters Kluwer N.V..

Ben van der Veer (1951, Dutch)

Chairman of the Audit Committee

Member of the Nomination and Governance Committee

Ben van der Veer is former Chairman of the Board of Management of KPMG N.V. Mr. Van der Veer retired from KPMG on September 30, 2008, and was appointed to Aegon's Supervisory Board in October 2008. Mr. Van der Veer was re-appointed as a member of the Supervisory Board during the 2016 Annual General Meeting of Shareholders, and his third and final term ends in 2020. He is Chairman of the Supervisory Board Audit Committee and a member of the Supervisory Board Nomination and Governance Committee.

Mr. Van der Veer is a member of the Supervisory Board of Royal Vopak N.V. and member of the Board of the Stichting Continuïteit Heijmans (not listed). Mr. Van der Veer is a former member of the Supervisory Board of Royal Imtech N.V., TomTom N.V., Siemens Nederland N.V. (not listed) and a former non-executive member of the Board of Directors of RELX PLC and a former member of the Supervisory Board of Royal FrieslandCampina N.V. (not listed).

Corien M. Wortmann-Kool (1959, Dutch)

Vice Chairman of the Supervisory Board

Member of the Audit Committee

Member of the Nomination and Governance Committee

Corien M. Wortmann-Kool is Chairman of the Board of Stichting Pensioenfondsen ABP, the Dutch public sector collective pension fund. Ms. Wortmann-Kool is a former Member of the European Parliament and Vice President on Financial, Economic and Environmental affairs for the EPP Group (European People's Party). She was appointed to Aegon's Supervisory Board in May 2014, and her current term ends in 2022.

She is Vice Chairman of the Supervisory Board, and a member of the Supervisory Board Audit Committee and the Supervisory Board Nomination and Governance Committee.

Ms. Wortmann-Kool is also a member of the Supervisory Board of Het Kadaster (not listed), Chairman of the Board of Trustees of Save the Children Netherlands and member of De Autoriteit Financiële Markten Capital Markets Advisory Committee. She was vice president of the European People's Party until March 2018 and member of the Advisory Council of the Centraal Bureau voor de Statistiek until June 2018.

Dona D. Young (1954, American)

Member of the Audit Committee

Chairman of the Risk Committee

Member of the Nomination and Governance Committee

Dona D. Young is an executive/board consultant and retired Chairman, President and Chief Executive Officer of The Phoenix Companies, which was an insurance and asset management company at the time of her tenure. She was appointed to Aegon's Supervisory Board in 2013, and her current term will end in 2021.

She is Chairman of the Supervisory Board Risk Committee, member of the Supervisory Board Audit Committee and member of the Supervisory Board Nomination and Governance Committee.

Ms. Young is member and Lead Director of the Board of Directors of Foot Locker, Inc.. Furthermore, Ms. Young is a member of the Audit Committee of the Board of Trustees of Save the Children US (not listed), and member of the Board of Save the Children International and Save the Children Association and serves as an independent member of the Advisory Board of Spahn and Rose (not listed). Ms. Young is a member of the Board of the National Association of Corporate Directors.

Report of the Supervisory Board

The Supervisory Board is entrusted with supervising and advising the Executive Board on management of the Company, and overseeing Aegon's strategy and the general course of its businesses.

Oversight and advice

The Supervisory Board is a separate independent corporate body, consisting of six members on December 31, 2019.

The Supervisory Board is charged with the supervision of the Executive Board, of the general course of affairs and strategy of the Company, and of its businesses. In performing their duties, members of the Supervisory Board are guided by the interests of Aegon and the Company's stakeholders.

The duties of the Supervisory Board with regard to the activities of members of the Executive Board are published in the Supervisory Board Charter, which is published on Aegon's corporate website, aegon.com. The Supervisory Board makes recommendations to the General Meeting of Shareholders concerning all appointments and reappointments to, and dismissals from, both the Executive Board and the Supervisory Board.

In addition, the Supervisory Board determines the remuneration of individual members of the Executive Board in line with the Remuneration Policy adopted at the Company's General Meeting of Shareholders. Overall accountability for Aegon's remuneration governance also resides with the Supervisory Board, which is advised by its Remuneration Committee. This includes the responsibility for designing, approving and maintaining the Aegon Group Global Remuneration Framework, including the remuneration policies for the Executive Board and Heads of Group Control functions.

Corporate governance

Details of Aegon's corporate governance structure and a summary of how the Company complies with the Dutch Corporate Governance Code can be found on pages 36-40 of this Annual Report and in the Corporate Governance Statement published on aegon.com.

Composition of the Supervisory Board and Executive Board

The composition of the Supervisory Board is discussed regularly in Board meetings and in particular by the Nomination and Governance Committee. An overview of the composition of the Supervisory Board in 2019 can be found on pages 44-45. All members of the Supervisory Board are considered

independent under the terms of best practice provisions 2.1.7, 2.1.8 and 2.1.9 of the Dutch Corporate Governance Code.

There was one change to the Supervisory Board in 2019: after having been a member of the Supervisory Board for five years, Mr. Robert Dineen stepped down as member of the Board on October 11, 2019, in light of his appointment as Non-Executive Chairman of a US investment manager. The Board benefitted from Mr. Dineen's knowledge and contributions during his terms.

On May 17, 2019, shareholders reappointed Mr. Ben Noteboom for an additional four-year term. During the Annual General Meeting on May 15, 2020, the Supervisory Board will propose to the shareholder to appoint Mr. Thomas Wellauer and Ms. Caroline Ramsay as members to the Supervisory Board for a four-year term.

In compliance with the Dutch Corporate Governance Code, members of the Supervisory Board are appointed by shareholders for a term of four years. The option exists to reappoint members for one additional four-year term. A Supervisory Board member can then subsequently be reappointed again for a period of two years, which reappointment may be extended by at most two years. For a reappointment after an eight-year period, reasons will be provided in the report of the Supervisory Board. The retirement schedule and other information about members of the Supervisory Board are available on aegon.com.

Executive Board

The Executive Board consists of Alexander R. Wynaendts, Chief Executive Officer (CEO) and Chairman of the Executive Board, and Matthew J. Rider, Chief Financial Officer (CFO).

Members of the Executive Board are appointed by shareholders for a term of four years, with the option of reappointment for additional four-year terms. The appointment schedule and other information about members of the Executive Board are available on aegon.com.

During the Annual General Meeting on May 15, 2020, it will be proposed to the shareholders to appoint Mr. Lard Friese as member to the Executive Board. Following his appointment, Mr Wynaendts will resign as member of the Executive Board and Mr Friese will succeed Mr. Wynaendts as Chief Executive Officer of the Company.

Board meetings

Attendance

In 2019, the Supervisory Board had seven regular (face-to-face) meetings: four related to the quarterly results; one to the annual report; and two to strategy (including the budget and Medium Term Plan). Supervisory Board Committee meetings were usually held the day before the meetings of the full Supervisory Board. All Supervisory Board meetings were attended by all Board members. All committee meetings were attended

by all committee members, except for one Risk Committee meeting that Ben Noteboom was unable to attend. Next to the Supervisory Board and Supervisory Board Committee meetings, additional meetings have taken place in relation to the succession of Alex Wynaendts as member of the Executive Board and Chief Executive Officer. An overview of Supervisory Board members' attendance by meeting is provided in the table below.

Name	Regular SB meeting	Audit Committee	Risk Committee	Combined Audit & Risk	Remuneration	Nomination & Governance	Additional NGC mtgs. / calls	Additional SB mtgs. / calls
William Connelly	7/7	-	-	-	6/6	6/6	4/4	3/3
Bob Dineen ¹⁾	5/5	-	3/3	-	4/4	-	-	2/2
Mark Ellman	7/7	5/5	4/4	1/1	-	-	-	3/3
Ben Noteboom	7/7	-	3/4	1/1	6/6	-	-	3/3
Ben van der Veer	7/7	5/5	-	1/1	-	6/6	4/4	3/3
Corien Wortmann	7/7	5/5	-	1/1	-	6/6	4/4	3/3
Dona Young	7/7	5/5	4/4	1/1	-	6/6	4/4	3/3

¹⁾ Where a Supervisory Board member retired from the SB, stepped down from a Committee or was appointed throughout the year, only meetings during his / her tenure are taken into account.

Based on the agenda topics, members of the Executive Board and Management Board attended the Supervisory Board meetings held in 2019. Also, at the request of the Supervisory Board, other Company executives attended the meetings to provide reports and updates on specific topics. Representatives from Aegon's external auditor PwC attended the March 2019 Supervisory Board meeting on Aegon's 2018 Annual Report. PwC also attended all 2019 Audit Committee meetings in full except for the combined Supervisory Board Audit and Risk Committee in December. Regular Board meetings were preceded or followed by meetings attended only by the members of the Supervisory Board and the Chief Executive Officer. Furthermore, the Supervisory Board held meetings without the presence of Executive Board or Management Board members.

Highlights and activities

Key topics discussed during the 2019 Supervisory Board meetings were Aegon's quarterly results and semi-annual and annual reporting, Aegon's strategy, the main business risks, IT, regulatory developments, acquisitions and divestments and human resources items.

Quarterly results were discussed on the basis of feedback from the Audit Committee. The full-year results reported in this Annual Report were discussed in the March 2020 meeting in the presence of the external auditor PwC. At the Supervisory Board meeting in December 2019, the budget for 2020 was approved and the Medium Term Plan was discussed.

The Supervisory Board regularly discussed the long-term value creation strategy with the Executive Board and the Management Board, and closely monitored its execution, the risks involved in its execution, and any opportunities to further enhance the strategy where necessary. Every year during the Supervisory

Board strategy meeting, the strategy is discussed as part of the annual strategy process. Plans and projects were discussed during executive sessions and in regular meetings, together with the strategic focus for all operating segments. Furthermore, the focus on execution and the modernization of the business were additional important strategic priorities that were discussed during the Supervisory Board meetings.

Acquisitions and divestments were regularly discussed in the context of the execution of the strategy. The Supervisory Board supports the active management of the business portfolio with add-on acquisitions, the sale of underperforming businesses and the disposals of entities no longer consistent with Aegon's strategy. During the year, the Board discussed various M&A and balance sheet transactions, including but not limited to the sale of its 50% stake in the variable annuity joint ventures in Japan and the reinsurance of part of the longevity exposure in the Netherlands.

In 2019, Supervisory Board discussions included the following topics:

- Strategy, including Aegon's long-term value creation, its responsible business strategy and business reviews;
- Acquisitions, divestments, the strategic direction of Aegon's businesses and the focus on execution and modernization, which included strategic administration partnerships;
- Executive Board and senior management succession planning;
- Executive remuneration, including the risks of the remuneration framework;
- Corporate Governance;
- Composition of the Supervisory Board, including the Board's effectiveness;

- Human resources, including talent development, results of the global employee survey and cultural change and behavior;
- Annual and quarterly results, dividends and the Company's Medium Term Plan, including the 2020 budget, capital and funding plan;
- Capital generation and Solvency II capital position, including regulatory capital reports and actions following the 2019 market and interest rate developments;
- Enterprise risk management, cybersecurity and information security risks, and the risks related to the execution of the strategy within the Company;
- Investor relations, including shareholder listing, market analysis and roadshow feedback;
- Legal, regulatory and compliance issues, including Aegon's engagement with regulators;
- Highlighted topics by Supervisory Board Committees;
- Regulatory changes at both a regional and global level;
- Customer due diligence processes;
- Tax policy and tax developments; and
- Technology, including the technology strategy, technological developments and innovations.

Results and budget

In February 2019, the Supervisory Board convened to discuss the fourth quarter 2018 results. In March 2019, the Supervisory Board reviewed and adopted Aegon's 2018 Annual Report, the Consolidated Financial Statements of Aegon N.V., and the Financial Statements of Aegon N.V.. In May, August and November, the Supervisory Board reviewed Aegon's first, second and third quarter 2019 results respectively.

In December 2019, the Supervisory Board and Management Board reviewed the Company's Medium Term Plan, including the budget and capital plan for 2020. The Boards took note of the uncertainties and challenges in the coming years as described in the Plan. These included, among others: increased regulatory requirements, lower interest rates and lower equity markets, market volatility, digital developments, and project risk. The Board discussed Aegon's capital generation and capital projections, together with the continued focus on cost efficiency. The Supervisory Board supported the Medium Term Plan and approved the budget for 2020. The Board also approved the 2020 funding plan and authorized the Executive Board to execute on the funding plan in 2020.

Legal, compliance and regulatory affairs

In 2019, the Supervisory Board and the Audit Committee discussed a number of compliance, regulatory and legal topics relating to the Americas, Europe, Asia, and Asset Management with management, the Global Head of Group Legal & Regulatory Compliance and the Global Head of Operational and Conduct Risk Management. In particular, the Board discussed the state of the Legal and Compliance functions, General Data Protection Regulation developments, Compliance risks, Fraud and Financial crime including know your customer and ultimate beneficial owner requirements, and whistle-blower reports. An overview

of the topics discussed in the field of Risk Management can be found in the Audit Committee and Risk Committee sections below.

In 2019, the Chairs of the Supervisory Board, Audit Committee and Risk Committee visited the group supervisor, the Dutch Central Bank (DNB), for their regular annual meeting.

Educational sessions

The Board and its Committees received updates and presentations on topics including developments in acquisitions and divestments, corporate governance and regulatory compliance, roles and responsibilities of the Board and the management and remuneration regulations for the insurance sector, responsible business and information technology. In addition to these updates and presentations provided by the Company, the members of the Supervisory Board gathered general information on industry developments by participating in networks, reading independent reports and sharing knowledge with other Board members within and outside Aegon. The Board visited local offices and liaised with employees in Spain, the Netherlands and the US. In addition, the Board was updated on the IFRS 9 and IFRS 17 developments, the Solvency II landscape, including the EIOPA 2020 review of the Solvency II Directive, capital generation under Solvency II and on the IFRS margin analysis.

Board review

The Supervisory Board undertakes a Board effectiveness review on an annual basis and an external assessment takes place at least once every three years. In the first quarter of 2019, such external assessment of the Supervisory Board was conducted. The assessment was based on document analyses, a survey completed by Supervisory Board members, Management Board members and the Company Secretary and interviews with all these persons. The Board review assessed the functioning of the Board as a whole, the composition, processes and information, the functioning of the Committees and the interaction within the Board and with the Executive and Management Board. The results of the assessment were discussed in May 2019 and the Supervisory Board acted on the observations and recommendations that were then discussed and were listed in the assessment report.

Outside the presence of the Executive Board, the Supervisory Board reviewed the performance (results) of the individual members of the Executive and Management Boards over the preceding calendar year in February 2019. The performance of the members of the Executive and Management Boards was also discussed regularly during the year.

Supervisory Board Committees

The Supervisory Board has four Committees that discuss specific issues in depth and prepare items about which the full Board makes decisions. The Committees report verbally about their discussions, and they are discussed in full at Supervisory

Board meetings. Supervisory Board members receive all minutes of the Committee meetings. These meetings are open to all members of the Board, regardless of membership of the Committees. All Committee reports were prepared by the respective Committees and approved by the Supervisory Board. These reports provide an overview of the responsibilities and activities of the Committees.

The four Committees are the:

- Audit Committee;
- Risk Committee;
- Nomination and Governance Committee; and
- Remuneration Committee.

The Risk Committee is responsible for supervising the activities of, and advising the Supervisory Board's Audit Committee with respect to, the Company's enterprise risk management framework and internal control systems. The Audit Committee primarily relies on the Risk Committee for these topics, as stated in the Dutch Corporate Governance Code.

The Audit Committee

Composition

On December 31, 2019, the composition of the Audit Committee was as follows:

- Ben van der Veer (chair);
- Mark A. Ellman;
- Corien M. Wortmann-Kool; and
- Dona D. Young.

The members of the Audit Committee meet all relevant independence and experience requirements of financial administration and accounting for listed companies.

The Committee confirmed that all of its members qualified as independent according to Rule 10A-3 of the SEC, and it also confirmed that the Chairman of the Audit Committee, Ben van der Veer, qualified as a financial expert according to the Sarbanes-Oxley Act in the United States and his competence in accounting and auditing according to the Audit Committee Decree 2016 ('Besluit instelling auditcommissie'), section 2(3).

Role and responsibilities

As Aegon has both an Audit Committee and a Risk Committee, the risk management responsibilities stated in the Dutch Corporate Governance Code are assigned to the Risk Committee. With regard to the oversight of the operation of the risk management framework and risk control systems, including supervising the enforcement of relevant legislation and regulations, the Audit Committee operates in close coordination with the Risk Committee as established by the Board. Certain Board members participate in both committees and a combined meeting of the Audit and Risk Committees is scheduled on an annual basis.

The main role and responsibilities of the Audit Committee are to assist and advise the Supervisory Board in fulfilling its oversight responsibilities regarding:

- The integrity of the consolidated interim and full-year financial statements and financial reporting processes;
- Internal control systems and the effectiveness of the internal audit process; and
- The performance of the external auditors and the effectiveness of the external audit process, including monitoring the independence and objectivity of PwC.

The Audit Committee reports to the Supervisory Board on its activities, identifying any matters about which it considers action or improvements are needed, and making recommendations as to the steps to be taken. For more information about the functioning of the Audit Committee, please see the Audit Committee Charter on aegon.com.

Committee meetings

In 2019, the Audit Committee held six meetings, one of which was a combined meeting with the Risk Committee of the Supervisory Board in December 2019. Audit Committee meetings were attended by the members of the Audit Committee, Aegon's Chief Financial Officer, the Head of Corporate Financial Center, the Chief Risk Officer, the Chief Internal Auditor, and partners of PwC, Aegon's external auditor.

Members of Aegon's Group Risk, Group Legal, Group Regulatory Compliance, Investor Relations, Group Tax, Human Resources, Actuarial and Business departments regularly attended Audit Committee meetings. Aside from the Audit Committee meetings, additional sessions were held with internal and external auditors, without members of the Executive Board or senior management present.

Financial Reporting

In discharging their responsibilities with regards to the 2019 interim and full year financial statements, the Audit Committee:

- Reviewed and discussed the management letter and follow up actions with the Executive and the Management Board, Internal Audit and PwC;
- Discussed PwC's interim reports leading to a review opinion on the interim financial statements;
- Received presentations on various topics by local business unit managers and chief financial officers; and
- Reviewed and discussed areas of significant judgments in the preparation of the financial statements, including, in particular: Solvency II, investment valuation and impairments, economic and actuarial assumption setting, and model validations.

The Audit Committee was satisfied with the explanations provided by the Executive and Management Board, Internal Audit and PwC, and conclusions reached. Recurring items on the Audit Committee agenda in 2019 were Solvency II developments, controls, capital and liquidity, legal and compliance updates,

and preparations for IFRS 9 and IFRS 17. Other items included the capital and funding plans and the performance review of the internal audit function.

Risk management and internal controls

With respect to their oversight of internal controls (provided they did not pertain to the work and responsibilities of the Risk Committee) the Audit Committee:

- Reviewed and approved the internal and external audit plans for 2019 and monitored execution, including progress in respect of recommendations made;
- Discussed quarterly updates on the activities of the internal audit function, together with details of progress on internal audits with the internal auditor. Areas of focus in 2019 included the Internal Audit strategy, audit planning process, Internal Audit charter, quality assurance reviews, issue tracking and resolution, control environment, Information Security, Solvency II, third party management and administration partnerships, General Data Protection Regulation, performance management and integrity;
- Reviewed the internal control framework, among others with respect to the Sarbanes-Oxley Act; and
- Discussed the internal control statement with the Executive Board.

In addition, the Committee reviewed quarterly legal and compliance updates.

External audit effectiveness

The Audit Committee discussed and approved the external auditor's engagement letter for 2019. Aegon has well-established policies on audit effectiveness and independence of auditors that set out, among other things:

- The review and evaluation of the external auditor and the lead partner of the external audit team on at least an annual basis;
- Non-audit services performed by the external auditor;
- Rotations of the external auditor and lead partner; and
- Discussions about planning and staffing of the external audit activities.

For more information about the policies relating to the effectiveness and independence of the external auditor, please see Annexes A, B and C of the Audit Committee Charter on aegon.com.

The Risk Committee Composition

On December 31, 2019, the composition of the Risk Committee was as follows:

- Dona D. Young (chair);
- Mark A. Ellman; and
- Ben J. Noteboom.

Role and responsibilities

The main role and responsibilities of the Risk Committee are to assist and advise the Supervisory Board in fulfilling its oversight responsibilities regarding the effectiveness of the design, operation and appropriateness of both the Enterprise Risk Management (ERM) framework and the internal control systems of the Company and the subsidiaries and affiliates that comprise the Aegon Group. This includes:

- Risk strategy, risk tolerance and risk governance;
- Product development and pricing;
- Risk assessment;
- Risk responses and internal control effectiveness;
- Risk monitoring; and
- Risk reporting.

Furthermore, the Risk Committee regularly reviews risk exposures as they relate to capital, earnings, liquidity and compliance with risk policies. The Company's risk management is an important topic for the Supervisory Board.

For more information about the functioning of the Risk Committee, please see the Risk Committee Charter on aegon.com.

Committee meetings

The Risk Committee works closely together with the Audit Committee and has an annual combined meeting, which in 2019 was held in December. This combined meeting focused on the Global Risk development plan, third party & affiliate management, model validations, Cloud developments and the market risk impact on the budget plan.

The Risk Committee convened five times in 2019, including the combined meeting with the Audit Committee. The Company's Chief Executive Officer and Chief Risk Officer attend all the Committee meetings. The Chief Financial Officer had a standing invitation to attend the Committee meetings. Other Management Board members and senior managers attended the meetings when relevant for the discussion.

Risk management and Internal controls

Recurring items on the Risk Committee agenda in 2019 were risk exposure information, risk policy compliance monitoring, IT security and data protection and risks associated with large modernization and change programs in the company. The Risk Committee assessed the effectiveness of the design and operation of the ERM framework and internal control systems in 2019 by:

- Discussing the quarterly risk dashboard, including all material group level risks, with the Executive Board, Chief Risk Officer and relevant senior managers. The material group level risks consisted of financial, actuarial and operational risks, including cybersecurity and information security risks and controls;

- Assessing a quarterly modernization dashboard that outlined risks with regards to the execution of the strategic change programs in each region, and how those risks were monitored and mitigated;
- Reviewing the Group Risk appetite, which consists of the risk strategy and risk limits and tolerances; and
- Reviewing the risk governance structure and risk competencies, including the skills necessary for the risk function.

The Risk Committee also discussed several regulatory topics on a regular basis, including the DNB Focus report and the consequences and actions in the context of Recovery and Resolution regulation. The Risk Committee furthermore spent time on an outside in risk perception of the Risk function, reinsurance developments, Model Risk management, the strategic human resources program Future Fit and on risks and approaches in dealing with third party relations of the Company. In addition, the Risk Committee dedicated time to wider developments in the geopolitical environment, including risks associated with Brexit and financial markets in 2019, and to a number of important asset and liability management and hedging topics across the Group.

The Nomination and Governance Committee Composition

On December 31, 2019, the composition of the Nomination and Governance Committee was as follows:

- William L. Connelly (chair);
- Ben van der Veer;
- Corien M. Wortmann-Kool; and
- Dona D. Young.

Role and responsibilities

The main role and responsibilities of the Nomination and Governance Committee are to assist and advise the Supervisory Board in fulfilling its responsibilities in the areas of Human Resources Management and Corporate Governance. This includes:

- Board member and senior management succession planning;
- Drawing up selection criteria and procedures for Board members, together with supervising the selection criteria and procedures for senior management;
- Advising on and proposing nominations, appointments and reappointments;
- Reviewing and updating the Supervisory Board profile and charters for the Supervisory Board and its committees;
- Periodically assessing the functioning of individual members of the Supervisory Board and the Executive Board;
- Overseeing the corporate governance structure of the Company, compliance with the Dutch Corporate Governance Code and any other applicable corporate governance legislation and regulations; and
- Assessing and advising on the responsible business strategy as part of the corporate strategy, and overseeing the execution of the responsible business strategy.

Committee meetings

Aegon's Nomination and Governance Committee held ten meetings, including four conference call meetings, in 2019. In addition to the committee members, these meetings were attended in whole or in part by the CEO, the Global Head Human Resources and the General Counsel.

Further to the activities mentioned below, the Nomination and Governance Committee discussed senior management team developments and governance matters and structures. The Nomination and Governance Committee also reviewed the important outside board positions of the members of the Management and Supervisory Board, and discussed specific appointments to important outside board positions where applicable.

Supervisory Board related activities

The Nomination and Governance Committee discussed the composition of the Supervisory Board and its Committees. The profile of Supervisory Board members, as well as their capabilities in terms of working collectively with other members of the Supervisory Board, were debated by the Committee. Furthermore, the existing and impending vacancies in the Supervisory Board were discussed. A Supervisory Board competency overview is published on aegon.com.

Executive and Management Board related activities

During 2019, the Nomination and Governance Committee was actively involved in a thorough succession process to identify a successor during the final term of CEO Alex Wynaendts, resulting in the announcement that the Supervisory Board intends to propose the appointment of Mr. Lard Friese as CEO to the Annual General Meeting of Shareholders. Lard Friese joined the company as CEO-designate effective March 1, 2020 and will succeed Alex Wynaendts at the AGM to be held on May 15, 2020.

The Nomination and Governance Committee furthermore reviewed the composition of the Management Board and was informed - and consulted on - the succession of Management Board vacancies and on CEO appointments of certain business units.

The Committee was also kept apprised of major organizational changes, developments in employee engagement, talent management and international mobility. The Supervisory Board was also informed about the annual Global Employee Survey, which was conducted at the end of 2019. The Supervisory Board discussed the outcome of this survey in detail in the first quarter of 2020.

Diversity

Enhancing diversity in the Executive, Management and Supervisory Board is an important issue for Aegon. Selection and appointment is based on expertise, skills and relevant experience, and the Supervisory Board takes diversity into account with

a view to achieving its aim of having a balanced Supervisory, Executive and Management Board composition.

In 2017, the Supervisory Board adopted a diversity policy for the Executive, Management and Supervisory Board. The purpose of the diversity policy is to have a more balanced and diverse composition of the Supervisory Board, the Executive Board and the Management Board in terms of nationality, age, gender and educational, professional and geographical background and experience of the individual members. The Committee strives to have at least 30% female or male representation in the Supervisory Board, the Executive Board and the Management Board.

In the current Supervisory Board composition, there are two female members out of six members in total (meeting the recent requirement under Dutch law that at least 30% of the positions should be filled by women and at least 30% by men). For the Executive Board and Management Board such balanced gender composition has not been met.

When identifying candidates for open positions in the Executive and Supervisory Boards, the Committee actively searches for female candidates. It also instructs external search firms to present female candidates. More information on diversity within the Board is available in the Supervisory Board Composition and Competency Overview and in Chapter 7 (Diversity) of the Corporate Governance Statement - as published on aegon.com.

The Remuneration Committee Composition

On December 31, 2019, the composition of the Remuneration Committee was as follows:

- Ben J. Noteboom (chair); and
- William L. Connelly.
- Up until October 11, 2019, Mr. Dineen was also a member of the Remuneration Committee.

Role and responsibilities

The main role and responsibilities of the Remuneration Committee are to advise the Supervisory Board and prepare decisions to be taken by the Board. The Committee is designated to safeguard sound remuneration policies and practices within the Company by overseeing the development and execution of these policies and practices. In order to ensure that the remuneration policies and practices take all types of risks properly into account, in addition to liquidity and capital levels, the Remuneration Committee assesses in particular the remuneration governance processes, procedures and methodologies adopted. Furthermore, the Committee ensures that the overall remuneration policy is consistent with the longer-term strategy of the Company and the longer-term

interest of its shareholders, investors and other stakeholders. This includes:

- Reviewing the Aegon Group Global Remuneration Framework and making recommendations on the remuneration policies;
- Overseeing the remuneration of the Executive Board and Heads of Group Control functions;
- Preparing recommendations regarding variable compensation both at the beginning and at the end of the performance year; and
- Preparing the information provided to shareholders on remuneration policies and practices, including the Remuneration Report.

Committee meetings

The Remuneration Committee had six meetings in 2019. In addition to the committee members, these meetings were attended in whole or in part by the CEO, the Global Head Human Resources and the General Counsel.

In 2019, the Remuneration Committee was actively involved in amending the remuneration policies for the Executive Board and the Supervisory Board, in order to implement the changes as required by the Shareholder Rights Directive implementation Act (and to be submitted for adoption by the shareholders to the Annual General Meeting on May 15, 2020). In this context, and to make further improvements to align the incentives of the Executive Board with those of Aegon's shareholders, the Chair of the Remuneration Committee headed a consultation process involving major shareholders, shareholder representatives, proxy advisors and employee representatives, in order to receive feedback on the proposed changes to the remuneration policies.

The Remuneration Committee also oversaw the further application, implementation and approval of Aegon's Group Global Remuneration Framework and the various policies and procedures related to it, including the Remuneration Policy for Material Risk Takers (Identified Staff). This included:

- Allocating variable compensation related to 2018;
- Setting the 2019 Individual Performance Indicators for Executive Board members;
- Setting the 2019 Group performance indicators and targets for remuneration purposes;
- Preparing the 2020 Group performance indicators for remuneration purposes;
- Overseeing the scenario analysis of pay-out levels under the Executive Board remuneration policy;
- Reviewing and/or approving the ex-ante risk assessments and ex-post assessments, any exemption requests under the remuneration policies and changes to the list of Material Risk Takers (Identified Staff); and
- Reviewing the related Remuneration Report.

In addition, the Remuneration Committee discussed (possible) developments with regards to regulations pertaining to remuneration.

Annual Accounts

This Annual Report includes the Annual Accounts for 2019, which were prepared by the Executive Board and discussed by both the Audit Committee and the Supervisory Board. The Annual Accounts are signed by the members of the Executive Board and the Supervisory Board, and will be placed on the agenda of the 2020 Annual General Meeting of Shareholders for adoption. The Supervisory Board recommends that shareholders adopt the annual accounts.

Acknowledgement

The members of the Supervisory Board are very grateful for the work undertaken by Executive and Management Boards in pursuit of Aegon's purpose of helping people achieve a lifetime of financial security.

We would like to thank Aegon's employees for all they do to serve Aegon's millions of customers, and furthermore we would like to express our thanks to Aegon's business partners and loyal customers for their continued confidence in the Company.

Finally, the Board wishes to thank all those who invest in Aegon for their continued trust and confidence.

The Hague, the Netherlands, March 18, 2020.

William L. Connelly

Chairman of the Supervisory Board of Aegon N.V.

Remuneration Report

The 2019 Remuneration Report from our Remuneration Committee on behalf of the Supervisory Board

Introduction

This report has been prepared by the Remuneration Committee of the Supervisory Board, which was led by the Committee's Chairman Ben J. Noteboom and was approved by the Supervisory Board. The Remuneration Committee restructured this report for 2019 in order to further increase its transparency and to comply with the latest rules, regulations and guidance on the (standardized) presentation of the remuneration report, including the Shareholder Rights Directive and related Dutch implementation Act.

In the first chapter the Remuneration Committee presents an overview of the business and remuneration highlights in 2019 and what is expected in 2020 in relation to remuneration. This is followed by chapter two which contains a general introduction to Aegon's Global Remuneration Framework, Human Resources Strategy, Remuneration Principles, the concepts of Total Compensation and Variable Compensation, Risk Management in relation to remuneration and remuneration of Material Risk Takers. The third chapter is the 2019 Supervisory Board Remuneration Report, which contains a summary of the Supervisory Board Remuneration Policy which applied to 2019, and the Supervisory Board remuneration over the recent years. The fourth chapter presents the proposed 2020 Supervisory Board Remuneration Policy. In chapter five, the 2019 Executive Board Remuneration Report provides a summary of the Executive Board Remuneration Policy which applied to 2019, the Executive Board remuneration over the recent years and the 2020 Executive Board performance indicators. The sixth and final chapter presents the proposed 2020 Executive Board Remuneration Policy.

1. Business and remuneration highlights

This chapter presents an overview of the business and remuneration highlights in 2019 and what is expected in 2020 in relation to remuneration.

2019 Business highlights

In 2019, Aegon continued its realignment for growth, launched new propositions, further improved customer service, and made important executive management appointments to guide Aegon into the next phase of development. Aegon operated in a challenging environment in 2019, with persistent low interest rates in our key markets. At the same time, we continued to execute on our strategy and we reached a number of important milestones, by simplifying Aegon's structure and adopting an even more proactive approach to managing our portfolio of businesses. (For a more detailed update, please see the 'Letter from our CEO and the 'Letter of Supervisory Board Chairman' in this 2019 Integrated Annual Report.)

Aegon's underlying earnings were impacted by low interest rates while Aegon experienced net outflows in the US retirement and annuity businesses. As a result the return on equity of 9.5% was below our target of 10%. However, Aegon increased the normalized capital generation which, combined with a number of management actions, enabled us to maintain a strong capital position. Commercial momentum has improved with an increase in new life sales. Net deposits were lower mainly due to contract discontinuances in Retirement Plans in the Americas, despite the fact that the gross deposits were higher compared to 2018. The market consistent value of new business has been lower due to Variable Annuities in the United States, reflecting the significant decline in interest rates, which led to negative margins. This was partially offset by higher margins on workplace business in the United Kingdom. Digitally connected customers increased strongly with more mobile application users in the United States and a continued increase of platform users in the Netherlands and UK. Lastly, the relational net promotor score (r-NPS) reached a record high as a result of our NPS improvement plans and better outsourcing agreements which increased service levels.

Business performance highlights

	2019	2018
Net Deposits (in EUR million)	(25,130)	(4,656)
Normalized Capital Generation (in EUR million)	1,567	1,398
Solvency II ratio (in %)	201%	211%
Market Consistent Value of New Business (in EUR million)	465	539
Return on equity (in %)	9.5%	10.2%
Underlying Earnings Before Tax (in EUR million)	1,973	2,074
New Life Sales (in EUR million)	861	820
Relational net promotor score	12	7
Digitally connected customers (in million)	8.7	7.7

In 2019 Aegon's Supervisory Board consisted of seven members: William L. Connelly (Chairman), Corien M. Wortmann-Kool (Vice Chairman), Dona D. Young, Mark A. Ellman, Ben J. Noteboom, Ben van der Veer and Robert W. Dineen. At the Annual General Meeting of Shareholders on May 17, 2019 shareholders approved the re-appointment of Mr. Noteboom. On October 11, 2019 Aegon announced that Mr. Dineen stepped down from Supervisory Board. Aegon subsequently announced it would nominate Thomas Wellauer and Caroline Ramsay for appointment to the Supervisory Board at the Annual General Meeting of Shareholders on May 15, 2020.

Aegon's Executive Board consisted of two members in 2019: Alexander R. Wynaendts (Chief Executive Officer and Chairman of the Executive Board) and Matthew J. Rider (Chief Financial Officer and member of the Executive Board). Mr. Wynaendts was appointed to the Executive Board in 2003 for four years. He was re-appointed at the Annual General Meeting of Shareholders in 2007, 2011, 2015 and most recently in 2019 for his last term. Mr. Rider was appointed as a member of the Executive Board for four years at the Annual General Meeting of Shareholders on May 19, 2017. Mr. Rider's current term ends at the General Meeting of Shareholders 2021.

Aegon's Executive Board is assisted in its work by the Company's Management Board, which has 11 members, including the members of the Executive Board. In 2019 Aegon's Management Board was composed of Alex Wynaendts, Matthew Rider, Mark Bloom, Maarten Edixhoven (per October 2019), Adrian Grace, Allegra van Hövell-Patrizi, Marco Keim, Onno van Klinken, Carla Mahieu, Mark Mullin, Sarah Russell (until June 2019) and Bas NieuweWeme (per June 2019). Mike Holliday-Williams will be appointed to the Management Board and succeeds Adrian Grace who will retire from the company on March 31, 2020.

On August 12, 2019 Aegon announced that it would nominate Lard Friese for appointment to the Executive Board at the Annual General Meeting of Shareholders on May 15, 2020, in order to succeed Mr. Wynaendts. If Mr. Friese is appointed by the shareholders to the Executive Board, the Supervisory Board will subsequently appoint Mr. Friese as Chief Executive Officer and Chairman of the Executive Board. In preparation of this appointment Mr. Friese joined Aegon as CEO-designate per March 1, 2020. Mr. Wynaendts is working closely together with Mr. Friese to ensure a seamless leadership transition and remains available to Aegon until September 30, 2020. Mr. Wynaendts will not be eligible for a severance payment.

2019 Remuneration highlights

On November 14, 2018, the Supervisory Board approved the change to the Solvency II remuneration principles as regulatory framework for remuneration per 2019. Up to 2019, Aegon applied the Dutch Regulation on Sound Remuneration Policies which was based on banking rules from the European Capital Requirements Directive. However, Solvency II is an European Directive for insurance companies. Therefore the Dutch regulator allowed insurance companies the option to switch from Dutch Regulation on Sound Remuneration Policies to the Solvency II remuneration rules from December 8, 2017 onwards. Aegon preferred this switch as the Solvency II remuneration rules are sector specific. However, as this regulatory change was too close to the start of 2018, Aegon delayed this switch to 2019.

As a result, Aegon selected positions in which employees could have a material impact on the company, based on the Solvency II selection criteria in 2019. The selection of these type of positions is mandatory for most financial companies based in Europe, as a result of their sector specific European Directives (each having their own selection criteria). Under Solvency II these positions are called Material Risk Takers and are defined as 'the administrative, management or supervisory body, persons who effectively run the undertaking or have other key functions and other categories of staff whose professional activities have a material impact on the undertaking's risk profile'. Up to 2019 Aegon selected these type of positions under the Capital Requirements Directive (banking) selection criteria, in which these positions were called Identified Staff.

Employees which have been selected as Material Risk Taker are subject to various risk assessments and stricter requirements around the pay-out of variable compensation compared to other employees (for more details, see "Material Risk Takers" further below). Per 2019 Aegon revised the vesting schedule of variable compensation for Material Risk Takers, in accordance with Solvency II. These new vesting schedules were made globally consistent for the first time and were only differentiated by seniority as follows:

- Management Board members, excluding Executive Board members¹: 33.33% upfront cash / 66.67% deferred shares, cliff-vesting after 3 years.
- Local Management Team members: 40% upfront cash / 60% deferred shares, cliff-vesting after 3 years.
- Other Material Risk Takers: 50% upfront cash / 50% deferred shares, cliff-vesting after 3 years.

¹ Changing the Executive Board vesting schedule requires shareholder approval. The Supervisory Board intends to ask shareholders to adopt this change at the Annual General Meeting of Shareholders on May 15, 2020. The proposal will be to apply the Management Board vesting schedule to the Executive Board as well, but with an additional holding period on the shares of 2 years after pay-out. In the meantime, the 2019 Executive Board vesting schedule remained 40% upfront and 60% deferred, tranche-vesting during 3 years. Each upfront and deferred portion was paid 50% in cash and 50% in shares, with the shares subject to an additional holding period of 3 years.

Aegon's shareholders approved the following changes to the Supervisory Board Remuneration Policy at the Annual General Meeting of Shareholders on May 17, 2019 with 99.53% of the votes in favor and 0.47% against:

- The annual fixed fees for the Risk Committee membership became equal to the fixed fees for the Audit Committee membership. This increased the fixed fee for the Risk Committee Chairman from EUR 10,000 to EUR 13,000 and that of the other Risk Committee Members from EUR 5,000 to EUR 8,000.
- The Committee attendance fee for all committees, except for the Audit Committee, were increased from EUR 2,000 to EUR 3,000. The Audit Committee attendance fee was already EUR 3,000.
- The Intercontinental Travel fee was increased from EUR 3,000 to EUR 4,000.
- A Continental Travel fee was introduced and set at EUR 2,000.

On December 1, 2019, the Dutch Act to implement the revised European Union's Shareholder Rights Directive came into force. As a result Aegon has revised the structure and content of this 2019 Remuneration Report compared to earlier versions in accordance with the Act's remuneration report requirements. In 2019 Aegon paid out EUR 185 million in variable compensation and 24 employees received EUR 1 million or more in total annual compensation (i.e. the sum of fixed compensation, variable compensation and pension contributions paid in 2019). These employees worked for Aegon's Corporate Center, Aegon Americas, Aegon UK and Aegon Asset Management.

The 2019 CEO pay-ratio was 32.8 (2018: 42.2, 2017: 41.7). This ratio has been based on the IFRS-EU CEO remuneration expenses and employee expenses in 2019, which have been audited. The expenses for the CEO's total compensation were EUR 3.8 mln (2018: EUR 4.4 mln; 2017: EUR 4.3 mln). The average expenses for the employees' total compensation were EUR 115,371 (2018: EUR 104,459; 2017: EUR 102,188), which were calculated by:

- The total IFRS-EU remuneration expenses for all employees, which are the total employee expenses (see Note 14) minus the CEO remuneration expenses: EUR 2,149 mln – EUR 3.8 mln = EUR 2,145 mln.
- Divided by the number of employees in scope, which are the total number of employee minus employees in joint ventures and associates (as their expenses are not included in Note 14) and minus the CEO: $23,757 - 5,162 - 1 = 18,594$ employees.

The Remuneration Committee took note that certain factors have influenced the CEO pay-ratio, such as the significant difference in the geographical footprint of the Company's employee population, the way the Company was affected by restructuring and other organizational changes (e.g. the 2019 divestments in the Czech Republic and Slovakia) and the changes to the CEO's remuneration package per June 2019.

Looking ahead to 2020

At the Annual General Meeting of Shareholders on May 15, 2020, Aegon will ask its shareholders to:

- Cast an advisory vote on this Remuneration Report, which will be an annual agenda item going forward;
- Approve the proposed 2020 Supervisory Board Remuneration Policy (see chapter 4 in this report);
- Approve the proposed 2020 Executive Board Remuneration Policy (see chapter 6 in this report);
- Approve the appointment of Mr. Friese to the Executive Board.

The total compensation level of Mr. Friese is at the same level as that of the incumbent CEO, Mr. Wynaendts, although structured differently. Mr. Friese's gross Fixed Salary will become EUR 1,485,000, with an annual gross Target Variable Compensation of 80% of his Fixed Salary and a gross Pension contribution of 40% of his Fixed Salary. This means Mr. Friese will receive a higher Fixed Salary and therefore a higher Variable Compensation opportunity, but the Pension contribution will be lower compared to the incumbent CEO. When Mr. Friese was hired as CEO Designate, Aegon offered a sign-on arrangement. The sign-on is paid in cash and Aegon N.V. shares, of which a part is deferred. The pay-out of the deferred part is subject to continued employment.

Aegon took note of developments which could change the applicable rules, regulations and guidance, such as the draft EIOPA opinion on the supervision of remuneration principles in the insurance and reinsurance sector and the draft Dutch Act on further remuneration measures in the financial sector. Additionally, Aegon already structured this remuneration report in line with the draft European guidelines on the standardized presentation of the remuneration report.

2. Remuneration at Aegon in general

This chapter contains a general introduction to Aegon's Global Remuneration Framework, Human Resources Strategy, Remuneration Principles, the concepts of Total Compensation and Variable Compensation, Risk Management in relation to remuneration and remuneration of Material Risk Takers.

Global Remuneration Framework

Aegon has a Global Remuneration Framework (GRF) which outlines the Aegon Group Human Resources Strategy, the Aegon Group Remuneration Principles and the Aegon Group Remuneration Guidelines which apply to all Aegon employees, including the Executive Board members¹. The GRF has been designed in accordance with relevant rules, guidelines and interpretations, such as the Dutch Financial Supervision Act, the Dutch Civil Code, the Dutch Corporate Governance Code and the Solvency II Legal Framework.

¹ Given the two-tier Board structure, Aegon's Supervisory Board members are not in scope of the GRF. They are only eligible for certain fixed fees and cost reimbursements (see Supervisory Board Remuneration below).

Aegon's remuneration policies are derived from the GRF, which includes the Executive Board Remuneration Policy and local business Remuneration Policies. These policies define specific terms and conditions for the employment of our employee across the various countries and local businesses. All steps in the remuneration process are governed by the GRF and its underlying policies. Staff from Human Resources, Risk Management and Compliance are involved in all steps of the process.

Human Resources Strategy

In order to support the Aegon Strategy and local business objectives, the Aegon Group Human Resources Strategy contains the following remuneration related goals:

- Attract, retain, motivate and reward a highly-qualified and diverse workforce;
- Align the interests of executives, managers and all other employees with the business strategy and risk tolerance, the values and the long-term interests of Aegon;
- Provide a well-balanced and performance-related compensation package to all employees, taking into account shareholder and other stakeholder interests, relevant regulations, the corporate responsibilities and Future Fit values ('Acting as one, Customer centricity, Agility and Accountability').

Remuneration Principles

Based on the Human Resources Strategy, Aegon has formulated the following Remuneration Principles, which are the foundation for all remuneration policies and practices within the Group:

- Aegon remuneration is employee-oriented by: fostering a sense of value and appreciation in each individual employee; promoting the short- and long-term interests and well-being of all Aegon staff via fair compensation, pension and/or other benefits; supporting employees' career development; and supporting the (international) mobility of its staff;
- Aegon remuneration is performance-related by: establishing a clear link between pay and performance by aligning objectives and target setting with performance evaluation and remuneration; reflecting individual as well as collective performance in line with Aegon's long-term interests; enhancing the transparency and simplicity of Aegon Group remuneration, consistent with the principle of pay for performance; and avoiding any pay for non-performance;
- Aegon remuneration is fairness-driven by: promoting fairness and consistency in Aegon's remuneration policies and practices, with remuneration packages that are well-balanced across the different echelons within Aegon and its business units; avoiding any discrimination in Aegon's remuneration structures, including, among others, discrimination based on nationality, race, gender, religion, sexual orientation, and/or cultural beliefs; creating global alignment in the total compensation of all Material Risk Takers; and aiming at controlled market competitive remuneration, by providing total compensation packages in line with an appropriately established peer group at a country and/or functional level;

- Aegon remuneration is risk-prudent by: aligning business objectives with risk management requirements in the target setting practices throughout the Aegon Group; giving an incentive to appropriate risk-taking behavior while discouraging the taking of excessive risks; and protecting the risk alignment effects embedded in the remuneration arrangements of individual staff against any personal strategies or insurance to counter them.

Total Compensation

Following from the Remuneration Principles, Aegon aims to offer experienced and competent employees a total compensation level which is consistent with the market in which Aegon operates and competes for similar employees. Total compensation typically consists of fixed compensation, variable compensation (where in line with the local market practice), pension and other benefits. Market survey information from reputable sources is used to regularly assess the competitiveness of compensation levels and practices which Aegon offers its employees.

Variable Compensation

Variable compensation, if any, is capped at an appropriate level as a percentage of fixed compensation.

The Dutch Financial Supervision Act has a provision that makes it possible to offer employees up to a maximum variable compensation opportunity that is equal to the European CRD IV compensation ratio (i.e. 100% of fixed compensation). This provision was specifically created for corporate office employees of companies based in the Netherlands, which employ at least 75% of their employees abroad. In 2019, Aegon met this criterion and offered selected senior corporate office employees a variable compensation opportunity up to this maximum.

In line with the Dutch Financial Supervision Act, Aegon has obtained shareholder approval at the Annual General Meeting of Shareholders of May 20, 2016 to offer a maximum variable compensation opportunity up to 200% of fixed compensation to selected senior employees outside Europe in positions that, based on local market practice, could receive variable compensation that exceeds 100% of fixed compensation. Within this mandate, Aegon offered selected senior employees outside Europe such an opportunity in 2019. The Company's capital was not adversely impacted by the maximum variable compensation that could be paid out.

Variable compensation for senior management is usually paid out in cash and shares over multiple years, and is subject to further conditions being fulfilled. Variable compensation already paid out may also be retrieved under certain circumstances ('claw-back').

Risk Management in relation to Remuneration

Variable compensation may have an impact on risk-taking behaviors and, as such, may undermine effective risk management. The opportunity to receive high variable compensation can lead to excessive risk taking, which can

have a material impact on the company's financial soundness. To avoid such undesired effects, both the Risk Management and Compliance functions are involved in the design and execution of remuneration policies and practices.

The GRF includes additional remuneration requirements for three specific employee categories, as their roles and responsibilities require tailored risk mitigating measures and governance processes. These remuneration requirements are for: (i) the Executive Board; (ii) Material Risk Takers; and (iii) Control Staff. Given the rationale for having a separate policy for Material Risk Takers and the risk mitigating measures that are applied to the remuneration of these individuals, Risk Management is involved in deciding which positions are deemed Material Risk Takers. Furthermore, where exceptions to the policies are requested to reflect local practices or regulations, Risk Management and Compliance are involved in order to ensure such exceptions do not undermine effective risk management and that sufficient mitigating measures are undertaken.

In addition, the Risk Management and Compliance functions, together with the Human Resources and Finance functions, are responsible for the execution of the various measures that ensure the GRF and associated practices are aligned with the defined risk tolerances and behaviors. The risk mitigating measures are aimed at various moments in the variable compensation process: when the targets are set, before a variable compensation award is allocated, before deferred parts of the award are paid and after pay-out of the award (when relevant).

Aegon endeavors to seek an appropriate balance of ex-ante and ex-post risk assessments to ensure effectiveness in both the short- and long-term risk taking behavior of employees.

Remuneration of Material Risk Takers

Aegon selects Material Risk Takers for the Aegon N.V. legal entity (i.e. the holding company) based on the Solvency II selection criteria. These positions are defined as 'the administrative, management or supervisory body, persons who effectively run the undertaking or have other key functions and other categories of staff whose professional activities have a material impact on the undertaking's risk profile'.

Legal entities within the Aegon Group, which are directly subject to the Capital Requirements Directive, Solvency Directive, the Alternative Investment Fund Managers Directive and/or the Undertakings for the Collective Investment in Transferable Securities Directive, also select their own Material Risk Takers or 'Identified Staff'. Their selection is based on the selection criteria of the applicable European Directive, its guidelines and local regulatory requirements (where available).

In order to differentiate between the Material Risk Takers who are selected at the holding level of the company and at the various legal entities within the Group, the former are called Group Material Risk Takers and the latter Local Material Risk Takers.

The Group and Local Material Risk Takers are subsequently subject to risk assessments and remuneration rules from the applicable European Directive, its guidelines and local regulatory requirements (where available). This means that their personal objectives are subject to an ex-ante risk assessment at the start of the performance year. A minimum portion of their variable compensation will be deferred and paid in non-cash instruments (such as Aegon shares or investment in own funds). Before the allocation of variable compensation they are subject to an ex-ante risk assessment, while before pay-out of any deferred variable compensation they are subject to ex-post risk assessments. Based on these risk assessments, Aegon can adjust the intended or allocated variable compensation awards downward where deemed appropriate (however never upward).

3. 2019 Supervisory Board Remuneration Report

The 2019 Supervisory Board Remuneration Report has been prepared by the Remuneration Committee of the Supervisory Board in accordance with the Dutch Civil Code (article art 2:135b) and the Dutch Corporate Governance Code. The Remuneration Committee was led by the Committee's Chairman Ben J. Noteboom. This report was approved by the Supervisory Board.

This report contains a summary of the Supervisory Board Remuneration Policy which applied to 2019 and the Supervisory Board remuneration over the recent years.

Supervisory Board Remuneration Policy in 2019

Aegon's Supervisory Board Remuneration Policy is aimed at ensuring fair compensation and protecting the independence of the Supervisory Board members. Terms and conditions for the Supervisory Board members are the responsibility of the Remuneration Committee of the Supervisory Board.

The Supervisory Board members are entitled to the following:

- A base fee for membership of the Supervisory Board. No separate attendance fees are paid to members for attendance at the regular Supervisory Board meetings;
- An attendance fee for each extra Board meeting attended, be it in person or by video and/or telephone conference;
- A committee fee for members on each of the Supervisory Board's Committees;
- An attendance fee for each Committee meeting attended, be it in person or through video and/or telephone conference; and
- An additional fee for attending meetings that require intercontinental, continental or US interstate travel between the Supervisory Board member's home location and the meeting location.

Each of these fees is a fixed amount. The Supervisory Board members do not receive any performance or equity-related compensation, and do not accrue pension rights with the Company. These measures are designed to ensure the independence of Supervisory Board

members and to strengthen the overall effectiveness of Aegon's corporate governance.

Under the current policy, as endorsed by shareholders at the Annual General Meeting of Shareholders on May 17, 2019, the Supervisory Board members are entitled to the following payments:

Base fee for Supervisory Board membership	EUR / year
Chairman	80,000
Vice-Chairman	50,000
Member	40,000

Fee for Supervisory Board committee membership	EUR / year
Chairman of the Audit or Risk Committee	13,000
Member of the Audit or Risk Committee	8,000
Chairman of other committees	10,000
Member of other committees	5,000

Attendance fees	EUR
Committee meeting	3,000
Extra Supervisory Board meeting	3,000

Travel fees	EUR
Intercontinental	4,000
Continental or US interstate	2,000

In order for the Remuneration Committee to assess the competitiveness of the Supervisory Board fee levels, they gather benchmark data on compensation levels at comparable companies, in accordance with the applicable rules and regulations. These comparable companies form a peer group and have been selected by the following criteria:

- Industry: preferably Life Insurance;
- Size: companies with similar number of employees, assets, revenue and market capitalization;
- Geographic scope: preferably the majority of revenues generated outside of the country of origin; and
- Location: companies based in Europe, excluding UK where the non-executive directors typically have different responsibilities compared to their continental European counterparts.

Based on these criteria the current peer group consists of the following 12 European Insurance companies: Ageas, Allianz, AXA, CNP Assurances, Assicurazioni Generali, Mapfre, Münchener RE, NN Group, Swiss Life, Swiss Re, Talanx, and Zurich Insurance Group. This peer group is slightly different from the European peer group for the Executive Board, as a result of excluding the UK companies.

In addition, the following reference group of 12 companies with a two-tier board is used in order to monitor alignment with the General Industry in the Netherlands: ABN AMRO, Ahold Delhaize, Akzo Nobel, ASML, DSM, Heineken, ING Group, KPN, NN Group, Philips, Randstad and Wolters Kluwer. This reference group is equal to the Dutch reference Group for the Executive Board.

The Remuneration Committee and the Supervisory Board regularly review the composition of both groups in order to ensure that they continue to provide a reliable and suitable basis for comparison. The previous update to both groups was in 2018.

The Remuneration Committee may recommend changes to the fee levels of the Supervisory Board members, based on the results of a competitiveness review. These recommendations are discussed by the Supervisory Board, which can support, revise or reject them. Subsequently shareholders will be asked to adopt the proposed fee changes at the Annual General Meeting of Shareholders.

Information on members of the Supervisory Board and the composition of its four committees can be found on pages 44-53.

Supervisory Board remuneration in recent years

The table below show the fees that have been allocated and paid to the Supervisory Board members in the calendar years 2017, 2018 and 2019 in accordance with the applicable Supervisory Board remuneration policy at this time. The IFRS-EU expenses for these fees are equal to the amounts in the table below. The general increase of 2019 fees is a result of the new fee structure and levels which were approved by shareholders at the Annual General Meeting of Shareholders on May 17, 2019. The fee increase of Mr. Connelly in 2019 is the result of being the Chairman of the Supervisory Board during the full calendar year (appointed in per May 2018), attending more committee

meetings in combination with higher committee attendance fees per 2019 and receiving a continental travel fee which was not offered before 2019. Most other Supervisory Board

members received more attendance fees in 2019, mainly because of a combination of attending more committee meetings and the higher committee attendance fees per 2019.

In EUR thousand	Year	Base fees	Attendance fees	Travel fees	Total fees
William L. Connelly (as of May 19, 2017)	2019	95	54	20	169
	2018	79	34	6	119
	2017	33	24	3	60
Mark A. Ellman (as of May 19, 2017)	2019	56	39	20	115
	2018	53	29	21	103
	2017	33	22	15	70
Ben J. Noteboom	2019	58	39	6	103
	2018	55	25	6	86
	2017	57	42	3	102
Ben van der Veer	2019	58	54	6	118
	2018	58	37	6	101
	2017	58	45	3	106
Corien M. Wortmann - Kool	2019	63	54	6	123
	2018	63	37	3	103
	2017	58	40	3	101
Dona D. Young	2019	66	66	26	158
	2018	61	39	21	121
	2017	56	39	21	116
Robert W. Dineen (up to Oct 11, 2019)	2019	40	27	12	79
	2018	52	28	21	101
	2017	53	36	15	104
Dirk P.M. Verbeek (up to May 18, 2018)	2018	19	10	-	29
	2017	54	46	-	100
Robert J. Routs (up to May 18, 2018)	2018	36	12	-	48
	2017	95	36	3	134
Shemaya Levy (up to May 19, 2017)	2017	24	16	-	40
Total	2019	436	333	96	865
	2018	474	251	84	809
	2017	520	346	66	932
Total including 21% VAT	2019	527	403	116	1,046
	2018	574	304	102	979
	2017	630	419	80	1,128

The table below presents the total fees that have been paid in the last five calendar years on an annualized basis and the year-on-year annual change in total fees. Additionally the table shows the Aegon net income, a proxy of the financial

and non-financial business performance, the inflation in the Netherlands and the average employee compensation over the same period.

In EUR thousand	Annualized	2015	2016	2017	2018	2019
William L. Connelly (as of May 19, 2017)	Fees	-	-	98	119	169
	Change	-	-	-	22%	42%
Mark A. Ellman (as of May 19, 2017)	Fees	-	-	114	103	115
	Change	-	-	-	(9%)	12%
Ben J. Noteboom (as of May 20, 2015)	Fees	113	109	102	86	103
	Change	-	(3%)	(7%)	(15%)	20%
Ben van der Veer	Fees	115	109	106	101	118
	Change	-	(5%)	(3%)	(5%)	17%
Corien M. Wortmann - Kool	Fees	96	90	101	103	123
	Change	-	(6%)	12%	2%	19%
Dona D. Young	Fees	121	113	116	121	158
	Change	-	(7%)	2%	4%	31%
Robert W. Dineen (up to Oct 11, 2019)	Fees	121	115	104	101	101
	Change	-	(5%)	(10%)	(3%)	1%
Dirk P.M. Verbeek (up to May 18, 2018)	Fees	112	111	100	76	-
	Change	-	(1%)	(10%)	(24%)	-
Robert J. Routs (up to May 18, 2018)	Fees	143	140	134	125	-
	Change	-	(2%)	(4%)	(7%)	-
Shemaya Levy (up to May 19, 2017)	Fees	101	95	105	-	-
	Change	-	(6%)	11%	-	-
Irving W. Bailey (up to May 20, 2016)	Fees	135	139	-	-	-
	Change	-	3%	-	-	-
Leo M. van Wijk (up to May 20, 2015)	Fees	100	-	-	-	-
	Change	-	-	-	-	-
Aegon net income	In EUR million	(523)	586	2,361	744	1,528
Aegon business performance ¹⁾	Target = 100%	94%	91%	121%	106%	79%
Inflation in the Netherlands	Consumer Price Index	0.6%	0.3%	1.4%	1.7%	2.6%
Average employee compensation ²⁾	Total compensation	95	97	102	104	115
	Annual change	-	2%	5%	2%	11%

¹⁾ The weighted average Aegon financial and non-financial business performance, expressed as a percentage on a performance scale with 50% as threshold, 100% as target and 150% as maximum, as used for the allocation of variable compensation in the applicable year.

²⁾ Consistent with the CEO pay ratio calculation, the average employee compensation is based on the audited total IFRS-EU remuneration expenses for all employees divided by the number of employees in scope for these expenses.

All fees that have been paid to the Supervisory Board members were in accordance with the applicable Supervisory Board remuneration policy at the time, as they've been exclusively based on their membership of and function in the Supervisory Board, their memberships of and functions in the Supervisory Board's committees, their attendance and travel. There were no deviations from the policy.

Each quarter Aegon paid the fees that the Supervisory Board members earned during that period. This means 25% of the annual base fee for Supervisory Board membership and any Supervisory Board committee membership, taking into account their function (i.e. Chairman, Vice-Chairman or regular members) and the fees for their actual attendance and travel during that quarter.

The shareholders approved the changes to the Supervisory Board Remuneration fees retroactively per January 1, 2019 at the Annual General Meeting of Shareholders on May 17, 2019. This was after the fees for the first quarter of 2019 were already paid, based on the old fees. Therefore some Supervisory Board

members received a correction payment for the first quarter as part the second quarter payment.

Remuneration in fixed fees contributed to Aegon's long term performance, as it did not depend on Aegon's results and therefore protected the Supervisory Board member's independence when supervising the manner in which the Executive Board members implement the long-term value creation strategy.

4. Proposed 2020 Supervisory Board Remuneration Policy

A. Policy

A.1 Remuneration Policy

This Supervisory Board Remuneration Policy (the "Policy") outlines the terms and conditions for the remuneration of the members of the Supervisory Board of Aegon N.V. (the "SB members"), to be submitted for approval by the Shareholders of Aegon N.V. (the "Shareholders") at the Annual General Meeting of Shareholders on May 15, 2020. This Policy replaces the Aegon N.V. Supervisory Board Remuneration Policy of 2019.

The Remuneration Committee of the Supervisory Board of Aegon N.V. (the "Remuneration Committee") prepared the changes to this Policy, which were endorsed by the Supervisory Board on March 17, 2020. At the date of approval, the Policy complies with the applicable rules and regulations such as the Dutch Financial Supervision Act, the Dutch Civil Code, the Dutch Corporate Governance Code and the Solvency II Legal Framework.

A.2 Policy Term

This Policy will take effect from January 1, 2020.

The Policy remains in place until a new or revised Policy has been adopted by the Shareholders in accordance with the applicable requirements from the Dutch Civil Code. The Supervisory Board will submit a proposal to the Shareholders to adopt a Policy at a Meeting of Shareholders (the "Shareholders' Meeting") at least every four years. The Policy will subsist if Shareholders reject a new or revised Policy at a Shareholders' Meeting, even if this would be four years after the approval of this Policy. Subsequently, the Supervisory Board is required to submit a new proposal to the Shareholders to adopt a Policy at the next Shareholders' Meeting (and if rejected again, the next Shareholders' Meeting thereafter, etc.), while this Policy subsists.

A.3 Policy Changes

The Supervisory Board made the following changes to this Policy compared to the previous version, while leaving the fees unchanged:

- Increasing transparency for all Stakeholders by clarifying how the Policy contributes to Aegon's strategy, long-term interests and sustainability and how it takes into account Aegon's identity, purpose, values and stakeholder environment.
- Adding the option for the Supervisory Board to annually index the Supervisory Board fees (as defined in C.1 – C.5) based on economic developments in the Netherlands without requiring additional Shareholder approval.

These changes were made in order to comply with the new Dutch Act which implemented the European Shareholder Rights Directive and (optionally) allow reasonable annual adjustment of the fees without requesting Shareholder approval each year.

A.4 Policy Considerations

The Policy contributes to Aegon's strategy, long-term interests and sustainability through the remuneration of the SB members in various ways:

- The Policy provides the Supervisory Board with the means to attract, motivate, and retain competent, diverse, and experienced SB members for the long-term. Having motivated, competent, and experienced SB members on board is essential for executing Aegon's strategy, and safeguarding and promoting its long-term interests and sustainability.

- SB members receive fixed remuneration for their responsibilities which does not depend on the Aegon results in order to protect their independence when supervising the manner in which the Executive Board members implement the long-term value creation strategy. These responsibilities are part of the membership of the Supervisory Board and its Committees and optionally the position of (Vice) Chairman of the Supervisory Board and/or its Committees. The certainty of the fixed compensation also allows SB members in their supervisory role to focus on the long-term interest and sustainability of Aegon.
- The SB members receive fixed remuneration for their activities, such as attending Committee meetings and additional Supervisory Board meetings, in order to regularly discuss the Aegon strategy, the implementation of the strategy and the principal risks associated with it, while taking into account the broader long-term interests and sustainability of Aegon.
- SB members are only allowed to privately own Aegon N.V. Shares if this is a long-term investment, aligning their interests with Aegon's long-term interests.

The Supervisory Board took Aegon's identity, purpose, and values into account when developing the Policy and its changes:

- Aegon is an international financial services group based in the Netherlands, which provides life insurance, pensions and asset management (identity). The main operations are in the US, the Netherlands, and the UK, while there is also significant presence in Southern and Eastern Europe, Asia, and Latin America. The Policy provides the Supervisory Board with the means to attract, motivate, and retain SB members from various countries, predominantly based in the Netherlands and the US. As Aegon is based in the Netherlands, the Policy considers the European Insurance peers as well as Dutch General Industry peers to be the relevant external reference for the SB member's Remuneration. The Policy is also influenced by the European and Dutch rules and regulations on (Executive) remuneration, which apply to Aegon as a result of its identity (i.e. for being an Insurance firm in Europe and for being a listed and financial company in the Netherlands).
- Aegon's purpose is to help people achieve a lifetime of financial security. In order to fulfill this purpose, Aegon has a strategy to which this Policy actively contributes (see above).
- The four Future Fit values 'Acting as one, Customer centricity, Agility, and Accountability' aim to create a company that is fit for the future: one that meets customers' expectations, is right for our digitally-connected, data-driven world, and can adapt quickly to changing market conditions. These values are not explicitly reflected in the Policy as a result of the fee-based remuneration structure. However, these values are strongly incorporated in the Supervisory Board Charter.

The Supervisory Board has not taken the internal compensation structures and levels into account as the fee-based compensation structure for SB members is significantly different from these internal compensation structures and levels.

The Supervisory Board developed draft Policy changes based on the requirements of the new Dutch Act which implemented the Shareholder Rights Directive. Subsequently, the Supervisory Board actively reached out to a number of stakeholders to consult or discuss the draft Policy and its changes in order to assess its public support. The Chairman of the Remuneration Committee, together with the Investor Relations and the Compensation & Benefits team, consulted Aegon's main Shareholders, including Vereniging Aegon, proxy advisors, and Shareholder interest groups on the draft changes. The Chairman of the Remuneration Committee discussed the draft Policy with the European Works Council, while the Chairman of the Supervisory Board discussed it with the Central Works Council in the Netherlands. All feedback was shared with the Supervisory Board. They took note that not all Stakeholder feedback was aligned, but that there were no significant conflicts either. On a more ongoing basis, the Supervisory Board and the Executives regularly discuss remuneration related topics with the supervisory authorities, legislators, and politicians. Within Aegon, constant monitoring of (social) media takes place, including sensitive topics such as remuneration, and such feedback is shared with the Supervisory Board.

A.5 Policy Review and Revision

Each year, the Policy will be reviewed by the Remuneration Committee. The Remuneration Committee may suggest revisions to the Policy or a new policy to the Supervisory Board. When endorsed, the Supervisory Board will submit a proposal to the Shareholders to adopt the revised or new policy at the Shareholders' Meeting.

A.6 Temporary Derogation from the Policy

As determined by the Dutch Civil Code, derogation from this Policy is only allowed under exceptional circumstances and for a limited time period under the following conditions:

- The derogation can be from any remuneration element and/or provision in this Policy, as long as it continues to stay:
 - In line with the general spirit of this Policy as described in A.3;
 - In line with the internal and external references as defined in this Policy (see C.1), and;
 - Compliant with the applicable legislation and regulations.
- The Supervisory Board will adopt a derogation, which includes at least the following details:
 - An explanation why the derogation is required in order to serve the long-term interest and sustainability of Aegon as a whole or to assure its viability;
 - Which remuneration element or provision is derogated from and how it affects the Supervisory Board member's compensation levels;
 - An assessment which confirms that the Policy allows the proposed derogation and that it complies with the applicable rules and regulations;
 - The period of derogation. This period is limited to the moment the Shareholders have adopted a revised or new policy at a Shareholders' Meeting.

- The derogation and the abovementioned Supervisory Board approval details are disclosed in the next Remuneration Report.

In case a future change in rules and regulations conflicts with (a part of) this Policy, the Supervisory Board may deviate from this Policy to ensure compliance with the new rules and regulations. The Supervisory Board will disclose the deviation in the Remuneration Report and submit a proposal to the Shareholders to adopt a revised Policy at a Shareholders' Meeting which complies with the new rules and regulations.

B. Appointment

The Shareholders appoint a Supervisory Board member in accordance with the Articles of Association of Aegon N.V. and the Dutch Corporate Governance Code.

C. Remuneration Structure

C.1 Supervisory Board remuneration

A Supervisory Board member is entitled to (i) base fees for their Supervisory Board membership (see C.2) and membership of a Committee(s) of the Supervisory Board (see the C.3), (ii) an attendance fee for extra Supervisory Board meetings, be it attended in person or by video and/or telephone conference (see the C.4) and (iii) an attendance fee for Committee meetings, be it attended in person or by video and/or telephone conference (see C.5).

The current fees were approved by the Shareholders at the 2019 Annual General Meeting of Shareholders and have not changed in this Policy.

The Supervisory Board regularly reviews the fees to ensure the structure remains competitive, taking into account external reference information such as economic developments (e.g. inflation) as well as a quantitative assessments of the competitiveness against a peer group of Insurance companies in Europe and a peer group of companies based in the Netherlands (see the Annex for the peer group selection).

The Supervisory Board is allowed to annually index the fees based on economic developments in the Netherlands without Shareholder approval.

For any other change to the fees or the fee structure, such as, but not limited to, a higher fee increase versus indexation, changing the scope for a fee, or introducing a new fee, the Supervisory Board has to submit a proposal to the Shareholders to amend this Policy at a Shareholders' Meeting.

C.2 Supervisory Board membership fee

Base fee for Supervisory Board membership per year:

- Chairman: EUR 80,000;
- Vice-Chairman: EUR 50,000;
- Member: EUR 40,000.

C.3 Supervisory Board Committee membership fee

Base fee for Supervisory Board Committee membership per year:

- Chairman of the Audit or Risk Committee: EUR 13,000;
- Member of the Audit or Risk Committee: EUR 8,000;
- Chairman of other committees: EUR 10,000;
- Member of other committees: EUR 5,000.

C.4 Supervisory Board attendance fee

Attendance fees per extra Supervisory Board meeting: EUR 3,000.

Extra Supervisory Board meetings are meetings in addition to the minimum required regular Supervisory Board meetings as defined in the Aegon N.V. Supervisory Board Charter.

C.5 Supervisory Board Committee attendance fee

Attendance fees per Committee meeting: EUR 3,000.

A Supervisory Board member can also receive an attendance fee for additional work outside committee meetings, which require similar effort and representation such as, but not limited to, attending meetings with shareholders and other stakeholders.

D. Other Conditions

Additionally, a Supervisory Board member is entitled to travel fees (see the D.1) and cost reimbursement (see the D.2).

D.1 Travel fees

The SB member will receive a fee to cover the time to travel for attending Supervisory Board (Committee) meetings and related meetings and events.

Travel fees per travel:

Intercontinental: EUR 4,000

Continental or US interstate: EUR 2,000

D.2 Cost reimbursement

Aegon N.V. pays or reimburses all reasonable costs related to the attendance of Supervisory Board meetings, Supervisory Board Committee meeting, and related meetings and events in accordance with the Aegon N.V. Supervisory Board Charter. The local employee travel and reimbursement policies are used as reference.

E. Verification

All calculations made to determine compensation under this Policy are verified by the independent external auditor and the Supervisory Board's Remuneration Committee.

Annex

The Supervisory Board assesses the competitiveness of the Supervisory Board's remuneration structure and levels against the peer companies.

For this purpose, the Supervisory Board selected a primary set of peer group companies according to the following criteria:

- Industry: Insurance, with a preference for Life Insurance;
- Size: Average Market Capitalization, Employees, Revenue and Total Assets;
- Geographic scope: Preferably companies which operate globally;
- Location: Headquarters based in Europe excluding UK.

UK peer companies are excluded as the non-executive directors typically have different responsibilities compared to their continental European counterparts.

Based on these criteria, the current peer group consists of the following 12 European Insurance companies: Ageas, Allianz, AXA, CNP Assurances, Assicurazioni Generali, Mapfre, Münchener RE, NN Group, Swiss Life, Swiss Re, Talanx, and Zurich Insurance Group. This peer group partially differs from the European peer group for the Executive Board, as a result of excluding the UK companies.

In addition, the Supervisory Board selects a secondary peer group according to the following criteria, in order to monitor alignment with the General Industry in the Netherlands:

- Industry: General Industry and listed on the AEX;
- Size: Average Market Capitalization, Employees, Revenue and Total Assets;
- Location: Headquarters based in the Netherlands.

Based on these criteria, the current secondary peer group consists of the following 12 AEX companies: Ahold Delhaize, ING Group, Randstad, Heineken, NN Group, Philips, ABN AMRO, Akzo Nobel, ASML, DSM, KPN, and Wolters Kluwer. The last update of this peer group was in 2019, when ING, NN Group, ABN AMRO, DSM, and Wolters Kluwer were added, replacing ArcelorMittal, RELX Group, Royal Dutch Shell, Unibail-Rodamco, and Unilever. This peer group is equal to the Dutch peer group for the Executive Board.

5. 2019 Executive Board Remuneration Report

The 2019 Executive Board Remuneration Report has been prepared by the Remuneration Committee of the Supervisory Board in accordance with the Dutch Civil Code (article art 2:135b) and the Dutch Corporate Governance Code. The Remuneration Committee was led by the Committee's Chairman Ben J. Noteboom. This report was approved by the Supervisory Board.

This report contains a summary of the Executive Board Remuneration Policy which applied to 2019, the Executive Board remuneration over the recent years and the 2020 Executive Board performance indicators. The section on remuneration over the recent years is split into a) fixed compensation 2017-2019, b) conditional variable compensation 2019, c) provisional variable compensation 2019, d) variable compensation 2017-2019, e) pay-out of allocated variable compensation, f) pension

contributions 2017-2019, g) benefits 2017-2019, h) total compensation in recent years.

Executive Board Remuneration Policy in 2019

The Supervisory Board has the overall responsibility for Aegon's Remuneration Policies, including the Executive Board Remuneration Policy. The Supervisory Board established the Remuneration Committee from among its members. The Executive Board Remuneration Policy that has been applied in 2019 was adopted at the General Meeting of Shareholders on May 12, 2011. This policy has been subject to annual reviews by the Supervisory Board.

The current Policy contributes to Aegon's strategy, long-term interests and sustainability through the remuneration of the Executives in various ways:

- The Policy provides the Supervisory Board with the means to attract, motivate and retain competent and experienced Executives for the long-term. Having motivated, competent and experienced Executives on board is essential for executing Aegon's strategy and safeguarding and promoting its long-term interests and sustainability.
- Aegon's strategy is about building life-time relationships with customers, to create financial security and well-being throughout their lives. To pursue this strategy our focus is on sustainable growth through expanding our customer base, increasing efficiency, capitalizing on the advantages of being a global group and investing more in growth businesses. To support Aegon's strategy execution, the Policy makes unadjusted and risk-adjusted financial (growth) indicators as well as personal indicators related to the Aegon strategy mandatory for the Executive.
- Aegon believes it must create long-term value for its Stakeholders and the societies in which it operates. Because of the nature of our business, value created is often financial, but it may also be social, economic or environmental. The Policy directly aligns the Executive's personal long-term interests with that of Aegon and its Shareholders by paying a significant part of the Executive's Variable Compensation (50%) in Shares. These shares are paid partially upfront and partially deferred tranche-vesting over a 3-year period. After pay-out Shares are subject to an additional holding period of 3 years (even for the upfront Shares). This is combined with prohibiting the Executive in this Policy from using personal hedging strategies or insurance which could undermine this long-term alignment of interests.
- Aegon is committed to doing business responsibly and in a sustainable way. The Policy makes the risk-adjusted financial performance indicators mandatory for the Executive. Additionally, variable compensation of the Executive can be adjusted downwards (i.e. malus) or clawed-back in case certain performance has not been achieved in a sustainable way, such as (but not limited to): significant risk and compliance incidents, insufficient response to such incidents and/or insufficient evidence of embedding of good standards of practice, such as sound and responsible business practices and integrity of products and services delivered.

Aegon's Executive Board remuneration is subject to various rules and regulations, which include the Dutch Financial Supervision Act, the Dutch Civil Code, the Dutch Corporate Governance Code and the Solvency II Legal Framework. The most prominent requirements thereof are:

- The total variable compensation amount which is allocated to an Executive Board member for a performance year cannot exceed 100% of the fixed compensation level.
- Variable compensation should be based on a mix of company and personal performance, with at least 50% weight on non-financial performance.
- A substantial portion of any variable compensation award should be paid in a non-cash instrument (e.g. Aegon N.V. shares) and should be deferred for at least 3 years. Additionally, award shares should be restricted for 5 years. With a 3-year vesting period, this requires an additional holding period of 2-years.
- Aegon can claw-back any variable compensation which has been paid (cash and shares) in specific circumstances such as a material financial restatement or individual gross misconduct.

These are also the main reasons why Aegon operates one Executive Board variable compensation plan per year, with a single variable compensation award which is subsequently split into cash and shares, rather than operating separate Short-Term Incentive (cash) and Long-Term Incentive (share) Plans.

The Remuneration Committee may recommend Policy changes to the Supervisory Board. In that case, the Remuneration Committee will conduct scenario analyses to determine the long-term effects on the level and structure of compensation granted to each Executive Board member and reports their findings to the Supervisory Board. The Supervisory Board can subsequently decide on referring the proposed Policy changes to the Annual General Meeting of Shareholders for adoption.

Total compensation

Total compensation for Executive Board members is defined in the Executive Board Remuneration Policy as a combination of fixed compensation, variable compensation, pension and other benefits.

In line with this policy, the Supervisory Board has determined a maximum total compensation level for each Executive Board member, reflecting the specific roles, responsibilities, qualifications, experience and expertise of the individual. Each year, the Remuneration Committee reviews these total compensation levels of the Executive Board members to ensure they remain competitive and provide incentives in line with the Company's risk appetite. This review takes the specific role,

responsibilities, experience and expertise of the Executive into account as well as internal and external reference information.

- The internal references are the compensation structure and levels of Management Board members and the annual compensation changes of the general employee population and senior managers within Europe and the Netherlands specifically.
- The external references are compensation trends in the market, economic developments (e.g. inflation) as well as a quantitative assessments of the competitiveness against a peer group of European Insurance companies and a reference group of General Industry companies based in the Netherlands.

The European Insurance peer group has been selected by the following criteria:

- Industry: preferably Life Insurance;
- Size: companies with similar number of employees, assets, revenue and market capitalization;
- Geographic scope: preferably the majority of revenues generated outside of the country of origin; and
- Location: companies based in Europe.

Based on these criteria the current peer group consists of the following 16 European Insurance companies: Ageas, Allianz, Aviva, Axa, CNP Assurances, Assicurazioni Generali, Legal & General, Mapfre, Münchener RE, NN Group, Prudential, RSA Insurance Group, Swiss Life Holding, Swiss Re, Talanx and Zurich Insurance Group. This peer group is slightly different from the European peer group for the Supervisory Board, because the UK companies are excluded from the latter as the UK non-executive directors typically have different responsibilities compared to their continental European counterparts.

In addition, the following reference group of 12 companies is used in order to monitor alignment with the General Industry in the Netherlands: ABN AMRO, Ahold Delhaize, Akzo Nobel, ASML, DSM, Heineken, ING Group, KPN, NN Group, Philips, Randstad and Wolters Kluwer. This reference group is equal to the Dutch reference Group for the Supervisory Board.

The Remuneration Committee and the Supervisory Board regularly review the composition of both groups in order to ensure that they continue to provide a reliable and suitable basis for comparison. The Supervisory Board updated both the European Insurance peer group and the Dutch General Industry reference group compared to their 2015 selections. Ageas, RSA Insurance Group, Swiss Life Holding and Talanx were added to the European Insurance peer group, while Old Mutual and Standard Life Aberdeen were removed. The peer group size increased from 14 to 16 in order to create a more balanced selection around Aegon's size data. In the Dutch General Industry reference group ABN AMRO, DSM, ING Group, NN Group and Wolters Kluwer replaced ArcelorMittal, RELX Group, Royal Dutch Shell, Unibail-Rodamco and Unilever.

The Remuneration Committee may recommend changes to the compensation levels of the Executive Board members, based on the results of this annual total compensation review and discussions with the Executive Board members regarding their remuneration level and structure. These recommendations are subsequently discussed by the Supervisory Board, which can approve, revise or reject them.

The Supervisory Board, based on the Remuneration Committee review, discussed and approved the 2019 total compensation for the Executive Board.

Fixed compensation

The fixed compensation for the Executive Board members is paid in monthly installments.

Variable compensation

Aegon believes that variable compensation strengthens the commitment of Executive Board members to the Company's strategy, risk tolerance, long-term interests and sustainability. The variable compensation award is based on annual performance against a number of Aegon and personal performance indicators

- These performance indicators are a mix of financial and non-financial performance indicators with a one-year performance horizon.
- The result of a single performance indicator must exceed its predefined threshold level, before this indicator can contribute to the overall performance result. When an indicator result is below this threshold, the contribution of this indicator to the overall performance result is zero.
- In case the performance of an indicator exceeds the target, the contribution of this indicators is capped once it reaches a predefined maximum level. This means that strongly exceeding performance on one specific indicator can only contribute up to a certain level to the overall performance result (i.e. a contribution cap).
- These performance indicators are regularly evaluated by experts in the company's Finance, Risk Management, Business Control, Human Resources and Compliance departments to ensure alignment with the company's objectives, business strategy, risk tolerance and long-term performance remains strong.

At the start of the performance year, the Remuneration Committee recommends a selection of performance indicators for each Executive Board member, including its weights, threshold, target and maximum levels. This recommendation is subsequently reviewed by the Company's Risk Management team (i.e the first ex-ante risk assessment) before it is sent to the Supervisory Board, to ensure that:

- The performance indicators and weights are in line with the Policy;
- The financial performance indicators are consistent with the risk tolerance statements;

- The non-financial performance indicators are consistent with risk tolerance levels, regulatory requirements, reasonable stakeholder expectations and are supporting sound and responsible business practices and integrity of the products and services delivered.

The Supervisory Board can approve, revise or reject the recommended performance indicator selection, taking the results of the risk assessment into account.

Once the Supervisory Board has approved the performance indicators for each Executive Board member, the Executive Board members are also granted their conditionally variable compensation award for that performance year. This conditional award is equal to their at target variable compensation level, which consists of 50% cash and 50% Aegon shares. The grant price for the shares is equal to the volume weighted average price on the Euronext Amsterdam stock exchange for the period December 15 to January 15 at the start of the performance year.

After the completion of the performance year, the Remuneration Committee prepares a recommendation for the allocation of a variable compensation award to each Executive Board member. This recommendation is based on the results on each of the selected performance indicators, its threshold, target and maximum levels and takes a second ex-ante risk assessment by the Company's Risk Management team into account. This risk assessment looks into whether there are reasons for a downward adjustment of the intended variable compensation award (malus) which were not take into account yet, such as:

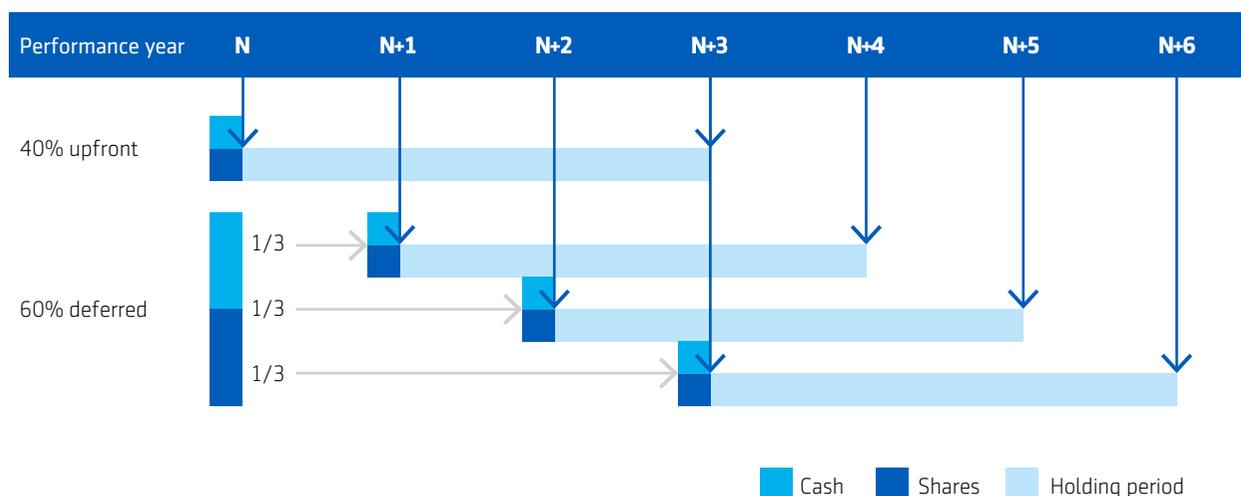
- Significant risk or compliance incident(s);
- Insufficient response to risk incident(s), compliance incident(s), regulatory fine(s) and/or insufficient execution of risk mitigating measures in response to these incidents;
- Breaches of laws and regulations;

- Insufficient evidence of embedding good standards of practice;
- Significant deficiencies or material weaknesses relating to the Sarbanes-Oxley Act; and
- Reputation damage due to risk events.

In this assessment possible risk mitigating behaviors are also taken into account, such as remaining within risk limits, risk reduction, risk avoidance, risk transfer and risk response by the Executive.

The Remuneration Committee sends its recommendation and the second ex-ante risk assessment to the Supervisory Board, which - based on its informed judgement - can approve, revise or reject the recommendation. This Supervisory Board decision includes validating that, when taken together, the results of the performance indicators represent a fair reflection of the overall performance of the Executive Board member over the performance year.

The allocated variable compensation award is subsequently split into equal parts of cash and Aegon shares, of which 40% is paid out upfront (i.e. in the year following the performance year) and 60% is deferred. The deferred part is paid in three equal tranches over the subsequent three-year period. All shares, both upfront and deferred, are subject to an additional three-year holding period after they are paid¹. The variable compensation payout can be illustrated by the following example and the graph below. For every 1,000 in variable compensation 400 is paid out in the year following that performance year (year N). This upfront part will be paid 50% in cash (=200) and 50% in a number of shares (=200 / Aegon share price at grant = number of allocated shares). The remaining 600 is deferred and paid-out during the subsequent three years (years N+1, N+2 and N+3).



¹ With the exception of shares withheld to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the company holds a withholding obligation in connection with the pay-out of the shares.

All deferred cash and share portions remain conditional until they are paid. Before a deferred portion is paid, the Company's Risk Management team executes an ex-post risk assessment which looks into whether there are reasons for a downward adjustment of the original variable compensation award (malus) which were not taken into account yet. The outstanding deferred portion can be used for correcting the originally award amount accordingly. This risk assessment takes the same criteria into consideration as the second ex-ante risk assessment (above). Based on this assessment, the Remuneration Committee subsequently prepares a pay-out recommendation of the deferred portion (i.e. unchanged or adjusted downward). The Remuneration Committee sends its recommendation and the ex-post risk assessment to the Supervisory Board. The Supervisory Board can approve, revise or reject the recommendation.

Claw-back provision

Aegon's Supervisory Board can claw-back variable compensation that has already been paid to the Executive in case of a material financial restatement or individual gross misconduct, after considering a risk assessment by the Company's Risk Management team which looks into whether in hindsight the paid amount should have been lower or nil. Examples of misconduct are, but not limited to, significant breach of laws and/or regulations, use of violence, either verbally or physically, involvement with fraud, corruption or bribery, significant issues due to evident dereliction of duty and/or discrimination of any kind (for example age or gender). For practical reasons the claw-back amount can be set-off or settled by any current or future obligations as permitted by law.

Pension arrangements

The Executive Board members are offered pension arrangements and retirement benefits in line with the Executive Board Remuneration Policy.

From January to May 2019, Mr. Wynaendts' pension arrangement included retirement provisions that allowed benefits to be taken at the end of the term. From June 2019 onwards, Mr. Wynaendts received a gross allowance for pension purposes, which equaled 40% of the fixed compensation in 2019. In addition to this, Mr. Wynaendts continued to be entitled to an annual gross payment of 28% of his fixed compensation in 2019, which is part of a grandfathered pension arrangement.

Mr. Rider's pension contributions equaled 40% of his fixed compensation in 2019 consisting of:

- Participation in Aegon's career average defined benefit pension plan for NL-based employees, for his fixed income up to EUR 107.593 (2019 threshold set by Dutch law);
 - Participation in Aegon's defined contribution pension plan for NL-based employees, for his fixed income above EUR 107.593.
- A gross allowance for pension purposes of around 15%, in order to make the sum of all pension contributions equal to 40% of his fixed compensation in 2019.

Other benefits

Other benefits include non-monetary benefits (e.g. company car), social security contributions by the employer, and tax expenses borne by Aegon.

Aegon does not grant Executive Board members personal loans, guarantees or other such arrangements, unless in the normal course of business and on terms applicable to all employees, and only with the approval of the Company's Supervisory Board.

Terms of Engagement

Members of the Executive Board are appointed for four years, and may then be re-appointed for successive mandates also for a period of four years.

Both Executive Board members have a Board Agreement with Aegon N.V., rather than an employment contract.

Members of the Executive Board may terminate their Board Agreement with a notice period of three months. The Company may terminate the board agreement by giving six months' notice if it wishes to terminate the agreement.

The arrangements with the current Executive Board members contain provisions for severance payments in the event that their agreement is terminated as a result of a merger or takeover. These arrangements do not exceed one year's fixed remuneration. The Supervisory Board has taken appropriate steps to ensure the arrangements of Executive Board members are in line with the Executive Board Remuneration Policy. However, Mr. Wynaendts will not be entitled to a termination payment when his Board Agreement is terminated by the Company on September 30, 2020.

Executive Board remuneration in recent years

A. Fixed compensation 2017-2019

Mr. Wynaendts' annual fixed compensation level increased with 2.5% from EUR 1,294,867 to EUR 1,327,239 per June 2019, which resulted in a total fixed compensation pay-out of EUR 1,313,751 in 2019. Mr. Rider's annual fixed compensation increased with 2.5% from EUR 918,000 to EUR 940,950 per June 2019, which resulted in a total fixed compensation pay-out of EUR 931,388 in 2019. The 2017 fixed compensation for Mr. Rider has been for the period as Executive Board member (per May 19, 2017). His annualized 2017 fixed compensation was EUR 900,000. The IFRS-EU expenses for these fixed compensation amounts are equal to the amounts in the table below.

In EUR thousand	2019	2018	2017
Alex Wynaendts	1,314	1,295	1,269
Matt Rider	931	918	560
Total fixed compensation	2,245	2,213	1,829

B. Conditional variable compensation 2019

In 2019, Mr. Wynaendts and Mr. Rider both had an at target variable compensation opportunity of 80% of their annualized fixed compensation level at year-end. The variable compensation award was based on the results on the Aegon and their personal performance indicators and related target levels, which had

been approved by the Supervisory Board at the start of 2019. As a result they would receive the following if the performance indicator results reached the threshold (50%), target (80%) and maximum level (100%), taking into account the grant price of EUR 4.162 for the shares:

Variable compensation opportunity 2019	Threshold (50%)	Target (80%)	Maximum (100%)
Alex Wynaendts			
Total (EUR thousand)	664	1,062	1,327
in cash (EUR thousand)	332	531	664
in shares	79,723	127,557	159,447
Matt Rider			
Total (EUR thousand)	470	753	941
in cash (EUR thousand)	235	376	470
in shares	56,520	90,432	113,040

C. Provisional variable compensation 2019

Subject to the adoption of the annual accounts at the General Meeting of Shareholders on May 15, 2020, Mr. Wynaendts has been awarded EUR 1,047,722 in conditional variable compensation for the 2019 performance year (78.9% of fixed

compensation) and Mr. Rider EUR 742,786 (78.9% of fixed compensation). Each variable compensation award will be paid in the following cash and share parts, with the shares being subject to an additional holding period of three-years after pay-out.

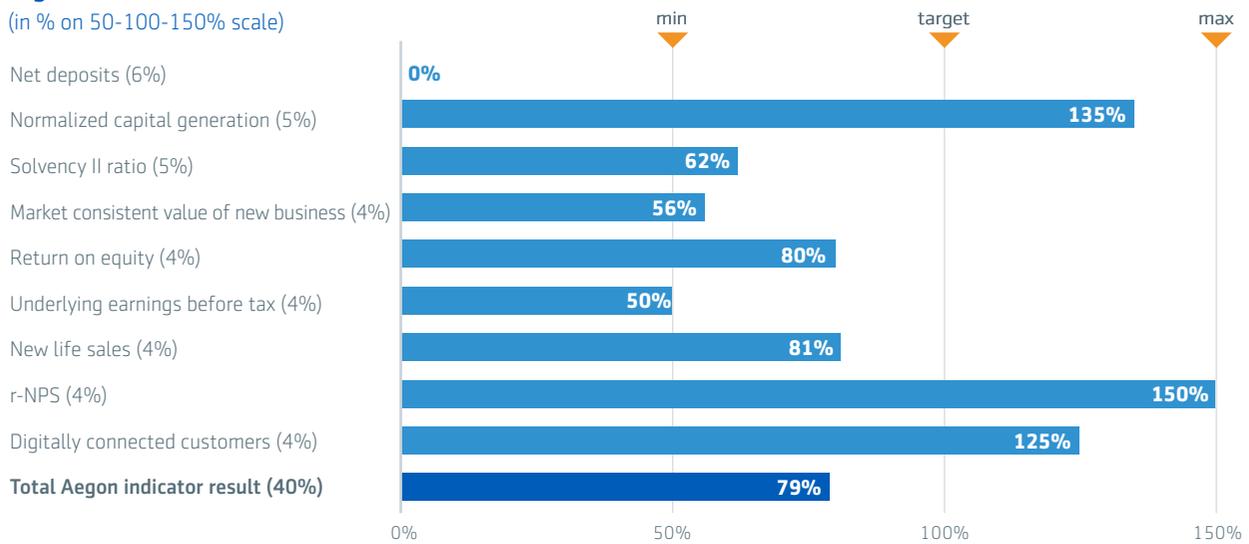
Conditional variable compensation 2019	Pay-out in 2020	Pay-out in 2021	Pay-out in 2022	Pay-out in 2023
Alex Wynaendts				
Cash (EUR thousand)	210	105	105	105
Shares	50,345	25,174	25,174	25,174
Matt Rider				
Cash (EUR thousand)	149	74	74	74
Shares	35,693	17,847	17,847	17,847

The tables below show the results on each of the Aegon and personal indicators which determined the conditional variable compensation awards of Mr. Wynaendts and Mr. Rider, followed by the indicator definitions. The Aegon performance results were scored on a performance scale which was used to fund the 2019 bonus pools within Aegon: 50% for the threshold (minimum), 100% for target level and 150% for the maximum level. The 2019 Aegon performance result on this performance

scale was 79%. Converted to the performance scale that applied to the variable compensation of Mr. Wynaendts and Mr. Rider (i.e. with 80% for the target level) the 2019 Aegon performance result was 67%. For the absolute results on each of the Aegon performance indicators, see the table with the business performance highlights in the first chapter of this Remuneration Report.

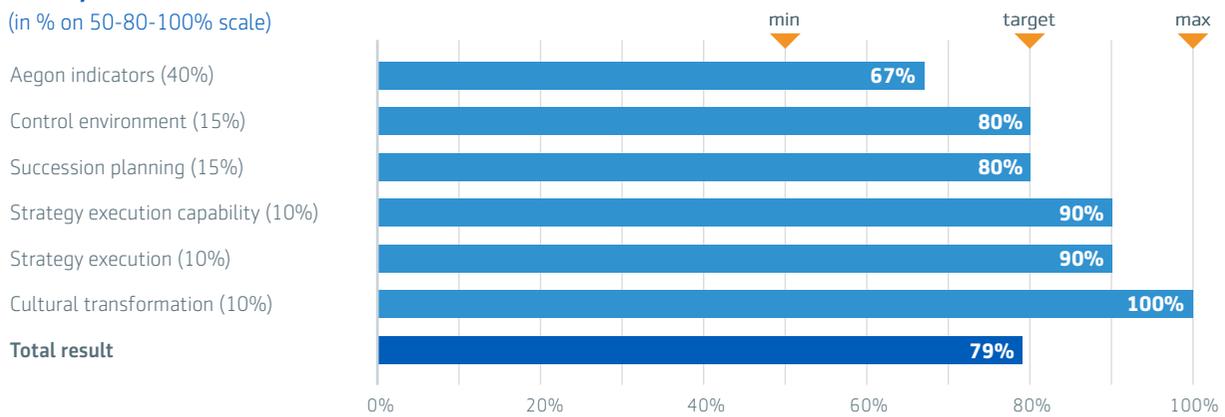
Aegon – Performance indicator results 2019

(in % on 50-100-150% scale)



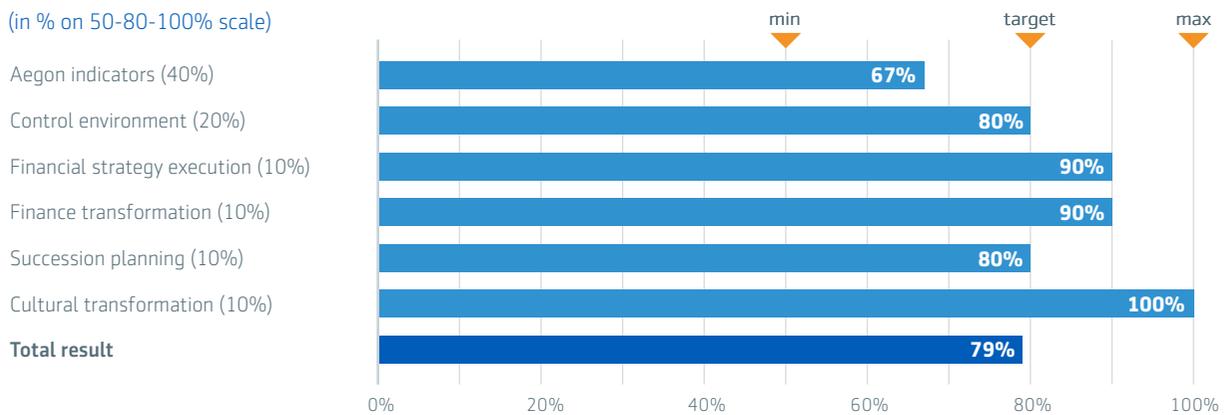
Alex Wynaendts – Performance indicator results 2019

(in % on 50-80-100% scale)



Matt Rider – Performance indicator results 2019

(in % on 50-80-100% scale)



Scope	Performance indicators	Definition
Aegon financial	Net deposits	Net deposits is the difference between gross deposits and withdrawals. If gross deposits exceed withdrawals, the result is a net inflow of customer money. If withdrawals exceed gross deposits, the result is a net outflow. Gross deposits is a sales metric and reflect amounts paid by policyholders (inflows) on insurance and investment contracts to which deposit accounting is applied.
	Normalized Capital Generation	The movement in our capital position (on a Solvency II basis) during a period in the normal course of business net of market impacts (e.g. changes to interest rates, credit spreads, equity returns) and one-time effects. Impacts from dividends and capital injections that do not generate capital but do affect Own Fund are excluded from capital generation.
	Solvency II ratio	The Solvency II ratio measures the solvency of an EU insurance company. The Solvency ratio is calculated by dividing eligible Own Funds by the Solvency Capital Requirement (SCR) – the amount of capital insurers must hold under the Solvency II regime.
	Market consistent value of new business	Represents how much value the sale of new insurance policies is generating for the company. This value represents the present value of our best estimate of incoming premiums and outgoing claims, benefits and expenses related to these new sales.
	Return on equity	The return on equity (ROE) measures the rate of return that the owners of common stock of a company receive on their shareholdings. Return on equity signifies how good the company is in generating returns on the investment it received from its shareholders. Aegon's ROE is calculated by dividing underlying earnings after tax and after cost of leverage by average shareholders' equity excluding revaluation reserve.
	Underlying earnings before taxes	Underlying earnings before tax reflect our profit from underlying business operations and exclude components that relate to accounting mismatches that are dependent on market volatility or relate to events that are considered outside the normal course of business.
	New life sales	New Life Sales reflect the premiums for new life insurance policies sold during the year. Aegon's new life sales is calculated as a total of recurring premiums and 1/10 of single premiums.
Aegon non-financial	Relational NPS	The Net Promoter Score (NPS) is a customer loyalty metric based on the percentage of customers that would likely recommend our products and services to friends and family (scores 9 and 10) minus the percentage that would not be likely to do so (scores 0 to 6). The Relational NPS measures the whole scope of the client relationship: 1) the contact experience, 2) the products/prices and 3) our brands.
	Digitally connected customers	The total number of customers who have registered, created an online account with Aegon and have logged in to this account at least once.
Alex Wynaendts	Control environment	Measures the effectiveness of Aegon's Control Environment in relation to IT CF implementation, Control Excellence and Solvency II/Solvency Capital reporting controls deficiency rectification.
	Succession planning	Contains personal goals to further improve succession planning for the Management Board and other critical positions.
	Strategy execution capability	Contains personal goals to further grow and accelerate the capability to execute the strategy (staffing, skills and competencies).
	Strategy execution	Consists of five personal milestones which were key for the strategy execution in 2019.
	Cultural transformation	Measures the personal contribution to embedding the Future Fit values in the organization ('Acting as one, Customer centricity, Agility and Accountability').
Matt Rider	Control environment	Measures the effectiveness of Aegon's Control Environment in relation to IT CF implementation, Control Excellence and Solvency II/Solvency Capital reporting controls deficiency rectification.
	Financial strategy execution	Consists of five personal milestones which were key for the strategy execution within the Finance function in 2019.
	Financial transformation	Measures the progress of four transformation processes within the Finance function.
	Succession planning	Contains personal goals to further improve succession planning for senior management positions within the Finance function.
	Cultural transformation	Measures the personal contribution to embedding the Future Fit values in the Finance function ('Acting as one, Customer centricity, Agility and Accountability').

D. Variable compensation 2017-2019

The amounts in the first table represent the total conditional variable compensation awards allocated in relation to the performance year concerned. No circumstances have been identified to lower payout of the deferred payment from prior performance years in 2019 (the so called 'ex-post assessment') or to lower the payout of the upfront payment of the 2018 performance year variable compensation in 2019

In EUR thousand	2019	2018	2017
Alex Wynaendts	1,048	1,062	1,147
Matt Rider	743	760	499
Total conditional variable compensation	1,791	1,822	1,646

In EUR thousand	2019	2018	2017
Alex Wynaendts	976	962	1,092
Matt Rider	627	545	293
Total conditional variable compensation IFRS-EU expenses	1,604	1,507	1,385

E. Pay-out of allocated variable compensation

The following tables show for each current and former Executive Board member how much variable compensation has been paid in shares and cash respectively in 2017, 2018 and 2019 and how much conditional variable compensation is scheduled to be

(the so called 'ex-ante assessment'). The 2017 variable compensation for Mr. Rider has been for the period as Executive Board member (per May 19, 2017). His annualized 2017 variable compensation was EUR 802,008. The second table contains the expenses for the conditional variable compensation awards, as recognized under the IFRS-EU accounting treatment in the income statement.

paid-out in the coming years. The vesting price of the share were: EUR 4.423 on May 19, 2017, EUR 5.848 on May 18, 2018 and EUR 4.287 on May 17, 2019. After vesting all shares are subject to an additional three-year holding period.

Shares by plan year	Grant Price ²⁾	Allocated	Years of vesting						
			2017	2018	2019	2020	2021	2022	2023
Alex Wynaendts									
2013	EUR 4.919	20,981	20,981	-	-	-	-	-	-
2014	EUR 6.739	23,716	13,552	10,164 ¹⁾	-	-	-	-	-
2015	EUR 6.106	45,330	15,110	15,110	15,110	-	-	-	-
2016	EUR 5.128	101,805	40,722	20,361	20,361	20,361	-	-	-
2017	EUR 5.246	109,330	-	43,732	21,866	21,866	21,866	-	-
2018	EUR 5.405	98,282	-	-	39,314	19,656	19,656	19,656	-
2019	EUR 4.162	125,867	-	-	-	50,345	25,174	25,174	25,174
Total number of shares		525,311	90,365	89,367	96,651	112,228	66,696	44,830	25,174
Matt Rider									
2017	EUR 5.246	47,539	-	19,015	9,508	9,508	9,508	-	-
2018	EUR 5.405	70,272	-	-	28,110	14,054	14,054	14,054	-
2019	EUR 4.162	89,234	-	-	-	35,693	17,847	17,847	17,847
Total number of shares		207,045	-	19,015	37,618	59,255	41,409	31,901	17,847
Darryl Button									
2013	EUR 4.919	9,572	9,572	-	-	-	-	-	-
2014	EUR 6.739	17,304	8,652	8,652	-	-	-	-	-
2015	EUR 6.106	35,433	11,811	11,811	11,811	-	-	-	-
2016	EUR 5.128	74,038	29,614	14,808	14,808	14,808	-	-	-
Total number of shares		136,347	59,649	35,271	26,619	14,808	-	-	-
Jan Nooitgedagt									
2013	EUR 4.919	8,826	8,826	-	-	-	-	-	-
Total number of shares		8,826	8,826	-	-	-	-	-	-

¹ In line with the Aegon Group Global Remuneration Framework, it was agreed to adjust Mr Wynaendts's 2014 variable compensation award downwards by 3,388 shares and EUR 22,832 to reflect the outcome of a regulatory matter relating to the company.

² This is the volume weighted average price (VWAP) of Aegon on the Euronext Amsterdam stock exchange for the period December 15 to January 15. For instance for the 2019 plan year, this is the VWAP for the period December 15, 2018 to January 15, 2019.

Cash by plan year (in EUR)	Allocated	2017	2018	Years of vesting				
				2019	2020	2021	2022	2023
Alex Wynaendts								
2013	103,163	103,163	-	-	-	-	-	-
2014	159,826	91,329	68,497 ¹⁾	-	-	-	-	-
2015	276,783	92,261	92,261	92,261	-	-	-	-
2016	522,060	208,824	104,412	104,412	104,412	-	-	-
2017	573,550	-	229,420	114,710	114,710	114,710	-	-
2018	531,219	-	-	212,490	106,243	106,243	106,243	-
2019	523,864	-	-	-	209,548	104,772	104,772	104,772
Total cash	2,690,465	495,577	494,590	523,873	534,913	325,725	211,015	104,772
Matt Rider								
2017	249,390	-	99,756	49,878	49,878	49,878	-	-
2018	379,823	-	-	151,931	75,964	75,964	75,964	-
2019	371,394	-	-	-	148,560	74,278	74,278	74,278
Total cash	1,000,607	-	99,756	201,809	274,402	200,120	150,242	74,278
Darryl Button								
2013	46,767	46,767	-	-	-	-	-	-
2014	120,048	60,024	60,024	-	-	-	-	-
2015	235,293	78,431	78,431	78,431	-	-	-	-
2016	373,369	149,347	74,674	74,674	74,674	-	-	-
Total cash	775,477	334,569	213,129	153,105	74,674	-	-	-
Jan Nooitgedagt								
2013	43,396	43,396	-	-	-	-	-	-
Total cash	43,396	43,396	-	-	-	-	-	-

F. Pension contributions 2017-2019

The allocated amounts in the first table represent the total pension contributions made in relation to the performance year concerned. The second table contains the expenses for pension, as recognized under the IFRS-EU accounting treatment in the income statement.

The 2017-2019 pension contributions for Mr. Wynaendts, under his defined benefit arrangement, include a back service liability which reflects the increase of his fixed compensation in 2016 and 2018, as well as the current low interest rates¹. This

defined benefit arrangement ran up to May 2019, when the final settlement was made.

From June 2019 onwards, Mr. Wynaendts became eligible for the same pension arrangement as Mr. Rider. In this arrangement both receive pension contributions which are equal to 40% of their fixed compensation level. Mr. Wynaendts continued to be entitled to a gross payment of 28% of his fixed compensation level as part of a grandfathered pension arrangement. The 2017 pension contributions for Mr. Rider have been for the period as Executive Board member (per May 19, 2017). His annualized 2017 pension contribution was EUR 360,118.

In EUR thousand	2019	2018	2017
Alex Wynaendts	1,302	2,463	2,102
Matt Rider	373	367	224
Total pension contributions	1,675	2,830	2,326

In EUR thousand	2019	2018	2017
Alex Wynaendts	1,243	1,952	1,733
Matt Rider	387	379	175
Total pension IFRS-EU expenses	1,630	2,331	1,908

¹ The increase Mr. Wynaendts' fixed compensation in 2016 and 2018 resulted in a back service liability of EUR 1,361 thousand and EUR 340 thousand respectively. The 2016 back service liability was expensed over the 2016-2019 period.

G. Benefits 2017-2019

Other benefits include non-monetary benefits (e.g. company car), social security contributions by the employer, and tax expenses borne by the Company. The 2017 benefits for Mr.

Rider have been for the period as Executive Board member (per May 19, 2017). His annualized 2017 benefits were EUR 95,400. The IFRS-EU expenses for these benefits are equal to the amounts in the table below.

In EUR thousand	2019	2018	2017
Alex Wynaendts	252	195	165
Matt Rider	77	46	59
Total benefits	329	240	224

H. Total Compensation in recent years

The Total Compensation for Mr. Wynaendts related to 2019 was EUR 3.9 million (2018: EUR 5.0 million; 2017: EUR 4.6 million) and for Mr. Rider EUR 2.1 million (2018: EUR 2.1 million; 2017: EUR 1.3 million). The total remuneration for the members of the Executive Board over 2019 was EUR 6.0 million (2018: EUR 7.1 million; 2017: EUR 6.0 million).

The total expenses recognized under IFRS-EU accounting treatment in the income statement for Mr. Wynaendts related to 2019 were EUR 3.8 million (2018: EUR 4.4 million; 2017: EUR 4.3 million) and for Mr. Rider EUR 2.0 million (2018: EUR 1.9 million; 2017: 1.1 million). Total IFRS-EU expenses for the members of the Executive Board over 2019 were EUR 5.8 million (2018: EUR 6.3 million; 2017: EUR 5.3 million).

All remuneration that has been paid and allocated to the Executive Board members was in accordance with

the applicable Executive Board remuneration policy. There were no deviations from the policy.

In line with the European guidelines on the standardized presentation of the remuneration report, you find the remuneration which was awarded and due to the Executives in 2019 and 2018 in the table below. The Variable Compensation amounts differ from the amounts disclosed in the tables above, as it includes the pay-out of variable compensation in cash and shares in the 2019 and 2018 calendar years. These have been awarded for previous performance years. Also the shares are included at the value when they were paid (i.e. vested), which might differ from the initial grant price. Please note that therefore the parts of Mr. Rider's 2017 variable compensation award, which have been paid in 2018 as 'upfront' and in 2019 as 'deferred', are pro-rated for the period as Executive Board member (per May 19, 2017). The Fixed Compensation and Pension amounts are equal to the amounts which are included in the tables above.

	Fixed		Variable		One-off ³⁾	Pension	Total	Ratio Fixed/ Variable ⁴⁾
	Salary	Benefits	Upfront ¹⁾	Deferred ²⁾				
Alex Wynaendts								
2019	1,314	252	381	557	-	1,302	3,806	75% / 25%
2018	1,295	195	485	532	-	2,463	4,969	80% / 20%
Matt Rider								
2019	931	77	272	91	-	373	1,744	79% / 21%
2018	918	46	211	-	-	367	1,542	86% / 14%

¹⁾ The upfront cash and share payments of the variable compensation of the previous year. The shares are valued at their price at vesting. For example, the upfront cash and shares of the 2018 variable compensation award which were paid in 2019.

²⁾ The deferred cash and share payments of the variable compensation of the years before the previous year. The shares are valued at their price at vesting. For example, the deferred cash and shares of the 2015-2017 variable compensation awards which were paid in 2019.

³⁾ There were no extraordinary (non-recurring) payments or other benefits in 2019 and 2018.

⁴⁾ Fixed is the sum of Salary, Benefits and Pension divided by the Total. Variable is the sum of Upfront, Deferred and One-off divided by the Total.

The table below presents the total compensation that has been paid in the last five calendar years on an annualized basis and the year-on-year annual change in total compensation. Please note that therefore Mr. Rider's 2017 total compensation level has been annualized, as well as the parts of his 2017 variable compensation award, which have been paid in the calendar

years 2018 and 2019 (increasing the total 2018 and 2019 awarded and due level compared to the table above). Additionally the table show the Aegon net income, a proxy of the financial and non-financial business performance, the vesting price of the Aegon shares, the inflation in the Netherlands and the average employee compensation over the same period.

In EUR thousand	Annualized	2015	2016	2017	2018	2019
Alex Wynaendts	Awarded and due	3,702	4,455	4,431	4,969	3,806
	Change	-	20%	(1%)	12%	(23%)
Matt Rider (as of May 19, 2017)	Awarded and due	-	-	1,357	1,670	1,799
	Change	-	-	-	23%	8%
Darryl Button (up to Dec 1, 2016)	Awarded and due	2,047	2,370	-	-	-
	Change	-	16%	-	-	-
Aegon net income	In EUR million	(523)	586	2,361	744	1,528
Aegon business performance ¹⁾	Target = 100%	94%	91%	121%	106%	79%
Vesting price Aegon shares	In EUR	7.243	4.502	4.423	5.848	4.287
Inflation in the Netherlands	Consumer Price Index	0.6%	0.3%	1.4%	1.7%	2.6%
Average employee compensation ²⁾	Total compensation	95	97	102	104	115
	Annual change	-	2%	5%	2%	11%

¹⁾ The weighted average Aegon financial and non-financial business performance, expressed as a percentage on a performance scale with 50% as threshold, 100% as target and 150% as maximum, as used for the allocation of variable compensation in the applicable year.

²⁾ Consistent with the CEO pay ratio calculation, the average employee compensation is based on the audited total IFRS-EU remuneration expenses for all employees divided by the number of employees in scope for these expenses.

2020 Executive Board performance indicators

Looking ahead to the 2020 performance years, the 2020 performance indicators for Mr. Wynaendts and Mr. Rider are presented in the tables below, including the definitions and target levels of each of the performance indicators.

Alex Wynaendts	Weight	Performance indicators	Performance period
Aegon financial	10%	Normalized Capital Generation	2 years (2019-2020) ¹⁾
	10%	Relative TSR	1 year ²⁾
	10%	Fees and Premium Based Revenues	1 year
	10%	Normalized Consistent Value of New Business	1 year
	10%	Return on Equity	1 year
Aegon Non-financial	10%	Relational NPS	1 year
	20%	Strategy Execution	1 year
Personal	10%	Sustainable Organization	1 year
	10%	Handover to successor	1 year
Total	100%		

Matt Rider	Weight	Performance indicators	Performance period
Aegon financial	10%	Normalized Capital Generation	2 years (2019-2020) ¹⁾
	10%	Relative TSR	1 year ²⁾
	10%	Fees and Premium Based Revenues	1 year
	10%	Normalized Consistent Value of New Business	1 year
	10%	Return on Equity	1 year
Aegon Non-financial	10%	Relational NPS	1 year
	10%	Strategy Execution	1 year
Personal	10%	Sustainable Organization	1 year
	10%	Financial Strategy Execution	1 year
	10%	Finance Transformation	1 year
Total	100%		

¹⁾ Will become a 3-year performance period from 2021 onwards. This is phased in with a 2-year performance period (2019-2020) for the 2020 plan year. The 2019-2020 target is equal to the first two years of the 3-year target for the 2019-2021 period which was disclosed last year.

²⁾ Will become a 3-year performance period from 2022 onwards. It is phased in with a 1-year performance period (2020) for the 2020 plan year and a 2-year performance period (2020-2021) for the 2021 plan year.

Scope	Performance indicators	Definition
Aegon financial	Normalized capital generation	The movement in our capital position (on a Solvency II basis) during a period in the normal course of business net of market impacts (e.g. changes to interest rates, credit spreads, equity returns) and one-time effects. Impacts from dividends and capital injections that do not generate capital but do affect Own Funds are excluded from capital generation. The 2-year target is the 2019-2020 target from the 2019-2021 target which was disclosed last year.
	Relative TSR	Aegon position relative to 7 US and 7 non-US peers when looking at Total Shareholder Return for a 1-year performance period. These peers are selected for being the most similar to Aegon based on their index listing, industry classification, 5 year monthly Beta, Market Capitalization and Total Revenue ¹ . The target is to be in the top 5 out of the 15 companies.
	Fees and Premium Based Revenues	Fees and Premium Based Revenues represent the income from Aegon's fee businesses as well as the fees charged and the actual premium collected less the benefit premium, expense loadings and profit margins included in premiums for its life insurance and pensions business. The target is part of the approved 2020 budget.
	Market Consistent Value of New Business	Represents how much value the sale of new insurance policies is generating for the company. This value represents the present value of our best estimate of incoming premiums and outgoing claims, benefits and expenses related to these new sales. The target is part of the approved 2020 budget.
	Return on equity	The return on equity (ROE) measures the rate of return that the owners of common stock of a company receive on their shareholdings. Return on equity signifies how good the company is in generating returns on the investment it received from its shareholders. Aegon's ROE is calculated by dividing underlying earnings after tax and after cost of leverage by average shareholders' equity excluding revaluation reserve. The target is part of the approved 2020 budget.
Aegon non-financial	Relational NPS	The Net Promoter Score (NPS) is a customer loyalty metric based on the percentage of customers that would likely recommend our products and services to friends and family (scores 9 and 10) minus the percentage that would not be likely to do so (scores 0 to 6). The Relational NPS measures the whole scope of the client relationship: 1) the contact experience, 2) the products/prices and 3) our brands. The target is the 2019 result +3.
	Strategy execution	Measures the execution of the three projects which are key for a successful execution of Aegon's strategy. The targets are derived from the approved 2020 project plans.
Alex Wynaendts	Sustainable Organization	Measures a combination of ESG related goals through personal goals on Employee Engagement and Inclusion & Diversity.
	Handover to successor	Contains two personal milestones for a successful handover to the new CEO.
Matt Rider	Sustainable Organization	Measures a combination of ESG related goals through personal goals on Employee Engagement, governance during CEO transition and Control Environment.
	Financial Strategy Execution	Consists of five personal milestones which are key for the strategy execution within the Finance function in 2020.
	Finance Transformation	Measures the progress of three transformation processes within the Finance function.

¹ The US peers are Axa Equitable Holdings, Principal Financial Group, Unum Group, Lincoln National Corp, Prudential Financial, Brighthouse Financial and MetLife. The non-US peers are Athene Holding, NN Group, Swiss Life Holding, Assicurazioni Generali, Baloise Holding, Prudential and ASR Nederland.

6. Proposed 2020 Executive Board Remuneration Policy

A. Policy

A.1 Remuneration Policy

This Executive Board Remuneration Policy (the "Policy") outlines the terms and conditions for the board agreement with and remuneration of the members of the Executive Board of Aegon N.V. (the "Executives"), to be submitted for approval by the shareholders of Aegon N.V. (the "Shareholders") at the Annual General Meeting of Shareholders on May 15, 2020. This Policy replaces the Aegon N.V. Executive Board Remuneration Policy of 2011.

Remuneration of all employees of Aegon N.V. and its direct and indirect subsidiaries ("Aegon") and the Executives is governed by the Aegon Group Global Remuneration Framework (the "Remuneration Framework"). This Policy is aligned with the current version of this Remuneration Framework, which was adopted by the Supervisory Board of Aegon N.V. (the "Supervisory Board") on December 17, 2019.

The Remuneration Committee of the Supervisory Board of Aegon N.V. (the "Remuneration Committee") prepared the changes to this Policy, which were endorsed by the Supervisory Board on March 17, 2020. At the date of approval, the Policy complies with the applicable rules and regulations such as the Dutch

Financial Supervision Act, the Dutch Civil Code, the Dutch Corporate Governance Code and the Solvency II Legal Framework.

A.2 Policy Term

This Policy will take effect retroactively from January 1, 2020.

The Policy remains in place until a new or revised Policy has been adopted by the Shareholders in accordance with the applicable requirements from the Dutch Civil Code. The Supervisory Board will submit a proposal to the Shareholders to adopt a Policy at an Annual Meeting of Shareholders (the "Shareholders' Meeting") at least every four years. The Policy will subsist if Shareholders reject a new or revised Policy at a Shareholders' Meeting, even if this would be four years after the approval of this Policy. Subsequently the Supervisory Board is required to submit a new proposal to the Shareholders to adopt a Policy at the next Shareholders' Meeting (and if rejected again, the next Shareholders' Meeting thereafter, etc.), while this Policy subsists.

A.3 Policy Changes

The Supervisory Board made several material changes to this Policy compared to the previous version in order to comply with the new Dutch Act which implements the Shareholder Rights Directive and to incorporate Shareholder feedback on the previous Executive Board Remuneration Policy of 2011.

The main changes in the Policy are:

- Increased transparency by clarifying how the Policy contributes to Aegon's strategy, long-term interests and sustainability and how it take into account Aegon's identity, purpose, values and Stakeholder environment.
- Increased transparency with additional disclosure on the remuneration elements which can be offered to the Executive.
- The Variable Compensation award will be based on performance indicators from pre-defined performance indicator categories as described in this Policy (see also D.1). The defined performance indicator categories are mandatory to ensure that Stakeholder interests are represented.
- At least 20% of the performance indicators will be measured over a retrospective 3-year performance period. Since 2011 indicators were measured on a 1-year performance period only, in response to regulatory changes at that time. By re-introducing 3-year performance indicators, the Executive's compensation can be further aligned with Aegon's long-term commitments to its Shareholders and other Stakeholders.
- The portion of the Variable Compensation award that will be paid in Aegon N.V. shares ("Shares") is increased from 50% to 66 2/3%, while the Cash portion is decreased from 50% to 33 1/3%. This changes adds further alignment between the Executive, the long-term interests of Aegon and its Shareholders.

- The vesting schedule of the Variable Compensation award is changed into one upfront Cash part of 33 1/3% and one deferred Share part of 66 2/3%. The Shares cliff-vest after 3 years and are subject to an additional holding period of 2 years. Previously the vesting schedule paid the Variable Compensation award for 40% upfront and for 60% deferred in three tranches over a 3-year period, with each upfront and deferred part split into 50:50 in Cash and Shares. All Shares were subject to an additional holding period of 3 years. This change raises the restriction period of the Shares from an average 4.2 years to 5 years, adding to the alignment of the Executive with the long-term interests of Aegon and its Shareholders. This change also simplifies the remuneration structure of the Executive and increased its transparency.

A.4 Policy Considerations

The Policy contributes to Aegon's strategy, long-term interests and sustainability through the remuneration of the Executives in various ways:

- The Policy provides the Supervisory Board with the means to attract, motivate and retain competent and experienced Executives for the long-term. Having motivated, competent and experienced Executives on board is essential for executing Aegon's strategy and safeguarding and promoting its long-term interests and sustainability.
- Our strategy is about building life-time relationships with customers, to create financial security and well-being throughout their lives. To pursue this strategy our focus is on sustainable growth through expanding our customer base, increasing efficiency, capitalizing on the advantages of being a global group and investing more in growth businesses. The leading performance indicator categories for successful execution of this strategy are Capital, Growth and Strategy (see also D.1). To support Aegon's strategy execution, the Policy makes these performance indicator categories mandatory for the Executive.
- Aegon believes it must create long-term value for its Stakeholders and the societies in which it operates. Because of the nature of our business, value created is often financial, but it may also be social, economic or environmental. The Policy directly aligns the Executive's personal long-term interests with that of Aegon and its Shareholders by paying a significant part of the Executive's Variable Compensation (66 2/3%) in Shares which must be held for 5 years after completion of the performance period (see also C.3.4). The pay-out in these restricted Shares is combined with prohibiting the Executive in this Policy from using personal hedging strategies or insurance which could undermine this long-term alignment of interests (see also E.2). Additionally, the Executive is aligned with the long-term interest of Aegon, its Shareholders and other Stakeholders through the use of mandatory performance indicator categories of Earnings, Shareholders and Other Stakeholders (see D.1 for more details).

- Aegon is committed to doing business responsibly and in a sustainable way. Variable Compensation of the Executive can be adjusted downwards (i.e. malus) or clawed-back in case certain performance has not been achieved in a sustainable way, such as but not limited to: significant risk and compliance incidents, insufficient response to such incidents and/or insufficient evidence of embedding of good standards of practice, such as sound and responsible business practices and integrity of products and services delivered. Additionally, the Policy makes the performance indicator category Environmental, Social and Governance (“ESG”) mandatory for the Executive to support this approach of doing business (see D.1 for more details).

The Supervisory Board took Aegon’s identity, purpose and values into account when developing the Policy and its changes:

- Aegon is an international financial services group based in the Netherlands which provides life insurance, pensions and asset management (identity). The main operations are in the US, the Netherlands and the UK, while there is also significant presence in Southern and Eastern Europe, Asia and Latin America. The Policy provides the Supervisory Board with the means to attract, motivate and retain Executives who are competent and experienced to run Aegon in this specific context. As the Executives are based in the Netherlands, the Policy considers the European Insurance peers as well as Dutch General Industry peers to be the relevant external reference for Executive Remuneration. The Policy is also strongly influenced by the European and Dutch rules and regulations on (Executive) remuneration which apply to Aegon.
- Aegon’s purpose is to help people achieve a lifetime of financial security. In order to fulfill this purpose, Aegon has a strategy to which this Policy actively contributes (see above).
- The four Future Fit values ‘Acting as one, Customer centricity, Agility and Accountability’ aim to create a company that is fit for the future: one that meets customers’ expectations, is right for our digitally-connected, data-driven world and can adapt quickly to changing market conditions. These values have most prominently been reflected in the Policy as follows:
 - Acting as one: At least 50% of the Executive’s variable compensation is determined by Aegon’s Group performance, in addition to the Executive’s personal performance, stressing the importance of working together.
 - Customer centricity: The performance indicator categories Growth and Other Stakeholders are mandatory for the Executive in order to focus on (sustainable) sales to customers and Aegon’s relationship with its customers respectively.
 - Agility: Aegon is active in a highly dynamic environment which requires it to respond quickly to changing conditions. Using performance indicator categories rather than specific performance indicators, provide the Executive and Supervisory Board the flexibility to agree to those performance indicators which are most relevant for the execution of the strategy at that moment.

- Accountability: The Policy establishes a clear link between pay and performance by offering the Executive a Variable Compensation opportunity which is based on the results of pre-defined performance indicators, target levels and calculation rules. This is combined with allowing the Supervisory Board to adjust the Variable Compensation award before pay-out (malus) or claw back (part of) the paid award, if there are reasons discovered that would in hindsight justify a lower (or no) Variable Compensation award.

The Supervisory Board took the internal compensation structures and levels into account when selecting the remuneration elements and their levels for this Policy. Aegon has employees worldwide, so the compensation structures and levels vary from country to country and strongly depend on the local market practices. Whilst the majority of the Aegon employees are located outside of Europe, predominantly in the US, the remuneration levels of the Executives are aligned with the internal compensation structures and levels of employees in Europe (the Netherlands specifically) and external European and Dutch market references (see C.1 for more details). The Fixed Compensation level of the Executive is following the internal compensation trend line, taking into account the additional responsibilities of the Executive compared to the Aegon Management Board members and other Senior Managers.

The Executive participates in collective compensation and benefit plans. The target and maximum Variable Compensation levels as well as the Pension Contribution level for the Executive are equal to that of some of the Management Board members in the Netherlands. The Executive is also subject to several collective Aegon employee plan rules, such as the Aegon Group Material Risk Taker Variable Compensation Plan and the Individual Defined Contribution pension plans for Aegon employees in the Netherlands

The Supervisory Board developed draft Policy changes based on the requirements of the new Dutch Act which implemented the Shareholder Rights Directive and shareholder feedback on the previous version. Subsequently the Supervisory Board actively consulted with a number of stakeholders to discuss the draft Policy and its changes in order to assess its public support. The Chairman of the Remuneration Committee, supported by the Investor Relations and the Compensation & Benefits team, consulted Aegon’s main Shareholders including Vereniging Aegon, proxy advisory bodies and Shareholder interest groups on the draft changes. The Chairman of the Remuneration Committee discussed the draft Policy with the European Works Council, while the Chairman of the Supervisory Board discussed it with the Central Works Council in the Netherlands. All feedback was shared with the Supervisory Board. They took note that while not all Stakeholder feedback was aligned, there were no significant conflicts either. The Supervisory Board revised and fine-tuned several parts of the draft Policy for its final version, such as the definitions of the performance indicator categories.

On an ongoing basis, the Supervisory Board and the Executives regularly discuss remuneration related topics with the supervisory authorities, legislators and politicians. Within Aegon constant monitoring of (social) media takes place, including sensitive topics such as remuneration, and such feedback is shared with the Supervisory Board.

The Policy links the development of Share price in two ways to the Executive's remuneration. The Executive's Variable Compensation is partially based on a performance indicator related to Shareholders interests, for example relative Total Shareholder Return which looks at the change Share price (and dividend payments) compared to peer companies (see also D.1). Subsequently, two-thirds of the Variable Compensation award is paid in Shares. These Shares are restricted for a period of 5 years (a 3-year vesting period plus an additional 2-year holding period), which exposes the Executive to Share price movements during this period.

The Remuneration Committee conducted a scenario analysis in relation to these Policy changes to determine the long-term effect on the remuneration structure and level of each Executive and reviewed the historical share price development. The Committee concluded that the impact of the Policy changes were reasonable and reported these findings to the Supervisory Board, who took note of these conclusions when they endorsed the Policy on March 17, 2020.

A.5 Policy Review and Revision

Each year, the Policy will be reviewed by the Remuneration Committee. The Remuneration Committee may suggest revisions to the Policy or a new policy to the Supervisory Board. When endorsed, the Supervisory Board will submit a proposal to the Shareholders to adopt the revised or new policy at a Shareholders' Meeting.

A.6 Temporary Derogation from the Policy

As determined by the Dutch Civil Code, derogation from this Policy is only allowed under exceptional circumstances and for a limited time period under the following conditions:

- The derogation can be from any remuneration element and/or provision in this Policy, as long as it continues to stay:
 - In line with the general spirit of this Policy as described in A.4;
 - In line with the internal and external references as defined in this Policy (see C.1), and;
 - Compliant with the applicable legislation and regulations.
- The Supervisory Board will adopt a derogation which includes at least the following details:
 - An explanation why the derogation is required in order to serve the long-term interest and sustainability of Aegon as a whole or to assure its viability;
 - Which remuneration element or provision is derogated from and how it affects the Executive's compensation levels;

- An assessment which confirms that the Policy allows the proposed derogation and that it complies with the applicable rules and regulations;
- The period of derogation. This period is limited to the moment the Shareholders have adopted a revised or new policy at a Shareholders' Meeting.
- The derogation and the abovementioned Supervisory Board approval details are disclosed in the next Remuneration Report.

In case a future change in rules and regulations conflicts with (a part of) this Policy, the Supervisory Board may deviate from this Policy to ensure compliance with the new rules and regulations. The Supervisory Board will disclose the deviation in the Remuneration Report and submit a proposal to the Shareholders to adopt a revised Policy at a Shareholders' Meeting which complies with the new rules and regulations.

B. Appointment

The Shareholders appoint and reappoint an Executive for a maximum term of four years per (re)appointment in accordance with the Dutch Civil Code and the Articles of Association of Aegon N.V.. The Executive and Aegon N.V. enter into a board agreement for the duration of this term (the "Board Agreement").

C. Remuneration Structure

C.1 Remuneration package and level

The details of the Executive remuneration package are laid down in the Board Agreement. This remuneration package consists of four categories: Fixed Compensation, Variable Compensation, Pension Arrangements and Other Benefits & Arrangements. This Policy defines which remuneration elements, within each of these four categories, the Supervisory Board must or may include in the Executive's Board Agreement. Remuneration elements which are not included in this Policy cannot be offered to Executives.

The Supervisory Board determines and regularly reviews the appropriate selection of remuneration elements and their (maximum) remuneration level for the Executive to ensure the structure remains competitive and provides proper and risk-based incentives in line with Aegon's risk appetite: The Fixed and Variable Compensation elements and their levels are reviewed at least once a year. The Pension Arrangements and Other Benefits & Arrangements and their levels are reviewed at least every four years. In their review the Supervisory Board takes the specific role, responsibilities, experience and expertise of the Executive into account as well as internal and external reference information:

- The internal references are the compensation structure and levels of the members of the Management Board of Aegon N.V. and the annual compensation changes of the general employee population and senior managers within Europe and the Netherlands specifically.

- The external references are compensation trends in the market, economic developments (e.g. inflation) as well as quantitative assessments of the competitiveness against a peer group of insurance companies in Europe and a peer group of companies based in the Netherlands (see the Annex for details of the peer group selection).
- Additionally, the Remuneration Committee conducts a scenario analysis in case of a Policy change to determine the long-term effect on the remuneration structure and level of each Executive and reports their findings to the Supervisory Board.

C.2 Fixed Compensation

Executives receive a gross monthly Cash Base Fee as Fixed Compensation. This monthly fee is one-twelfth of the gross annual Cash Base Fee.

The Supervisory Board may entitle Executives to other forms of Fixed Compensation:

- A gross monthly payment of Shares as Base Fee in accordance with the Aegon Group Plan Rules for the Share Component of the Fixed Salary, which is the collective policy for all eligible Aegon employees. This Plan has been adopted by the Supervisory Board and may be amended from time to time by the Supervisory Board.
- A permanent or temporary gross monthly Fixed Allowance, when the Supervisory Board considers this an appropriate alternative for other remuneration elements. The level of this gross monthly Fixed Allowance cannot fluctuate each month or year based on the Executive's performance. Examples are a temporary Fixed Allowance for additional interim responsibilities or a permanent Fixed Allowance for expatriate arrangements in line with the internal collective International Mobility Policies and market practice.

The total Base Fee is the calculation basis for Variable Compensation and Pension Arrangements.

The Supervisory Board may increase the Base Fee level, as long as it stays in line with the internal and external references as referred to in C.1. This most commonly is an annual correction based on economic or market developments, such as inflation.

As of the effective date of the Policy, the Executives receive:

- Mr. Wynaendts (CEO): An annual gross Cash Base Fee of EUR 1,327,239 and a permanent Fixed Allowance of 2% of the annual gross Cash Base Fee. This Fixed Allowance was permanently added to the remuneration package as alternative for an indexation of the Cash Base, which was at that moment in time the preferred choice.
- Mr. Rider (CFO): An annual gross Cash Base Fee of EUR 940,950.
- Mr. Friese, when appointed to the Executive Board at the Annual General Meeting of Shareholders on May 15, 2020: An annual gross Cash Base Fee of EUR 1,485,000.

C.3 Variable Compensation

C.3.1 Variable Compensation level

The Executive is eligible for Variable Compensation with a target level of 80% of the Executive's annual Base Fee, with a threshold level of 50% and a maximum opportunity of 100% of their annual Base Fee.

C.3.2 Variable Compensation plan rules

The Executive's Variable Compensation is subject to the Aegon Group Material Risk Taker Variable Compensation Plan, which is the collective policy for all Material Risk Takers within Aegon. These plan rules have been adopted by the Supervisory Board and may be amended from time to time by the Supervisory Board (see 3.3.7 for the main rules of this plan).

C.3.3 Variable Compensation allocation

The Variable Compensation award is allocated by the Supervisory Board after the completion of the performance year, based on the results of pre-defined performance indicators, target levels and calculation rules (see D.1 - D.3 for more details), while also taking the behavior and development of the Executive into account. The Supervisory Board can adjust the calculated award downwards before allocation, based on the findings of the mandatory Ex-Ante Malus risk assessment. The Ex-Ante Malus assessment process and criteria are part of the Aegon Group Material Risk Taker Variable Compensation Plan.

Guaranteed Variable Compensation can only be allocated by the Supervisory Board in accordance with the applicable rules of the Dutch Financial Supervision Act. This currently means that the Supervisory Board can only allocate a guaranteed Variable Compensation award within the first year of the appointment of an external candidate as Executive, provided that Aegon's financial position is considered sound by the applicable standards.

C.3.4 Vesting Schedule

Once allocated, 33 1/3% of the Variable Compensation award will be paid for upfront in Cash as soon as reasonably practical after the completed performance year. The remaining 66 2/3% of the award will be deferred in Shares and will cliff-vest after 3-years as soon as possible after the adoption of the Aegon Annual Report in the year of vesting. The number of deferred Shares is calculated in accordance with the Aegon Group Material Risk Taker Variable Compensation Plan (i.e. based on the grant price as defined in this plan).

The Supervisory Board can adjust the deferred portion downwards before vesting, based on the findings of the mandatory Ex-Post Malus risk assessment. The ex-post assessment process and criteria are defined in the Material Risk Taker Variable Compensation Plan.

C.3.5 Shareholding requirement

The Shares that have been allocated to the Executive as Variable Compensation will be held for a total period of 5 years after allocation, before they are released to the Executive. This period consists of a 3-year vesting period and an additional 2-year holding period.

This means the Executive has a shareholding requirement based on time (i.e. 5 years after allocation) and not based on a relative amount compared to the annual Base Fee. For reference, once the Vesting Schedule is fully phased in, at least 135% of the Executive's gross annual Base Fee is structurally held in net Shares, assuming five years of at target Share allocation, the current income tax rate and no or moderate changes in the Annual Base Fee and Share price level.

C.3.6 Claw Back

The Supervisory Board has the authority to re-claim (i.e. claw back) any paid and vested Variable Compensation, in Cash or in Shares, in accordance with Dutch Financial Supervision Act and the Material Risk Taker Variable Compensation Plan, in case of but not limited to a material financial restatement or individual gross misconduct.

C.3.7 Collective Variable Compensation rules

At the date of the Policy approval, the main Variable Compensation Plan Rules for all Material Risk Taker (including the Executives) are:

- The Variable Compensation is conditionally granted and the conditional right to Variable Compensation is subject to the conditions precedent:
 - That, unless stated otherwise or approved by the Aegon, the Executive will remain employed within the Aegon uninterrupted until the Vesting Date of each part of the Variable Compensation;
 - That the performance and development, the behavior and overall contribution are assessed (see also C.3.3.);
 - An Ex-ante and an Ex-post Malus assessment has been carried out (see also C.3.3 also C.3.4).
- The grant price is the volume weighted average Share price on the Euronext stock exchange in Amsterdam, the Netherlands during the period December 15 preceding the plan year and January 15 of the plan year.
- In this context, the employment of the Executive is considered to be continued uninterrupted in the case where the Executive's Board Agreement is terminated due to long-term ill health, disability, (early) retirement, death or reduction of work force or redundancy of the job or position of the Executive, without cause by the Participant, during the period until a vesting date and, consequently, such Executive is considered to be a Good Leaver. In addition, the Supervisory Board may, at its full discretion, declare an Executive to be a Good Leaver.

- In the event of termination of the Board Agreement of a Good Leaver during the plan year, in principle, the Variable Compensation that will be paid-out (including the number of conditionally granted Shares that will Vest) will be pro-rated to reflect the period of active service from the grant date until the termination date, subject to the final approval of the Supervisory board.
- Except in the event an Executive is considered a Good Leaver, the Variable Compensation that is conditionally granted will lapse on the date that the Board Agreement of the Executive is terminated prior to a vesting date.
- No dividend or interest will accrue on any part of the Variable Compensation before vesting.
- Vested Shares, whether or not subject to a holding period (see C.3.5), will accrue regular dividends (if any) as from the vesting date.
- In connection with any actual or potential sale or change of control or a transaction concerning the sale of a subsidiary or business unit within Aegon, the Supervisory Board will take all such actions hereunder as it may determine to be necessary or appropriate to treat the Executive equal and equitably, including without limitation the modification or waiver of applicable performance indicators, and whether to establish or fund another arrangement intended for Variable Compensation.

C.4 Pension Arrangements

The Executive is entitled to Pension contributions that equal 40% of the gross annual Base Fee.

The Executive is enrolled in the applicable local employee pension plan(s). In the Netherlands this is a mandatory Individual Defined Contribution pension plan up to the applicable annual fiscal threshold on eligible earnings and an optional Individual Defined Contribution pension plan for eligible earnings exceeding this threshold.

If the sum of the Defined Contributions to these plans in a calendar year is less than the pledged Pension contribution level of 40% of the gross annual Base Fee, the Executive receives the difference in an annual contribution for Pension purposes in November of that calendar year.

C.5 Other Benefits & Arrangements

C.5.1 Sign-on and buy-out

The Supervisory Board may agree to a sign-on and/or buy-out arrangement in order to attract an external candidate to be appointed to the Executive Board. The arrangement can only be offered on an exceptional basis within the first year of joining the company, when this is in the long-term interest of Aegon and there are circumstances that justify such an arrangement. Examples of these circumstances are but not limited to, competition in recruiting the same candidate (i.e. increased market value), competition from the candidate's employer, differences in compensation and benefits compared to the candidate's previous employer, loss of income by the candidate as a result

of a non-compete period, the candidate losing unvested variable compensation at their previous employer and losing the variable compensation opportunity of the current performance year at the previous employer. When the arrangement replaces forfeited compensation (opportunity), it should be on substantially similar terms (e.g. deferral periods) and at the moment of conversion not more generous compared to the value that was lost.

Any sign-on or buy-out arrangement will be disclosed in the Remuneration Report.

C.5.2 Retention bonus

The Supervisory Board may allocate a retention bonus within the rules of the Dutch Financial Supervision Act. At the time of the Policy approval, these rules require that a retention bonus:

- Is necessary in the context of a structural organization change such as a merger, divestiture, a take-over or a major organizational internal restructuring, and;
- Solely serves to retain the Executive; and
- Together with the allocated Variable Compensation award do not exceed the bonus cap of 100% of the Executive's Fixed Compensation level.

Any retention bonus will be disclosed in the Remuneration Report.

C.5.3 Other benefits

The Supervisory Board may, but not limited to, offer the Executive the following other benefits:

- A Company Car in accordance with the local Company Car policy for employees;
- A driver for the Company Car for business related purposes;
- Reimbursement of the Executive's (fiscal) costs for the private use of the Company Car;
- Third party tax services to ensure compliance with the applicable tax law(s);
- To participate in other collective benefits which are offered to (local) Aegon employees, such as but not limited to the collective disability arrangement, collective health insurance and the Expat Policy.

The Supervisory Board may also apply the collective (local) Aegon employee provisions regarding reimbursement of expenses, sickness-absence and disability to the Executive.

The Supervisory Board will not approve any personal loans, guarantees or the like to Executives, unless in the normal course of business and on terms that collectively apply (local) Aegon employees.

C.5.4 Grandfathered arrangements

The Supervisory Board may respect any arrangements between Aegon and the Executive, if the terms were agreed prior

to the effective date of this Policy or if the terms were agreed before the individual was appointed to the Executive Board.

Mr. Wynaendts has a grandfathered arrangement, which is an additional annual contribution for Pension purposes of 28% of the gross annual Base Fee.

C.5.5 Termination Fee

The Supervisory Board may include a Termination Fee clause in the Executive's Board Agreement for certain scenarios for a Fee up to or equal to the total annual Base Fee.

However, there a Termination Fee is not allowed in case of:

- Early termination of the Executive on the initiative of the Executive, unless due to imputable acts or omissions of Aegon;
- Imputable acts or omissions by the Executive; or
- Failure of Aegon during the appointment term of the Executive.

D. Performance indicators for Variable Compensation

D.1 Performance Indicators

Each year Variable Compensation is allocated based on performance against a set of performance indicators, weights and target levels that have been agreed by the Executive with the Supervisory Board at the start of the performance year. Aegon allocates one Variable Compensation award, which is paid partially in upfront Cash and partially in deferred Shares (see also C.3.4). The performance indicators for this Cash and Share based Variable Compensation award contribute to Aegon's strategy, long-term interests and sustainability, within Aegon's risk tolerance. Therefore the performance indicators are:

- A mix of financial and non-financial performance indicators, with at least 50% weight allocated to the non-financial performance indicators in accordance with article 1:118.3 of the Dutch Financial Supervision Act;
- A mix of unadjusted financial and risk-adjusted financial performance indicators, with a maximum weight for unadjusted financial indicators as defined in the Remuneration Framework. At the time of the Policy approval, this maximum is 45% of the total indicator weight (of financial and non-financial indicators combined);
- A mix of Aegon and personal performance indicators, which can range in weight between 50-80% and 20-50% respectively, depending on the Aegon priorities of the performance year;
- For at least 20% based on a retrospective 3-year performance horizon and for the remainder based on a 1-year performance horizon, and;
- At least containing one indicator from each of the following mandatory performance indicator categories:

Mix	Mandatory Categories	Examples
Aegon financial	Shareholders	Relative Total Shareholder Return
	Capital	Total Capital Generation, Normalized Capital Generation, Solvency II ratio
	Earnings	Return on Equity, Net Underlying Earnings, Underlying Earnings Before Tax, Earnings per Share
	Growth	Market Consistent Value of New Business, Fees and Premium based Revenues, Annualized Revenue on Net Deposits
Aegon non-financial	Stakeholders	Customer: Net Promoter Score, Number of Customers, Number of Products per Customer. Employees: Employee Training, Employee Turnover
Aegon or personal non-financial	ESG	Environment: CO ₂ footprint Social: Employee Engagement, Employee Diversity Governance: Risk Management
	Strategy	Strategy Execution, Business Transformation, Succession Planning, Cultural Transformation

These categories, and therefore the resulting Cash and Share based Variable Compensation awards, are a carefully selected mix of key focus areas, which together contribute to Aegon's strategy, long-term interests and sustainability.

The Executive is incentivized by this Policy to contribute to the Aegon strategy also through the following mandatory performance indicator categories (see also A.4):

- Capital: In order to execute its strategy, Aegon needs strong and stable Capital adequacy levels for its current businesses and for investing in growth businesses. Sustainable capital generation allows Aegon to return capital to its shareholders, including in the form of dividends, and provides it with financial flexibility.
- Growth: Measures the expansion of our customer base expressed in financial results, which is one of the key strategic focus areas.
- Strategy: Contributes most directly to a successful execution of Aegon's strategy by focusing on the execution of the most essential processes and/or projects at that moment (e.g. timing, costs and quality).

To align the Executive to Aegon's long-term interests, the following mandatory performance indicator categories are included in this Policy (see also A.4):

- Shareholders: Focuses specifically on the long-term financial value creation for Shareholders, as one of the key long-term interests of Aegon.
- Earnings: Positive earnings are a prerequisite for Aegon to continue operate and create value for its Stakeholders and societies in the long-term.
- Other Stakeholders: Alongside the Shareholders, Aegon has a range of important Stakeholders, such as customers and employees. For Aegon's customers long-term value creation means offering protection through our products and services, paying claims and benefits, providing returns on savings and investments and helping to build long-term financial security. For Aegon's employees long-term value is created by paying salaries and other social benefits, providing a safe, fulfilling environment in which to work and offering training and career opportunities.

Aegon is committed to doing business responsibly and in a sustainable way, for which the Executive is incentivized in this Policy through the ESG performance indicator category (see also A.4):

- ESG: Ensures a focus on the non-financial long-term value creation for Stakeholders and/or the society, related to Environment, Social and/or Governance (ESG).

Each year the Supervisory Board will disclose the selected performance indicators and weights at the start of the performance year in the Remuneration Report of the previous year. For example, the 2019 Remuneration Report will contain the performance indicators and weights for the 2020 performance year.

D.2 Target Setting

At the start of the performance year, the Supervisory Board approves a minimum (threshold), at-target, and a maximum level for each of the Aegon and personal performance indicators. These levels can be quantitative or qualitative in nature.

Target levels for financial indicators are directly derived from the annual Budget / MTP numbers. Other target levels should be chosen such that they are attainable and realistic, yet at the same time challenging.

The minimum and maximum levels around target are based on:

- The inherent sensitivity of the metric to economic assumptions;
- Prior year experience in reaching threshold /maximum target levels;
- Deviation from current year's plan to prior year's plan and
- Absolute level of the target.

The Supervisory Board is supported in the target setting process by business experts such as Finance, Human Resources and Risk.

D.3 Calculation of Variable Compensation

After completion of the performance year a comparison will be made between the predetermined target levels and the actual, realized performance.

The following scale will be used for the Group and personal performance indicators:

Performance Indicators - Target Level and Performance Measurement Scale

Performance Level	Below threshold / minimum	Between minimum and target	Target	Between target and maximum	Maximum
Realized performance	0%	From 50% to 80%	80%	From 80% to 100%	100%

When measuring the results on qualitative targets, the performance level is first established using the qualitative performance level descriptions and then matching percentages are applied.

Each year Variable Compensation is allocated based on performance against the set of performance indicators, weights and target levels that have been agreed by the Executive with the Supervisory Board. The result for each performance indicator and the related Variable Compensation calculation will be disclosed in the Remuneration Report each year.

E. Other Conditions

E.1 Other conditions

The Supervisory Board may include other conditions which are common in a board agreement. Examples are a confidentiality, a disclosure clause and other collective (non-remuneration) employee policies, such as a Code of Conduct, Insider Dealing Policy and Conflicts of Interest Policy.

E.2 No hedging or insurance to undermine risk alignment

The Executive is not allowed to use personal hedging strategies or insurance that could be used to undermine the risk alignment effects imbedded in their remuneration arrangements.

E.3 Non-compete and non-solicit

The Supervisory Board may include a non-compete and a non-solicit clause in the Executive's Board Agreement.

F. Termination and notice period

F.1 Termination by operation of law

The Executive's appointment is terminated by operation of law after completion of the term for which the Executive was appointed or when Shareholders terminate the appointment of the Executive in accordance with the requirements laid down in the Dutch Civil Code and Articles of Association of Aegon N.V. For these scenarios, the Board Agreement will include a clause on the subsequent termination of the Board Agreement, which may include a notice period clause and a Termination Fee clause.

F.2 Termination by Executive

The Executive may terminate the Board Agreement with a three month notice period during the appointment.

F.3 Termination by the Supervisory Board

The Executive's Board Agreement may be terminated by Aegon, represented by the Supervisory Board, with immediate effect and with no notice being required during the appointment, with no obligation for Aegon to pay damages and with no entitlement for the Executive to a Termination Fee, in the event of:

- Acts or omissions of the Executive which constitute an urgent cause, imputable acts or negligence, a disturbed relationship or seriously culpable actions or neglect of the Executive in fulfilling his duties; or
- Acts or omissions on the side of the Executive which constitutes gross negligent behavior of the Executive, including but not limited to a situation where any Dutch authority supervising the activities of Aegon takes the view that the Executive cannot continue in his position any longer.

In all other cases, Aegon may terminate Executive's Board Agreement with a six month notice period.

G. Verification

All calculations made to determine compensation under this Policy are verified by the independent external auditor and the Supervisory Board's Remuneration Committee.

Annex

One of the sources against which the Supervisory Board assesses the competitiveness of the Executive's remuneration structure and levels are the peer companies.

For this purpose the Supervisory Board selected a primary set of peer group companies according to the following criteria:

- Industry: Insurance, with a preference for Life Insurance;
- Size: Average Market Capitalization, Employees, Revenue and Total Assets;
- Geographic scope: Preferably companies which operate globally;
- Location: Headquarters based in Europe.

Based on these criteria, the current peer group consists of the following 16 European Insurance companies: Ageas, Allianz, Aviva, AXA, CNP Assurances, Assicurazioni Generali, Legal & General, Mapfre, Münchener Re, NN Group, Prudential, RSA Insurance Group, Swiss Life Holding, Swiss Re, Talanx and Zurich Insurance Group. The last update of this peer group was in 2020. Ageas, RSA Insurance Group, Swiss Life Holding and Talanx were added, while Old Mutual and Standard Life Aberdeen were removed. The increased peer group size (from 14 to 16) created a more balanced selection around Aegon's size data (Average Market Capitalization, Employees, Revenue and Total Assets). This peer group partially differs from the European peer group for the Supervisory Board, as a result of excluding the UK companies where non-executive directors typically have different responsibilities compared to their continental European counterparts.

In addition, the Supervisory Board selects a secondary peer group according the following criteria, in order to monitor alignment with the General Industry in the Netherlands:

- Industry: General Industry and listed on the AEX;
- Size: Average Market Capitalization, Employees, Revenue and Total Assets;
- Location: Headquarters based in the Netherlands.

Based on these criteria, the current secondary peer group consists of the following 12 AEX companies: Ahold Delhaize, ING Group, Randstad, Heineken, NN Group, Philips, ABN AMRO, Akzo Nobel, ASML, DSM, KPN and Wolters Kluwer. The last update of this peer group was in 2019, when ING, NN Group, ABN AMRO, DSM and Wolters Kluwer were added, replacing ArcelorMittal, RELX Group, Royal Dutch Shell, Unibail-Rodamco and Unilever. This peer group is equal to the Dutch peer group for the Supervisory Board.

The Supervisory Board will annually review both peer groups and can amend these, within the above-mentioned selection criteria, to ensure they continue to provide a reliable basis for comparison. Any change to the peer group will be disclosed in the Remuneration Report.

Non-financial policies, procedures and outcomes

As a company, Aegon is committed to doing business responsibly. We have internal policies, procedures and frameworks setting out how decisions should be made in areas such as procurement, investment, tax, product development, remuneration and information security. We also have a Code of Conduct, which applies to all Aegon employees worldwide; this Code of Conduct contains basic principles governing our workplace, social responsibility and business conduct. The aim of these policies and procedures is to protect stakeholders by ensuring we are aware in our decision-making of all relevant financial and non-

financial factors. We monitor implementation and take remedial action where necessary to ensure full compliance. We have a dedicated Non-Financial Risk Committee, meeting monthly. The Committee's members are drawn from Aegon's Legal, Compliance and Risk departments, among others.

The table below shows how various environment, social and governance (ESG) risks are incorporated into Aegon's decision-making processes, as well as the measurement of outcomes, policies and metrics.

Area	Policy or guideline	Indicators (used to monitor compliance and/or outcomes)	Performance 2019
Business conduct and ethics	<p>Code of Conduct</p> <ul style="list-style-type: none"> Applies to all employees worldwide. Covers topics such as data protection, environmental responsibility, human rights and money laundering. Also contains provisions for reporting suspected illegal and unethical behavior. Training on the Code is obligatory for all employees. <p>In addition to the Code of Conduct, Aegon has separate global policies addressing prevention of financial crime (fraud, money laundering, economic sanctions, bribery and corruption). Aegon also has a Global Ethics Line, allowing employees and those outside the Company to report suspected infringements of the Code of Conduct in complete confidence.</p>	<ul style="list-style-type: none"> Total number of incidents of fraud involving employees, intermediaries and third parties Significant fines¹ to address cases of mis-selling Percentage of employees completing training on Code of Conduct Completion of internal risk assessment (SIRA, or Systematic Integrity Risk Assessment), and action items to address any gaps in performance Policy attestation for bribery and corruption risk (Conflict of Interest and Gift & Entertainment policies) 	<ul style="list-style-type: none"> Incidents of possible fraud involving employees, intermediaries and third parties increased to 4,541 in 2019. The increase is related to an increase in attempted account takeovers in the US. We are comfortable that the controls implemented in 2018 are effective as very few attempts have been successful. Significant fines amounted to EUR 0.3 million; in the Americas, Transamerica had two fines related to the sale of insurance products. One fine was received following a market conduct examination and another was due to a failure to supervise a distribution partner selling products outside its permissions. 95% of employees completed mandatory Code of Conduct training (down from 97% the previous year). Overall there is satisfactory progress with 69% of the business unit actions completed and an additional 9% of actions progressing within the deadline. Of the Group actions, 65% are completed and 9% are progressing within deadline. Thirteen action items were postponed to 2020. Carried-over actions constitute non-material items that do not pose regulatory or compliance risks, with targeted completion for early 2020. 89% compliance with Aegon bribery and corruption policies (up from 88% the previous year). This figure reflects business units' compliance with specific requirements within our Conflict of Interest and Gift & Entertainment policies; where there is not full compliance, this does not indicate a breach of the policy, but areas where units have requested time to further strengthen internal governance.
Community investment	<p>Charitable Donations Standards</p> <ul style="list-style-type: none"> Covers Aegon's objectives with regard to community investment, including priority areas, selection criteria, governance and approval Also details Aegon's contribution to humanitarian aid 	<ul style="list-style-type: none"> Total donations to charities and other good causes Donations as % of net income Value of employee volunteering hours granted 	<ul style="list-style-type: none"> In 2019, we donated a total of EUR 9.0 million, down from EUR 10.1 million the previous year. Cash donations decreased to EUR 8.1 million; value of volunteering was higher, however, at EUR 0.9 million. Community investment represented 0.6% of net income, down from 1.4% in 2018; the decrease was due mainly to the substantial increase in net income in 2019.

CONTINUATION >

Area	Policy or guideline	Indicators (used to monitor compliance and/or outcomes)	Performance 2019
Data protection	Global Information Security Policy <ul style="list-style-type: none"> • Sets out Company's approach to cyber threats and data protection. • Applies to all Aegon businesses. • Supported by mandatory training in data and cyber security. • Oversight by Global Chief Information Security Officer. 	<ul style="list-style-type: none"> • Maintenance of an internal IT Control Framework, and action items to address gaps in performance are documented and monitored • The internal IT Control Framework is regularly mapped and updated to embed new and updated market standards • Periodic attestation to the internal IT Control Framework, with certain exceptions as applicable by country unit, for among other reasons adequate implementation timelines 	<ul style="list-style-type: none"> • Institutions like Aegon will continue to remain subject to information security attacks. • To Aegon's knowledge, the security attacks and events it experienced in 2019 were not material in nature.
Inclusion and diversity	Statement on Inclusion & Diversity <ul style="list-style-type: none"> • Applies to all Aegon businesses worldwide. • Diversity also included in the Code of Conduct. • Diversity targets in place for Aegon's Supervisory, Executive and Management Boards. 	<ul style="list-style-type: none"> • Total number of women in workforce. • Percentage of women in senior management and at Supervisory, Executive or Management Board level 	<ul style="list-style-type: none"> • In 2019, women made up 49% of Aegon's workforce (unchanged from 49% in the previous year). Women accounted for 29% of the Company's senior management (down from 33% the previous year). For details of our Supervisory, Executive and Management Board members, see pages 41-45.
Environment	Environmental Policy <ul style="list-style-type: none"> • Emphasizes importance of minimizing damage to the environment through the Company's use of energy and other resources. • Commits Aegon, where possible, to using renewable or sustainable sources of energy. 	<ul style="list-style-type: none"> • Total greenhouse gas (GHG) emissions from business operations <hr/> <ul style="list-style-type: none"> • Business travel by air, consumption of gas and electricity <hr/> <ul style="list-style-type: none"> • Consumption of renewable energy (as % of overall energy use) 	<ul style="list-style-type: none"> • Gross carbon dioxide-equivalent (CO₂e) emissions totaled 59,275 metric tons, down 10% compared with 2018. Net CO₂e emissions totaled 17,831, down 7% compared with 2018. The decrease in emissions was due to lower energy consumption and air travel. Accordingly, net emissions per employee were 11% lower at 1.0 metric ton, and net emissions per EUR million were 0.6 metric tons, 8% lower than 2018. <hr/> <ul style="list-style-type: none"> • Business air travel amounted to 89.4 million km (down 17%). <hr/> <ul style="list-style-type: none"> • Electricity consumption was 5.1% lower at 88.9 GWh; gas consumption, decreased 6.7% to 25.4 GWh. • Renewable electricity comprised 97% of our total electricity consumption (down from 99% in 2018). The contribution of renewable energy to our overall energy consumption decreased to 75% (from 77% the previous year).
Human rights	Human Rights Policy <ul style="list-style-type: none"> • Based on the UN Declaration of Human Rights, core standards of the International Labor Organization and the principles of the UN Global Compact. • Commits Aegon to upholding international human rights standards at all businesses where the Company has sufficient management control and, where possible, to ensure partners live up to the same standards. • Consideration for human rights is built into Aegon's Sustainable Procurement and Responsible Investment policies. Other policies cover aspects of human rights; these include the Company's Conflict of Interest, Employee Screening, Anti-money laundering, Anti-fraud and Gift & Entertainment policies. Aegon UK also issues a modern slavery statement (in line with the UK government's 2015 Modern Slavery Act). • Aegon conducts a Human Rights risk assessment every two years and will be conducting this assessment again in 2020. 	<p>Results of Aegon's global human rights risk assessment (this assessment is conducted internally, based on external sources²); Aegon's countries of operation are assessed for civil and political rights, corruption, human development, health coverage, business environment, illicit economy, gender equality, working conditions, rule of law and internet inclusion.</p>	<p>Our 2018 assessment identified four 'Aegon' countries where the operating environment presents a meaningful human rights risk: China, Indonesia, India and Turkey. These risks relate essentially to local political factors. In the US, the Netherlands and the UK, Aegon faces little or no significant human rights risk. In Southern and Eastern Europe, the environment is potentially more difficult, particularly with regard to corruption. In the Americas, risk is concentrated in Brazil and Mexico; again, this relates mainly to corruption. For those countries with highest risk, Aegon has recommended preventative or remedial measures for local management³. These focus on issues where there is greatest risk and where Aegon has most influence (corruption, corporate governance, discrimination in the workplace, working conditions, freedom of association and collective bargaining). The aim, with these measures, is to ensure Aegon's overall human rights risk remains low.</p>

CONTINUATION >

Area	Policy or guideline	Indicators (used to monitor compliance and/or outcomes)	Performance 2019
Investment	<p>Responsible Investment Policy</p> <ul style="list-style-type: none"> Covers all major asset classes Sets out minimum environmental, social and governance (ESG) standards for Aegon's proprietary investments. <p>Under the policy, Aegon excludes investment in some areas, including controversial weapons, tobacco, oil sands and certain coal mining companies.</p> <p>Aegon's approach in this area is overseen by our Responsible Business and Investment Committee ('RBIC'), which is chaired by a Management Board member. It is responsible for monitoring, discussing and advising the Management Board on all subjects and issues deemed relevant for the proper execution of the Responsible Investment (RI) Policy. The Responsible Investment department at AAM works closely with risk management and compliance functions to ensure that RI activities are part of company reporting, compliance and risk management activities where possible. Aegon also has an extensive program of engagement with issuers, focused on ESG issues.</p> <p>Throughout 2019, we refreshed our company-wide Responsible Investment Policy which we put into force as of January 2020. In this policy, next to reiterating all our previous environmental commitments, we further limit our coal-related investments.</p>	<ul style="list-style-type: none"> Total investments in responsible investment solutions Companies engaged with as part of Aegon's approach to responsible investment 	<ul style="list-style-type: none"> Our responsible investment solutions totaled EUR 235 billion. Almost three-quarters of our engagements addressed corporate governance matters, including corruption, remuneration and board structure. Social issues addressed included health & wellbeing (opioids, drug price increases and meat sourcing), human rights (UN Global Compact principles 1 & 2). Climate change (carbon emission reduction) and pollution were the most common themes discussed in engagements concerning the environment.
Occupational health and safety	<p>Global Health & Safety Statement</p> <ul style="list-style-type: none"> Commits Aegon to upholding high health and safety standards in its offices. Aim is to limit work-related injuries and illnesses (including stress) to an absolute minimum. 	<ul style="list-style-type: none"> Number of work-related injuries and illnesses Absentee rate 	<ul style="list-style-type: none"> Work-related injuries and illnesses increased to 184, from 167 the previous year. Our absentee rate decreased to 1.8%, from 2.4% the previous year.
Procurement	<p>Sustainable Procurement Policy</p> <ul style="list-style-type: none"> Sets out business conduct, social and environmental standards for suppliers of goods and other services. <p>Aegon assesses suppliers against these standards, and requires leading suppliers to sign a Supplier Sustainability Declaration.</p>	<ul style="list-style-type: none"> Percentage spend on goods and services covered by a Supplier Sustainability Declaration. 	<ul style="list-style-type: none"> In 2019, 41% of our spend on goods and services was covered by a Supplier Sustainability Declaration, up from 25% in 2018.
Product development	<p>Pricing and Product Development Policy</p> <ul style="list-style-type: none"> Sets out market conduct principles, aimed at ensuring fair treatment of customers and reasonable distribution of returns between customers, intermediaries and shareholders. 	<ul style="list-style-type: none"> Percentage compliance with terms of Pricing and Product Development Policy 	<ul style="list-style-type: none"> 94% compliance with requirements of Pricing & Product Development Policy (up from 90% the previous year).
Remuneration ³	<p>Global Remuneration Framework</p> <ul style="list-style-type: none"> Details Company's approach to pay, based on principle of 'pay for performance'. Variable pay for Aegon executives and other senior management is based on both financial and non-financial performance metrics (including employee engagement and customer loyalty scores). 	<ul style="list-style-type: none"> Percentage of compliance with requirements of the Global Remuneration Framework 	<ul style="list-style-type: none"> 94% compliance with requirements of the Global Remuneration Framework (up from 92% compliance the previous year)⁴.
Tax	<p>Global Tax Policy</p> <ul style="list-style-type: none"> Based on principles of 'fair taxes' and 'tax follows business' (tax is paid at the right amount in the right places, and that decisions are taken for business reasons, not for potential tax advantages). 	<ul style="list-style-type: none"> Total taxes borne by Aegon (US, Netherlands, UK, Asia and Others). Taxes collected on behalf of others 	<ul style="list-style-type: none"> EUR 615 million paid by Aegon in tax down from EUR 620 million in 2018); another EUR 2.45 billion in taxes collected on behalf of others, up from EUR 2.16 billion (increase was due to higher wage and insurance premium taxes).

¹ Includes any fine in excess of EUR 100,000.

² Aegon's assessment is derived essentially from the UN Declaration of Human Rights. The assessment uses external data from (among others) Freedom House, Transparency International, UN Development Program and World Health organization.

³ These measures include effective access to Aegon's Global Ethics Line, raising employees' awareness of human rights risk, ensuring basic healthcare and financial services for employees, suggesting alternative employee representation where there is no independent trade union, ensuring neutrality at times of regime change and enforcing a zero tolerance approach to corruption and discrimination in the workplace.

⁴ The assessment of compliance against the Global Remuneration Framework was limited to our largest business units only (Aegon NL, Aegon UK and Transamerica).

Code of Conduct

Aegon's Code of Conduct embodies the Company's values and helps ensure that all employees act ethically and responsibly and is available at www.aegon.com.

It prescribes a mandatory set of conditions for how Aegon employees should conduct business, comply with all applicable laws and regulations, and exercise sound judgment in reaching ethical business decisions in the long-term interests of our stakeholders.

Aegon's Code of Conduct applies to all directors, officers (regardless of the contractual basis of their employment) and employees of all Aegon companies around the world, including associate companies, joint ventures and other co-operative ventures.

Every Aegon employee has to certify that they have read and understood the Code of Conduct, and agree to abide by it. Employees are also required to follow a mandatory e-learning to help embed the principles of the Code in the way they work.

Reporting misconduct

Employees are often the first people to witness any wrongdoing within the company. It is important that such incidents, which include incidents of internal fraud, are quickly identified and resolved to prevent or reduce any adverse effects, such as financial loss and reputational harm. Aegon is committed to creating and maintaining an open and supportive culture in which employees feel safe to raise concerns or report suspected or actual violations. Employees are encouraged to use the available reporting channels to report concerns of poor practice, inappropriate, unethical, fraudulent or illegal behavior.

It is also possible for employees to report violations outside the normal reporting channels if they wish to remain anonymous, or to elevate the matter to higher levels within the organization. Aegon has contracted an independent third party to provide an anonymous and confidential method to report potential misconduct. Reports can be submitted online or via toll-free telephone lines in all of the countries in which Aegon conducts business (24 hours a day, seven days a week). All reports are investigated and results are reported to the Audit Committee of the Supervisory Board. As part of an open and supportive culture Aegon will protect employees against any form of retaliation who, in good faith and with due care, report concerns of poor practice, inappropriate, unethical or illegal behavior. Employees who believe they have experienced retaliation are encouraged to immediately bring the issue to the attention of the Group Compliance Officer.

Regulation and supervision

Individual regulated Aegon companies are each subject to prudential supervision in their respective home countries. (Re)insurance companies and Aegon Bank, as well as a number of the investment undertakings in the Group, are required to maintain a minimum solvency margin based on local requirements. In addition, some parts of the Group are subject to prudential requirements on a (sub)-consolidated basis, including capital and reporting requirements. Such additional requirements lead, in certain circumstances, to duplicative requirements, such as the simultaneous application of consolidated banking requirements and Solvency II group solvency requirements. Eligible capital to cover solvency requirements includes shareholders' equity, perpetual capital securities, and dated subordinated debt.

Solvency II Introduction

The Solvency II framework imposes prudential requirements at group level as well as on the individual EU insurance and reinsurance companies in the Aegon Group. Insurance supervision is exercised by local supervisors on the individual insurance and reinsurance companies in the Aegon Group, and by the group supervisor at group level. The Dutch Central Bank (DNB) is Aegon's Solvency II group supervisor. Solvency II, which came into effect in EU member states on January 1, 2016, introduced economic, risk-based capital requirements for insurance and reinsurance companies in all EU member states, as well as for groups with insurance and/or reinsurance activities in the EU. The Solvency II approach to prudential supervision can be described as a 'total balance sheet-approach,' and takes material risks to which insurance companies are exposed into account.

The Solvency II framework is structured along three pillars. Pillar 1 comprises quantitative requirements (including technical provisions, valuation of assets and liabilities, solvency requirements and own fund requirements). Pillar 2 requirements include governance and risk management requirements, and requirements for effective supervision (the supervisory review process). Pillar 3 consists of disclosure and supervisory reporting requirements. These three pillars should not only be considered in isolation, but also in terms of how they interact with one another. More complex risks, for instance, require a stronger risk management and governance structure, and a more complex governance structure could lead to higher capital requirements. In addition to these requirements, which apply to individual EU insurers and reinsurers, the Solvency II framework is complemented by requirements that apply at group level (group supervision). This means that a number of requirements from the Solvency II framework that apply to the individual EU insurance and reinsurance undertakings apply, with necessary modifications, at group level. The core focus of EU insurance

supervision is, however, on the supervision of individual EU insurance and reinsurance undertakings.

Pillar 1

Solvency II requires EU insurance and reinsurance companies to determine technical provisions at a value that corresponds with the present exit value of their insurance and reinsurance obligations towards policyholders and other beneficiaries of insurance and reinsurance contracts. The calculation of the technical provisions should be based on market consistent information to the extent to which that information is available.

The value of the technical provisions is equal to the sum of a best estimate and a risk margin. The discount rate at which technical provisions are calculated is an important element in order to determine the technical provisions. This and other parameters to determine the technical provisions may have an important effect on the amount and volatility of the own funds that insurance and reinsurance undertakings are required to maintain. The Solvency II framework contains several measures (in particular the volatility adjustment and matching adjustment) that should reduce volatility of the own funds (the excess of assets over liabilities).

Insurers and reinsurers are required to hold eligible own funds in addition to the assets held to cover the technical provisions in order to ensure that they are able to meet their obligations over the next 12 months with a probability of at least 99.5% (insurance or reinsurance company's balance sheet ability to withstand a 1-in-200-year event). The buffer that insurance and reinsurance companies are required to hold is the Solvency Capital Requirement (SCR). Insurance and reinsurance companies are allowed to: (a) use a standard formula to calculate their SCR (the rules for which are set out in detail in the Solvency II rules and guidelines); (b) use an internal model (for which the approval of the supervisory authorities is required); or (c) use a partial internal model (PIM) (which is a combination of the standard formula and an internal model, and requires approval of the supervisory authorities). An internal model is developed by the insurance or reinsurance company in question, and should better reflect the actual risk profile of the insurance or reinsurance company than the standard formula. Aegon (as a group) uses a PIM.

In addition to the SCR, insurance and reinsurance companies should also calculate a Minimum Capital Requirement (MCR). This represents a lower level of financial security than the SCR, below which the level of eligible own funds held by the insurance or reinsurance company is not allowed to drop. An irreparable breach of the MCR would lead to the withdrawal of an insurance or reinsurance company's license. Insurance and reinsurance companies are required to hold eligible own funds against the SCR and MCR. Own funds capital is divided

into three tiers in accordance with the quality of the own funds. The lower tiers of own funds (tiers 2 and 3) represent a limited part of the eligible own funds, as excess lower tier capital is disregarded for purposes of calculating SCR. Furthermore, the SCR may consist of limited amounts of off-balance sheet own funds ('ancillary own funds' such as letters of credit or guarantees). The MCR must be covered entirely by tier 1 and tier 2 on-balance sheet items ('basic own funds').

For the US insurance entities, Mandatory Control Level RBC authorizes the commissioner of the state of domicile to take actions necessary to place the company under regulatory control (i.e., rehabilitation or liquidation). Authorized Control Level RBC authorizes the commissioner of the state of domicile to take whatever regulatory actions considered necessary to protect the best interest of the policyholders and creditors of the insurer. Aegon considers the Authorized Control Level RBC to be a level similar to the Solvency II MCR.

Company Action Level RBC requires the company to prepare and submit an RBC Plan to the commissioner of the state of domicile. Aegon considers the Company Action Level RBC to be similar to the Solvency II SCR. At 100% Solvency SCR, insurance regulators in the European Union will require management to submit a regulatory recovery plan.

Pillar 2

Under Pillar 2, insurance and reinsurance companies are required to set up and maintain an adequate and effective system of governance, which includes an appropriate internal organization (such as policies and procedures), a risk governance system and an effective assessment of the risk and solvency position of the Company (including a prospective assessment of risks), through the Own Risk and Solvency Assessment (ORSA) process. In general, Solvency II requires insurance and reinsurance companies to maintain an effective system of governance that is proportionate to the nature, scale and complexity of the insurance or reinsurance company. A number of risks that insurance or reinsurance companies face can only be addressed through proper governance structures, rather than quantitative requirements. Management of the insurance or reinsurance company is ultimately responsible for the maintenance of an effective governance system.

Insurance and reinsurance companies are required to have an adequate and transparent organizational structure, with a clear allocation and appropriate segregation of responsibilities. The system of governance should be subject to regular internal review. Solvency II requires insurance and reinsurance companies to have written policies in a number of areas (such as risk management, internal control, internal audit and outsourcing (where appropriate)). A number of key functions are required to be part of the system of governance (compliance, risk management, the actuarial function and internal audit).

The persons responsible for these functions are required to be fit and proper. The Pillar 2 requirements include specific requirements relating to the risk management system. This should cover at least the following areas: underwriting and reserving, asset-liability matching, investments (in particular derivatives and similar commitments), liquidity and concentration risk management, operational risk management, deferred taxes, reinsurance and other risk mitigating techniques. Risk management relating to Solvency II is discussed in further detail in the section Risk management on page 109. As part of the risk management system, insurance and reinsurance undertakings are required to undertake an ORSA, which includes the overall solvency needs of the undertaking, taking into account the risk profile, risk tolerance limits and business strategy, the ongoing compliance with Solvency II capital requirements and rules regarding technical provisions, and the extent to which the risk profile of the undertaking deviates from the assumptions underlying the calculation of the SCR. Solvency II Pillar 2 requirements also include detailed requirements with respect to outsourcing, including intra group outsourcing. The Supervisory Review Process (SRP), which is part of Pillar 2, allows supervisory authorities to supervise the ongoing compliance of insurance and reinsurance undertakings with Solvency II requirements. Possible enforcement measures include: the imposition of capital add-ons (for instance in the event that the risk profile of the undertaking deviates from the SCR calculation or if there are weaknesses in the system of governance); the requirement to submit and execute a recovery plan (in the event of a (potential) breach of the SCR or a short term financing plan (in the event of a (threatening) breach of the MCR); and ultimately, the revocation of an insurance or reinsurance license (a measure that relates to EU-licensed insurance or reinsurance undertakings, and not to the Group as a whole, which does not have a license).

Pillar 3

Solvency II included detailed reporting and disclosure requirements. These requirements include non-public supervisory reporting on a regular (usually tri-annual) basis through regular supervisory reports (RSR), complemented by detailed quantitative reporting templates (QRTs) reported on a quarterly basis, which contain detailed financial data.

In addition, it is a requirement to publish a Solvency and Financial Condition Report (SFCR) on an annual basis.

Group supervision

Solvency II not only imposes regulatory requirements on individual EU insurance and reinsurance undertakings; many of the requirements that apply to the individual insurance and reinsurance undertakings apply, with the necessary modifications, at group level. These requirements include group solvency requirements, group reporting and disclosure requirements, and requirements regarding the system of governance, risk management and internal control framework at group level. The group requirements do not include an MCR. Solvency II does however require groups to maintain eligible own funds,

at least equal to a floor, as further defined in the Solvency II rules (the absolute floor of the group solvency), which can be considered to be an MCR at group level. Although capital requirement entities that are not subject to solo supervision under Solvency II (such as entities in other financial sectors, non-financial entities, and regulated and non-regulated entities in third countries) are not directly subject to Solvency II requirements, these entities may be affected indirectly by the Solvency II group requirements. Entities in other financial sectors are, in most cases, taken into account in the group solvency calculation, applying the capital requirements of that specific financial sector (such as Basel III requirements for banks and certain investment firms) and using the Deduction and Aggregation method for inclusion of these entities in the group calculation (as opposed to the Accounting Consolidation method, which is the default method under Solvency II).

The difference between these two methods primarily affects the extent in which diversification can be taken into account in the group capital requirements. Under the Accounting Consolidation method the group is essentially treated as one economic unit whereas the Deduction Aggregation method requires the group to aggregate entities, rather than fully consolidate entities for the purpose of the group capital requirements.

However, subject to certain conditions, entities in other financial sectors may be included in accordance with the accounting consolidation method. In particular, this may be the case when the group supervisor is satisfied as to the level of integrated management and internal control regarding these entities. Furthermore, the DNB may require groups to deduct any participation from the own funds eligible for the Group Solvency ratio. As required by the DNB, Aegon deducts its participation in Aegon Bank N.V. from Aegon's group solvency. However, Aegon Bank N.V. is subject to Basel III requirements (as implemented in Europe) in the EU Capital Requirements Directive (CRD IV) and EU Capital Requirements Regulation (CRR) on a solo basis and on consolidated basis, whereby consolidation takes place at the level of Aegon Bank N.V. The prudential requirements (including CRD IV and CRR) are described in more detail on page 90.

As referred to in the 'Capital and liquidity management' section, Aegon uses a combination of the two aggregation methods defined within the Solvency II framework to calculate the Group Solvency ratio, the Accounting Consolidation method and the Deduction and Aggregation method. Aegon applies the Accounting Consolidation method as the default method.

However, for insurance entities domiciled outside the EEA for which provisional or full equivalence applies, such as the United States, Aegon uses the Deduction and Aggregation method, with local regulatory requirements to translate these into the Group Solvency position. US insurance and reinsurance entities are included in Aegon's group solvency calculation in accordance

with local US Risk-Based Capital (RBC) requirements. Until June 30, 2017, Aegon used 250% of the local Company Action Level (CAL) RBC as the SCR equivalent. Aegon received approval from the DNB to apply a revised methodology, as of July 1, 2017, that includes lowering the conversion factor from 250% to 150% RBC, and reducing the contribution to own funds by 100% of the local Company Action Level RBC requirement to reflect transferability restrictions. This methodology is subject to annual review, and the change enhances comparability with European peers. The RBC and CAL, as well as the allocation of restricted Tier 1 and Tier 2 capital instruments between the accounting consolidation and deduction and aggregation part of the Group are described in more detail in the 'Capital and Liquidity' section of this Annual Report. Solvency II group supervision is exercised by a combination of the supervisory authorities of the local insurance and reinsurance entities and the group supervisor. An important role in the cooperation between the supervisory authorities in the context of group supervision is played by the college of supervisors, in which the local and group supervisors are represented. This college is chaired by the group supervisor.

Recent developments Solvency II Solvency II 2018 review

On June 18, 2019, the EU Regulation that contains amendments to the Solvency II Delegated Regulation as a result of the 2018 review of the Solvency II framework was published in the Official Journal of the European Union. Most of the amendments have entered into force during the second half of 2019 and some as per January 1, 2020. The purpose of the 2018 review has been to review specific items of the SCR standard formula calculation in the Solvency II Delegated Regulation, in order to achieve a more proportionate and simplified application of the requirements, removal of technical inconsistencies and the removal of unjustified constraints to financing. Amongst others, the amendments relate to tiering requirements for subordinated liabilities as part of own funds and the Loss-Absorbing Capacity of Deferred Taxes (LAC DT), further alignment between the group and solo-approach to the look-through of investment fund participations, amended treatment of certain risk mitigating techniques, for the standard formula calculation, adjustments of the treatment of derivatives, the recognition of local/regional government issued guarantees and the recalibration of non-life premium and reserve-risk standard deviations in certain sub-modules.

Solvency II 2020 review

In addition to the 2018 review of the Solvency II Delegated Regulation, a more fundamental review of the Solvency II Directive has commenced, referred to as the Solvency II 2020 review. On February 10, 2019, the European Commission has requested EIOPA to provide, in the context of the 2020 review, by June 30, 2020, technical advice in the following areas:

- Long-term guarantees (LTG) measures and measures on equity risk;

- Specific methods, assumptions and standard parameters used when calculating the Solvency Capital Requirement standard formula;
- Rules and supervisory authorities' practices on the calculation of the Minimum Capital Requirement;
- The supervision of insurance and reinsurance undertakings in a group; and
- Other items related to the supervision of insurance and reinsurance undertakings.

In November 2019, EIOPA has published a substantial consultation document in the context of the Solvency II 2020 review. Through the consultation process EIOPA expects to obtain input for its technical advice to the European Commission. Earlier in 2019, separate consultations have taken place on disclosure and reporting requirements under Solvency II, insurance guarantee schemes and resolution funding. A formal legislative proposal of the European Commission on the Solvency II 2020 review will be published later in 2020. Due to the fact that the final technical advice has not yet been published and it is not clear to what extent the European Commission will take into account the advice in its proposals, the potential impact of the review is uncertain.

Sustainability and Solvency II

On March 8, 2018, the Commission adopted its Action Plan on Sustainable Finance in which it announced several actions to incorporate sustainable finance in the heart of the financial system. Further to this Action Plan, the Commission adopted, on May 24, 2018, a package of legislative measures on sustainable finance. The Commission has requested technical advice from (inter alia) EIOPA and ESMA on the delegated acts that would supplement this package amending, or, where necessary, introducing level 2 measures of, inter alia, the Solvency II Directive with the aim of incorporating sustainability risks, i.e. environmental, social and governance risks by financial market participants subject to those rules. In that context, on the request of the European Commission, EIOPA has provided, on September 30, 2019, an opinion to the European Commission on Solvency II and sustainability. The European Commission had requested EIOPA's views on the integration of sustainability, in particular climate-related developments, into the Solvency II framework for the valuation of assets and liabilities, investment and underwriting practices, the calibration of market and natural catastrophe risks and the use of internal models, i.e. focusing on Pillar 1 requirements. The European Commission will take the EIOPA opinion into account in the Solvency II 2020 review. In addition, EIOPA has provided, on April 30, 2019, the European Commission with technical advice on the integration of sustainability risks and factors in the delegated acts under Solvency II and IDD. This advice focused primarily on Pillar 2 requirements in Solvency II and IDD.

Financial conglomerate supervision

Since October 2009, Aegon has been subject to supplemental group supervision by the DNB in accordance with

the requirements of the EU's Financial Conglomerate Directive. Supplemental group supervision pursuant to the Financial Conglomerate Directive includes supplementary capital adequacy requirements for financial conglomerates and supplementary supervision on risk concentrations and intra-group transactions in the financial conglomerate. Due to the introduction of the Solvency II group supervisory requirements – which include similar, and to a large extent overlapping, requirements to those covered by Financial Conglomerates Directive – the relevance of supplemental group supervision pursuant to the Financial Conglomerates Directive has become significantly less.

Recovery and resolution and systemic risk G-SII designation

On November 3, 2015, Aegon was designated by the Financial Stability Board (FSB) as a Global Systemically Important Insurer (G-SII), based on an assessment methodology developed by the International Association of Insurance Supervisors (IAIS). Up until 2019, the FSB reviewed the G-SII designation annually. However, the FSB, in consultation with the IAIS and national authorities, decided not to publish a new list of G-SIIs for 2017 or 2018. In November 2019, in recognition of the fact that the Holistic Framework (see below), consistently implemented, provides an enhanced approach to assessing and mitigating systemic risk in the global insurance sector, the FSB decided to suspend the identification of global systemically important insurers (G-SIIs). In November 2022, the FSB will, based on the initial years of implementation of the Holistic Framework, review the need to either discontinue or re-establish an annual identification of G-SIIs.

Due to its G-SII status, Aegon has been subject to an additional layer of direct supervision at group level. In accordance with these requirements, Aegon submitted a liquidity risk management plan, a systemic risk management plan, and an ex ante recovery plan to DNB and to the G-SII crisis management group (CMG) that was established. Aegon has updated these plans on an annual basis. In addition, the Aegon Group's Resolution Authority (the Dutch Central Bank) was made responsible for the development of Aegon's resolution plan.

Holistic Framework for the assessment and mitigation of systemic risk in the insurance sector and ComFrame

In November 2019, the IAIS adopted the Holistic Framework for the assessment and mitigation of systemic risk in the insurance sector. Some of the provisions of the Holistic Framework are included in the IAIS Insurance Core Principles (that apply to all insurers), while others are included in ComFrame (the Common Framework for the Supervision of Internationally Active Insurance Groups, or IAIGs).

The Holistic Framework consists of an enhanced set of supervisory policy measures and powers of intervention, an annual IAIS global monitoring exercise and collective discussion on the outcomes and appropriate supervisory responses, and an assessment of consistent implementation

of supervisory measures. ComFrame establishes supervisory standards and guidance focusing on the effective group-wide supervision of IAIGs. ComFrame is a comprehensive and outcome-focused framework that provides supervisory minimum requirements tailored to the international activity and size of IAIGs. ComFrame builds on the Insurance Core Principles that are applicable to the supervision of all insurers.

If the FSB would, as referred to above, discontinue the annual identification of G-SIIs after the review of the Holistic Framework in November 2022 or, alternatively, Aegon would not be identified as a G-SII, Aegon would still be subject to ComFrame and ICS, to the extent these would be implemented in local legislation.

Recovery and resolution

Dutch Act on Recovery & Resolution for Insurers

On January 1, 2019, the Dutch Act on Recovery & Resolution for Insurers (R&R Act) came into force in the Netherlands, replacing the previously applicable intervention regime for insurance companies in the Netherlands faced with financial difficulties. The R&R Act has introduced a revised regulatory framework for recovery and resolution of Dutch insurance and reinsurance companies and provides for a range of measures to be taken by these companies and the Dutch Central Bank ex ante, in order for these insurance and reinsurance companies to be prepared for recovery in circumstances where it no longer meets the required solvency requirements and for orderly resolution, in circumstances where it is failing or is likely to fail. The R&R Act introduces a requirement for Dutch insurance companies and reinsurance companies, such as the Dutch insurance and reinsurance subsidiaries in the Aegon Group, to draw up and maintain an ex ante recovery plan, that should allow these entities, when faced with financial problems, to take measures to recover their solvency ratio and continue to operate in going concern. In addition, the Dutch Central Bank, in its capacity as national resolution authority in gone concern circumstances (as opposed to its role as supervisory authority in going concern) is required to draw up and maintain a resolution plan, which should provide for the orderly resolution of the Dutch insurance and reinsurance entities in the group, or the group, to avoid unnecessary damage to policyholders and beneficiaries and to provide an alternative to ordinary bankruptcy proceedings. The R&R Act allows DNB to require a Dutch insurance or reinsurance company or a group in certain circumstances, to remove, ex ante, impediments to effective resolution of a Dutch insurance or reinsurance undertaking, such as the revision of financing arrangements, the reduction of exposures, the transfer of assets, the termination or limitation of business activities, or the prohibition to start certain business activities, change the legal or operational structure of the group, or securing certain critical business lines.

The R&R Act allows DNB to intervene in situations where a Dutch insurer or reinsurer, where it is failing or is likely to fail, as defined in the R&R Act. The powers under the R&R Act may

also extend to the level of the Group and to entities, other than in insurance or reinsurance entities in the Netherlands, that are part of the group, such as Aegon N.V.. The powers include the transfer of the undertaking to a third party, the transfer to a bridge institution and the transfer of certain specific assets and/or liabilities. In addition, a bail-in tool is introduced, that allows for the write-off or conversion of rights of creditors, including policyholders and beneficiaries, while respecting the principle that they should not be worse off through resolution, including the application of the bail-in tool, than they would in ordinary insolvency proceedings.

As a result of the recent adoption of the IAIS Holistic Framework, the developments with respect to the identification of G-SIIs by the FSB and the introduction of the Dutch Act on Recovery & Resolution of Insurers, Aegon will continue to update its ex ante group recovery plan (pursuant to the Dutch Act on Recovery & Resolution of Insurers) and the liquidity risk management plan (which is not required under the Dutch Act on Recovery & Resolution of Insurers but is expected under the Holistic Framework). Similarly, the CMG, established as part of the G-SII requirements, will remain in place. In addition, the Aegon Group's Resolution Authority (the Dutch Central Bank) remains responsible for the development of Aegon's resolution plan, pursuant to the Dutch Act on Recovery & Resolution of Insurers and as expected for IAIGs under the Holistic Framework.

Bank Recovery and Resolution Directive

Furthermore, to parts of the Aegon Group, in particular Aegon Bank N.V., the framework of the EU Directive on the recovery and resolution of credit institutions and investments firms (the "Bank Recovery and Resolution Directive") is applicable. The Bank Recovery and Resolution Directive also contains provisions that, in certain specific circumstances, where both Aegon Bank N.V. and Aegon N.V. fail or are likely to fail, could be applied to mixed financial holding companies such as Aegon N.V., including the right of bail-in of creditors.

Intervention by the Dutch Minister of Finance

Lastly, under Part 6 of the Dutch Financial Supervision Act, the Dutch Minister of Finance may intervene immediately, when the stability of the financial system is threatened by the situation of a financial institution, in which case legal or statutory provisions, applicable to the financial institution, might be surpassed. The intervention measures available to the Minister of Finance, include in particular the right to expropriate assets of the financial institution, as well as securities and/or other financial instruments issued by or with the cooperation of the financial instruments. The exercise of this power may significantly impact the rights of the owners or holders of these assets, securities and/or financial instruments.

Insurance Capital Standards

The IAIS is developing a risk based global Insurance Capital Standard (ICS). The ICS is designed to be appropriate for IAIGs,

covered by ComFrame. IAIS standards are not self-executing and must be adopted by local jurisdictions to be formally applicable.

The IAIS' ultimate goal, by a date yet to be determined, is a single ICS (referred to by the IAIS as group-wide prescribed capital requirement (PCR)) and that includes a common methodology by which one ICS achieves comparable (i.e. substantially the same) outcomes across jurisdictions. Ongoing work is intended to lead to improved convergence over time on the key elements of the ICS towards the ultimate goal. According to the IAIS, not prejudging the substance, the key elements include valuation, capital resources and capital requirements. In November 2019, the IAIS adopted ICS Version 2.0, which is being used during a five-year monitoring period for confidential reporting to group-wide supervisors and discussion in supervisory colleges.

The ICS will not be used as a group-wide Prescribed Capital Requirement (PCR) during the monitoring period. The purpose of the five-year monitoring period is to monitor the performance of the ICS over a period of time, and not the capital adequacy of IAIGs. Therefore, ICS results will not be used as a basis to trigger supervisory action and IAIGs are not expected to manage their business to the ICS. During the monitoring period, results based on ICS version 2.0, should we voluntarily decide to prepare these, might be privately disclosed to our group supervisor. From 2025 onwards, it is envisaged that local jurisdictions will formally enact the ICS, which is described as a minimum standard.

In previous years, Aegon has participated in the ICS field testing to understand the potential consequences for Aegon of the ICS, both from capital and operational perspectives.

Capital and liquidity management

Guiding principles

The management of capital and liquidity is of vital importance for Aegon Group, for its customers, investors in Aegon securities and for Aegon's other stakeholders. In line with its risk tolerance, the goal of Aegon's capital and liquidity management is to promote strong and stable capital adequacy levels for its businesses, in addition to maintaining adequate liquidity to ensure that the Company is able to meet its obligations.

Aegon follows a number of guiding principles in terms of capital and liquidity management:

- Promoting strong capital adequacy in Aegon's businesses and operating units;
- Managing and allocating capital efficiently in support of the strategy and in line with its risk tolerance;
- Maintaining an efficient capital structure, with an emphasis on optimizing Aegon's cost of capital;
- Maintaining adequate liquidity in both the operating units and the Holding to ensure that the Company is able to meet its obligations by enforcing stringent liquidity risk policies; and
- Maintaining continued access to international capital markets on competitive terms.

Aegon believes that the combination of these guiding principles strengthens the Company's ability to withstand adverse market conditions, enhances its financial flexibility, and serves both the short-term and the long-term interests of the Company, its customers and other stakeholders.

The management and monitoring of capital and liquidity is firmly embedded in Aegon's ERM framework, and is in line with Aegon's risk tolerance. Aegon's risk tolerance focuses on capital generation, solvency and liquidity, risk balance and responsible business with effective controls. Its core aim is to assist management in carrying out Aegon's strategy within the Group's capital and liquidity resources.

Management of capital

The Company's overall capital management strategy is based on maintaining adequate Own Funds levels, capital quality and the use of leverage.

Capital adequacy

Aegon's goal for both its operating units and for the Group as a whole is to maintain a strong financial position and to be able to sustain losses resulting from adverse business and market conditions. The Own Funds levels of Aegon and its operating units is managed in accordance with the most stringent of local regulatory requirements, rating agency requirements and self-imposed criteria.

Regulatory capital requirements

The Solvency II regulatory framework determines the regulatory capital requirements for EU-domiciled insurance and reinsurance entities. In Aegon's Non-EEA (European Economic Area) regions, (re)insurance entities domiciled in third-countries deemed (provisionally) equivalent (US life insurance entities, Bermuda, Japan, Mexico and Brazil), the capital requirement is based on local capital requirements.

For more information about recent developments on Solvency II, please refer to section 'Regulation and supervision'.

Adequate capitalization

To calculate its Group Solvency Ratio, Aegon applies a combination of the Group consolidation methods available under Solvency II: the Accounting Consolidation (AC) and Deduction & Aggregation (D&A) based methods. Solvency II capital requirements are mainly used for the EEA-based insurance and reinsurance entities, applying the Accounting Consolidation method. Local requirements are used for insurance and reinsurance entities in (provisionally) equivalent third-country jurisdictions. Aegon Bank is excluded from the Group Solvency ratio, as required by the Group Solvency II supervisor, the DNB.

As at December 31, 2019, Aegon's estimated capital position was:

	December 31, 2019 ^{1), 2)}	December 31, 2018 ²⁾
Group own funds	18,470	17,602
Group SCR	9,173	8,349
Group Solvency II ratio	201%	211%

¹⁾ The Solvency II ratios are estimates and subject to supervisory review.

²⁾ Aegon Bank is not included in the Group Solvency II ratio.

Aegon Group Own Funds amounted to EUR 18,470 million on December 31, 2019 (2018: EUR 17,602 million). The increase of EUR 868 million in Own Funds since December 31, 2018, is mostly driven by the normalized capital generation, positive return from equity markets, and the impact of declining interest rates on assets and hedges. This increase was partly offset by the negative market impact primarily from the EIOPA VA narrowing from 24 bps to 7 bps, the negative impact from model and framework changes, and the payment of external dividends. The lowering of the UFR from 4.05% to 3.90% led to a decrease in Own Funds as well.

Aegon's Group Partial Internal Model (PIM) Solvency Capital Requirement (SCR) amounted to EUR 9,173 million on December 31, 2019 (2018: EUR 8,349 million). The SCR increased by EUR 824 million mainly due to the negative market movements driven by higher equity markets and lower interest rates, the treatment of illiquid assets. This was partly offset by the new longevity reinsurance contract of Aegon the Netherlands with Canada Life Reinsurance.

As a result of the above changes in Own Funds and PIM SCR, the Group Solvency II ratio declined by 10%-points to 201% in 2019. The capitalization levels of the most relevant country units are as follows:

	Capitalization December 31, 2019 ^{1), 2), 3)}	Capitalization December 31, 2018 ²⁾
Aegon USA (Life entities) (RBC CAL)	470%	465%
Aegon the Netherlands (Solvency II ratio)	171%	181%
Aegon United Kingdom (Solvency II ratio)	157%	184%

¹⁾ The Solvency II ratios are estimates, are not final until filed with the regulator and are subject to supervisory review.

²⁾ Refer to section 'Internal capital management framework' for the bottom-end of Aegon's capitalization targets.

³⁾ Note that as per 1H 2019, Aegon Bank is not included in the Aegon the Netherlands SII ratio.

Aegon Americas

In the United States, regulation of the insurance business is principally undertaken at the state level. State insurance regulators and the National Association of Insurance Commissioners have adopted Risk-Based Capital (RBC) requirements for insurance companies. RBC calculations measure the ratio of a company's statutory capital, which is measured on a prudent regulatory accounting basis, to a minimum capital amount determined by the risk-based capital formula. The RBC formula measures exposures to investment risk, insurance risk, market risk, and general business risk. The formula, as used for calculating the solvency ratio, applies a covariance diversification offset to determine the appropriate Risk-Based Capital. Life reinsurance is treated as life insurance. The most pertinent RBC measure is the Company Action Level (CAL) risk-based capital requirement. This is the regulatory intervention level below which a company must submit a remediation plan to its state regulators. The domiciliary state regulator has the authority to require additional capital depending on the type, volume and nature of the business being conducted. The domiciliary state regulator also has the ability to require corrective actions if a company is deemed by the commissioner to pose a Hazardous Financial Condition. The CAL is set at 200% of the Authorized Control Level (ACL), the level at which regulators are permitted to seize control of a company. At the end of 2019, the combined risk-based capital ratio of Aegon's life insurance subsidiaries in the United States was estimated to be 470% (2018: 465%) of the CAL risk-based capital requirement. The increase is mainly due to positive capital generation as a result of positive earnings on inforce partly offset by negative impact from higher new business strain than last year and remittances paid from US regulated companies. Under the Solvency II requirements, the activities of Aegon Americas life insurance and reinsurance companies have been consolidated into the Aegon Group

Solvency II figures through Deduction & Aggregation using available and required capital as per the local capital regimes. US insurance and reinsurance entities are included in Aegon's group solvency calculation in accordance with local US (RBC) requirements of the top regulated entity. Aegon uses 150% of the local RBC Company Action Level as the Solvency II SCR equivalent for including the US life insurance and reinsurance entities into the Group solvency calculation. In addition, reducing own funds by a 100% RBC Company Action Level requirement to reflect transferability restrictions. The US conversion methodology is subject to annual review and approval by the DNB. The non-regulated US entities and the US holding companies are included in the Aegon Group Solvency II results through application of the Accounting Consolidation method under Solvency II, using Solvency II valuation and capital requirement calculations for these entities. The contribution of the Aegon Americas entities to the Group Solvency II position on December 31, 2019, is estimated to be 217% (2018: 210%). This ratio includes the US Life insurance and reinsurance entities as well as non-regulated US entities and US holding companies. The Americas ratio does not include a diversification benefit between the US life companies and there is no diversification benefit between US life insurance and reinsurance entities and other group entities.

Aegon the Netherlands

Aegon the Netherlands uses a PIM to calculate the solvency position of its insurance activities under Solvency II. The calculation includes the use of the volatility adjustment (VA), but does not include the use of any transitional measures. The initial internal model of Aegon the Netherlands was approved on November 26, 2015, by the supervisor, the DNB, as part of the Internal Model Application Process. The combined Solvency

II position of the activities of Aegon the Netherlands, excluding Aegon Bank, on December 31, 2019, is estimated to be 171% (2018: 189%). The decrease of the Solvency II position is mainly driven by negative market impacts primarily from the EIOPA VA narrowing from 24bps to 7bps, the decrease of LAC DT and a decline of interest rates. Furthermore, the lowering of the UFR from 4.05% to 3.90% led to a decrease in Own Funds, and a change in the treatment of illiquid assets increased SCR as well. These negative impacts are partly offset by normalized capital generation and management actions including the longevity reinsurance transaction with Canada Life Reinsurance. As at December 31, 2019, the LAC DT factor decreased from 75% to 65%, mainly as a consequence of lower interest rates, leading to a negative impact on the Solvency II ratio. The Solvency II capital ratio of the Group and Aegon the Netherlands does not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon in the Netherlands in the past, as the potential liability cannot be reliably quantified at this point.

Aegon UK

Aegon UK uses a PIM to calculate the solvency position of its insurance activities under Solvency II. The calculation includes the use of both the matching adjustment and volatility

adjustment (for the with-profits fund). The initial internal model of Aegon UK was approved on December 14, 2015 by the PRA as part of the Internal Model Application Process. The combined Solvency II position of the activities of Aegon in the UK on December 31, 2019, is estimated to be 157% (2018: 184%). The decrease over 2019 is mainly driven by remittances paid to Aegon N.V.. This is partly offset by a negative impact from assumption updates, mainly due to expense assumptions, market impacts, and new business strain.

Sensitivities

Aegon calculates sensitivities of its Solvency II ratios as part of its risk management framework. The following table provides an overview of the sensitivities (downward and upward) to certain parameters and their estimated impact on the Solvency II ratio.

Please note that the sensitivities listed in the disclosures below represent sensitivities to Aegon's position at the balance sheet date for the respective years. The sensitivities reflect single shocks where other elements remain unchanged. Real world market impacts (e.g. lower interest rates and declining equity markets) may happen simultaneously which can lead to more severe combined impacts and may not be equal to the sum of the individual sensitivities presented in the disclosure.

	Scenario	Group		US ²		NL		UK	
		December 31, 2019	December 31, 2018						
Equity markets	(25%)	(12%)	(11%)	(27%)	(23%)	(7%)	(5%)	(4%)	(2%)
Equity markets	25%	12%	15%	33%	34%	2%	2%	0%	(7%)
Interest rates	-50bps	(4%)	(6%)	(13%)	(14%)	2%	(1%)	(2%)	(4%)
Interest rates	+50bps	4%	3%	13%	(0%)	(2%)	3%	2%	2%
Govt spreads	-50bps	7%	n.a.	0%	n.a.	16%	n.a.	5%	n.a.
Govt spreads	+50bps	(3%)	n.a.	0%	n.a.	(5%)	n.a.	(4%)	n.a.
Non-govt spreads	-50bps	(8%)	(5%)	(3%)	(4%)	(15%)	(7%)	(10%)	(10%)
Non-govt spreads	+50bps	6%	5%	4%	2%	14%	7%	5%	8%
US Credit Defaults	~200bps	(19%)	(19%)	(37%)	(35%)	n.a.	n.a.	n.a.	n.a.
UFR	-15bps	(2%)	(1%)	n.a.	n.a.	(5%)	(3%)	n.a.	n.a.
Longevity	+5%	(4%)	(6%)	(3%)	(4%)	(8%)	(9%)	(3%)	(3%)
Mortgage spreads	-50bps	6%	n.a.	n.a.	n.a.	14%	n.a.	n.a.	n.a.
Mortgage spreads	+50bps	(5%)	n.a.	n.a.	n.a.	(14%)	n.a.	n.a.	n.a.
EIOPA VA	-5bps	(3%)	n.a.	n.a.	n.a.	(9%)	n.a.	n.a.	n.a.
EIOPA VA	+5bps	3%	n.a.	n.a.	n.a.	9%	n.a.	n.a.	n.a.

¹ Government spreads +/- 50bps, mortgage spreads +/- 50bps and EIOPA VA +/- 5bps sensitivities were introduced in 2019 and therefore they are not available (n.a.) on December 31, 2018. These new sensitivities are introduced as these are more relevant than the previous sensitivities, refer to note 2.

² The sensitivities applied on US includes US regulated (life) companies, non-regulated holding companies and the employee pension plan.

Equity Sensitivities

The Group is exposed to the risk of a fall in equity markets driven by adverse impacts on the solvency ratio in Aegon Americas, Aegon the Netherlands and Aegon UK, with Aegon Americas being the largest contributor.

In Aegon Americas, equity sensitivities are primarily driven by the Variable Annuity business, where hedging programs need to consider a balance between targeting stable earnings and stable capital ratios. Under the new Variable Annuity

framework which Aegon Americas adopted in 2019, sensitivities are mainly driven by the change in reserves, while required capital is fairly stable. In declining equity markets, Own Funds decrease due to higher setup of reserves for the Variable Annuity product, partly offset by payoffs on equity hedge programs. Furthermore, declining equity markets results in a reduction to the assets backing employee pension plan liabilities and a decrease in private equity and hedge fund investments. The asymmetry between the up and down shock is largely driven by the equity macro hedge program in Aegon

Americas. The macro hedge program delivers payoffs only under extreme equity down scenarios to limit the adverse impact on the Aggregated RBC ratio.

For Aegon the Netherlands, losses in the down shock come from the private equity investments in the general account and the mismatch between the guarantee provision and associated hedge assets.

For Aegon UK, under an equity down scenario, the reduction in Own Funds is offset by the reduction in SCR with the main exposures coming from the Staff Pension scheme and the unitized business.

Interest Rates Sensitivities

The Group is exposed to a fall in interest rates driven by higher SCR and lower Own Funds. The higher SCR is driven by Aegon the Netherlands and Aegon UK, whereas the reduction in Own Funds is driven by Aegon Americas.

In Aegon Americas, a decrease in interest rates results in a higher setup of reserves for Variable Annuity and Universal Life products, partly offset by payoffs from interest rate hedge programs. Own funds decrease further from an increase in employee pension plan liabilities relative to the invested assets. The opposite occurs in rising interest rate scenarios.

Aegon the Netherlands is over-hedged on a Solvency II Own Funds basis leading to Own Funds losses when rates go up and Own Funds gains when rates go down. This results in Aegon the Netherlands' solvency ratio being exposed to rising interest rate scenario.

For Aegon UK, the main exposure to interest rates arises from the swaps in the shareholders' funds which reflects a gain if rates go down, partly offset by the higher present value of expenses on the fee based business. The gain in Own Funds under a down interest rate scenario is offset by an increase in the SCR.

Spread Sensitivities

The Group is exposed to non-government spreads narrowing, government spreads widening and mortgage spreads widening. Exposure to non-government spreads narrowing is contributed by Aegon Americas, Aegon the Netherlands and Aegon UK driven

by the impact on Own Funds. For Aegon Americas, the impact arises from a lower discount rate for valuing the employee pension plan liabilities. For Aegon the Netherlands, the impact arises from lower Volatility Adjustment increasing the liabilities, partly offset by the gain on the mortgage portfolio. For Aegon UK, non-government spreads narrowing results in a lower IAS 19 curve and hence higher pension liabilities.

Exposure to government spreads sensitivities is contributed by Aegon the Netherlands and Aegon UK both of which are exposed to spreads widening due to the reduction in value of their fixed income assets.

Group is exposed to mortgage spreads widening, driven by Aegon the Netherlands, which has an adverse impact on the asset valuation. Aegon Americas credit defaults sensitivity reflects the impact of credit defaults and rating migrations on assets held in the general account portfolio. Under this sensitivity, the credit impairments reduce the value of credit exposures and increase the amount of required capital. The increase in required capital is driven by the downward ratings migration of credit instruments, partly offset by a decrease in exposure due to the impaired value of bonds under the scenario.

Longevity Sensitivities

The Group is exposed to higher longevity driven by Aegon Americas, Aegon the Netherlands and Aegon UK due to the higher liability valuation since longevity is only partially hedged. Higher longevity also increases the SCR requirements held by these units. Aegon the Netherlands' sensitivity to longevity reduced marginally over the year due to two offsetting impacts – reduction in sensitivity due to the execution of the longevity reinsurance transaction with Canada Life Reinsurance, partly offset by higher longevity sensitivity due to the fall in interest rates over the year.

Rating agency ratings

Aegon's objective is to maintain very strong financial strength ratings in its main operating units, and this plays an important role in determining the Company's overall capital management strategy. Aegon maintains strong financial strength ratings from leading international rating agencies for its main operating units, and a strong credit rating for Aegon N.V..

December 31, 2019	Aegon N.V.	Aegon USA	Aegon the Netherlands	Aegon UK
S&P Global				
Financial strength	-	AA ⁻¹⁾	AA ⁻¹⁾	A+
Long-term issuer	A-	-	-	-
Senior debt	A-	-	-	-
Subordinated debt	BBB	-	-	-
Commercial paper	A-2	-	-	-
Moody's Investors Service				
Financial strength	-	A1	-	-
Long-term issuer	A3	-	-	-
Senior debt	A3	-	-	-
Subordinated debt	Baa1	-	-	-
Commercial paper	P-2	-	-	-
Fitch Ratings				
Financial strength	-	A+	-	A+
Long-term issuer	A-	-	-	-
Senior debt	BBB+	-	-	-
Subordinated debt	BBB-	-	-	-
Commercial paper	F2	-	-	-
A.M. Best				
Financial strength	-	A	-	-

¹ On February 21, 2020 S&P Global lowered the financial strength ratings of Aegon USA and Aegon the Netherlands from AA- to A+.

Internal capital management framework

In managing the capital adequacy of the Group and its operating units, Aegon's capital management framework is built on, among other things, managing capital in the operating units

and the Group within target capital management zones. Under Aegon's capital management framework, the target capitalization zone for Aegon Group and the bottom-end of the capitalization target range of the most relevant entities are as follows:

	Capitalization target ¹⁾
Aegon Group	150% - 200% Solvency II Capital Ratio
Aegon USA (Life entities)	350% RBC Company Action Level
Aegon the Netherlands	155% Solvency II Capital Ratio
Aegon United Kingdom	145% Solvency II Capital Ratio

¹ Capitalization targets follow the revised capital management policy as of the second quarter of 2019

² For Aegon USA (Life entities), Aegon the Netherlands and Aegon United Kingdom, this refers to the bottom-end of the capitalization target range

Aegon the Netherlands updated its capitalization zones as a result of higher capital sensitivities arising from the adoption of the new Dynamic VA model in 2018, and the exclusion of Aegon Bank from the Solvency II capital ratio. These changes were effective per the second quarter of 2019. The Group capitalization zones remained unchanged.

The frequent monitoring of actual and forecasted capitalization levels of both Aegon Group and of its underlying businesses is an important element in Aegon's capital framework in order

to actively steer and manage towards maintaining adequate capitalization levels. Aegon's capital framework is based on several capital management zones in which escalating management actions are called for in a timely manner to ensure that there is always adequate capitalization of both the Aegon Group and its operating units.

The capital management zones and the management interventions connected to these zones are set consistently throughout the Group, as illustrated in the table below.

Aegon Group	Capitalization management zones ¹⁾	Capitalization management actions
>200% SCR	Opportunity	Accelerate capital redeployment and/or additional dividends.
150% - 200% SCR	Target	Execute capital deployment and dividends according to capital plan.
120% - 150% SCR	Retention	Re-assess capital plan and risk positions.
100% - 120% SCR	Recovery	Re-assess capital plan and risk positions. Reduce or suspend dividends.
<100% SCR	Regulatory plan	Suspension of dividends. Regulatory plan required.

¹⁾ Capitalization management zones follow the revised capital management policy as of the second quarter of 2019.

Capitalization levels main operating units

The capitalization levels for Aegon's main operating units at December 31, 2019, are included in the following table:

Capital requirements	Capital requirement	Actual capitalization	Excess over capital requirement
Aegon USA (Life entities) ¹⁾	100% Company Action Level (NAIC RBC CAL)	470% of combined RBC CAL	EUR 7.3 bln ³⁾
Aegon the Netherlands ^{1), 2)}	100% Solvency II SCR	171% Solvency II SCR	EUR 2.5 bln
Aegon United Kingdom ¹⁾	100% Solvency II SCR	157% Solvency II SCR	EUR 1.0 bln

¹⁾ Please note, this disclosure is based on Aegon's estimated capitalization levels.

²⁾ Excluding Aegon Bank.

³⁾ Please note, this amount is based on local RBC framework

The capitalization level and shareholders' equity of the operating units can be impacted by various factors (e.g. general economic conditions, capital markets risks, underwriting risk factors, changes in government regulations, legal and arbitration proceedings). To mitigate the impact of such factors on the ability of operating units to transfer funds, the operating units hold additional capital in excess of minimum regulatory solvency requirements.

Improving risk-return profile

Aegon continues to take measures to improve its risk-return profile. These measures include de-emphasizing the selling of various spread based products and the strategic growth in fee-based businesses. In 2017, Aegon continued its commitment to optimize its portfolio by divesting UMG in the Netherlands and completing the sale of the majority of its US run-off businesses. In 2018, Aegon divested its business in Ireland and the remaining US run-off business, acquired the income protection service provider Robidus in the Netherlands and expanded its business in the Netherlands and Spain. In 2019, Aegon finalized the divestment of its business in Czech Republic and Slovakia to optimize its portfolio and capital allocation across business. Aegon also announced the agreement to sell its 50% stake in variable annuity joint ventures in Japan to its partner Sony Life. The transaction with Sony Life was completed on January 29, 2020.

Extensive asset-liability management and hedging programs are also in place. Examples of these programs include hedging the interest rate and equity risk stemming from guarantees in the Netherlands, hedging the interest rate and equity risk in Aegon UK, and hedging the capital position in the Americas against adverse equity and interest rate movements. In addition, Aegon is actively involved in hedging longevity risk

in the Netherlands and has an active global reinsurance program in order to optimize the risk-return profile of other insurance risks. Aegon monitors the risk-return profile of new business written, withdrawing products that do not meet the required hurdle rates for all stakeholders including policyholders and shareholders.

G-SII designation and International Capital Standards

For more information about Aegon's G-SII designation, the impact thereof and the status of development of the International Capital Standards, please refer to section 'Regulation and supervision'.

Capital quality

Capital quality is a reflection of Aegon's stability and ability to absorb future financial losses.

Solvency II distinguishes between basic Own Funds and ancillary Own Funds. Aegon's total Own Funds are comprised of Tier 1, Tier 2 and Tier 3 basic Own Funds. Aegon does not currently have ancillary Own Funds. Tier 1 basic Own Funds are divided into unrestricted Tier 1 capital and restricted Tier 1 capital. The latter category contains Own Funds instruments subject to the restrictions of article 82 (3) of the Solvency II Delegated Regulation, which includes grandfathered Tier 1 Own Funds instruments. Based on agreements with its supervisory authorities, Aegon applies a fungibility and transferability restriction with respect to charitable trusts within Aegon Americas, and a restriction equal to the Own Funds of Aegon Bank. These restrictions, applied to Aegon's basic own funds, result in Aegon's available Own Funds.

Available Own Funds

Unrestricted Tier 1 capital consists of Aegon's share capital, share premium and the reconciliation reserve. The reconciliation reserve includes deductions to account for foreseeable dividends that have been approved by the Board, but that have yet to be distributed to Aegon's shareholders, and restrictions related to Aegon's with-profits fund in the UK for which the excess of Own Funds over its capital requirement is ring-fenced for policyholders, and therefore unavailable to Aegon's shareholders.

Restricted Tier 1 capital consists of Aegon's junior perpetual capital securities, perpetual cumulative subordinated bonds, and perpetual contingent convertible security. Both junior perpetual capital securities and perpetual cumulative subordinated bonds are grandfathered. Perpetual contingent convertible securities are Solvency II compliant liabilities which were issued in 2019. Restricted Tier 1 capital is subject to eligibility restrictions to qualify as eligible Own Funds

Aegon's Tier 2 capital consists of the new issuance of subordinated notes by Aegon Funding Company LLC (AFC) in 2019, the Solvency II compliant subordinated liabilities that were issued during 2018, and grandfathered dated subordinated notes. Tier 2 capital is subject to eligibility restrictions to qualify as eligible Own Funds.

The grandfathered restricted Tier 1 and Tier 2 capital instruments are grandfathered to count as capital under Solvency II for up to 10 years as of January 1, 2016. All call dates are listed in note 31 'Other equity instruments' and note 32 'Subordinated borrowings' to Aegon's consolidated financial statements.

	December 31, 2019		December 31, 2018	
	Available own funds	Eligible own funds	Available own funds	Eligible own funds
Unrestricted Tier 1	12,724	12,724	12,204	12,204
Restricted Tier 1	2,614	2,614	3,406	2,888
Tier 2	2,370	2,370	1,487	2,005
Tier 3	762	762	505	505
Total Tiers	18,470	18,470	17,602	17,602

The Available own funds equal to the Eligible own funds per December 31, 2019. The overflow from restricted Tier 1 to Tier 2 Own Funds is not applied anymore per year end 2019, as a result of increase of unrestricted Tier 1 capital and the redemption of grandfathered perpetual capital securities (Tier 1 Own Funds) during 2019.

Aegon's use of leverage

Aegon uses leverage in order to lower the cost of capital that supports businesses in the Aegon Group, thereby contributing to a more effective and efficient use of capital. In managing the use of financial and non-financial leverage throughout the Group, Aegon has implemented a Leverage Use Framework that is part of Aegon's broader Enterprise Risk Management framework.

Aegon's Tier 3 capital under the Solvency II framework consists of Aegon's deferred tax asset position under Solvency II.

Eligible Own Funds

Under Solvency II regulation, restrictions apply to the eligibility of restricted Tier 1, Tier 2 and Tier 3 capital. The total of Tier 2 and Tier 3 capital may not exceed 50% of the SCR while the eligibility of Tier 3 capital is limited to 15% of SCR. Restricted Tier 1 capital may not exceed 20% of Tier 1 Own Funds. As a result, it is possible that part of the Own Funds overflows to another tier or that is not considered eligible in determining the Group Solvency II ratio.

When applying the eligibility restrictions, Aegon determines its tiering limits based on:

- EEA entities - representing the part of the Group covered by the Accounting Consolidation based method, for which tiering limits are based on the SCR of the consolidated part of the Group, i.e. the consolidated group SCR; and
- Non-EEA entities - representing the part of the Group covered by the Deduction & Aggregation method. If a prudential regime of an equivalent or provisionally equivalent third-country applies, such as the regulatory regimes in the United States. The Own Funds brought in by the Deduction & Aggregation method are allocated to tiers according to the principles laid out in Articles 87 to 99 of the Solvency II Directive for each individual third-country insurance undertaking.

The table below shows the composition of Aegon's available and eligible Own Funds, taking into consideration tiering restrictions.

Leverage metrics

In line with the guiding principles of its capital and liquidity management, Aegon N.V. monitors and manages several leverage metrics:

- Gross financial leverage ratio;
- Fixed charge coverage; and
- Various rating agency leverage metrics.

Aegon's gross financial leverage ratio is calculated by dividing total financial leverage by total capitalization. Aegon defines total financial leverage as debt or debt-like funding issued for general corporate purposes and for capitalizing Aegon's business units. Total financial leverage includes hybrid instruments,

subordinated and senior debt. Aegon's total capitalization consists of the following components:

- Shareholders' equity, excluding revaluation reserves and cash flow hedge reserves, based on IFRS as adopted by the EU;
- Non-controlling interests and Long Term Incentive Plans not yet vested; and
- Total financial leverage.

Aegon's fixed charge coverage is a measure of the Company's ability to service its financial leverage. It is calculated as the sum of underlying earnings before tax and interest expenses on financial leverage divided by interest payments on financial leverage. The fixed charge coverage includes the impact of interest rate hedging.

For further information, please refer to note 43 'Capital Management and Solvency' in the consolidated financial statements.

Operational leverage

Although operational leverage is not considered part of Aegon's total capitalization, it is an important source of liquidity and funding. Operational leverage relates primarily to financing Aegon's mortgage portfolios through securitizations, warehouse facilities, covered bonds, and the use of the Federal Home Loan Bank (FHLB) facility.

Aegon enters into reinsurance agreements for risk and capital management purposes with several affiliated captive insurance companies (captives). All captives are fully consolidated for IFRS reporting and for Solvency II based on local valuations under equivalence.

The captives are utilized for a number of purposes that may include:

- Financing term life insurance (subject to Regulation XXX reserves) and universal life insurance with secondary guarantees (subject to Regulation AXXX reserves) to support lower-risk statutory reserves at a lower cost for policyholders and shareholders;
- Managing and segregating risks; and
- Monetizing embedded value.

All external financing provided to captives to support statutory reserves is disclosed in note 37 'Borrowings' to the consolidated financial statements to the extent to which it has been funded. Letters of Credit (LOCs) issued by third parties provided to captives to provide collateral to affiliated insurers are disclosed in note 45 'Commitments and contingencies' to the consolidated financial statements. These LOCs have been provided by third parties for the benefit of the affiliated company whose liabilities are reinsured. Existing captive structures are continually monitored and may be re-financed to achieve financial goals.

Funding and back-up facilities

The majority of Aegon's financial leverage is issued by Aegon N.V., the parent company. A limited number of other Aegon companies have also issued debt securities, but for the most part these securities are guaranteed by Aegon N.V.

Aegon N.V. has regular access to international capital markets under a USD 6 billion debt issuance program. Access to the capital market in the United States is made possible by a separate shelf registration.

Aegon also has access to domestic and international money markets through its EUR 2.5 billion commercial paper programs. As at December 31, 2019, Aegon had EUR 58 million outstanding under these programs (2018: EUR 82 million).

To support its commercial paper programs and need for LOCs, and to enhance its liquidity position, Aegon maintains backup credit and LOC facilities with international lenders. The Company's principal arrangements comprise a EUR 2 billion syndicated revolving credit facility and an LOC facility of USD 2.2 billion. The syndicated revolving credit facility matures in 2023. The LOC facility matures in 2024. In addition, Aegon also maintains various shorter-dated bilateral backup liquidity facilities, and committed and uncommitted LOC facilities.

Liquidity management

Liquidity management is a fundamental building block of Aegon's overall financial planning and capital allocation processes. The Company's liquidity risk policy sets guidelines for its operating companies and the holding in order to achieve a prudent liquidity profile and to meet cash demands under extreme conditions.

Liquidity is coordinated centrally and managed both at Aegon N.V. and at the operating unit level. Aegon maintains a liquidity policy that requires all business units to project and assess their sources and uses of liquidity over a two-year period under normal and severe business and market scenarios. This policy ensures that liquidity is measured and managed consistently across the Company, and that liquidity stress management plans are in place.

Sources and uses of liquidity

Liquidity in Aegon's subsidiaries

Aegon's operating units are primarily engaged in the life insurance and pensions business, which is a long-term activity with relatively illiquid liabilities and generally matching assets. Liquidity consists of liquid assets held in investment portfolios, in addition to inflows generated by premium payments and customer deposits. These are used primarily to purchase investments, as well as to fund benefit payments to policyholders, policy surrenders, operating expenses, and, if the subsidiary's capital position allows, to pay dividends to the holding.

After investments have been made in new business to generate organic growth, capital generated by Aegon's operating units is available for distribution to the holding company, while maintaining a capital and liquidity position in the operating units in line with Aegon's capital management and liquidity risk policies. In addition, the ability of Aegon's insurance subsidiaries to transfer funds to the holding company is also constrained by the requirement for these subsidiaries to remain adequately capitalized at the levels set by local insurance regulations, and as administered by local insurance regulatory authorities.

Aegon N.V.

The main sources and uses of liquidity at the holding company Aegon N.V. are remittances from operating units, movements in debt, net expenses (including interest), funding operations, capital returns to shareholders, and the balance of acquisitions and divestitures. In addition, contingent internal and external liquidity programs are maintained to provide additional safeguards against extreme unexpected liquidity stresses.

Aegon uses cash flows from its operating units to pay for holding expenses, including funding costs. The remaining cash flow is available to execute the Company's strategy and to fund dividends on its shares. Aegon aims to pay out a sustainable dividend to enable equity investors to share in its performance.

When determining whether to declare or propose a dividend, Aegon's Executive Board balances prudence with offering an attractive return to shareholders. This is particularly important during adverse economic and/or financial market conditions. Furthermore, Aegon's operating subsidiaries are subject to local insurance regulations that could restrict dividends to be paid to the holding company. There is no requirement or assurance that Aegon will declare and pay any dividends.

Aegon's holding excess cash

The ability of the holding company to meet its cash obligations depends on the amount of liquid assets on its balance sheet and on the ability of the operating units to pay dividends to the holding company. In order to ensure the holding company's ability to fulfil its cash obligations and maintain sufficient management flexibility to allocate capital and liquidity

support for Aegon's operating units and external dividend stability, it is the Company's policy that the holding excess cash position, including Aegon's centrally managed (unregulated) holding companies, is managed to a target range of EUR 1.0 to 1.5 billion.

As at December 31, 2019, Aegon held a balance of EUR 1.2 billion in excess cash in the holding, compared with EUR 1.3 billion on December 31, 2018. The decrease of EUR 0.1 billion reflects the net impact of remittances from subsidiaries and capital injections in subsidiaries, divestments, acquisitions, earn-out payments, the issuance and redemptions of capital instruments and senior unsecured notes, holding expenses and capital returns to shareholders. During 2019 Aegon exercised the right to redeem the USD 500 million perpetual capital securities with a coupon of 6.5% issued in 2005 (grandfathered Restricted Tier 1) and the USD 1 billion perpetual capital securities with a coupon of 6.375% issued in 2005 (grandfathered Restricted Tier 1). This was pre-financed by the issuance of a EUR 500 million Restricted Tier 1 perpetual contingent convertible securities, with a fixed coupon of 5.625% until October 15, 2029; and a USD 925 million Tier 2 subordinated notes with a fixed coupon of 5.1%, which is issued by Aegon Funding Company LLC (AFC).

Proceeds from the sale of Aegon Czech Republic and Slovakia of EUR 131 million were received in 2019 as well as dividends from Aegon Americas (EUR 801 million) and Aegon UK (EUR 251 million). Dividends from other units were more than offset by capital injections and investments, amounting to a net outflow of EUR 219 million.

During 2019, payments related to the 2018 final dividend and 2019 interim dividend and the corresponding share buybacks amounted to EUR 626 million and holding and funding expenses amounted to EUR 312 million.

Aegon's liquidity is invested in accordance with the Company's internal risk management policies. Aegon believes that its working capital, backed by its external funding programs and facilities, is ample for the Company's present requirements.

Asset liability management

Aegon specializes in writing long-term life insurance business with key markets in the US, Europe and Asia. Its product suite includes savings and annuity products that feature a guaranteed level of benefit. Aegon also issues mortgage loans in the Netherlands that are initiated using long-term insurance funds. Products are priced using a market-consistent framework, and comprehensive asset liability management (ALM) programs are implemented to ensure that the assets backing policyholder benefits are invested prudently over the long term.

A range of ALM techniques are used across the Group. These range in terms of sophistication and complexity from cash-flow matching (for traditional fixed annuities) to duration matching (for the Universal Life range of products) to derivative-based semi-static and dynamic hedges (to match variable annuities).

The Enterprise Risk Management (ERM) framework includes a number of risk policies that govern ALM strategies, such as the Investment and Counterparty Risk Policy (ICRP). The ICRP governs the management of investment risks associated with credit, equity, property, alternative asset classes, interest rate and currency risk in addition to option markets, implied volatility risk, interest rate options and swaptions.

As well as product-level ALM programs, subsidiary businesses are required by the ICRP to maintain overarching ALM strategies that set the direction and limits for the various individual product-level programs. Significant or complex ALM strategies are approved at group level, and all programs are subject to group risk oversight.

Together with the ICRP, which guides ALM strategy, a number of other ERM policies govern concentration risk, liquidity risk, use of derivatives and securities lending and repos. As Aegon uses derivatives extensively, collateral calls can be significant depending on market circumstances. Liquidity is managed at legal entity level in the first instance, and the large US and Dutch units may use external market solutions to match projected liquidity requirements with funding.

The introduction of Dodd-Frank Act in the United States and the European Market Infrastructure Regulation (EMIR) derivative regulations led to Aegon transitioning a significant proportion of formerly over-the-counter positions to clearing houses in recent years. Collateral and margin requirements increased, introducing the potential for liquidity strain, which has to be carefully managed. Market volatility can cause collateral requirements to increase rapidly, which means that it is important to have sufficient high-quality collateral available at all times. Regular liquidity stress testing is used to monitor required liquidity and ensure that sufficient funding is available.

Americas

The investment choices of Aegon USA's companies are subject to regulation dependent upon the laws of the applicable state in which each company is domiciled. Each state prescribes the nature, quality and percentage of various types of investments that may be made by the companies. Such laws generally permit investments in government bonds, corporate debt, preferred and common stock, real estate and mortgage loans, while limiting investment in other classes of investments.

A range of ALM strategies are used at the product-group level. For traditional general account insurance, the ALM strategy is to select high-quality investment assets that are matched to the corresponding liability. This strategy takes currency, yield and maturity characteristics into consideration. Asset quality and diversification are also taken into account, together with policyholders' reasonable expectations with regard to the sharing of excess interest.

Aegon USA also writes a significant volume of variable annuity business, which is managed using sophisticated dynamic hedging techniques. Clearly-defined hedge strategies cover first order 'delta' and 'rho', together with higher order programs covering 'gamma' and 'vega' sensitivities. The Macro Hedge Program is an overlay hedge that provides additional protection for regulatory capital against a sharp fall in equity markets.

Aegon USA also uses various liquidity management techniques - including a contingent liquidity management facility - to ensure sufficient access to funding for collateral calls in the event of rapidly rising interest rates. Regular stress testing is used to monitor and manage liquidity risk.

Europe The Netherlands

Aegon the Netherlands uses fixed income instruments to match its long-term liabilities. These include high-quality sovereign and corporate bonds, together with a sizeable portfolio of Dutch residential mortgages. Cash flow matching is used to manage the asset portfolio, and a derivative-based dynamic hedge program in addition to the cash flow matching. The hedge program is rebalanced on a daily basis in order to both offset embedded guarantee sensitivities, and protect against volatility in best estimate economic cost of these guarantees.

Derivatives are central to Aegon's hedging strategy, and the derivatives market has been subject to a large number of changes in recent years. These include the introduction of the EMIR in Europe. Furthermore, counterparty risks associated with derivative contracts are mitigated by collateral, and the introduction of central clearing has increased collateral requirements and reduced counterparty risk over recent years.

United Kingdom

Having disposed of the majority of its annuity portfolio, Aegon UK primarily uses ALM to protect Solvency II own funds. This is achieved by using equity options and interest rate and inflation swaps to guard against fluctuations in best estimate liabilities. A new Solvency II unit matching program is in place to reduce residual basis risk associated with unit-linked liabilities. Programs are also in place to match assets with the liabilities of the remaining annuity book and the staff pension scheme.

The UK with-profits business is written in the policyholder-owned fund (otherwise called the 'with-profits fund'). The funds with the highest guaranteed rates have been closed to premiums since 1999, and all funds have been closed to new business with investment guarantees since October 2002 (except for a small increase in regular payments). The fund contains free assets that have not yet been fully distributed to individual policyholders. Free assets help meet the cost of guarantees and provide a buffer to protect the fund from the impact of adverse events. The free assets are partly invested in equity put options and interest rate swaps and swaptions. Aegon UK has an exposure only once these assets have been exhausted. The risk of exposure has been assessed by Aegon UK as remote, based on applying the risk-based capital approach required for Solvency II reporting in the UK. As the fund is closed for new business, the free assets are gradually being distributed to the with-profit policyholders through the applicable bonus system.

Central & Eastern Europe, Spain, Portugal and Asia

Aegon has a range of ALM programs in place across life and non-life businesses in the Southern and Eastern Europe region. Across the Central & Eastern European units, ALM focuses on asset-liability matching in terms of duration and liquidity. In Spain & Portugal, insurance liabilities are predominately long-term life benefits, and the focus of ALM is to minimize interest rate risk by duration matching.

Transamerica Life Bermuda (TLB) was established in 2005 with full-service branches opened in 2006 in Hong Kong and Singapore, writing universal life (UL) products and term products for the high net worth segment. TLB's ALM strategy is to invest in predominantly investment grade fixed income assets to generate stable returns and support the UL crediting philosophy over the policy term. Derivative instruments can be used for efficient portfolio management and ALM. Assets are invested predominantly in the United States and in US dollar denominated assets to match the currency of our products.

Aegon and Sony Life jointly established a reinsurance company, SA Reinsurance Ltd. (SARe) from which it subsequently divested from on January 29th, 2020. SARe used a sophisticated dynamic hedge program to manage guarantee risk included in variable annuity products associated with equity markets and interest rates.

Reinsurance ceded

Aegon uses reinsurance to manage and diversify risk, limit volatility, improve capital positions, limit maximum losses, and sometimes to enter into strategic partnerships and gain access to reinsurer technology. While the objectives and use can vary by region due to local market considerations and product offerings, the use of reinsurance is coordinated and monitored globally.

In order to minimize its reinsurer defaults exposure, Aegon regularly monitors the creditworthiness of its reinsurers, and where appropriate, arranges additional protection through letters of credit, trust agreements and overcollateralization. For certain agreements, funds are withheld for investment rather than relying on the reinsurer to meet investment expectations. Default exposure is further reduced by the use of multiple reinsurers within certain reinsurance agreements. Aegon has experienced no material reinsurance recoverability problems in recent years. Aegon ceded businesses to a subsidiary of Scottish Re Group. Scottish Re US entered receivership in March 2019. The court has given the receiver a deadline of March 31, 2020 to propose a plan of rehabilitation or to notify the court that liquidation is necessary. Aegon has carried out an impairment analysis to assess the recoverability of our IFRS reserves and has concluded that they are recoverable. The reserves and receivables of Aegon to Scottish Re Group at December 31, 2019 were less than EUR 100 million. Separately, Aegon ceded business to Senior Health Insurance of Pennsylvania (SHIP). The Pennsylvania Insurance Commissioner filed an application in January 2020 with the state's Commonwealth Court to have SHIP placed in rehabilitation. Aegon is protected by a trust account and has assessed that the trust assets are sufficient to cover the reserves and receivables to SHIP on Aegon's balance sheet at December 31, 2019.

External reinsurance counterparties are, in general, major global reinsurers (approximately 60% of reinsurance premium) with more local reinsurers ensuring a balance between regional and global considerations. The key way in which reinsurance is used and the role that it plays by region is as follows:

Corporate Center

Global coordination takes place through Aegon Corporate Center, working closely with local business units. The Global Reinsurance Use Committee (GRUC) is a global body that shares and discusses updates and matters of interest among local and global reinsurance managers. The GRUC also oversees Aegon's Reinsurance Use Policy and facilitates approval of transactions if counterparties are not pre-approved. Reports are shared with the Global Risk and Capital Committee and Group Management Board as appropriate.

Americas

Aegon Americas manages its life insurance exposure through various types of agreements with reinsurers. It relies heavily on quota-share and excess-of-loss reinsurance arrangements. The primary purpose of these agreements is to diversify Aegon Americas' overall risk and limit the maximum loss on risks that exceed policy retention levels. Maximum retention levels vary by product, method of underwriting, and the nature of the risk being reinsured.

Europe

The Netherlands

Aegon the Netherlands reinsures part of its insurance exposure with third-party reinsurers under traditional indemnity and 'excess of loss' contracts. Reinsurance helps Aegon manage, mitigate and diversify its insurance risks, and thereby limit the maximum loss it may incur. Since January 1, 2014, Aegon the Netherlands has reinsured its term life assurance through a quota-sharing contract. In December 2019, Aegon announced the reinsurance of about one quarter of its longevity exposure in the Netherlands. The contract commenced on December 31, 2019 and will run until the portfolio runs off. For non-life, Aegon the Netherlands only reinsures its property, general and motor third-party liability business. For property insurance, motor third-party liability insurance, and general third-party liability, 'excess of loss' contracts are in place.

United Kingdom

Aegon UK uses reinsurance to both manage risk and maximize financial value. The degree to which reinsurance is used across the product lines varies, depending largely on the appropriateness and value of reinsurance available in the market. The protection business is significantly reinsured. A reinsurance panel is in place to provide reinsurance, predominantly on a quota share basis, across the range of benefits. A facultative reinsurance panel is also used to assist the placement of very large cases.

Southern and Eastern Europe

Aegon uses reinsurance for its life and non-life businesses in order to mitigate insurance risk. The majority of treaties in force for Aegon's operations in Central & Eastern Europe are non-proportional excess of loss programs - except for the life reinsurance treaties - which are made on a surplus and quota-share basis (including various riders). The most significant reinsurance program currently in force is a property catastrophe excess of loss treaty.

Aegon Spain has a 'one Aegon' reinsurance management policy. This means that both its joint ventures in Spain & Portugal and own business are treated as a whole, with similar economic conditions and a similar panel of reinsurers, while individual profit shares without losses are carried forward by each entity belonging to Aegon Spain. The main contract for mortality and

morbidity provides proportional reinsurance protection for both its individual risk and group risk policies. Aegon Spain thereby seeks to optimize the cost of reinsurance coverage, while achieving prudential diversification of its insurance risk by limiting the maximum possible losses on risks that exceed retention levels. Household insurance contracts for the Aegon Santander joint ventures follow the same principles, with maximum retention levels varying both by product and by the nature of the risk being reinsured. Natural catastrophe reinsurance programs are also in place to provide cover for high impact - low frequency events.

Asia

China: Aegon THTF

Aegon THTF shares its morbidity and mortality risk with international and national reinsurers. The mortality risk of individual products is shared through a surplus reinsurance

structure. Aegon THTF reviews the reinsurance structure regularly, adjusting it based on claims experience and its risk acceptance capability.

India: Aegon Life

In India, Aegon Life reinsures the mortality and morbidity risks of the policies it sells.

Hong Kong and Singapore: Transamerica Life Bermuda (TLB)

TLB uses third-party mortality reinsurance for its universal life and traditional policies. Mortality reinsurance takes the form of yearly-renewable term, excess-of-retention or quota-share arrangements. This is typically arranged through a pool of reinsurers. TLB entered into a reinsurance treaty to provide further protection for the local solvency position in Singapore.

Risk management

General

As an insurance group, Aegon manages risk for the benefit of its customers and other stakeholders. As a result, the Company is exposed to a range of underwriting, operational and financial risks. Aegon's risk management and internal control systems are designed to ensure that these risks are managed effectively and efficiently in a way that is aligned with the Company's strategy.

For Aegon, risk management involves:

- Understanding risks that the Company faces;
- Maintaining a company-wide framework through which the risk-return trade-off associated with these risks can be assessed;
- Maintaining risk tolerances and supporting policies to limit exposure to a particular risk or combination of risks; and
- Monitoring risk exposures and actively maintaining oversight of the Company's overall risk and solvency positions.

By setting certain predefined tolerances and adhering to policies that limit the overall risk to which the Company is exposed, Aegon is able to accept risk with the knowledge of potential returns and losses.

This section provides a description of Aegon's risk management. Risks and risk management are also referred to in various other sections of Aegon's Integrated Annual Report, as they are relevant throughout the Company, for its various activities and its financial results. Relevant sections are: Aegon's business environment on page 14; note 4 on Financial Risks in the notes to the consolidated financial statements on page 187; and Risk factors on page 376.

Enterprise Risk Management (ERM) framework

Aegon's ERM framework is designed and applied to identify and manage potential risks that may affect Aegon. This means identifying and managing individual and aggregate risks within Aegon's risk tolerance in order to provide reasonable assurance regarding the achievement of Aegon's objectives. The ERM framework covers the ERM components as identified by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The ERM framework applies to all of Aegon's businesses for which it has operational control. Aegon's businesses are required to either adopt the Group level ERM framework directly, or tailor it to local needs while meeting the requirements of the Group level ERM framework.

Risk strategy, risk appetite statement and risk tolerances

The formulation of the risk strategy starts with the principle that taking a risk should be based on serving a customer's need. In terms of Aegon's purpose statement, risk taking should be instrumental to helping people achieve a lifetime of financial security. The competence with which Aegon is able to manage the risk is assessed and Aegon's risk preferences are formulated,

taking into account Aegon's risk capacity. The risk preferences eventually lead to a targeted risk profile that reflects the risks Aegon wants to keep on the balance sheet, and the risks Aegon would like to avoid.

Aegon's risk appetite statement and risk tolerances are established in order to assist management in carrying out Aegon's strategy using the resources available to Aegon. The risk appetite statement is linked to Aegon's purpose of helping people achieve a lifetime of financial security. Aegon's risk appetite statement emphasizes that Aegon businesses:

"Fulfill our promises towards our customers and other stakeholders by delivering sustainable growing long-term free capital generation, with strong resilience in solvency and liquidity, healthy balance in exposures, and by running a responsible business with effective controls."

Following from the risk appetite statement, risk tolerances are defined on:

- 1 Capital generation, to ensure free capital generation remains sufficiently in line with projections.
- 2 Solvency and liquidity, to ensure that Aegon remains solvent and liquid even under adverse scenarios.
- 3 Risk balance, to ensure a healthy balance of risk exposures that supports delivering on targets for capital generation and return on capital.
- 4 Responsible business with effective controls, which acknowledges an acceptable level of operational risk and stresses a low tolerance for (lack of) actions which could lead to material adverse risk events that result in breaking promises or not meeting reasonable expectations of customers, legal breaches or reputational damage.

The tolerances are further developed into measures, limits and thresholds that have to be complied with to remain within the tolerances.

Risk identification and risk assessment

Aegon has identified a risk universe that captures all known material risks to which the Company is exposed. In order to assess all risks, a consistent methodology for measuring risks is required. Aegon's methodology for this is documented in a manual and kept up-to-date. The risk metrics are embedded in Aegon's key reports and are used for decision making.

Risk response

Aegon distinguishes the following risk responses:

- When the risk exposure is within the set risk tolerance, management can accept the risk; and
- When an exposure exceeds the established risk tolerance or if cost-benefit analysis supports further actions, management can decide to control, transfer or avoid the risk.

Risk monitoring and reporting

Risks are monitored regularly and reported on at least a quarterly basis. The impact of key financial, underwriting and operational risk drivers on earnings and capital is shown in the quarterly risk dashboard for the various risk types both separately as well as on an aggregate basis.

Risk exposures are compared with the limits as defined by Aegon's risk tolerance statements. Reporting also includes risk policy compliance and incident and compliance reporting. Finally, the main risks derived from Aegon's strategy and the day-to-day business are discussed, as well as forward looking points for attention. If necessary, mitigating actions are taken and documented.

Risk control

A system of effective controls is required to mitigate the risks identified. In Aegon's ERM framework risk control includes risk

governance, risk policies, internal control framework, model validation, risk embedding, risk culture and compliance.

Risk universe and risk appetite

The risk factors described in this Integrated Annual Report (see risk factors in the 'additional information' section) generally have an impact on financial markets (e.g. interest rates and share prices), underwriting assumptions (e.g. longevity and policyholder behavior) or result in operational risk events (e.g. fraud and business disruption). Aegon's risk universe is structured to reflect the type of risk events to which the Company is exposed.

The identified risk categories are financial risk, underwriting risk and operational risk. Specific risk types are identified within these risk categories. The risk universe captures all known material risks to which Aegon is exposed. These risks, internal or external, may affect the Company's operations, earnings, share price, value of its investments, or the sale of certain products and services. In the context of Aegon's risk strategy, a risk appetite is set for the three identified risk categories (see table below).

Risk category	Description	Appetite
Underwriting	The risk of incurring losses when actual experience deviates from Aegon's best estimate assumptions on mortality, longevity, morbidity, policyholder behavior, P&C claims and expenses used to price products and establish technical provisions.	Medium to high - Underwriting risk is Aegon's core business and meets customer needs.
Financial	The risk of incurring financial losses due to movements in financial markets and the market value of balance sheet items. Elements of financial risk are credit risk, investment risk, interest rate risk and currency risk.	Low to medium - Accepted where it meets customer needs and the risk return profile is acceptable.
Operational	Operational risk results from operational failures or external events, such as processing errors, legal and compliance issues, natural or man-made disasters, and cybercrime.	Low - Accepted to serve customer needs, but mitigated as much as possible.

Most significant risks

The most significant risks Aegon faces in terms of exposures and required capital are:

- Financial markets risks (particularly related to credit, equity and interest rates), and
- Underwriting risk (particularly related to longevity and policyholder behavior).

Description of risk types

Financial risk

Credit risk

Credit risk is the risk of economic loss due to the deterioration in the financial condition of counterparties, either through fair value losses on traded securities or through defaults on traded securities, loans and mortgages. Having a well-diversified investment portfolio means that Aegon can accept credit spread risk to earn a liquidity premium on assets that match liabilities. The focus is on high-quality securities with low expected defaults because Aegon has a low appetite for default risk.

Equity market risk and other investment risks

Aegon runs the risk that the market value of its investments changes. Investment risk affects Aegon's direct investments in the general account, indirect investments on the account

of policyholders and agreements where Aegon relies on counterparties, such as reinsurance and derivative counterparties. Aegon has a low preference for investments in equity securities via the general account. Equity investments generate an equity risk premium over the long run, but in combination with a high capital charge result in a relatively low return on capital. Aegon has experience and expertise in managing complex investment guarantees, and leverages this capability by providing customers access to a range of investment strategies and guaranteed benefits.

Interest rate risk

Aegon is exposed to interest rates as both its assets and liabilities are sensitive to movements in long- and short-term interest rates, as well as to changes in the volatility of interest rates. Aegon accepts interest rate risk in order to meet customer needs. However, as no spread is earned on this interest rate risk, Aegon prefers to mitigate the risk to the extent possible.

Currency exchange rate risk

As an international company, Aegon is exposed to different currencies, and therefore to movements in currency exchange rates. Foreign currency exposure exists primarily when policies are denominated in currencies other than the issuer's functional

currency. Currency risk in the investment portfolios backing insurance and investment liabilities is managed using asset liability matching principles. Assets allocated to equity are held in local currencies to the extent shareholders' equity is required to satisfy regulatory and self-imposed capital requirements. Currency exchange rate fluctuations therefore affect the level of shareholders' equity as a result of converting local currencies into euro, the Group's reporting currency. The Company holds its capital base in various currencies in amounts that correspond to the book value of individual business units.

Liquidity risk

Aegon needs to maintain sufficient liquidity to meet short-term cash demands not only under normal conditions, but also in the event of a crisis. To that end, Aegon has put a strong liquidity management strategy in place. The Company considers extreme liquidity stress scenarios, including the possibility of prolonged 'frozen' capital markets, an immediate and permanent rise in interest rates, and policyholders withdrawing liabilities at the earliest conceivable date. In addition, the Company has liquidity stress planning in place.

Underwriting risk

Underwriting risk relates to the products sold by Aegon's insurance entities, and represents the risk of incurring losses when actual experience deviates from Aegon's best estimate assumptions on mortality, morbidity, policyholder behavior, P&C claims and expenses. Aegon has a preference to selectively grow underwriting risk, but this must work hand-in-hand with a strong underwriting process. Aegon's earnings depend, to a significant degree, on the extent to which claims experience is consistent with assumptions used to price products and establish technical liabilities. Changes in, among other things, morbidity, mortality, longevity trends and policyholder behavior may have a considerable impact on the Company's income. Assumptions used to price products and establish technical liabilities are reviewed on a regular basis. Please refer to note 3 Critical accounting estimates and judgment in applying accounting policies to the consolidated financial statement for further information.

Operational risk

Like other companies, Aegon faces operational risk resulting from operational failures or external events, such as processing errors, inaccuracies in used models, actions by personnel, non-compliance to laws and regulations, and natural or man-made disasters including climate change. In addition, major programs or organizational transformations may also increase potential for operational risks. Aegon's systems and processes are designed to support complex products and transactions, and to avoid such issues as system failures, business disruption, financial crime and breaches of information security. Aegon monitors and analyses these risks on a regular basis, and where necessary revises contingency plans to deal with them. Aegon's operational risk universe distinguishes eight risk types: business risk; legal,

regulatory, conduct and compliance risks; tax risk; financial crime risk; processing risk; systems and business disruption risk; people risk; and facility risk. These level 1 risk types are split out into more granular level 2 risk types. The operational risk universe also covers social and environmental risks. Please refer to the chapter non-financial policies, procedures and outcomes for an overview of how various social and environmental issues are incorporated in decision making processes and policies throughout the company.

Information security risk

Information security risk has been recognized by Aegon as an important operational risk. Aegon's global information security program is intended to establish security controls that safeguard data, technology and operations, as well as activities outsourced to third parties. Aegon recognizes the need to continually strengthen its existing security control environment and preventative tooling as new cyber threats and exposures emerge. Evaluations and scenario testing of security controls - including detection and response capabilities - are performed by both internal and external experts, and identified vulnerabilities are tracked and monitored by management. This program is overseen by Aegon's Global Chief Information Security Officer, who has a direct reporting line to the Global Chief Technology Officer, who is a member of the Management Board, in conjunction with local business unit management and information security officers. Moreover, periodic updates are provided to Aegon's Supervisory Board. Aegon takes cybercrime very seriously, and is committed to enhancing its existing systems over time in order to provide additional protections to its systems and information.

Conduct risk

Both industry-wide and within Aegon, cultural and behavioral elements of risks increasingly play a role within overall risk frameworks. Relevant in this context are, among others, the European Insurance Distribution Directive (IDD) and the General Data Protection Regulation (GDPR). Conduct risk refers to the risks inherent in behaviors, business and staff integrity and business culture, including, but not limited to, meeting the standards of Aegon's Market Conduct Principles.

Fraud risk

Aegon is committed to a strong anti-fraud program to protect its and clients assets from fraudulent behavior of clients, business partners, employees or any other external entity or individual. Mandatory requirements for identifying, mitigating and monitoring internal, external and intermediary fraud risks are captured in the Group Anti-Fraud policy. Aegon Regions have implemented these requirements in local policies, processes and procedures. As part of Systematic Integrity Risk Analysis (SIRA) 2019 all regions provided insight in their local anti-fraud programs and indicated that controls with regard to internal, external and intermediary fraud are properly designed and operating effectively.

Business environment scan

In addition to the management of described risk types, Aegon performs a business environment scan. This scan brings together the former emerging risk process and the materiality assessment as described in the 2018 Annual Report. The aim is to identify topics, including opportunities and new and developing risks, which could have significant impact on value creation and Aegon's financial strength, competitive position or reputation. The scan is meant to ensure ongoing appropriateness of the risk universe, to ensure completeness of Aegon's risk assessment and to provide input for ongoing strategy development.

The business environment scan is performed on a two-yearly basis with annual updates for significant changes.

Topic identification, mapping and selection are based on desk research, interviews with experts and management selection. Outcomes can be used for materiality reporting, as input for Aegon's strategy process and for possible follow-up in terms of further analysis, tracking or as global project. For more information on the materiality reporting refer to the section: Aegon's business environment on page 14.

Risk governance framework

Aegon's risk management is based on clear, well-defined risk governance. The goals of risk governance are to:

- Define roles and responsibilities, and risk reporting procedures for decision makers;
- Institute a proper system of checks and balances;
- Provide a consistent framework for managing risk in line with the targeted risk profile; and
- Facilitate risk diversification.

Governance structure

Aegon's risk management framework is represented across all levels of the organization. This ensures a coherent and integrated approach to risk management throughout the Company. Similarly, Aegon has a comprehensive range of company-wide risk policies that detail specific operating guidelines and limits. These policies include legal, regulatory and internally set requirements, and are designed to keep overall risk-specific exposures to a manageable level. Any breach of policy limits or warning levels triggers remedial action or heightened monitoring. Further risk policies may be developed at a local level to cover situations specific to particular regions or business units.

Aegon's risk management governance structure has four basic layers:

- The Supervisory Board and the Supervisory Board Risk Committee (SBRC);
- The Executive Board and the Management Board;
- The Group Risk & Capital Committee (GRCC) and its sub-committees; and
- The Regional Risk & Capital Committees.

The SBRC reports to the Supervisory Board on topics related to the ERM framework and the internal control system.

The formal responsibility regarding the effectiveness and design, operation and appropriateness of the ERM and internal control system rests, however, with the Audit Committee of the Supervisory Board. The Audit Committee works closely together with the SBRC with regard to the oversight of and reports on the effectiveness of the ERM framework and the risk control systems of the Company. The Audit Committee relies on the findings of the SBRC. The SBRC is responsible for overseeing Aegon's ERM framework, including risk governance and measures taken to ensure risk management is properly integrated into the Company's broader strategy.

For a description of the main roles and responsibilities of the SBRC see the section on the Risk Committee on page 50 of the Report of the Supervisory Board in this Annual Report.

It is the responsibility of the Executive Board and the Group's Chief Risk Officer (CRO) to inform the Supervisory Board of any risk that directly threatens the solvency, liquidity or operations of the Company.

Aegon's Executive Board has overall responsibility for risk management. The Executive Board adopts the risk strategy, risk governance, risk tolerance and material changes in risk methodology and risk policies. The Group's CRO has a standing invitation to attend Executive Board meetings and a direct reporting line to the Supervisory Board to discuss ERM and related matters, and is a member of the Management Board.

The Management Board oversees a broad range of strategic and operational issues. While the Executive Board remains Aegon's statutory executive body, the Management Board provides vital support and expertise in safeguarding Aegon's strategic goals. The Management Board discusses and sponsors ERM, in particular the risk strategy, risk governance, risk tolerance and the introduction of new risk policies.

The Executive Board and Management Board are supported by the Group Risk & Capital Committee (GRCC). The GRCC is Aegon's most senior risk committee. It is responsible for managing Aegon's balance sheet at the global level, and is in charge of risk oversight, risk monitoring and risk management related decisions on behalf of the Executive Board in line with its charter. The GRCC ensures risk-taking is within Aegon's risk tolerances; that the capital position is adequate to support financial strength, credit rating objectives and regulatory requirements, and that capital is properly allocated. The GRCC informs the Executive Board about any identified (near) breaches of overall tolerance levels which threaten the risk balance, as well as any potential threats to the Company's solvency, liquidity or operations.

The GRCC has three sub-committees: the ERM framework, Accounting and Actuarial Committee (ERMAAC), the Non-

Financial Risk Committee (NFRC) and the Model Validation Committee (MVC).

The purpose of the ERMAAC is to assist the GRCC, Executive Board and Management Board with financial risk framework setting and maintenance across all group-level balance sheet bases, including policies, standards, guidelines, methodologies and assumptions.

The purpose of the NFRC is to assist the GRCC, Executive Board and Management Board with non-financial risk framework setting and maintenance, including policies, standards, guidelines and methodologies and to act as formal discussion and exchange of information platform on matters of concern regarding non-financial risk management.

The MVC is responsible for approving all model validation reports across Aegon. This is an independent committee that reports into the GRCC and Executive Board to provide information on model integrity and recommendations for further strengthening of models.

Each of Aegon's regions has a Risk & Capital Committee (RCC). The responsibilities and prerogatives of the RCCs are aligned with the GRCC and further set out in their respective charters, which are tailored to local circumstances.

In addition to the four basic layers described above, Aegon has an established group-wide risk function. It is the mission of the Risk Management function to ensure the continuity of the Company through safeguarding the value of existing business, protecting Aegon's balance sheet and reputation, and through supporting the creation of sustainable value for all stakeholders.

In general, the objective of the Risk Management function is to support the Executive Board, Management Board, Supervisory Board, and regional and business unit boards in ensuring that the Company reviews, assesses, understands and manages its risk profile. Through oversight, the Risk Management function ensures the group-wide risk profile is managed in line with Aegon's risk tolerances, and stakeholder expectations are managed under both normal business conditions and adverse conditions caused by unforeseen negative events.

The following roles are important in order to realize the objective of the Risk Management function:

- Advising on risk-related matters including risk tolerance, risk governance, risk methodology and risk policies;
- Supporting and facilitating the development, incorporation, maintenance and embedding of the ERM framework and sound practices; and
- Monitoring and challenging the implementation and effectiveness of ERM practices.

In the context of these roles, the following responsibilities can be distinguished:

Advising on risk-related matters

- Bringing businesses together to facilitate information exchange, sharing best practices and working together on relevant case studies and external standards in order to develop, adopt and maintain relevant standards of practice throughout Aegon; and
- Optimizing the use of capital and growth within risk/return and consumer conduct criteria.

Supporting and facilitating

- Developing and maintaining the global ERM framework for identifying, measuring and managing all material risks the Company is exposed to as defined in Aegon's risk universe and protecting Aegon's reputation;
- Developing and maintaining Aegon's risk methodology as described in the Aegon Market Consistent Reporting Manual (AMCRM);
- Supporting the businesses with implementing the ERM framework, risk methodology and standards of practice where needed;
- Supporting the Management Board in ensuring the effective operation of the ERM framework and related processes, providing subject matter expertise to businesses as appropriate and facilitating information exchange on good risk practices;
- Identifying and analyzing emerging risks, being input for ongoing risk strategy development and to ensure that Aegon's risk universe remains up to date;
- Designing the Solvency II PIM, including the validation thereof. Model validation ensures independent review of methodology, assumptions, data, testing, production, reporting and use of the Solvency II PIM;
- Analyzing Solvency II PIM outputs and performance and reporting results to the Boards and relevant (Supervisory) Committees;
- Providing subject matter expertise from the Centers of Excellence of the global Risk Management function to business areas through review of key initiatives, transactions, programs, projects, assumptions, methodologies and results across all important paradigms;
- Providing assurance on the integrity of models and modelled cash flows through model validations and maintenance of model validation policies and standards; and
- Promoting a strong risk management culture across Aegon, including review of performance targets and remuneration in line with the Aegon Group Global Remuneration Framework.

Challenging and monitoring

- Monitoring the ERM framework and overseeing compliance with group-wide risk governance requirements, risk strategy and risk tolerances, risk policies and risk methodology, which are applicable to all businesses for which Aegon has operational control;

- Ensuring appropriate risk management information is prepared for use by the GRCC, the Management Board, the Executive Board and Supervisory Board;
- Overseeing material risk, balance sheet and business decisions taken throughout Aegon in line with established risk governance arrangements;
- Monitoring and reporting on risk exposures and advising the Boards and (Supervisory) Committees on risk management related matters, including in relation to strategic affairs such as corporate strategy, mergers and acquisitions and major projects and investments;
- Monitoring that the PIM is and remains appropriate to the Company's risk profile and informing the Management Board and the Supervisory Board about the on-going performance, suggesting improvements;
- Monitoring risk exposures and risk policy compliance, including review of the Own Risk and Solvency Assessment (ORSA) and Recovery Plan defined triggers and early warning indicators;
- Acting as independent business partner with focus on talent development, control excellence, customer conduct, capital allocation and by providing management focused risk tools or fostering debates and proactively challenging on key business developments that may create significant exposure for example through hedging and investment remits;
- Providing assurance on the integrity of models through model validations and maintenance of model validation policies and standards; and
- Embedding robust oversight and risk management culture and processes; and
- Protecting group capital for all stakeholders.

Aegon's Group and business unit's risk management staff structure is fully integrated. Business unit CROs have either a direct reporting line to the Group CRO or one of the regional CROs that reports directly to the Group CRO.

Internal control system

Aegon has developed an internal control system that serves to facilitate its compliance with applicable laws, regulations and administrative processes, and the effectiveness and efficiency of operations with regard to its objectives, in addition to the availability and reliability of financial and non-financial information. The overall internal control system ensures appropriate control activities for key processes and the documentation and reporting of administrative and accounting information. The internal control system is embedded through policies and frameworks such as the ERM framework, the Model Validation Framework and the Operational Risk Management (ORM) Framework, which is considered more encompassing in scope than the Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission' (COSO, 2013), on which criteria for the internal control system are based.

The internal control system has been developed in accordance with regulations that Aegon must comply with (i.e. Sarbanes-

Oxley Act and Solvency II). Aegon's control activities should assure an adequate level of internal control over Aegon's objectives and in particular compliance, operational and financial reporting objectives including the production of IFRS and Solvency II numbers. The objective is to provide assurance regarding the reliability, accuracy, completeness, timeliness and quality of internal and external (regulatory) reporting, the safeguarding of assets, and compliance with internal and external requirements. A key element of Aegon's internal control system is to facilitate action planning and embed continuous improvement regarding the internal control environment throughout the organization.

In 2019, risk management and internal control topics were discussed by the relevant management committees and bodies, including the Management Board, the Executive Board, the Risk Committee, the Supervisory Board and the Audit Committee of the Supervisory Board. No material weaknesses were observed, and no significant changes or major improvements were made or planned to the risk management and internal control systems following from the review.

Lines of defense

Aegon's risk management structure is organized along three 'lines of defense' to ensure conscious risk-return decisions, and to limit the magnitude of potential losses within defined levels of certainty. The objective of this structure is to avoid surprises due to the materialization of unidentified risks, or from losses that exceed predefined risk tolerance levels and related limit structures.

The Company's first line of defense, the business and support functions, has direct responsibility for managing and taking risk in accordance with defined risk strategy, risk tolerances and risk policies. The second line of defense includes the risk management function. The risk management function facilitates and oversees the effectiveness and integrity of ERM across the Company. The third line of defense – the audit function – provide independent assurance on the effectiveness and integrity of the internal control, risk management and governance functions.

IBOR transition

The future of IBORs (Interbank Offered Rates) such as Euribor, Eonia and LIBOR has been a major topic on the global agenda since the G20 asked the Financial Stability Board (FSB) to undertake a fundamental review of leading interest rate benchmarks in 2013. The FSB proposed new standards to reform interest rate benchmarks and the use of transaction-based input data instead of non-transactional/panel input data. In the EU this is adopted in the new Benchmark Regulation (BMR) which stipulates that from January 2020 only BMR compliant benchmarks may be used within the EU.

Aegon recognizes that IBOR transitions potentially have implications for all reporting units, including our insurance, asset

management and banking activities. Despite current uncertainties on how the transition from IBORs to alternative benchmarks will be managed, it is widely acknowledged that IBOR benchmarks impact financial products and contracts, including among others derivatives, corporate bonds, structured debt products, deposits and mortgages.

The impact of the IBOR transition on the business and operating models are described in transition plans and include among others project solutions and actions, timelines and ownership to ensure timely preparation and implementation.

Geopolitical environment

The United Kingdom has left the European Union and is currently in a standstill transition period until the end of December 2020.

Technically, this period can be extended by two years but that has to be agreed by June at the latest according to the Withdrawal Agreement between the EU and the UK. Hence, Brexit remains of special consideration this year because of the uncertainty regarding the future relationship between the EU and the UK after the transition phase expires, which could expose Aegon to similar risk characteristics of a hard Brexit scenario. Aegon hence continues to prepare itself for the worst Brexit outcome. The main consequences of a 'hard Brexit' have been identified and contingency plans are in place. These plans are updated on a continuous basis. Focus areas for Aegon have been derivatives, data transfer and cross border policies.

In control statement

Internal risk management and control systems

The Executive Board is responsible for designing, implementing and maintaining internal controls, including proper accounting records and other management information suitable for running the business on a going concern basis.

Aegon's internal audit function assists the Executive Board in maintaining effective controls by independently and objectively evaluating the adequacy and effectiveness of the organization's internal control and risk management systems. Criteria established under 'Internal Control - Integrated Framework', the Treadway Commission's Committee of Sponsoring Organizations (COSO, 2013 framework), are used by Aegon's internal audit function to analyze and make recommendations to the Executive Board concerning the effectiveness of the Company's internal control framework. Based on risk assessments performed, the Executive Board, under the supervision of the Supervisory Board and its Audit Committee, is responsible for determining the overall internal audit work and for monitoring the integrity of the financial statements of Aegon N.V.

In addition, the Executive Board is responsible for Aegon's enterprise risk management under the supervision of the Supervisory Board and its Risk Committee. Through oversight and framework setting, Aegon's risk management function ensures that the group-wide risk profile is managed in line with Aegon's risk tolerances, and stakeholder expectations are managed both under normal business conditions and adverse conditions caused by unforeseen events. The Executive Board is timely informed of risks to the Company's economic/statutory solvency, reputation, reliability of financial reporting or operations.

The risk management function develops and monitors compliance with risk policies and risk frameworks. The risk management function advises on risk-related matters including risk tolerance, risk governance, risk methodology and risk policies; supports and facilitates the development, maintenance and embedding of the ERM framework and sound practices; and monitors and challenges the implementation and effectiveness of ERM practices. Finally, both the Regulatory Compliance function and the Operational & Model Risk Management function play key roles in monitoring the Company's adherence to external rules and regulations and internal policies.

In preparing the consolidated financial statements, Aegon's directors and management have adopted a going concern basis on the reasonable assumption that the Company is and will be able to continue its normal course of business in the foreseeable future.

Relevant facts, circumstances and risks relating to the consolidated financial position on December 31, 2019, were assessed in order to reach the going concern assumption. The main areas assessed were financial performance, capital adequacy, financial flexibility, liquidity, and access to capital markets, together with the factors and risks likely to affect Aegon's future development, performance and financial position. Commentary on these areas is set out in the 'Capital and liquidity management', 'Risk management', 'Results of operations' and 'Business Overview' sections in this Annual Report. Management concluded that the going concern assumption is appropriate on the basis of the financial performance of the Company, its continued ability to access capital markets, the fact that solvency and leverage ratios are well within target range, and the level of excess cash in the holding,

Aegon's risk management and control systems provide reasonable assurance for the reliability of financial reporting and the preparation and fair presentation of Aegon's published financial statements. They cannot, however, provide absolute assurance that a misstatement of Aegon's financial statements can be prevented or detected.

On the basis of the above, Aegon's Executive Board states the following with respect to risks to the Company's financial reporting:

- The report provides sufficient insights into any failings with regards to the effectiveness of the internal risk management and control systems;
- Aegon's risk management and control systems provide reasonable assurance that the Company's financial reporting does not contain any material inaccuracies;
- Based on the current state of affairs, it is justified that the financial reporting is prepared on a going concern basis; and
- The report states those material risks and uncertainties that are relevant to the expectation of the Company's continuity for the period of twelve months after the preparation of the report.

The statements in this section are not statements in accordance with the requirements of Section 404 of the US Sarbanes-Oxley Act.

Responsibilities for the financial statements and the Annual Report

The Executive Board is responsible for preparing the financial statements and the Annual Report in accordance with Dutch law and the International Financial Reporting Standards as adopted by the European Union (IFRS-EU).

As required by section 5:25c of the Dutch Financial Supervision Act (Wet op het financieel toezicht (Wft)), the Executive Board confirms that, to the best of its knowledge, the financial statements have been prepared in accordance with applicable accounting standards and give a true and fair view of the assets, liabilities, financial condition and profit or loss of the Company and the undertakings included in the consolidation as a whole; and that the Report of the Executive Board gives a fair view of the position at the reporting date of the Company, the development and performance of the business during the financial year, and the undertakings included in the consolidation as a whole, together with a description of the principal risks and uncertainties that the Company faces.

Statement of materiality, significant audiences and responsibility

Materiality: Every year, we identify our material topics. These are the topics that, we believe, will have the most impact on our business in the years ahead, not only on our financial performance, but also our ability to continue creating long-term value for the societies in which we operate. This report looks in detail at these topics, and at how we, as a financial services company, are meeting the challenges and opportunities they represent for our business. Our material topics are also built into our annual strategy cycle.

Significant audiences: This report is intended first and foremost for investors. We believe it's important that financial markets price in fully social, business and environmental risk. For this to happen, management must disclose these risks, and work to understand the connection between value creation and longer-term financial performance. Legislators are already moving in this direction, with the adoption of the EU Directive on Non-Financial Reporting and the publication of recommendations from the Financial Stability Board's Task Force on Climate-Related Financial Disclosures. Aegon is not only a financial services provider. It is also an investor. Consequently, this report also examines the efforts we've made to embed social, environmental and economic factors into our own investment decision-making.

Responsibility: As Aegon's Executive Board, we bear ultimate responsibility for this report and its contents. This is our eighth integrated report – but the first time we've published a combined integrated and Annual Report. We're happy to support the IIRC and GRI in their push for more complete and relevant corporate reporting. Disclosure is only part of the story. For us, integrated reporting is also about understanding both the financial and non-financial factors affecting our business, and using that understanding to drive better, more integrated decision-making.

The Hague, the Netherlands, March 18, 2020

The Executive Board of Aegon N.V.

Alexander R. Wynaendts, CEO

Matthew J. Rider, CFO

Controls and procedures

Disclosure controls and procedures

At the end of the period covered by this Annual Report, Aegon's management carried out an evaluation, under the supervision and with the participation of its Chief Executive Officer (CEO) and Chief Financial Officer (CFO), of the effectiveness of the design and operation of Aegon's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934). Based on this evaluation, Aegon's CEO and CFO concluded that, as of December 31, 2019, the disclosure controls and procedures were effective. There have been no material changes in the Company's internal controls or in other factors that could significantly affect internal controls over financial reporting subsequent to the end of the period covered by this Annual Report.

Due to the listing of Aegon shares on the New York Stock Exchange, Aegon is required to comply with the US Securities and Exchange Commission regulations adopted pursuant to Section 404 of the Sarbanes-Oxley Act, or SOX 404. These regulations require that Aegon's CEO (the Chairman of the Executive Board) and CFO report on and certify the effectiveness of Aegon's internal controls over financial reporting on an annual basis. Furthermore, external auditors are required to provide an opinion on the effectiveness of Aegon's internal controls over financial reporting. The SOX 404 statement by the Executive Board is stated below, followed by the report of the external auditor.

Management's Annual Report on internal control over financial reporting

The directors and management of Aegon are responsible for establishing and maintaining adequate internal control over financial reporting. Aegon's internal control over financial reporting is a process designed under the supervision of Aegon's principal executive and financial officers to provide reasonable assurance regarding the reliability of financial reporting and the preparation of its published financial statements. Internal control over financial reporting includes policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit the preparation of financial statements in accordance with generally accepted accounting principles;
- Provide reasonable assurance that receipts and expenditures are made only in accordance with the authorizations of management and directors of the Company; and
- Provide reasonable assurance that unauthorized acquisition, use or disposition of company assets that could have a material effect on Aegon's financial statements would be prevented or detected in a timely manner.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with policies or procedures may deteriorate.

Management assessed the effectiveness of Aegon's internal control over financial reporting as of December 31, 2019.

In making its assessment management used the criteria established in 'Internal Control - Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission' (COSO, 2013 framework).

Based on the assessment, management concluded that, in all material aspects, the internal control over financial reporting was effective as of December 31, 2019. They have reviewed the results of its work with the Audit Committee of the Supervisory Board.

The effectiveness of internal control over financial reporting as of December 31, 2019, was audited by PricewaterhouseCoopers Accountants N.V., an independent registered public accounting firm, as stated in their report included on the following page.

Management's assessment of going concern

The directors and management of Aegon have adopted a going concern basis, in preparing the consolidated financial statements, on the reasonable assumption that the Company is, and will be, able to continue its normal course of business in the foreseeable future.

Relevant facts and circumstances relating to the consolidated financial position on December 31, 2019, were assessed in order to reach the going concern assumption. The main areas assessed are financial performance, capital adequacy, financial flexibility, liquidity and access to capital markets, together with the factors likely to affect Aegon's future development, performance and financial position. Commentary on these is set out in the 'Capital and liquidity management', 'Risk management', 'Results of operations' and 'Business overview' sections in this Annual Report. Taking into account the financial performance of the Company, its continued ability to access capital markets, the fact that its solvency and leverage ratios are well within target range, and the level of excess cash in the holding, management concluded that the going concern assumption is appropriate.

The Hague, the Netherlands, March 18, 2020

The Executive Board of Aegon N.V.

Report of Independent Registered Public Accounting Firm

To: The Annual General Meeting of Shareholders and Supervisory Board of Aegon N.V.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Aegon N.V. and its subsidiaries (the "Company") as of December 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on internal control over financial reporting appearing under Item 15. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and

testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Amsterdam, the Netherlands
March 18, 2020
PricewaterhouseCoopers Accountants N.V.

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Selected financial data

The financial results in this Annual Report are based on Aegon's consolidated financial statements, which have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU).

Application of the accounting policies in the preparation of the financial statements requires management to apply judgment involving assumptions and estimates concerning future results or other developments, including the likelihood, timing or amount of future transactions or events. There can be no assurance that actual results will not differ materially from those estimates. Accounting policies that are critical to the presentation of the financial statements and that require

complex estimates or significant judgment are described in the notes to the financial statements.

A summary of historical financial data is provided in the table below. It is important to read this summary in conjunction with the consolidated financial statements and related notes (see pages 148-313) of this Annual Report.

Selected consolidated income statement information

In EUR million (except per share amount)	2019	2018	2017	2016	2015
Amounts based upon IFRS-EU					
Premium income	18,138	19,316	22,826	23,453	22,925
Investment income	7,531	7,035	7,338	7,788	8,525
Total revenues ¹⁾	28,197	28,914	32,973	33,655	33,902
Income/ (loss) before tax	1,832	782	2,393	805	(634)
Net income/ (loss)	1,528	744	2,361	586	(523)
Earnings per common share					
Basic	0.70	0.31	1.08	0.22	(0.31)
Diluted	0.70	0.31	1.08	0.22	(0.31)
Earnings per common share B					
Basic	0.02	0.01	0.03	0.01	(0.01)
Diluted	0.02	0.01	0.03	0.01	(0.01)

¹⁾ Excluded from the income statements prepared in accordance with IFRS-EU are receipts related to investment-type annuity products and investment contracts.

Selected consolidated balance sheet information

In million EUR	2019	2018 ¹⁾	2017 ¹⁾	2016 ¹⁾	2015 ¹⁾
Amounts based upon IFRS-EU					
Total assets	441,123	393,031	396,291	425,935	415,729
Insurance and investment contracts	371,584	330,586	324,392	344,967	343,752
Borrowings including subordinated and trust pass-through securities	11,650	13,583	14,532	14,076	13,361
Shareholders' equity	22,457	19,518	20,550	20,821	22,539

¹⁾ Amounts have been restated to reflect voluntary changes in accounting policies related to liability adequacy testing that was adopted by Aegon effective January 1, 2019. Refer to note 2.1.2 Voluntary changes in accounting policies for details about this change.

Number of common shares

In thousands	2019	2018	2017	2016	2015
Balance at January 1	2,095,648	2,095,648	2,074,549	2,147,037	2,145,948
Share issuance	-	-	-	-	-
Stock dividends	9,491	-	21,099	10,629	1,089
Shares withdrawn	-	-	-	(83,117)	-
Balance at end of period	2,105,139	2,095,648	2,095,648	2,074,549	2,147,037

Number of common shares B

In thousands	2019	2018	2017	2016	2015
Balance at January 1	585,022	585,022	585,022	585,022	581,326
Share issuance	-	-	-	-	3,696
Balance at end of period	585,022	585,022	585,022	585,022	585,022

Dividends

Aegon declared interim and final dividends on common shares for the years 2015 through 2019 in the amounts set forth in the following table. The 2019 interim dividend amounted to EUR 0.15 per common share and EUR 0.00375 per common share B. The interim dividend was paid in cash or stock at the election of the shareholder. The interim dividend was payable as of September 20, 2019. At the General Meeting of Shareholders currently scheduled for May 15, 2020, the Executive Board will, in line with its earlier announcement and absent a further significant deterioration of market circumstances, propose a final dividend of EUR 0.16 per

common share (at each shareholders option in cash or in stock), and EUR 0.004 per common share B, which has financial rights attached to it of 1/40th of a common share. This will bring the total dividend for 2019 to EUR 0.31 per common share and EUR 0.00775 per common share B. In case of a final dividend, this will be paid in cash or stock at the election of the shareholder. The value of the stock dividend will be approximately equal to the cash dividend. Dividends in US dollars are calculated based on the foreign exchange reference rate (WM/Reuters closing spot exchange rate fixed at 5.00 pm Central European Summer Time ('CEST')) on the US-ex dividend day.

Year	EUR per common share ¹⁾			USD per common share ¹⁾		
	Interim	Final	Total	Interim	Final	Total
2015	0.12	0.13	0.25	0.13	0.15	0.28
2016	0.13	0.13	0.26	0.15	0.15	0.29
2017	0.13	0.14	0.27	0.15	0.16	0.32
2018	0.14	0.15	0.29	0.16	0.17	0.33
2019	0.15	0.16 ²⁾	0.31	0.17		

¹⁾ Paid at each shareholders' option in cash or in stock.

²⁾ Proposed.

Results of operations

This Integrated Annual Report includes the non-IFRS-EU financial measure underlying earnings before tax. The reconciliation of this measure to the most comparable IFRS-EU measure is presented in note 5 'Segment information' of the consolidated financial statements. This non-IFRS-EU measure is calculated by consolidating on a proportionate basis the revenues and expenses of Aegon's joint ventures in China, India, Japan, Mexico, the Netherlands, Portugal and Spain and Aegon's associates in Brazil, France, the Netherlands and United Kingdom.

The information on the following tables also includes the non-IFRS-EU financial measure net underlying earnings. This is the after-tax equivalent of underlying earnings before tax. The reconciliation of net underlying earnings to the most comparable IFRS-EU measure is presented in this section. Aegon believes that these non-IFRS-EU measures provides meaningful supplemental information about the underlying operating results of Aegon's businesses, including insight into the financial measures that senior management uses in managing the businesses.

Aegon's senior management is compensated based in part on Aegon's results against targets using the non-IFRS-EU measures presented in this report. While many other insurers in Aegon's peer group present substantially similar non-IFRS-EU measures, the non-IFRS-EU measures presented in this document may nevertheless differ from the non-IFRS-EU measures presented by other insurers. There is no standardized meaning to these measures under IFRS-EU or any other recognized set of accounting standards and readers

are cautioned to consider carefully the different ways in which Aegon and its peers present similar information before making a comparison. Aegon believes the non-IFRS-EU measures present within this report, when read together with Aegon's reported IFRS-EU financial statements, provide meaningful supplemental information for the investing public. This enables them to evaluate Aegon's businesses after eliminating the impact of current IFRS-EU accounting policies for financial instruments and insurance contracts, which embed a number of accounting policy alternatives that companies may select in presenting their results (as companies may use different local generally accepted accounting principles (GAAPs)), and this may make the comparability difficult between time periods.

For the discussion on our operating results for the year ended December 31, 2017, including certain comparative discussion on our operating results for the years ended December 31, 2017 and December 31, 2018, please refer to the section Results of operations on pages 106 to 142 in Aegon's 2018 Integrated Annual Report.

Results 2019 worldwide

Underlying earnings geographically

Amounts in EUR millions	2019	2018	%
Net underlying earnings	1,651	1,754	(6)
Tax on underlying earnings	322	320	1
Underlying earnings before tax geographically			
Americas	1,124	1,216	(8)
The Netherlands	648	615	5
United Kingdom	139	128	9
Southern & Eastern Europe	88	96	(8)
Europe	875	839	4
Asia	62	55	13
Asset Management	139	151	(8)
Holding and other activities	(227)	(188)	(21)
Underlying earnings before tax	1,973	2,074	(5)
Fair value items	(226)	(260)	13
Gains / (losses) on investments	405	(77)	n.m.
Net impairments	(22)	(19)	(15)
Other income / (charges)	(281)	(875)	68
Run-off businesses	23	(14)	n.m.
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	1,872	829	126
<i>Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	40	47	(15)
Income tax	(344)	(84)	n.m.
<i>Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	(40)	(47)	15
Net income / (loss)	1,528	744	105
Commissions and expenses	6,601	6,673	(1)
of which operating expenses	3,929	3,786	4

New life sales

Amounts in EUR millions	2019	2018	%
Americas	419	420	-
The Netherlands	136	101	35
United Kingdom	41	40	3
Southern & Eastern Europe	133	137	(3)
Europe	311	278	12
Asia	131	122	7
Total recurring plus 1/10 single	861	820	5

Amounts in EUR millions	2019	2018	%
New premium production accident and health insurance	230	308	(25)
New premium production general insurance	129	121	6

Gross deposits (on and off balance)

Amounts in EUR millions	2019	2018	%
Americas	40,406	38,279	6
The Netherlands	13,207	10,169	30
United Kingdom	9,749	13,223	(26)
Southern & Eastern Europe	351	406	(14)
<i>Europe</i>	23,307	23,798	(2)
Asia	7	128	(94)
Asset Management	80,939	59,495	36
Total gross deposits	144,660	121,700	19

Net deposits (on and off balance)

Amounts in EUR millions	2019	2018	%
Americas	(29,371)	(14,734)	(99)
The Netherlands	1,445	1,411	2
United Kingdom	(3,487)	1,225	n.m.
Southern & Eastern Europe	19	143	(87)
<i>Europe</i>	(2,023)	2,779	n.m.
Asia	1	7	(83)
Asset Management	6,841	7,526	(9)
Total net deposits excluding run-off businesses	(24,551)	(4,421)	n.m.
Run-off businesses	(578)	(234)	(147)
Total net deposits / (outflows)	(25,130)	(4,656)	n.m.

Worldwide revenues geographically 2019

Amounts in EUR millions	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding, other activities and eliminations	Segment total	Associates and joint Ventures eliminations	Consolidated
Total life insurance gross premiums	7,279	1,765	6,282	552	8,598	737	-	3	16,617	(691)	15,926
Accident and health insurance premiums	1,416	228	28	110	366	91	-	-	1,872	(50)	1,823
General insurance premiums	-	130	-	382	512	-	-	-	512	(122)	390
Total gross premiums	8,694	2,123	6,309	1,044	9,476	828	-	3	19,002	(864)	18,138
Investment income	3,172	2,224	1,830	76	4,130	303	5	(15)	7,595	(64)	7,531
Fees and commission income	1,757	237	197	50	484	59	627	(187)	2,740	(218)	2,523
Other revenue	8	-	-	-	-	1	1	5	16	(10)	6
Total revenues	13,631	4,583	8,337	1,171	14,091	1,191	633	(194)	29,352	(1,155)	28,197
Number of employees, including agent employees	8,570	3,582	2,261	2,853	8,696	4,540	1,535	416	23,757		

Worldwide revenues geographically 2018

Amounts in EUR millions	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding, other activities and eliminations	Segment total	Associates and Joint Ventures eliminations	Consolidated
Total life insurance gross premiums	7.004	1.632	7.509	622	9.763	779	-	2	17.548	(579)	16.969
Accident and health insurance premiums	1.571	219	29	102	351	94	-	-	2.015	(36)	1.979
General insurance premiums	-	136	-	343	479	-	-	-	479	(112)	367
Total gross premiums	8.575	1.987	7.539	1.067	10.592	873	-	2	20.042	(727)	19.316
Investment income	3.125	2.265	1.346	83	3.695	268	5	2	7.095	(59)	7.035
Fees and commission income	1.826	211	198	63	473	58	632	(206)	2.782	(224)	2.558
Other revenue	5	-	-	-	-	2	1	4	12	(6)	5
Total revenues	13.530	4.463	9.083	1.213	14.760	1.201	638	(199)	29.930	(1.016)	28.914
Number of employees, including agent employees	8.824	3.548	3.135	2.837	9.520	6.344	1.464	390	26.543		

Results 2019 worldwide

Aegon's net income in 2019 increased compared with 2018 to EUR 1,528 million. Underlying earnings before tax decreased by 5% compared with 2018 to EUR 1,973 million in 2019, due to lower underlying earnings before tax from Americas, Asset Management and Holding and other activities. These were partly offset by higher earnings from Europe and Asia. The increase in net income in 2019 compared with 2018 was driven by higher gains on investments and lower other charges.

Net income

Net income amounted to EUR 1,528 million in 2019, as underlying earnings before tax of EUR 1,973 million were partly offset by fair value losses, other charges, net impairments and income taxes. These items in turn offset gains on investments and gains from run-off businesses. The effective tax rate amounted to 18%, mainly as a result of tax exempt income items and the use of tax credits in the United States and in the United Kingdom the own employee pension plan moving into surplus.

Underlying earnings before tax

Aegon's underlying earnings before tax decreased compared with 2018 to EUR 1,973 million in 2019. This was mainly driven by the Americas as a result of lower fee revenues in Variable Annuities, the negative impacts from lower rates and developments in portfolios on intangibles in the Life business, and investments in the US businesses to support growth. The other main contributor to the decrease in underlying earnings before tax was Holdings and other activities, primarily due to more interest expenses being recorded via the income statement instead of directly through equity. Europe was the main offsetting reporting segment, with a 4% increase of underlying earnings before tax in 2019 compared with 2018.

- In the Americas, underlying earnings before tax in 2019 decreased by 8% compared with 2018 to EUR 1,124 million caused by lower fee revenues in Variable Annuities, negative impacts from lower interest rates, tighter credit spreads and portfolios on intangibles in the Life business, and investments in the business to support growth. These more than offset the effect of favorable currency movements.
- In Europe, underlying earnings before tax in 2019 increased by 4% compared with 2018 to EUR 875 million as a result of growth in the Netherlands and the United Kingdom, more than offsetting the lower earnings from Southern & Eastern Europe due to the divestment of Aegon's businesses in the Czech Republic and Slovakia.
- In Asia, underlying earnings before tax improved by 7% compared with 2018 to EUR 62 million in 2019. This was mainly driven by Aegon Insights, reflecting expense savings and favorable claims experience.

- Underlying earnings before tax from Asset Management decreased by 8% in 2019 compared with 2018 to EUR 139 million. This decrease was mainly driven by Europe and the Americas, more than offsetting an increase of underlying earnings before tax in the Rest of World.
- Total Holdings costs amounted to EUR 227 million in 2019 compared with EUR 188 million in 2018. This is mainly due to the refinancing of debt. Aegon redeemed perpetual securities, for which the interest expense was recorded directly through equity, and issued dated (Tier 2) instruments, for which the interest expense is recorded through the profit & loss statement.

Fair value items

The loss from fair value items amounted to EUR 226 million in 2019. Fair value losses in Europe were the main driver, totaling EUR 490 million in 2019. This was primarily related to the Netherlands, where the liability adequacy test (LAT) showed a shortfall during 2019 which in turn was partly offset by gains on derivatives and the guarantee provision. The United Kingdom also recorded fair value losses, mainly because of hedging results. Fair value gains in the Americas amounted to EUR 272 million in 2019, and mainly related to positive real estate revaluations and favorable equity markets leading to gains on the macro hedge, net of reserve movements. Losses on fair value items in Asia and at the Holding totaled EUR 8 million in 2019.

Realized gains on investments

Realized gains on investments amounted to EUR 405 million in 2019, driven by Europe and the Americas. In Europe these related largely to optimization of the investment portfolio in the Netherlands. In the Americas, the realized gains on investments were driven by bond calls and prepayments, mortgage loan gains, and normal trading activity.

Impairment charges

Net impairments of EUR 22 million in 2019 mainly related to the impairments of corporate bonds resulting from bankruptcy filings in the United States and the impairment of consumer loans in the Netherlands. These were partly offset by recoveries for structured assets in the Americas, all of which were originally impaired between 2008 and 2013.

Other charges

Other charges amounted to EUR 281 million in 2019. The Americas recorded other charges of EUR 156 million in 2019 mainly due to unfavorable impacts from model and assumption changes. Furthermore, other charges were recorded in relation to the operation of administration partnerships with TCS and LTCCG, as well as following the decision to exit the Akaan Transamerica joint venture in Mexico. For Europe, the other charges totaled EUR 5 million. The main negative elements were unfavorable impacts from model and assumption changes and restructuring charges, both in the Netherlands and the United Kingdom. The main positive items were a provision release in the Netherlands following the change in pension scheme for own employees and a gain resulting from the sale of Aegon's Czech and Slovak operations. For the Holdings, other charges amounted to EUR 95 million and resulted primarily from IFRS 9 / 17 implementation expenses. The other charges for Asset Management and Asia totaled EUR 25 million.

Run-off businesses

The results of run-off businesses increased compared with 2018 to a gain of EUR 23 million in 2019, driven mainly by higher income from the retained individual life reinsurance business.

Income tax

The effective tax rate amounted to 18%, mainly as a result of regular tax exempt income items and the use of tax credits in the United States, and the one-time benefits from the own employee pension plan moving into surplus. The effective tax rate on underlying earnings before tax amounted to 16%.

Commissions and expenses

Commissions and expenses decreased by 1% compared with 2018 to EUR 6.6 billion in 2019. Operating expenses increased by 4% compared with 2018 to EUR 3.9 billion in 2019. This increase primarily reflects lower restructuring expenses being more than offset by investments to support growth and customer experience in addition to higher IFRS 9 /17 implementation expenses.

Production

Compared with 2018, gross deposits were up by 19% to EUR 144.7 billion in 2019, driven by higher Asset Management deposits, driven by Aegon's Chinese joint venture Aegon Industrial Fund Management Company (AIFMC). Net outflows during 2019 amounted to EUR 25.1 billion and were primarily due to outflows in the Americas in the Retirement Plan business following contract discontinuances and higher participant withdrawals. Europe exhibited net outflows resulting from the United Kingdom, more than offsetting net inflows in the Netherlands. Asset Management also recorded net inflows, primarily driven by the strategic partnership AIFMC. New life sales improved by 5% compared with 2018 to EUR 861 million in 2019, mainly driven by Europe, primarily as a result of a buy-out deal and

a purchase of additional yearly pension increases by an existing customer, both in the Netherlands. New premium production for Accident & Health and property & casual insurance decreased by 16% in 2019 compared with 2018 to EUR 359 million in 2018, mainly driven by the previously announced strategic decision to exit the travel insurance, affinity and stop loss insurance segments in the United States.

Capital management

During 2019, shareholders' equity increased with EUR 2.9 billion to EUR 22.5 billion, mainly as a result of lower interest rates and tighter credit spreads and their impact on the revaluation reserve, in combination with retained earnings. These were partly offset by the impact of lower interest rates on the remeasurement of the defined benefit obligations. Aegon's shareholders' equity, excluding revaluation reserves, amounted to EUR 16.6 billion on December 31, 2019, or EUR 8.08 per common share.

The gross leverage ratio improved to 28.5% on December 31, 2019, compared with 29.2% at the end of 2018, which was mostly the result of the higher shareholders' equity excluding revaluation reserves, in combination with a net deleveraging during 2019. Excess cash in the holding declined in 2019 compared with 2018 to EUR 1.2 billion, as remittances from business units were more than offset by dividends to shareholders, interest payments, operating expenses and capital injections into the units, and net debt deleveraging and the associated costs.

On December 31, 2019, Aegon's estimated Solvency II ratio amounted to 201%, down from 211% at the end of 2018. This decrease was driven by unfavorable impacts from market movements and model and assumption updates, more than offsetting normalized capital generation. The RBC ratio in the United States improved to 470% on December 31, 2019, up from 465% on December 31, 2018. This was mainly driven by retained capital generation and favorable one-time items. In the Netherlands, the estimated Solvency II ratio at the end of 2019 amounted to 171%, down from 181% at the end of 2018. The ratio was impacted by adverse market impacts, notably credit spread movements, and adverse changes in required capital for illiquid investments, which more than offset normalized capital generation and the effect of management actions. The estimated Solvency II ratio at the end of 2019 of Aegon United Kingdom amounted to 157%, down from 184% at the end of 2018. The decrease was mainly driven by remittance payments to the holding, including a special dividend, and the adverse impact of markets and assumption updates.

The Solvency ratios as disclosed in this section represent Aegon's estimates, are not final until filed with the regulator, and are subject to supervisory review.

Dividends from and capital contributions to business units

Aegon's business units remitted over EUR 1.2 billion to the Group during 2019, including EUR 809 million from the Americas and EUR 251 million from the United Kingdom. Aegon spent EUR 401 million on capital injections, including earn-out payments, while the proceeds from divestments amounted to EUR 131 million.

Results 2019 Americas

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
Net underlying earnings	1,083	1,276	(15)	967	1,080	(10)
Tax on underlying earnings	175	161	9	157	136	15
Underlying earnings before tax by business						
Life	186	263	(30)	166	223	(26)
Accident & Health	241	259	(7)	215	220	(2)
Retirement plans	160	195	(18)	143	165	(13)
Mutual funds	37	45	(17)	33	38	(12)
Variable annuities	423	469	(10)	378	397	(5)
Fixed annuities	110	114	(3)	99	96	2
Stable Value Solutions	85	93	(8)	76	79	(3)
Latin America	15	(2)	n.m.	14	(2)	n.m.
Underlying earnings before tax	1,258	1,437	(12)	1,124	1,216	(8)
Fair value items	304	(724)	n.m.	272	(613)	n.m.
Gains / (losses) on investments	140	(241)	n.m.	125	(204)	n.m.
Net impairments	16	(10)	n.m.	14	(9)	n.m.
Other income / (charges)	(174)	(469)	63	(156)	(397)	61
Run-off businesses	26	(16)	n.m.	23	(14)	n.m.
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	1,569	(23)	n.m.	1,401	(20)	n.m.
<i>Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	6	2	134	5	2	147
Income tax	(246)	84	n.m.	(220)	71	n.m.
<i>Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	(6)	(2)	(134)	(5)	(2)	(147)
Net income / (loss)	1,323	61	n.m.	1,182	51	n.m.
Life insurance gross premiums	8,150	8,276	(2)	7,279	7,004	4
Accident and health insurance premiums	1,585	1,856	(15)	1,416	1,571	(10)
Total gross premiums	9,735	10,132	(4)	8,694	8,575	1
Investment income	3,552	3,693	(4)	3,172	3,125	2
Fees and commission income	1,968	2,157	(9)	1,757	1,826	(4)
Other revenues	8	6	53	8	5	61
Total revenues	15,263	15,988	(5)	13,631	13,530	1
Commissions and expenses	4,320	4,776	(10)	3,858	4,042	(5)
of which operating expenses	1,756	1,852	(5)	1,569	1,567	-

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
New life sales						
Life	396	416	(5)	354	352	-
Latin America	73	80	(8)	66	67	(3)
Total recurring plus 1/10 single	469	496	(5)	419	420	-

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
New premium production accident and health insurance	194	312	(38)	174	264	(34)

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
Gross deposits (on and off balance)						
Life	6	8	(20)	6	7	(16)
Retirement plans	34,320	34,284	-	30,651	29,015	6
Mutual funds	6,137	7,029	(13)	5,481	5,949	(8)
Variable annuities	3,711	3,252	14	3,315	2,752	20
Fixed annuities	704	443	59	628	375	68
Latin America	364	214	70	325	181	79
Total gross deposits	45,242	45,231	-	40,406	38,279	6

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
Net deposits (on and off balance)						
Life	(56)	(36)	(57)	(50)	(30)	(66)
Retirement plans	(28,816)	(12,620)	(128)	(25,736)	(10,681)	(141)
Mutual funds	(317)	(627)	49	(283)	(530)	47
Variable annuities	(2,822)	(3,046)	7	(2,521)	(2,577)	2
Fixed annuities	(1,042)	(1,245)	16	(931)	(1,054)	12
Latin America	167	165	1	149	139	7
Total net deposits excluding run-off businesses	(32,886)	(17,409)	(89)	(29,371)	(14,734)	(99)
Run-off businesses	(647)	(277)	(134)	(578)	(234)	(147)
Total net deposits / (outflows)	(33,534)	(17,686)	(90)	(29,949)	(14,968)	(100)

Exchange rates

	Weighted average rate		Closing rate as of	
	2019	2018	December 31, 2019	December 31, 2018
Per 1 EUR				
USD	1.1197	1.1816	1.1225	1.1432

Results 2019 Americas

The net income from the Americas amounted to USD 1.3 billion in 2019. Underlying earnings before tax in 2019 decreased by 12% compared with 2018 to USD 1.3 billion caused by lower fee income in Retirement Plans and Variable Annuities, product exits in the Health business, investments in the business to support growth and the impact of unfavorable economic movements on Life. Gross deposits were stable at USD 45.2 billion in 2019 compared with 2018, as higher gross deposits in Variable Annuities, Fixed Annuities, and from Latin America compensated lower gross deposits in Mutual funds. New life sales declined to USD 469 million in 2019 compared with USD 496 million in 2018 due to lower universal life and term life sales. New premium production for Accident & Health insurance was down 38% compared with 2018 to USD 194 million in 2019, reflecting the strategic decision to exit travel insurance, affinity and stop loss insurance segments.

Net income

The net income amounted to USD 1.3 billion in line with underlying earnings before tax, as gains from fair value items and realized gains on investments were offset by other charges and income taxes. Underlying earnings before tax in 2019 decreased by 12% compared with 2018 to USD 1.3 billion. Results on fair value items amounted to a gain of USD 304 million in 2019, which was primarily related to:

- The gain in fair value investments amounted to USD 154 million, mainly driven by a USD 181 million mark-to-market gain from valuation updates related to accepting an offer to sell the Pyramid building complex in San Francisco, partly offset by alternative investments underperformance and the impact of credit spreads on derivatives.
- Hedges without an accounting match under IFRS resulted in a gain of USD 157 million. This was driven by gains on the macro hedge net of reserve movements, reflecting favorable equity markets.
- The result on fair value hedges with an accounting match amounted to a loss of USD 9 million.

Realized gains on investments were USD 140 million resulting from bond calls and prepayments, mortgage loan gains, and normal trading activity. Net impairments amounted to gains of USD 16 million, reflecting recoveries on multiple structured assets with sustained improvements in cash flows, partly offset by corporate bond impairments resulting from bankruptcy filings. Income before tax from run-off businesses in 2019 was a profit of USD 26 million, which is in line with expectations following the divestment of the majority of the remainder of these businesses. Other charges of USD 174 million in 2019 mainly related to USD 164 million impacts from unfavorable model and assumption changes. These were related to charges for

surrender, lapse, and mortality updates in Life, as well as expense assumption updates following changes of the organizational structure earlier in the year, and were partly offset by gains driven by updates to variable annuity and indexed universal life model and assumptions. Other charges of USD 34 million occurred in relation to the operations administration partnerships with TCS and LTCG, as well as following the decision to exit the Akaan Transamerica joint venture in Mexico. These were partly compensated by a USD 24 million gain resulting from the restructuring of financing agreements related to the merger of two reinsurance captives.

Underlying earnings before tax

Underlying earnings before tax in 2019 decreased by 12% compared with 2018 to USD 1.3 billion caused by lower fee income in Retirement Plans and Variable Annuities due to net outflows, product exits in the Accident & Health business, investments in the business to support growth and improve customer experience, and the impact of unfavorable economic movements on the Life earnings.

- Underlying earnings before tax from Life decreased by 30% to USD 186 million in 2019 compared with USD 263 million in 2018. This decrease was largely driven by a negative impact from economic and portfolio updates on intangibles in 2019, compared to 2018. In addition, operating expenses increased in part due to costs to support growth and to improve customer experience. Mortality experience in 2019 was similar to the prior year, while persistency was better compared to 2018.
- Accident & Health underlying earnings before tax decreased to USD 241 million in 2019 compared with USD 259 million in 2018, mainly due to exiting affinity, accident, and travel products.

- Retirement Plans underlying earnings before tax were down 18% to USD 160 million in 2019 compared with USD 195 million in 2018. This was the result of lower fee income from lower asset balances, a lower investment margin, and operating expenses to support growth and improve the Workplace experience.
- Underlying earnings before tax from Mutual Funds declined from USD 45 million in 2018 to USD 37 million in 2019. This was caused by higher operating expenses, lower fee income following net outflows, and lower investment margin.
- Underlying earnings before tax from Variable Annuities decreased by 10% to USD 423 million in 2019 compared with USD 469 million in 2018, driven by lower fee income from lower average balances. This was partly offset by lower benefits incurred due to both lower claims volume and lower average benefits.
- Fixed Annuity underlying earnings before tax decreased by 3% compared with 2018 to USD 110 million in 2019, mainly due to the impact of lower interest rates.
- Underlying earnings before tax from Stable Value Solutions amounted to USD 85 million in 2019 compared with USD 93 million in 2018 caused by margin pressure in a competitive market.
- Latin America improved underlying earnings before tax from a loss of USD 2 million in 2018 to a profit of USD 15 million in 2019, reflecting growth and a more attractive business mix with higher product margins from the Mongeral Aegon Group joint venture in Brazil. A portion of the increase was also related to the strategic decision to wind down the loss-making Akaan Transamerica joint venture in Mexico in the first half of 2019.

Commissions and expenses

Commissions and expenses decreased by 10% compared with 2018 to USD 4.3 billion in 2019. Operating expenses decreased by 5% compared with 2018 to USD 1.8 billion in 2019 reflecting lower restructuring expenses associated with the operations administration partnerships, and lower employee expenses. This was partly offset by expenses for modernization initiatives focused on digital and architectural capabilities as well as contractual increases in fees from the operations administration partnerships.

Production

Gross deposits were stable at USD 45.2 billion in 2019 compared with 2018, driven by lower gross deposits in Mutual funds which were compensated by higher gross deposits in Variable Annuities, Fixed Annuities, and from Latin America. Net outflows amounted to USD 32.9 billion, mainly caused by Retirement Plans due to a small number of large contract discontinuances and higher participant withdrawals. Variable Annuities and Fixed Annuities saw outflows as these books mature.

New life sales declined to USD 469 million in 2019 compared with USD 496 million in 2018 due to lower universal life and term life sales, while Indexed Universal Life sales were stable. New premium production for accident & health insurance was down 38% compared with 2018 to USD 194 million in 2018, reflecting the strategic decision to exit travel insurance, affinity and stop loss insurance segments, partly offset by the onboarding of a larger disability contract.

Introduction Europe

The results 2019 Europe cover the following operating segments: The Netherlands, United Kingdom and Southern & Eastern Europe.

This segment reporting is based on the businesses as presented in internal reports that are regularly reviewed by the Executive Board which is regarded as Aegon's chief operating decision maker. For Europe, the underlying businesses are separate operating segments which under IFRS 8 cannot be aggregated, therefore further details will be provided for these operating

segments in this section. Management is of the opinion that presenting the information for the entire European area is beneficial to the users of the financial information as it aligns to how Aegon management is looking at the information following convergence in Europe from a regulatory standpoint and financial markets perspective.

Income statement - Underlying earnings

Amounts in EUR millions	2019				2018			
	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe
Net underlying earnings	494	161	69	723	480	117	77	674
Tax on underlying earnings	154	(21)	20	152	135	12	19	165
Underlying earnings before tax by product segment	648	139	88	875	615	128	96	839
Fair value items	(365)	(131)	7	(490)	280	59	6	346
Gains / (losses) on investments	240	3	27	271	46	83	-	129
Net impairments	(26)	-	-	(26)	6	-	(1)	5
Other income / (charges)	(1)	(38)	33	(5)	(132)	(252)	(26)	(409)
Income / (loss) before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	496	(27)	155	625	815	19	76	909
Income tax	(113)	(7)	(19)	(140)	(134)	20	(19)	(133)
Net income / (loss)	383	(34)	136	486	681	38	57	777
Revenues								
Life insurance gross premiums	1,765	6,282	552	8,598	1,632	7,509	622	9,763
Accident and health insurance premiums	228	28	110	366	219	29	102	351
General insurance premiums	130	-	382	512	136	-	343	479
Total gross premiums	2,123	6,309	1,044	9,476	1,987	7,539	1,067	10,592
Investment income	2,224	1,830	76	4,130	2,265	1,346	83	3,695
Fees and commission income	237	197	50	484	211	198	63	473
Other revenues	-	-	-	-	-	-	-	-
Total revenues	4,583	8,337	1,171	14,091	4,463	9,083	1,213	14,760
Commissions and expenses	883	707	442	2,032	812	704	475	1,991
of which operating expenses	809	531	248	1,588	703	521	271	1,496

Results 2019 Europe

Amounts in EUR millions	2019	2018	%
Net underlying earnings	723	674	7
Tax on underlying earnings	152	165	(8)
Underlying earnings before tax by business / country			
The Netherlands	648	615	5
United Kingdom	139	128	9
Southern & Eastern Europe	88	96	(8)
Underlying earnings before tax	875	839	4
Fair value items	(490)	346	n.m.
Gains / (losses) on investments	271	129	109
Net impairments	(26)	5	n.m.
Other income / (charges)	(5)	(409)	99
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	625	909	(31)
<i>Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	14	11	36
Income tax	(140)	(133)	(5)
<i>Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	(14)	(11)	(36)
Net income / (loss)	486	777	(38)
Life insurance gross premiums	8,598	9,763	(12)
Accident and health insurance premiums	366	351	4
General insurance premiums	512	479	7
Total gross premiums	9,476	10,592	(11)
Investment income	4,130	3,695	12
Fees and commission income	484	473	2
Other revenues	-	-	n.m.
Total revenues	14,091	14,760	(5)
Commissions and expenses	2,032	1,991	2
of which operating expenses	1,588	1,496	6

New life sales

Amounts in EUR millions	2019	2018	%
The Netherlands	136	101	35
United Kingdom	41	40	3
Southern & Eastern Europe	133	137	(3)
Total recurring plus 1/10 single	311	278	12

Amounts in EUR million	2019	2018	%
New premium production accident and health insurance	48	36	33
New premium production general insurance	129	121	7

Gross deposits (on and off balance)	2019	2018	%
The Netherlands	13,207	10,169	30
United Kingdom	9,749	13,223	(26)
Southern & Eastern Europe	351	406	(14)
Total gross deposits	23,307	23,798	(2)

Net deposits (on and off balance)	2019	2018	%
The Netherlands	1,445	1,411	2
United Kingdom	(3,487)	1,225	n.m.
Southern & Eastern Europe	19	143	(87)
Total net deposits / (outflows)	(2,023)	2,779	n.m.

Exchange rates

	Weighted average rate	
Per 1 EUR	2019	2018
Pound sterling	0.8770	0.8844
Czech koruna	25.6503	25.6237
Hungarian forint	324.7099	318.2582
Polish zloty	4.2966	4.2594
Romanian leu	4.7437	4.6521
Turkish Lira	6.3584	5.6958
Ukrainian Hryvnia	28.9514	32.1972

Results 2019 Europe

Net income declined by 38% compared with 2018 to EUR 486 million in 2019, as higher underlying earnings before tax and lower other charges were more than offset by negative fair value items, reflecting the Liability Adequacy Test (LAT) shortfall in the Netherlands. Underlying earnings before tax in 2019 increased by 4% compared with 2018 to EUR 875 million due to increases in the Netherlands and the United Kingdom.

Net income

Net income amounted to EUR 486 million in 2019 compared with EUR 777 million in 2018, as higher underlying earnings before tax, lower other charges and higher gains on investments were offset by negative fair value items. The loss on fair value items was caused by the LAT shortfall in the Netherlands, partly offset by fair value gains on derivatives, a gain on the guarantee provision and real estate revaluations.

Net income for the Netherlands

Net income from Aegon's businesses in the Netherlands amounted to EUR 383 million in 2019, driven by underlying earnings before tax of EUR 648 million, partly offset by negative fair value items. The result on fair value items deteriorated compared with 2018 to a loss of EUR 365 million in 2019, caused by a EUR 1,488 million LAT shortfall, partly offset by EUR 521 million fair value gains on derivatives, a EUR 434 million gain on the guarantee provision and EUR 183 million real estate revaluations. Realized gains of EUR 240 million in 2019 were the result of investment portfolio optimization. Net impairments amounted to EUR 26 million in 2019. Other charges were EUR 1 million in 2019 as charges from model and assumption changes and restructuring expenses were offset by the release of a provision for future salary increases as a consequence of the transition to a defined contribution plan for new pension accruals of Aegon's own employees.

Net income for the United Kingdom

Net income from Aegon's businesses in the United Kingdom amounted to a loss of EUR 34 million in 2019. The underlying result before tax of EUR 139 million was more than offset by negative fair value items of EUR 131 million and other charges of EUR 38 million. Losses from fair value items of EUR 131 million were mainly the result of losses on hedges as a result of higher equity markets and a lower inflation outlook. Realized gains amounted to EUR 3 million in 2019. Other charges amounted to EUR 38 million as EUR 109 million integration and restructuring charges were partly offset by income related to policyholder tax and a one-time provision release.

Net income for Southern and Eastern Europe

Net income from Aegon's businesses in Southern and Eastern Europe (SEE) amounted to EUR 136 million in 2019 and reflect underlying earnings before tax of EUR 88 million. Gains on investments amounted to EUR 27 million and were driven by a EUR 19 million divestment gain on assets backing insurance liabilities, which was fully offset by a similar amount on other charges due to a related transaction. Other income of EUR 33 million reflects a EUR 70 million gain on the sale of Aegon's operations in the Czech Republic and Slovakia, partly offset by the aforementioned transaction in Spain and a charge related to the divestment of non-core activities in Hungary.

Underlying earnings before tax

Underlying earnings before tax in 2019 increased by 4% compared with 2018 to EUR 875 million as a result of growth in the Netherlands and the United Kingdom.

Underlying earnings before tax for the Netherlands

Underlying earnings before tax for the Netherlands in 2019 increased by 5% compared with 2018 to EUR 648 million.

- Underlying earnings before tax from Life increased by 8% compared with 2018 to EUR 497 million, driven by a higher investment margin, reflecting lower profit sharing, and lower expenses.
- Underlying earnings before tax from Non-life were down by 23% compared with 2018 to EUR 31 million, due to lower disability provision releases.
- Banking's underlying earnings before tax declined by 1% compared with 2018 to EUR 102 million, as a higher net interest margin as a result of balance sheet growth was more than offset by higher expenses to ensure regulatory compliance focusing on customer due diligence and anti-money laundering initiatives.

- Underlying earnings before tax from the Service business increased by 64% compared with 2018 to EUR 18 million, driven by growth of the mortgage servicing business and lower funding expenses for mortgages that remain on balance for this business.

Underlying earnings before tax for the United Kingdom

Underlying earnings before tax in the United Kingdom increased by 9% compared with 2018 to EUR 139 million in 2019.

- Underlying earnings before tax from Existing Business declined by 8% compared with 2018 to EUR 98 million in 2019, reflecting net outflows, including upgrades to the Digital Solutions platform, as well as higher one-time project expenses.
- Underlying earnings before tax from Digital Solutions improved from EUR 21 million in 2018 to EUR 41 million in 2019, was driven by higher fee income as a result of increased assets on the platform in combination with economies of scale. This was partly offset by investment in the Aegon Platform to further increase its functionality and ease of use.

Underlying earnings before tax for Southern and Eastern Europe

Underlying earnings before tax from Southern and Eastern Europe decreased to EUR 88 million in 2019, down 8% compared with 2018. This decrease was caused by the sale of Aegon's businesses in the Czech Republic and Slovakia. Excluding this impact, the underlying result before tax increased 11%, driven by an upswing in results from Spain, reflecting favorable claims experience and reduced expenses.

Commissions and expenses

Commissions and expenses increased by 2% compared with 2018 to EUR 2,032 million in 2019. Operating expenses were up by 6% compared with 2018 to EUR 1,588 million in 2019.

Commissions and expenses for the Netherlands

Commissions and expenses increased compared with 2018 to EUR 883 million in 2019. Operating expenses were up by 15% compared with 2018 to EUR 809 million in 2019, reflecting the acquisition of Robidus in September 2018, as well as higher restructuring and one-time expenses.

Commissions and expenses for the United Kingdom

Commissions and expenses increased compared with 2018 to EUR 707 million in 2019. Operating expenses rose by 2% compared with 2018 to EUR 531 million in 2019 as expense savings were more than offset by investments in the Aegon Platform to further increase its functionality and ease of use.

Commissions and expenses for Southern and Eastern Europe

Commissions and expenses decreased compared with 2018 to EUR 442 million in 2019. Operating expenses decreased by 9% compared with 2018 to EUR 248 million in 2019, driven by the sale of Aegon's Czech and Slovak operations and expense savings, partly offset by taxes on motor insurance.

Production

Gross deposits decreased by 2% compared with 2018 to EUR 23.3 billion in 2019, primarily caused by lower platform flows in the United Kingdom, largely offset by higher bank and pension deposits in the Netherlands.

New life sales increased by 12% compared with 2018 to EUR 311 million in 2019, driven by a pension buy-out in the Netherlands. New premium production for Accident & Health insurance increased by 33% compared with 2018 to EUR 48 million in 2019, resulting from higher sales in Spain following the launch of a new accidental death and disability product as well as a successful marketing campaign for health products. New premium production in general insurance increased by 7% compared with 2018 to EUR 129 million in 2019, driven by business growth in Spain.

Production for the Netherlands

Gross deposits increased by 30% compared with 2018 to EUR 13.2 billion in 2019. This was driven by continued momentum at online bank Knab and by sales of new-style defined contribution products at Aegon Cappital, so-called Premium Pension Institute products. New life sales were up by 35% compared with 2018 to EUR 136 million in 2019 resulting from a pension buy-out as well as higher sales from a purchase of additional annual pension increases by an existing customer.

Production for the United Kingdom

Gross deposits decreased by 26% compared with 2018 to EUR 9.7 billion in 2019 as the retail business was impacted by lower overall market activity including a slowdown in defined benefit transfers, and prior service issues. New life sales rose by 3% compared with 2018 to EUR 41 million in 2019, due to higher protection sales.

Production for Southern and Eastern Europe

Gross deposits decreased by 14% compared with 2018 to EUR 351 million in 2019, largely caused by the divestment of Aegon's businesses in the Czech Republic and Slovakia as well as the non-core activities in Hungary. New life sales declined by 3% compared with 2018 to EUR 133 million in 2019, reflecting the divestment of Aegon's businesses in the Czech Republic and Slovakia. This was partly offset by higher production in Turkey and in the bancassurance joint ventures in Spain.

Results 2019 Asia

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
Net underlying earnings	45	30	53	40	25	61
Tax on underlying earnings	24	35	(32)	21	30	(29)
Underlying earnings before tax by business / country						
High net worth businesses	72	71	1	64	60	7
Aegon Insights	12	9	40	11	7	48
Strategic partnerships	(15)	(15)	2	(13)	(13)	(4)
Underlying earnings before tax	69	65	7	62	55	13
Fair value items	(5)	3	n.m.	(4)	3	n.m.
Gains / (losses) on investments	10	(10)	n.m.	9	(8)	n.m.
Net impairments	-	(7)	100	-	(5)	100
Other income / (charges)	(21)	(9)	(137)	(18)	(7)	(151)
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	53	43	25	48	36	32
<i>Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	(1)	15	n.m.	(1)	13	n.m.
Income tax	(16)	(29)	46	(14)	(25)	43
<i>Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	1	(15)	n.m.	1	(13)	n.m.
Net income / (loss)	37	13	182	33	11	197
Life insurance gross premiums	826	921	(10)	737	779	(5)
Accident and health insurance premiums	101	111	(8)	91	94	(3)
Total gross premiums	927	1,032	(10)	828	873	(5)
Investment income	339	317	7	303	268	13
Fees and commission income	66	68	(4)	59	58	1
Other revenues	2	2	(26)	1	2	(22)
Total revenues	1,334	1,419	(6)	1,191	1,201	(1)
Commissions and expenses	281	273	3	251	231	9
of which operating expenses	195	187	4	174	159	10

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
New life sales	146	144	2	131	122	7
High net worth businesses	36	53	(31)	33	45	(27)
Strategic partnerships	110	92	20	98	78	27
Total recurring plus 1/10 single	146	144	2	131	122	7

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
Gross deposits (on and off balance)	8	151	(95)	7	128	(94)
Strategic partnerships - China	8	3	164	7	3	179
Strategic partnerships - Japan	-	148	n.m.	-	125	n.m.
Total gross deposits	8	151	(95)	7	128	(94)

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
Net deposits (on and off balance)						
Strategic partnerships - China	1	4	(63)	1	3	(61)
Strategic partnerships - Japan	-	5	<i>n.m.</i>	-	4	<i>n.m.</i>
Total net deposits / (outflows)	1	8	(84)	1	7	(83)

	Amounts in USD millions			Amounts in EUR millions		
	2019	2018	%	2019	2018	%
New premium production accident and health insurance	10	9	5	9	8	11

Exchange rates

	Weighted average rate	
	2019	2018
Per 1 EUR		
US dollar	1.1197	1.1816
Chinese Yuan Renminbi	7.7221	7.8079

Results 2019 Asia

Net income increased by USD 24 million to USD 37 million in 2019 compared with 2018. This was mainly driven by lower taxes. Underlying earnings before tax improved by USD 4 million to USD 69 million in 2019 compared with 2018. New life sales increased by 2% to USD 146 million in 2019 compared with 2018, as higher sales in China were only partly offset by lower universal life sales from the High Net Worth business. Gross deposits decreased to USD 8 million in 2019 compared with USD 151 million in 2018 as gross deposits in Japan have no longer been reported since the signing of the agreement regarding the divestment of Aegon's stake in its joint ventures with Sony Life in May 2019.

Net income

Net income improved to USD 37 million in 2019 from USD 24 million in 2018, mainly driven by lower taxes, reflecting a commission tax law change in China. Fair value items were a loss of USD 5 million in 2019, caused by hedge losses in Japan, compared with a gain of USD 3 million in 2018. Realized gains amounted to USD 10 million in 2019, reflecting bond calls and prepayments, compared with a USD 10 million realized loss in 2018. Other charges worsened to USD 21 million in 2019 compared with USD 9 million in 2018, largely due to a USD 9 million correction of modelled premium paying periods for a specific Accident & Health book and a USD 5 million remediation of policies sold via the telemarketing channel in the run-off book of Aegon Insights. Income tax decreased to USD 16 million in 2019 compared with USD 29 million in 2018, driven by a commission tax law change in China, reducing the effective tax rate and also leading to a one-time USD 5 million tax credit.

Underlying earnings before tax

In Asia, underlying earnings before tax improved by 7% in 2019 to USD 69 million compared with 2018.

- Underlying earnings before tax from the High Net Worth businesses in Hong Kong and Singapore increased to USD 72 million in 2019, compared with USD 71 million in 2018. This increase was mainly the result of higher surrender charges, favorable claims experience and lower expenses, largely offset by the negative impact of intangible adjustments from lower interest rates.
- Underlying earnings before tax in Aegon Insights increased to USD 12 million in 2019 compared with USD 9 million in 2018, reflecting expense savings and favorable claims experience. This was partly offset by the reduction of the in-force book in line with the strategy for this business.

- Losses from Strategic partnerships were stable at USD 15 million in 2019 compared with 2018. Higher results from Aegon's profitable joint venture in China, driven by a growing in-force book, were offset by investments in an eBroker initiative designed to expand the business from Indonesia to Thailand. The joint ventures in India and Japan improved earnings but remained loss-making. Aegon and Sony Life closed the transaction related to the divestment of Aegon's 50% stake in the variable annuity joint ventures in Japan on January 29, 2020.

Commissions and expenses

Commissions and expenses increased to EUR 281 million in 2019 compared with EUR 273 million in 2018. Operating expenses increased by 4% to USD 195 million in 2019 compared with 2018. The increase in operating expenses was mainly caused by growth in China and investments in an eBroker initiative.

Production

New life sales increased by 2% to USD 146 million in 2019 compared with 2018.

- In the High Net Worth businesses in Hong Kong and Singapore, new life sales were down 31% to USD 36 million in 2019, compared with USD 53 million in 2018. This decrease was mainly the result of continued pressure on the universal life business caused by macro uncertainties and the market shift towards whole life products.
- New life sales in Strategic Partnerships increased by 20% to USD 110 million in 2019 compared with 2018, following strong sales in China through a large e-commerce partner. Gross deposits in Asia declined to USD 8 million in 2019 compared with USD 151 million in 2018 as gross deposits in Japan have no longer been reported since the signing in May 2019 of the divestment agreement of Aegon's 50% stake in the variable annuity joint ventures in Japan.

Results 2019 Aegon Asset Management

Amounts in EUR millions	2019	2018	%
Net underlying earnings	102	113	(10)
Tax on underlying earnings	37	39	(3)
Underlying earnings before tax by business / country			
Americas	56	62	(10)
Europe	16	31	(47)
Rest of World	(2)	(10)	79
Strategic partnerships	69	69	-
Underlying earnings before tax	139	151	(8)
Fair value items	-	-	n.m.
Gains / (losses) on investments	-	2	(95)
Net impairments	-	-	n.m.
Other income / (charges)	(7)	(5)	(52)
Income before tax (excluding income tax from certain proportionately consolidated joint ventures and associates)	133	149	(11)
<i>Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	21	22	(2)
Income tax	(36)	(44)	18
<i>Of which Income tax from certain proportionately consolidated joint ventures and associates included in income before tax</i>	(21)	(22)	2
Net income / (loss)	97	105	(8)
Management fees	501	492	2
Performance fees	22	33	(34)
Other	62	65	(4)
Total revenues	584	589	(1)
Commissions and expenses	493	488	-
of which operating expenses	445	439	1
Cost / income ratio	76.1%	74.5%	

Amounts in EUR millions	2019	2018	%
Gross flows external third-party			
Americas	7,299	9,619	(24)
Europe	8,988	12,292	(27)
Rest of World ¹⁾	72	(72)	n.m.
Strategic partnerships	64,580	37,657	71
Total gross flows external third-party	80,939	59,495	36
Net flows external third-party			
Americas	1,432	1,267	13
Europe	715	3,278	(78)
Rest of World ¹⁾	(352)	(566)	38
Strategic partnerships	5,046	3,547	42
Total net flows external third-party	6,841	7,526	(9)

¹⁾ Rest of world include intragroup eliminations from internal sub-advised agreements

Exchange rates

	Weighted average rate	
	2019	2018
Per 1 EUR		
US dollar	1.1197	1.1816
Pound sterling	0.877	0.8844
Hungarian forint	324.7099	318.2582
Chinese Yuan Renminbi	7.7221	7.8079

Results 2019 Aegon Asset Management

Net income in 2019 decreased to EUR 97 million compared with EUR 105 million in 2018 as a result of lower underlying earnings before tax compared with 2018. Gross flows in external third-party asset management increased by 36% to EUR 80.9 billion in 2019 compared with 2018. Higher gross inflows in Strategic partnerships were partly offset by lower inflows in the Americas and Europe. The higher gross flows were driven by the Chinese joint venture Aegon Industrial Fund Management Company (AIFMC).

Net income

Net income in 2019 decreased by 8% compared with 2018 to EUR 97 million. This was mainly driven by lower underlying earnings before tax in 2019 compared with 2018.

Underlying earnings before tax

Underlying earnings before tax decreased by 8% in 2019 compared with 2018 to EUR 139 million. This decrease was mainly driven by lower underlying earnings before tax in 2019 compared with 2018 from Europe and the Americas. These more than offset an increase of underlying earnings before tax in 2019 compared with 2018 in the Rest of World.

- Americas underlying earnings before tax decreased to EUR 56 million in 2019, compared with EUR 62 million in 2018, mainly driven higher expenses, which more than offset higher management fees.
- Underlying earnings before tax from Europe in 2019 decreased by EUR 15 million to EUR 16 million compared with 2018. The decrease can be attributed to the United Kingdom and mainly resulted from outflows. This is partly offset by an increase in underlying earnings before tax in 2019 in the Netherlands, primarily driven by higher management fees, when comparing with 2018.
- Rest of World underlying earnings before tax in 2019 improved by EUR 8 million compared with 2018 to a loss of EUR 2 million. The improvement was driven by performance fees in Southern & Eastern Europe, which more than offset higher expenses.
- Underlying earnings before tax from Strategic partnerships remained stable in 2019 at EUR 69 million compared with 2018. The main contributor is Aegon's Chinese asset management joint venture AIFMC.

Commissions and expenses

Commissions and expenses increased by 5 million in 2019 to EUR 493 million compared with 2018. Operating expenses increased by 1% compared with 2018 to EUR 445 million

in 2019. This increase was mainly driven by higher expenses in the Americas to support new business in combination with strengthening of the US dollar versus the Euro in 2019. These effects were more than offset by lower administration expenses in all units as a consequence of strict cost discipline. The cost/income ratio in 2019 went up by 1 percentage point compared with 2018 to 76%, as result from higher expenses and lower revenues in 2019 compared with 2018. Annualized operating expenses as a percentage of average assets under management improved to 13 basis points in 2019 compared with 14 basis points in 2018.

Production

Gross inflows in external third-party increased by 36% in 2019 to EUR 80.9 billion compared with 2018. This was driven by increased inflows in AIFMC which were in turn supported by a new mandate, new equity funds launched and increased inflows in money market funds. These higher inflows offset lower inflows in 2019 in both the Americas and Europe compared with 2018. For Europe, this was driven by the UK, in part due to uncertainty throughout 2019 surrounding Brexit.

Net external third-party inflows in 2019 decreased compared with 2018 to EUR 6.8 billion, as higher net flows in AIFMC were more than offset by lower net flows in Europe. The latter was driven by the United Kingdom. Net flows for the Americas and Rest of World remained fairly stable in 2019 compared with 2018.

Assets under management

Assets under management increased by EUR 36 billion in 2019 to EUR 352 billion compared with the end of 2018. This was primarily driven by favorable market movements. This, in combination with net inflows in external third parties and favorable currency movements, more than offset outflows in the general account and affiliated business

Exchange rates

Exchange rates at December 31,

		2019			2018			2017		
		EUR	USD	GBP	EUR	USD	GBP	EUR	USD	GBP
1	EUR	-	1.1225	0.8473	-	1.1432	0.8976	-	1.2008	0.8877
1	USD	0.8909	-	0.7548	0.8747	-	0.7852	0.8328	-	0.7393
1	GBP	1.1802	1.3248	-	1.1141	1.2736	-	1.1265	1.3527	-

Weighted average exchange rates

		2019			2018			2017		
		EUR	USD	GBP	EUR	USD	GBP	EUR	USD	GBP
1	EUR	-	1.1197	0.8770	-	1.1816	0.8844	-	1.1291	0.8758
1	USD	0.8931	-	0.7832	0.8463	-	0.7485	0.8857	-	0.7757
1	GBP	1.1403	1.2767	-	1.1307	1.3360	-	1.1418	1.2892	-

Consolidated income statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million (except per share data)	Note	2019	2018	2017
Premium income	6	18,138	19,316	22,826
Investment income	7	7,531	7,035	7,338
Fee and commission income	8	2,523	2,558	2,802
Other revenues		6	5	7
Total revenues		28,197	28,914	32,973
Income from reinsurance ceded	9	3,532	3,740	4,288
Results from financial transactions	10	35,761	(11,670)	20,108
Other income	11	200	8	540
Total income		67,691	20,992	57,910
Premiums paid to reinsurers	6	2,434	2,663	3,431
Policyholder claims and benefits	12	56,797	10,557	45,599
Profit sharing and rebates	13	17	23	23
Commissions and expenses	14	6,153	6,224	5,925
Impairment charges / (reversals)	15	169	78	42
Interest charges and related fees	16	513	507	435
Other charges	17	1	375	235
Total charges		66,084	20,427	55,689
Income before share in profit / (loss) of joint ventures, associates and tax		1,607	565	2,221
Share in profit / (loss) of joint ventures	25	214	210	161
Share in profit / (loss) of associates	25	12	6	11
Income / (loss) before tax		1,832	782	2,393
Income tax (expense) / benefit	18	(304)	(37)	(32)
Net income / (loss)		1,528	744	2,361
Net income / (loss) attributable to:				
Owners of Aegon N.V.		1,528	744	2,361
Non-controlling interests		-	1	-
Earnings per share (EUR per share)	19			
Basic earnings per common share		0.70	0.31	1.08
Basic earnings per common share B		0.02	0.01	0.03
Diluted earnings per common share		0.70	0.31	1.08
Diluted earnings per common share B		0.02	0.01	0.03

Consolidated statement of comprehensive income of Aegon N.V.

For the year ended December 31

Amounts in EUR million	2019	2018 ¹⁾	2017 ¹⁾
Net income / (loss)	1,528	744	2,361
Items that will not be reclassified to profit or loss:			
Changes in revaluation reserve real estate held for own use	(4)	(32)	8
Remeasurements of defined benefit plans	(612)	(134)	224
Income tax relating to items that will not be reclassified	92	(8)	(166)
Items that may be reclassified subsequently to profit or loss:			
Gains / (losses) on revaluation of available-for-sale investments	3,471	(2,142)	1,376
(Gains) / losses transferred to income statement on disposal and impairment of available-for-sale investments	(412)	66	(1,330)
Changes in cash flow hedging reserve	(8)	5	(853)
Movement in foreign currency translation and net foreign investment hedging reserves	314	602	(2,149)
Equity movements of joint ventures	8	9	(15)
Equity movements of associates	4	(1)	(5)
Disposal of group assets	(1)	36	7
Income tax relating to items that may be reclassified	(632)	494	927
Other	13	(2)	9
Total other comprehensive income / (loss)	2,232	(1,107)	(1,968)
Total comprehensive income / (loss)	3,760	(362)	393
Total comprehensive income/ (loss) attributable to:			
Owners of Aegon N.V.	3,761	(364)	397
Non-controlling interests	(1)	2	(3)

¹⁾ Amounts have been restated to reflect voluntary changes in accounting policies related to liability adequacy testing that was adopted by Aegon effective January 1, 2019. Refer to note 2.1.2 Voluntary changes in accounting policies for details about this change.

Consolidated statement of financial position of Aegon N.V.

As at December 31

Amounts in EUR million	Note	2019	2018 ¹⁾	January 1, 2018 ¹⁾
Assets				
Cash and cash equivalents	21	12,263	8,744	10,768
Assets held for sale		-	-	5,249
Investments	22	146,750	139,024	137,172
Investments for account of policyholders	23	226,374	194,353	194,063
Derivatives	24	11,157	7,615	5,912
Investments in joint ventures	25	1,983	1,745	1,712
Investments in associates	25	363	327	308
Reinsurance assets	26	20,835	20,507	19,202
Defined benefit assets	39	1	-	55
Deferred tax assets	40	193	125	79
Deferred expenses	27	10,804	10,910	10,135
Other assets and receivables	28	8,841	7,954	10,002
Intangible assets	29	1,559	1,727	1,633
Total assets		441,123	393,031	396,291
Equity and liabilities				
Shareholders' equity	30	22,457	19,518	20,550
Other equity instruments	31	2,571	3,320	3,794
Issued capital and reserves attributable to owners of Aegon N.V.		25,028	22,838	24,344
Non-controlling interests		20	22	20
Group equity		25,048	22,860	24,364
Subordinated borrowings	32	2,207	1,389	764
Trust pass-through securities	33	136	133	133
Insurance contracts	34	123,454	115,328	110,848
Insurance contracts for account of policyholders	34	135,710	117,113	122,168
Investment contracts	35	18,594	18,048	16,943
Investment contracts for account of policyholders	35	93,826	80,097	74,434
Derivatives	24	11,616	7,230	7,130
Borrowings	37	9,307	12,061	13,635
Provisions	38	214	320	210
Defined benefit liabilities	39	4,360	3,989	4,005
Deferred gains		11	12	13
Deferred tax liabilities	40	1,394	610	1,104
Liabilities held for sale		-	-	5,003
Other liabilities	41	14,819	13,454	15,208
Accruals	42	426	388	329
Total liabilities		416,074	370,171	371,927
Total equity and liabilities		441,123	393,031	396,291

¹⁾ Amounts have been restated to reflect voluntary changes in accounting policies related to liability adequacy testing that was adopted by Aegon effective January 1, 2019. Refer to note 2.1.2 Voluntary changes in accounting policies for details about this change.

Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2019

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves ¹⁾	Non-controlling interests	Total
At January 1, 2019²⁾		7,808	9,975	3,436	(1,850)	149	3,320	22,838	22	22,860
Mandatory change in accounting policy	2.1.1	-	(44)	-	-	-	-	(44)	-	(44)
At January 1, 2019 (restated)		7,808	9,931	3,436	(1,850)	149	3,320	22,794	22	22,816
Net income / (loss) recognized in the income statement		-	1,528	-	-	-	-	1,528	-	1,528
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	32	(36)	-	-	-	(4)	-	(4)
Remeasurements of defined benefit plans		-	-	-	(612)	-	-	(612)	-	(612)
Income tax relating to items that will not be reclassified		-	(7)	8	90	-	-	92	-	92
Items that may be reclassified subsequently to profit or loss:										
Gains / (losses) on revaluation of available-for-sale investments		-	-	3,471	-	-	-	3,471	-	3,471
(Gains) / losses transferred to income statement on disposal and impairment of available-for-sale investments		-	-	(412)	-	-	-	(412)	-	(412)
Changes in cash flow hedging reserve		-	-	(8)	-	-	-	(8)	-	(8)
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	37	(25)	302	-	314	-	314
Equity movements of joint ventures		-	-	-	-	8	-	8	-	8
Equity movements of associates		-	-	-	-	4	-	4	-	4
Disposal of group assets		-	-	-	-	(1)	-	(1)	-	(1)
Income tax relating to items that may be reclassified		-	-	(627)	-	(5)	-	(632)	-	(632)
Other		-	15	-	-	-	-	15	(2)	13
Total other comprehensive income / (loss)		-	40	2,433	(547)	307	-	2,234	(2)	2,232
Total comprehensive income / (loss) for 2019		-	1,568	2,433	(547)	307	-	3,761	(1)	3,760
Shares issued		1	-	-	-	-	-	1	-	1
Issuance and purchase of treasury shares		-	(30)	-	-	-	-	(30)	-	(30)
Issuance and redemption of other equity instruments		-	(81)	-	-	-	(744)	(825)	-	(825)
Dividends paid on common shares		(273)	(309)	-	-	-	-	(583)	-	(583)
Dividend withholding tax reduction		-	-	-	-	-	-	-	-	-
Coupons on perpetual securities		-	(88)	-	-	-	-	(88)	-	(88)
Coupons on non-cumulative subordinated notes		-	-	-	-	-	-	-	-	-
Incentive plans		-	2	-	-	-	(5)	(3)	-	(3)
At December 31, 2019	30, 31	7,536	10,994	5,868	(2,397)	456	2,571	25,028	20	25,048

¹⁾ Issued capital and reserves attributable to owners of Aegon N.V.

²⁾ See note 2.1.1 for details about the impact of adopting IFRS 16 on Leases and note 2.1.2 for details about the impact of voluntary change in accounting policy on Liability Adequacy Testing

Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2018

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves ¹⁾	Non-controlling interests	Total
At January 1, 2018²⁾		8,053	9,659	4,898	(1,669)	(390)	3,794	24,344	20	24,364
Net income / (loss) recognized in the income statement		-	744	-	-	-	-	744	1	744
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	-	(32)	-	-	-	(32)	-	(32)
Remeasurements of defined benefit plans		-	-	-	(134)	-	-	(134)	-	(134)
Income tax relating to items that will not be reclassified		-	-	7	(15)	-	-	(8)	-	(8)
Items that may be reclassified subsequently to profit or loss:										
Gains / (losses) on revaluation of available-for-sale investments		-	-	(2,142)	-	-	-	(2,142)	-	(2,142)
(Gains) / losses transferred to income statement on disposal and impairment of available-for-sale investments		-	-	66	-	-	-	66	-	66
Changes in cash flow hedging reserve		-	-	5	-	-	-	5	-	5
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	119	(32)	515	-	602	-	602
Equity movements of joint ventures		-	-	-	-	9	-	9	-	9
Equity movements of associates		-	-	-	-	(1)	-	(1)	-	(1)
Disposal of group assets		-	-	-	-	36	-	36	-	36
Income tax relating to items that may be reclassified		-	-	514	-	(20)	-	494	-	494
Other		-	(3)	-	-	-	-	(3)	1	(2)
Total other comprehensive income / (loss)		-	(3)	(1,462)	(182)	539	-	(1,108)	1	(1,107)
Total comprehensive income / (loss) for 2018		-	741	(1,462)	(182)	539	-	(364)	2	(362)
Shares issued		-	-	-	-	-	-	-	-	-
Issuance and purchase of treasury shares		-	14	-	-	-	-	14	-	14
Issuance and redemption of other equity instruments		-	2	-	-	-	(471)	(468)	-	(468)
Dividends paid on common shares		(244)	(329)	-	-	-	-	(573)	-	(573)
Dividend withholding tax reduction		-	1	-	-	-	-	1	-	1
Coupons on perpetual securities		-	(102)	-	-	-	-	(102)	-	(102)
Coupons on non-cumulative subordinated notes		-	(11)	-	-	-	-	(11)	-	(11)
Incentive plans		-	-	-	-	-	(2)	(2)	-	(2)
At December 31, 2018²⁾	30, 31	7,808	9,975	3,436	(1,850)	149	3,320	22,838	22	22,860

¹⁾ Issued capital and reserves attributable to owners of Aegon N.V.

²⁾ Amounts have been restated to reflect voluntary changes in accounting policies related to liability adequacy testing that was adopted by Aegon effective January 1, 2019. Refer to note 2.1.2 Voluntary changes in accounting policies for details about this change.

Consolidated statement of changes in equity of Aegon N.V.

For the year ended December 31, 2017

Amounts in EUR million	Note	Share capital	Retained earnings	Revaluation reserves	Remeasurement of defined benefit plans	Other reserves	Other equity instruments	Issued capital and reserves ¹⁾	Non-controlling interests	Total
At January 1, 2017 (as previously stated)		8,193	7,812	5,381	(1,820)	1,347	3,797	24,710	23	24,734
Changes in accounting policies related to liability adequacy testing	2.1.2	-	-	(92)	-	-	-	(92)	-	(92)
At January 1, 2017 (restated)²⁾		8,193	7,812	5,289	(1,820)	1,347	3,797	24,618	23	24,642
Net income / (loss) recognized in the income statement		-	2,361	-	-	-	-	2,361	-	2,361
Other comprehensive income:										
Items that will not be reclassified to profit or loss:										
Changes in revaluation reserve real estate held for own use		-	-	8	-	-	-	8	-	8
Remeasurements of defined benefit plans		-	-	-	224	-	-	224	-	224
Income tax relating to items that will not be reclassified		-	-	9	(175)	-	-	(166)	-	(166)
Items that may be reclassified subsequently to profit or loss:										
Gains / (losses) on revaluation of available-for-sale investments		-	-	1,376	-	-	-	1,376	-	1,376
(Gains) / losses transferred to income statement on disposal and impairment of available-for-sale investments		-	-	(1,330)	-	-	-	(1,330)	-	(1,330)
Changes in cash flow hedging reserve		-	-	(853)	-	-	-	(853)	-	(853)
Movements in foreign currency translation and net foreign investment hedging reserves		-	-	(452)	102	(1,800)	-	(2,149)	-	(2,149)
Equity movements of joint ventures		-	-	-	-	(15)	-	(15)	-	(15)
Equity movements of associates		-	-	-	-	(5)	-	(5)	-	(5)
Disposal of group assets		-	-	-	-	7	-	7	-	7
Income tax relating to items that may be reclassified		-	-	851	-	76	-	927	-	927
Other		-	13	-	-	-	-	13	(3)	9
Total other comprehensive income / (loss)		-	13	(391)	151	(1,737)	-	(1,965)	(3)	(1,968)
Total comprehensive income / (loss) for 2017		-	2,374	(391)	151	(1,737)	-	397	(3)	393
Shares issued		3	-	-	-	-	-	3	-	3
Issuance and purchase of treasury shares		-	(105)	-	-	-	-	(105)	-	(105)
Dividends paid on common shares		(142)	(296)	-	-	-	-	(439)	-	(439)
Dividend withholding tax reduction		-	2	-	-	-	-	2	-	2
Coupons on perpetual securities		-	(103)	-	-	-	-	(103)	-	(103)
Coupons on non-cumulative subordinated notes		-	(28)	-	-	-	-	(28)	-	(28)
Incentive plans		-	4	-	-	-	(4)	(1)	-	(1)
At December 31, 2017²⁾	30, 31	8,053	9,659	4,898	(1,669)	(390)	3,794	24,344	20	24,364

¹⁾ Issued capital and reserves attributable to owners of Aegon N.V.

²⁾ Amounts have been restated to reflect voluntary changes in accounting policies related to liability adequacy testing that was adopted by Aegon effective January 1, 2019. Refer to note 2.1.2 Voluntary changes in accounting policies for details about this change.

Consolidated cash flow statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	Note	2019	2018	2017
Income / (loss) before tax		1,832	782	2,393
Results from financial transactions		(36,309)	11,486	(23,304)
Amortization and depreciation		1,185	1,315	781
Impairment losses		160	68	84
Income from joint ventures		(214)	(210)	(161)
Income from associates		(12)	(6)	(11)
Release of cash flow hedging reserve		(97)	(80)	(739)
Other		26	145	(620)
Adjustments of non-cash items		(35,261)	12,718	(23,970)
Insurance and investment liabilities		3,750	1,989	(613)
Insurance and investment liabilities for account of policyholders		26,512	(21,751)	12,988
Accrued expenses and other liabilities		352	(2,384)	309
Accrued income and prepayments		(1,056)	709	(1,797)
Changes in accruals		29,557	(21,437)	10,887
Purchase of investments (other than money market investments)		(40,014)	(31,279)	(32,057)
Purchase of derivatives		(214)	(1,525)	752
Disposal of investments (other than money market investments)		40,187	29,192	35,512
Disposal of derivatives		2,880	(597)	(878)
Net purchase of investments for account of policyholders		7,605	10,819	8,869
Net change in cash collateral		(332)	1,029	(455)
Net purchase of money market investments		1,089	823	(659)
Cash flow movements on operating items not reflected in income		11,200	8,462	11,082
Tax (paid)/ received		(18)	(9)	173
Other		(9)	1	(12)
Net cash flows from operating activities	21	7,302	517	553
Purchase of individual intangible assets (other than VOBA and future servicing rights)		(46)	(42)	(34)
Purchase of equipment and real estate for own use		(102)	(81)	(72)
Acquisition of subsidiaries, net of cash		(1)	(89)	(52)
Acquisition/capital contributions joint ventures and associates		(269)	(146)	(121)
Disposal of intangible asset		1	2	1
Disposal of equipment		63	14	5
Disposal of subsidiaries and businesses, net of cash		137	(200)	(1,054)
Disposal joint ventures and associates		1	7	2
Dividend received from joint ventures and associates		130	97	129
Net cash flows from investing activities	21	(86)	(438)	(1,196)
Issuance of treasury shares		1	-	2
Issuance of perpetuals		496	-	-
Purchase of treasury shares		(318)	(248)	(266)
Proceeds from TRUPS ¹⁾ , Subordinated borrowings and borrowings		4,923	4,185	9,170
Repayment of TRUPS ¹⁾ , Subordinated borrowings and borrowings		(7,014)	(5,211)	(7,918)
Repayment of perpetuals		(1,343)	(200)	-
Repayment of non-cumulative subordinated note		-	(443)	-
Dividends paid		(309)	(328)	(294)
Coupons on perpetual securities		(112)	(136)	(138)
Coupons on non-cumulative subordinated notes		(54)	(14)	(37)
Net cash flows from financing activities	21	(3,730)	(2,395)	519
Net increase / (decrease) in cash and cash equivalents ²⁾		3,486	(2,317)	(125)
Net cash and cash equivalents at the beginning of the year		8,744	11,026	11,347
Effects of changes in exchange rate		33	35	(196)
Net cash and cash equivalents at the end of the year	21	12,263	8,744	11,026

¹⁾ Trust pass-through securities.

²⁾ Included in net increase / (decrease) in cash and cash equivalents are interest received EUR 5,999 million (2018: EUR 5,914 million and 2017: EUR 6,215 million) dividends received EUR 1,702 million (2018: EUR 1,222 million and 2017: EUR 1,292 million) and interest paid EUR 407 million (2018: EUR 400 million and 2017: EUR 311 million). All included in operating activities except for dividend received from joint ventures and associates EUR 130 million (2018: EUR 97 million and 2017: EUR 129 million).

The cash flow statement is prepared according to the indirect method.

Notes to the consolidated financial statements

1 General information

Aegon N.V., incorporated and domiciled in the Netherlands, is a public limited liability company organized under Dutch law and recorded in the Commercial Register of The Hague registered under number 27076669 and with its registered address at Aegonplein 50, 2591 TV, The Hague, the Netherlands. Aegon N.V. serves as the holding company for the Aegon Group and has listings of its common shares in Amsterdam and New York.

Aegon N.V. (or 'the Company') and its subsidiaries ('Aegon' or 'the Group') have life insurance and pensions operations in more than 20 countries in the Americas, Europe and Asia and are also active in savings and asset management operations, accident and health insurance, general insurance and to a limited extent banking operations. Headquarters are located in The Hague, the Netherlands. The Group employs over 23,000 people worldwide (2018: over 26,000).

2 Significant accounting policies

2.1 Basis of presentation

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and with Part 9 of Book 2 of the Netherlands Civil Code.

The consolidated financial statements have been prepared in accordance with the historical cost convention as modified by the revaluation of (investment) properties and those financial instruments (including derivatives) and financial liabilities that have been measured at fair value. Information on the standards and interpretations that were adopted in 2019 is provided below in note 2.1.1. Aegon also adopted voluntary changes in accounting policies, effective January 1, 2019, disclosed in note 2.1.2. The consolidated financial statements are presented in euro and all values are rounded to the nearest million unless otherwise stated. The consequence is that the rounded amounts may not add up to the rounded total in all cases. All ratios and variances are calculated using the underlying amount rather than the rounded amount.

The preparation of financial statements in conformity with IFRS-EU requires management to make estimates and assumptions affecting the reported amounts of assets and liabilities as of the date of the financial statements and the reported amounts of revenues and expenses for the reporting period. Those estimates are inherently subject to change and actual results could differ from those estimates. Included among the material (or potentially material) reported amounts and disclosures that require extensive use of estimates are: fair value of certain invested assets and derivatives, deferred policy acquisition costs, value of business acquired and other purchased intangible assets, goodwill, policyholder claims and benefits, insurance guarantees, pension plans, income taxes and the potential effects of resolving litigation matters. Aegon applies fair value hedge accounting for portfolio hedges of interest rate risk (macro hedging) under the European Union (EU) 'carve out' of IFRS-EU. Details are provided in note 2.9 Derivatives and note 24 Derivatives.

The consolidated financial statements of Aegon N.V. were approved by the Executive Board and by the Supervisory Board on March 18, 2020. The financial statements will be put for adoption to the Annual General Meeting of Shareholders on May 15, 2020. The shareholders' meeting can decide not to adopt the financial statements but cannot amend them.

2.1.1 Adoption of new IFRS-EU accounting standards and amendments effective in 2019

New standards and amendments to standards become effective at the date specified by IFRS-EU, but may allow companies to opt for an earlier adoption date. In 2019, the following standards and amendments to existing standards issued by the IASB became mandatory or early adopted:

Accounting standard/ amendment/ interpretation	IASB effective date	Endorsed by EU	Impact for Aegon
IFRS 16 Leases	January 1, 2019	Yes	See below for comments
IFRIC 23 Uncertainty over Tax Treatments	January 1, 2019	Yes	Low
Amendments to IAS 28 Long-term Interests in Associates and Joint Ventures	January 1, 2019	Yes	Low
Annual improvements 2015-2017	January 1, 2019	Yes	Low
Amendments to IAS 19 Plan amendment, curtailment or settlement	January 1, 2019	Yes	Low
Early adopted			
Interest Rate Benchmark Reform	January 1, 2020	Yes	See below for comments

Except for IFRS 16 Leases and Interest Rate Benchmark Reform (early adopted by the Group), the new standards and amendments to existing standards are currently not relevant or do not significantly impact the financial position or financial statements (total adverse impact on the opening balance of retained earnings is EUR 3 million).

IFRS 16 Leases

IFRS 16 Leases was issued by the IASB in January 2016 and replaced IAS 17 Leases and IFRIC 4 on January 1, 2019. The most significant change of IFRS 16 is related to leases that were identified as operational leases held by a lessee under IAS 17. Under IAS 17 these leases were reported as (off-balance) operating lease obligations, and after January 1, 2019 are reported as (on-balance) lease liabilities with the accompanying lease assets. From a lessor perspective, IFRS 16 substantially carries forward the lessor accounting requirements under IAS 17.

The accounting policy for leases applicable from January 1, 2019 is included in note 2.33 Leases.

Transitional disclosures

The Group has applied IFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4. At transition, the cumulative effect of initial application was recognized as an adjustment to the opening balance of retained earnings on January 1, 2019.

As a lessee

The Group has adopted a number of key options and practical expedients allowed under IFRS 16, of which the following are the most significant:

- The Group has applied the modified retrospective approach and therefore has not restated the comparative amounts for the year prior to initial application. Under this approach, on a lease-by-lease basis, the following two options are available: (i) right-of-use assets (mainly high value properties) measured on transition as if the new rules had always been applied, but discounted using the lessee's incremental borrowing rate at the date of initial application; or (ii) right-of-use assets measured at the amount of the lease liability on adoption (adjusted for any prepaid or accrued lease expenses). The group has applied these two available options on a lease-by-lease basis;
- The Group has applied the exemption not to recognize right-of-use assets and liabilities for liabilities with less than 12 months of lease term;
- The Group has elected to apply the 'grandfather' option, which means that all conclusions previously reached under IAS 17 (and IFRIC 4 Determining Whether an Arrangement Contains a Lease) are deemed compliant with IFRS 16; and
- The Group has elected to use hindsight in areas that involve judgment or estimation, such as in determining the lease term if the contract contains options to extend or terminate the lease.

As a lessor

The Group is not required to make any adjustments on transition to IFRS 16 for leases in which it acts as a lessor, except for a sub-lease. The Group accounted for its leases in accordance with IFRS 16 from the date of initial application.

Impacts on financial statements

At transition, the Group recognized EUR 235 million of right-of-use assets and lease liabilities of EUR 285 million, recognizing the adverse impact of EUR 41 million in shareholders' equity, in retained earnings. The right-of-use assets mainly consist of approximately EUR 212 million real estate and of approximately EUR 23 million equipment. The largest right-of-use assets are office buildings located in the United Kingdom and US for an amount of EUR 116 million and EUR 50 million respectively. The Group does not expect material movements in net income going forward.

When measuring lease liabilities, the Group discounted lease payments using its incremental borrowing rate at January 1, 2019. The weighted-average rate applied is 3.46%.

The reconciliation between operating lease commitments at December 31, 2018 and lease liabilities at January 1, 2019 is as follows:

	January 1, 2019
Operating lease commitments at December 31, 2018 as per the consolidated annual financial statements	386
Discounted using the incremental borrowing rate at January 1, 2019	302
Recognition exemption for:	
Short term leases	(7)
Extension and termination options reasonably certain to be exercised	(4)
Exclusion of non-lease components	(6)
Lease liabilities recognized at January 1, 2019	285

Interest rate benchmark reform

Aegon has elected to early adopt the 'Amendments to IFRS 9, IAS 39 and IFRS 7 Interest Rate Benchmark Reform' issued in September 2019. In accordance with the transition provisions, the amendments have been adopted retrospectively to hedging relationships that existed on January 1, 2019 or were designated thereafter. The amendments provide temporary relief from applying specific hedge accounting requirements, thereby ensuring that uncertainty on the outcome of the Interest Rate Benchmark Reform (IBOR) reforms does not result in early termination of hedge accounting, notably because the retrospective effectiveness may fall outside of the required range due to the IBOR reform.

Please refer to note 24 Derivatives for the required disclosures of the uncertainty arising from IBOR reform for hedging relationships for which the Group applied the reliefs.

The IASB is currently working on additional amendments to IAS 39 and IFRS 9, which will include the accounting for contract modifications following IBOR reform. Aegon continues to follow the status of the IASB's IBOR reform project, and will assess the impact for the Group when further information becomes available.

2.1.2 Voluntary change in accounting policy effective in 2019

Liability adequacy test (LAT)

Effective January 1, 2019, Aegon adopted a voluntary accounting policy change related to the liability adequacy test (LAT) of Aegon the Netherlands, which is applied retrospectively for all periods presented.

The recognition of a LAT deficit (refer to note 34 Insurance contracts) in Aegon the Netherlands triggered a review and change of its existing accounting policy related to the LAT. When assessing the adequacy of the insurance liabilities, Aegon the Netherlands takes into account any unrecognized gains on the investments backing the insurance liabilities measured at amortized cost. The subsequent sales of these assets can trigger a LAT deficiency, because previously unrecognized gains are realized and therefore no longer included in the LAT. Under the previous policy, unrealized gains on intercompany transferred assets which at balance sheet date are allocated to the insurance liabilities were taken into account. Under the new policy the LAT takes into account the unrecognized gain on the transferred investments that are still held by the group, but only to the extent that these gains arose whilst the assets were backing the insurance liabilities. Consistently, for assets transferred to the insurer from another group company, the unrecognized gain that arose prior to transfer is not taken into account in the LAT. The change avoids that unrealized gains on assets that are still held by the group are not taken into account in the LAT.

The change does not impact other reporting units within Aegon as this change is specific to Aegon the Netherlands.

The impact of the change in accounting policy on full year 2019, is an increase in net income of EUR 19 million, an increase in shareholders' equity of EUR 19 million, a decrease in insurance contracts of EUR 25 million and an increase in other liabilities of EUR 6 million. As a result, the basic and diluted earnings per common share increased with EUR 0.01. The basic and diluted earnings per common share B as disclosed on the face on the income statement remain unchanged.

Impact of the adjustment on previous periods is provided in the following tables, including references to the notes that are impacted by the change in accounting policy.

Impact of voluntary changes in accounting policies on the consolidated statement of comprehensive income	Note	December 31, 2018 (as previously reported) ¹⁾	Change in accounting policy related to liability adequacy testing	December 31, 2018 (restated)	December 31, 2017 (as previously reported) ¹⁾	Change in accounting policy related to liability adequacy testing	December 31, 2017 (restated)
Net income / (loss)		744	-	744	2,361	-	2,361
Items that may be reclassified to profit or loss:							
Gains / (losses) on revaluation of available-for-sale investments		(2,138)	(4)	(2,142)	1,283	93	1,376
Income tax relating to items that may be reclassified		493	1	494	951	(23)	927
Net effect comprehensive income		(359)	(3)	(362)	323	70	393
Total comprehensive income / (loss) attributable to:							
Owners of Aegon N.V.		(361)	(3)	(364)	327	70	397
Non-controlling interests		2	-	2	(3)	-	(3)

¹⁾ As reported in Aegon's 2018 Integrated Annual Report dated March 21, 2019.

Impact of voluntary changes in accounting policies on the consolidated statement of financial position	Note	December 31, 2018 (as previously reported) ¹⁾	Change in accounting policy related to liability adequacy testing	December 31, 2018 (restated)	December 31, 2017 (as previously reported) ¹⁾	Change in accounting policy related to liability adequacy testing	December 31, 2017 (restated)
Equity and liabilities							
Shareholders' equity	30	19,543	(26)	19,518	20,573	(23)	20,550
Insurance contracts	34	115,294	34	115,328	110,818	30	110,848
Deferred tax liabilities	40	618	(9)	610	1,112	(8)	1,104

¹⁾ As reported in Aegon's 2018 Integrated Annual Report dated March 21, 2019.

Impact of voluntary changes in accounting policies on the statement of changes in equity	Note	December 31, 2018 (as previously reported) ¹⁾	Change in accounting policy related to liability adequacy testing	December 31, 2018 (restated)	December 31, 2017 (as previously reported) ¹⁾	Change in accounting policy related to liability adequacy testing	December 31, 2017 (restated)
Share capital	30.1	7,808	-	7,808	8,053	-	8,053
Retained earnings	30	9,975	-	9,975	9,659	-	9,659
Revaluation reserves	30.4	3,461	(26)	3,436	4,920	(23)	4,898
Remeasurement of defined benefit plans	30.5	(1,850)	-	(1,850)	(1,669)	-	(1,669)
Other reserves	30.6	149	-	149	(390)	-	(390)
Shareholders' equity		19,543	(26)	19,518	20,573	(23)	20,550

¹⁾ As reported in Aegon's 2018 Integrated Annual Report dated March 21, 2019.

2.1.3 Future adoption of new IFRS-EU accounting standards and amendments

The following standards and amendments to existing standards, published prior to January 1, 2020, were not early adopted by the Group, but will be applied in future years:

Accounting standard/ amendment/ interpretation	IASB effective date	Endorsed by EU	Early adopted by Aegon	Impact for Aegon
IFRS 17 Insurance contracts	January 1, 2021	Not yet	No	See below for comments
IFRS 9 Financial instruments	January 1, 2018 ¹⁾	Yes	No	See below for comments
Amendments to IFRS 9 Financial instruments on prepayment features with negative compensation	January 1, 2019 ¹⁾	Yes	No	See below for comments
Amendments to References to the Conceptual Framework in IFRS Standards	January 1, 2020	Yes	No	Low
Amendments to IFRS 3 Business Combinations	January 1, 2020	Not yet	No	Low
Amendments to IAS 1 and IAS 8: Definition of Material	January 1, 2020	Yes	No	Low

¹⁾ The amendments to IFRS 4, Applying IFRS 9 Financial Instruments with IFRS 4 Insurance Contracts, issued in September 2016, allow entities that issue insurance contracts within the scope of IFRS 4 to defer the implementation of IFRS 9 (and linked amendments 'Amendments to IFRS 9 Financial instruments on prepayment features with negative compensation'). The amendments to IFRS 4 are further explained below.

IFRS 9 Financial Instruments

The IASB issued the complete version of IFRS 9 Financial Instruments in July 2014, which was endorsed by the European Union in November 2016. IFRS 9 combines classification and measurement, the expected credit loss impairment model and hedge accounting. The standard replaces IAS 39 and all previous versions of IFRS 9. Under IFRS 9 Classification and Measurement, financial assets are measured at amortized cost, fair value through profit or loss or fair value through other comprehensive income, based on both the entity's business model for managing the financial assets and the financial asset's contractual cash flow characteristics. The classification and measurement of financial liabilities is unchanged from existing requirements apart from own credit risk. For financial liabilities that are designated at fair value through profit or loss, the changes which are attributable to the change in an entity's own credit risk are presented in other comprehensive income, unless doing so would enlarge or create an accounting mismatch. For the impairment component, the IASB included requirements for a credit loss allowance or provision which should be based on expected losses rather than incurred losses.

Application of IFRS 9 is required for annual periods beginning on or after January 1, 2018. However, on May 18, 2017, the IASB published the final version of the IFRS 17 Insurance Contracts standard. Prior to its finalization, the IASB issued an amendment to IFRS 4 Insurance Contracts (the predecessor standard to IFRS 17) that provides for a qualifying insurer a temporary exemption that permits, but does not require, the insurer to apply IAS 39 Financial Instruments: Recognition and Measurement rather than IFRS 9 for annual periods beginning before January 1, 2021 (i.e., a temporary exemption of IFRS 9). The objective of the amendment is to address the temporary accounting consequences of the different effective dates of IFRS 9 and IFRS 17. This amendment was endorsed by the European Union in November 2017. However, in November 2018, the IASB agreed to start the process to amend IFRS 17, which could lead to the temporary exemption from IFRS 9 to be extended until January 1, 2022. As this decision is still subject to IASB due process, this could lead to another year of deferral.

An entity is eligible to apply the temporary exemption if the carrying amount of its liabilities connected with insurance activities is

- Greater than 90% of the total carrying value of all liabilities; or
- Between 80% and 90% of the total carrying value of all its liabilities, and the insurer does not have significant activities unrelated to insurance.

Aegon performed this analysis at December 31, 2015, and concluded that it meets the requirements for the temporary exception as 94% of its liabilities are connected with insurance activities. As a result, Aegon elected to make use of the temporary exemption of IFRS 9.

As Aegon defers the application of IFRS 9 (including linked amendments as included in above table), the full impact of the standard is not yet clear, however an initial impact assessment resulted in the expectation that it will have a significant impact on shareholders' equity, income and/or other comprehensive income and disclosures. An implementation project was started in 2017 and is combined with the implementation of IFRS 17 Insurance Contracts.

By qualifying for and electing the temporary exemption, the IFRS 4 amendment requires certain additional disclosures; specifically, Aegon is required to disclose information to enable users of financial statements to compare insurers applying the temporary exemption with entities applying IFRS 9. This information is presented below:

Fair value changes

The table below presents an overview of the fair value of the classes of financial assets as of December 31, 2019, as well as the change in fair value during the reporting period. The asset classes are divided into two categories:

- SPPI: assets of which cash flows represent solely payments of principal and interest (SPPI) on an outstanding principal amount, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis; and
- Other: all financial assets other than those specified in SPPI:
 - with contractual terms that do not give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding;
 - that meet the definition of held for trading in IFRS 9; or
 - that are managed and whose performance are evaluated on a fair value basis.

		2019		2018	
Financial assets at fair value		Fair value at the end of the reporting period	Change in fair value during the reporting period	Fair value at the end of the reporting period	Change in fair value during the reporting period
Shares ¹⁾	SPPI	70	1	68	(2)
	Other	810	54	2,092	87
Debt securities	SPPI	82,014	6,218	76,283	(2,997)
	Other	4,839	(770)	4,970	(123)
Money Markets and other short-term investments	SPPI	2,724	-	3,126	-
	Other	2,603	-	3,181	-
Mortgage loans	SPPI	42,567	930	39,758	(1,213)
	Other	-	-	-	-
Private loans	SPPI	5,152	284	4,452	(63)
	Other	200	(18)	42	(5)
Deposits with financial institutions	SPPI	142	-	141	-
	Other	-	-	-	-
Policy loans	SPPI	-	-	-	-
	Other	2,024	-	1,973	-
Other financial assets	SPPI	36	-	111	-
	Other	5,388	(100)	3,637	(210)
At December 31		148,570	6,598	139,834	(4,525)

¹⁾ The SPPI-compliant shares include preferred equity instruments.

Cash and cash equivalents, deposits with financial institutions, and receivables all pass the SPPI test and are held at amortized cost, whereby the amortized cost is assumed to approximate fair value due to the short-term nature of the assets. For movement schedules of these financial assets, refer to respective notes.

The fair value at the end of the reporting period in the table reconciles back to the respective table in note 22.1 Financial assets, excluding derivatives.

Credit Risk

The table below details the credit risk rating grades, as of December 31, 2019, for financial assets with cash flows that are SPPI, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis. The tables show the carrying value of those financial assets applying IAS 39 (in the case of financial assets measured at amortized cost, before adjusting for any impairment allowances).

SPPI compliant financial assets at carrying value

	AAA	AA	A	BBB	BB	B	CCC or lower	Not Rated	Total
2019									
Shares – Carried at fair value	-	-	-	43	27	-	-	-	70
Debt securities – Carried at fair value	26,723	8,989	20,112	22,296	1,364	1,244	1,283	3	82,014
Money market and other short-term investments- carried at fair value	255	193	2,164	112	-	-	-	-	2,724
Mortgage loans– Carried at amortized cost	1,311	3,671	3,580	369	15	4	-	29,574	38,524
Private loans – Carried at amortized cost	1,799	82	198	970	49	-	-	1,383	4,479
Other financial assets – Carried at fair value	-	-	57	10	33	38	-	40	177
At December 31	30,088	12,933	26,111	23,800	1,487	1,285	1,283	31,000	127,988
2018									
Shares – Carried at fair value	-	-	-	42	9	17	-	-	68
Debt securities – Carried at fair value	25,637	9,224	17,057	20,330	1,480	1,159	1,395	-	76,283
Money market and other short-term investments- carried at fair value	55	158	2,561	351	-	-	-	-	3,126
Mortgage loans– Carried at amortized cost	941	3,204	3,567	266	15	-	-	28,647	36,639
Private loans – Carried at amortized cost	1,611	83	261	924	52	-	-	1,136	4,068
Other financial assets – Carried at fair value	-	-	64	12	44	61	1	70	252
At December 31	28,244	12,670	23,510	21,925	1,601	1,237	1,396	29,853	120,436

As no external ratings are available for residential mortgage loans, the residential portfolio is included under 'Not rated'. For assets that do not have low credit risk (rated BB or below) and of which cash flows represent SPPI, excluding any financial assets that meet the definition of held for trading in IFRS 9, or that are managed and whose performance is evaluated on a fair value basis, the table below provides the credit risk exposure from the financial assets held by Aegon¹. The financial assets are categorized by asset class with a carrying amount and fair value measured in accordance with IAS 39 measurement requirements.

SPPI compliant financial assets with no low credit risk	2019		2018	
	Carrying amount	Fair value	Carrying amount	Fair value
Shares – Carried at fair value	27	27	26	26
Debt securities – Carried at fair value	3,894	3,894	4,035	4,035
Mortgage loans – Carried at amortized cost	29,593	33,132	28,661	31,711
Private loans – Carried at amortized cost	1,431	1,488	1,189	1,225
Deposits with financial institutions – Carried at amortized cost	76	76	70	70
Other financial assets – Carried at fair value	35	35	106	106
At December 31	35,056	38,652	34,087	37,173

Investments in joint ventures and associates

All Aegon's equity accounted investments remain to apply IAS 39. Except AMVEST Vastgoed B.V. (AMVEST), Aegon does not hold any other individually material joint-venture nor associate. As most of AMVEST financial assets are measured at fair value through profit or loss, there is no material difference between the financial statements of AMVEST under IFRS 9 and IAS 39. As the remaining joint ventures and associates are not material on a consolidated level, the additional information required by IFRS 4 for electing the temporary exemption is not disclosed for these entities.

Subsidiaries and joint ventures applying IFRS 9 in their statutory accounts

Information on the adoption of IFRS 9 by principal subsidiaries and joint ventures that for statutory purposes cannot elect to defer the effective date of IFRS 9 can be found in the publicly available statutory annual reports on www.aegon.nl and/or the Chamber of Commerce. This information is not part of the audited consolidated financial statements of Aegon N.V.. The related entities are:

- Aegon Bank N.V.
- Aegon Hypotheken B.V.
- Aegon Asset Management Holding B.V.
- Amvest Vastgoed B.V.

¹ Mortgage loans with no low credit risk are defined as being more than 90 days past due, in line with regulatory guidelines.

IFRS 17 Insurance Contracts

The IASB issued IFRS 17 Insurance Contracts in May 2017. The Standard will replace IFRS 4, which was intended as an interim solution and allowed insurers to continue to use accounting principles that they had applied prior to the initial adoption of IFRS. IFRS 17 establishes principles for the recognition, measurement, presentation and disclosure of insurance contracts issued, reinsurance contracts held and investment contracts with discretionary participating features issued. The objective of the Standard is to ensure that entities provide relevant information in a way that faithfully represents those contracts. This information should provide users of financial statements with a basis to assess the effects that the contracts have on the financial position, financial performance and cash flows of the insurer. The Standard also specifies presentation and disclosure requirements to enhance comparability between insurance companies.

In November 2018, the IASB agreed to start the process to amend IFRS 17 to defer the mandatory effective date of IFRS 17 by one year (original effective date was January 1, 2021). Subject to IASB due process, entities will be required to apply IFRS 17 for annual periods beginning on or after January 1, 2022. The IASB noted that given the considerations of the proposed amendments to IFRS 17 of June 2019, and in light of the criteria for assessing them, any such potential amendments could take a year to finalize. A final Standard is expected by the IASB to be issued in June 2020. As a consequence of the IFRS 17 deferral, the IASB also agreed to revise the fixed expiry date of the temporary exemption from IFRS 9 in IFRS 4 to allow entities to continue applying the temporary exemption from IFRS 9 until January 1, 2022. As this decision is still subject to IASB due process, this could lead to another year of deferral.

The Standard represents a fundamental change to current financial reporting and the implementation effort is expected to be significant. Early adoption of the standard is therefore not expected. An implementation project was started soon after the publication of the new Standard. Currently no final decisions have been made as to the accounting policy options provided in IFRS 17 as a consequence of awaiting the final amendments and the outcome of quantitative studies intended to be performed subsequently, however, it is expected that the impact of the initial application on Aegon's financial statements is significant.

2.1.4 Future adoption of voluntary change in accounting policy

Reinsurance accounting

As of January 1, 2020, Aegon will voluntarily change its accounting policy for the deferred cost of reinsurance. A deferred cost of reinsurance is established when Aegon enters into a reinsurance transaction, except for reinsurance transactions that are entered into as part of a plan to exit a business.

Until 2019, the amortization of the deferred cost of reinsurance is based solely on assumptions relating to the underlying insurance contracts. As of January 1, 2020, for products sold in the Americas and Asia where the amortization is based on expected gross profit margins (EGPs), these EGPs will be net of reinsurance (i.e. net of actual reinsurance cash flows that exceed expected reinsurance cash flows). Additionally, the reinsurance cash flows used to calculate the amortization rate will be unlocked prospectively. The accounting policy on the amortization of similar intangibles, such as deferred policy acquisition costs, will be updated accordingly.

The new policy will be adopted because it better reflects the economics of Aegon's reinsurance transactions and aligns to current market practice. The previous accounting policy would have resulted in significant income volatility in the event of incurred claims with large sums insured, despite the fact that a significant part of the losses is reinsured.

As no recent death claims with large sum insured have occurred prior to 2020, the impact of this policy change on shareholders' equity per January 1, 2020 is not significant.

2.2 Basis of consolidation

Subsidiaries

The consolidated financial statements include the financial statements of Aegon N.V. and its subsidiaries. Subsidiaries (including consolidated structured entities) are entities over which Aegon has control. Aegon controls an entity when Aegon is exposed, or has rights, to variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The assessment of control is based on the substance of the relationship between the Group and the entity and, among other things, considers existing and potential voting rights that are substantive. For a right to be substantive, the holder must have the practical ability to exercise that right.

The subsidiary's assets, liabilities and contingent liabilities are measured at fair value on the acquisition date and are subsequently accounted for in accordance with the Group's accounting policies, which is consistent with IFRS-EU. Intra-group transactions, including Aegon N.V. shares held by subsidiaries, which are recognized as treasury shares in equity, are eliminated. Intra-group losses may indicate an impairment that requires recognition in the consolidated financial statements. Non-controlling interests are initially stated

at their share in the fair value of the net assets on the acquisition date and subsequently adjusted for the non-controlling share in changes in the subsidiary's equity.

The excess of the consideration paid to acquire the interest and the fair value of any interest already owned, over the Group's share in the net fair value of assets, liabilities and contingent liabilities acquired is recognized as goodwill. Negative goodwill is recognized directly in the income statement. If the fair value of the assets, liabilities and contingent liabilities acquired in the business combination has been determined provisionally, adjustments to these values resulting from the emergence of new evidence within 12 months after the acquisition date are made against goodwill. Aegon recognized contingent considerations either as provision or as financial liability depending on the characteristics. Any contingent consideration payable is recognized at fair value at the acquisition date. If the contingent consideration is classified as equity, it is not remeasured and settlement is accounted for within equity. Otherwise, subsequent changes to the fair value of the contingent consideration are recognized in the income statement.

The identifiable assets, liabilities and contingent liabilities are stated at fair value when control is obtained.

Subsidiaries are deconsolidated when control ceases to exist. Any difference between the net proceeds plus the fair value of any retained interest and the carrying amount of the subsidiary including non-controlling interests is recognized in the income statement.

Transactions with non-controlling interests

Transactions with non-controlling interests are accounted for as transactions with owners. Therefore disposals to non-controlling interests and acquisitions from non-controlling interests, not resulting in losing or gaining control of the subsidiary are recorded in equity. Any difference between consideration paid or received and the proportionate share in net assets is accounted for in equity attributable to shareholders of Aegon N.V.

Investment funds

Investment funds managed by the Group in which the Group holds an interest are consolidated in the financial statements if the Group has power over that investment fund and it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. In assessing control, all interests held by the Group in the fund are considered, regardless of whether the financial risk related to the investment is borne by the Group or by the policyholders (unless a direct link between the policyholder and the fund can be assumed).

In determining whether Aegon has power over an investment fund all facts and circumstances are considered, including the following:

- Control structure of the asset manager (i.e. whether an Aegon subsidiary);
- The investment constraints posed by investment mandate;
- Legal rights held by the policyholder to the separate assets in the investment vehicle (e.g. policyholders could have the voting rights related to these investments);
- The governance structure, such as an independent board of directors, representing the policyholders, which has substantive rights (e.g. to elect or remove the asset manager); and
- Rights held by other parties (e.g. voting rights of policyholders that are substantive or not).

Exposure or rights to variability of returns can be the result of, for example:

- General account investment of Aegon;
- Aegon's investments held for policyholder;
- Guarantees provided by Aegon on return of policyholders in specific investment vehicles;
- Fees dependent on fund value (including, but not limited to, asset management fees); and
- Fees dependent on performance of the fund (including, but not limited to, performance fees).

Investment funds where Aegon acts as an agent are not consolidated due to lack of control of the funds. In particular, for some separate accounts, the independent board of directors has substantive rights and therefore Aegon does not have power over these separate accounts but acts as an agent.

For limited partnerships, the assessment takes into account Aegon's legal position (i.e. limited partner or general partner) and any substantive removal rights held by other parties. Professional judgment is applied concerning the substantiveness of the removal rights and the magnitude of the exposure to variable returns, leading to the conclusion that Aegon controls some, but not all, of the limited partnerships in which it participates.

Upon consolidation of an investment fund, a liability is recognized to the extent that the Group is legally obliged to buy back participations held by third parties. The liability is presented in the consolidated financial statements as investment contracts for account of policyholders. Where no repurchase obligation exists, the participations held by third parties are presented as non-controlling interests in equity. The assets allocated to participations held by third parties or by the Group on behalf of policyholders are presented in the consolidated financial statements as investments for account of policyholders.

Equity instruments issued by the Group that are held by investment funds are eliminated on consolidation. However, the elimination is reflected in equity and not in the measurement of the related financial liabilities towards policyholders or other third parties.

Structured entities

A structured entity is defined in IFRS 12 as "An entity that has been designed so that voting rights are not the dominant factor in deciding who controls the entity, such as when any voting rights relate to administrative tasks only and the relevant activities are directed by means of contractual arrangements." In these instances the tests and indicators to assess control provided by IFRS 10 have more focus on the purpose and design of the investee (with relation to the relevant activities that most significantly affect the structured entity) and the exposure to variable returns, which for structured entities lies in interests through e.g. derivatives, and will not be focused on entities that are controlled by voting rights.

Structured entities that are consolidated include certain mortgage backed securitization deals, where Aegon was involved in the design of the structured entities and also has the ability to use its power to affect the amount of the investee's returns. Other factors that contribute to the conclusion that consolidation of these entities is required includes consideration of whether Aegon fully services the investees and can therefore influence the defaults of the mortgage portfolios and the fact that in these cases the majority of risks are maintained by Aegon.

Structured entities that are not consolidated include general account investments in non-affiliated structured entities that are used for investment purposes.

Non-current assets held for sale and disposal groups

Disposal groups are classified as held for sale if they are available for immediate sale in their present condition, subject only to the customary sales terms of such assets and disposal groups and their sale is considered highly probable. Management must be committed to the sale, which is expected to occur within one year from the date of classification as held for sale.

Upon classification as held for sale, the carrying amount of the disposal group (or group of assets) is compared to their fair value less cost to sell. If the fair value less cost to sell is lower than the carrying value, this expected loss is recognized through a reduction of the carrying value of any goodwill related to the disposal group or the carrying value of certain other non-current, non-financial assets to the extent that the carrying value of those assets exceeds their fair value. Any excess of the expected loss over the reduction of the carrying amount of these relevant assets is not recognized upon classification as held for sale, but is recognized as part of the result on disposal if and when a divestment transaction occurs.

Classification into or out of held for sale does not result in restating comparative amounts in the statement of financial position.

2.3 Foreign exchange translation

a. Translation of foreign currency transactions

The Group's consolidated financial statements are presented in euros. Items included in the financial statements of individual group companies are recorded in their respective functional currency which is the currency of the primary economic environment in which each entity operates. Transactions in foreign currencies are initially recorded at the exchange rate prevailing at the date of the transaction.

At the reporting date, monetary assets and monetary liabilities in foreign currencies are translated to the functional currency at the closing rate of exchange prevailing on that date, except for own equity instruments in foreign currencies which are translated using historical exchange rates. Non-monetary items carried at cost are translated using the exchange rate at the date of the transaction, while assets carried at fair value are translated at the exchange rate when the fair value was determined.

Exchange differences on monetary items are recognized in the income statement when they arise, except when they are deferred in other comprehensive income as a result of a qualifying cash flow or net investment hedge. Exchange differences on non-monetary items carried at fair value are recognized in other comprehensive income or the income statement, consistently with other gains and losses on these items.

b. Translation of foreign currency operations

On consolidation, the financial statements of group entities with a foreign functional currency are translated to euro, the currency in which the consolidated financial statements are presented. Assets and liabilities are translated at the closing rates on the reporting date. Income, expenses and capital transactions (such as dividends) are translated at average exchange rates or at the prevailing rates on the transaction date, if more appropriate. Goodwill and fair value adjustments arising on the acquisition of a foreign entity are translated at the closing rates on the reporting date.

The resulting exchange differences are recognized in the 'foreign currency translation reserve', which is part of shareholders' equity. On disposal of a foreign entity the related cumulative exchange differences included in the reserve are recognized in the income statement.

2.4 Segment reporting

Reporting segments and segment measures are explained and disclosed in note 5 Segment information.

2.5 Offsetting of assets and liabilities

Financial assets and liabilities are offset in the statement of financial position when the Group has a legally enforceable right to offset and has the intention to settle the asset and liability on a net basis or simultaneously. The legally enforceable right must not be contingent on future events and must be enforceable in the normal course of business and in the event of default, insolvency or bankruptcy of the Company or the counterpart.

2.6 Intangible assets

a. Goodwill

Goodwill is recognized as an intangible asset for interests in subsidiaries and is measured as the positive difference between the acquisition cost and the Group's interest in the net fair value of the entity's identifiable assets, liabilities and contingent liabilities. Subsequently, goodwill is carried at cost less accumulated impairment charges. It is derecognized when the interest in the subsidiary is disposed.

b. Value of business acquired

When a portfolio of insurance contracts is acquired, whether directly from another insurance company or as part of a business combination, the difference between the fair value and the carrying amount of the insurance liabilities is recognized as value of business acquired (VOBA). The Group also recognizes VOBA when it acquires a portfolio of investment contracts with discretionary participation features.

VOBA is amortized over the useful life of the acquired contracts, based on either the expected future premiums, revenues or the expected gross profit margins. The amortization period and pattern are reviewed at each reporting date; any change in estimates is recorded in the income statement. For all products, VOBA, in conjunction with deferred policy acquisition costs (DPAC) where appropriate, is assessed for recoverability using aggregation levels on a geographical jurisdiction basis or at the level of portfolio of contracts that are subject to broadly similar risks and managed together as a single portfolio. The portion determined not to be recoverable is charged to the income statement. VOBA is considered in the liability adequacy test for each reporting period, for more details refer to 2.19.f Liability adequacy testing.

When unrealized gains or losses arise on available-for-sale assets backing the insurance liabilities, VOBA is adjusted to equal the effect that the realization of the gains or losses (through a sale or impairment) would have had on VOBA. The adjustment is recognized in OCI and accumulated in the related revaluation reserve in shareholders' equity. VOBA is derecognized when the related contracts are settled or disposed.

c. Future servicing rights

On the acquisition of a portfolio of investment contracts without discretionary participation features under which Aegon will render investment management services, the present value of future servicing rights is recognized as an intangible asset. Future servicing rights can also be recognized on the sale of a loan portfolio or the acquisition of insurance agency activities.

The present value of the future servicing rights is amortized over the servicing period and is subject to impairment testing. It is derecognized when the related contracts are settled or disposed.

Where applicable, Aegon recognizes other intangibles on the acquisition of a business combination such as those related to customer relationships. This can include customer contracts, distribution agreements and client portfolios. For these intangibles the present

value of future cash flows are recognized and amortized in the period when future economic benefits arise from these intangibles. These intangible assets are also presented under future servicing rights.

d. Software and other intangible assets

Software and other intangible assets are recognized to the extent that the assets can be identified, are controlled by the Group, are expected to provide future economic benefits and can be measured reliably. The Group does not recognize internally generated intangible assets arising from research or internally generated goodwill, brands, customer lists and similar items.

Software and other intangible assets are carried at cost less accumulated depreciation and impairment losses. Depreciation of the asset is over its useful life as the future economic benefits emerge and is recognized in the income statement as an expense. The depreciation period and pattern are reviewed at each reporting date, with any changes recognized in the income statement.

An intangible asset is derecognized when it is disposed of or when no future economic benefits are expected from its use or disposal.

2.7 Investments

General account investments comprise financial assets, excluding derivatives, as well as investments in real estate.

a. Financial assets, excluding derivatives

Financial assets are recognized at trade date (except for Private placements that are recognized at settlement date) when the Group becomes a party to the contractual provisions of the instruments. All financial assets are classified for accounting purposes depending on the characteristics of the instruments and the purpose for which they were purchased.

Classification

The following financial assets are measured at fair value through profit or loss: financial assets held for trading, financial assets managed on a fair value basis in accordance with the Group's investment strategy and financial assets containing an embedded derivative that is not closely related and that cannot be reliably bifurcated. In addition, in certain instances the Group designates financial assets to this category when by doing so a potential accounting mismatch in the financial statements is eliminated or significantly reduced.

Financial assets with fixed or determinable payments, that are not quoted in an active market and that the Group does not intend to sell in the near future are classified as loans. Those for which the holder may not recover substantially all of its initial investment, other than because of credit deterioration, are accounted for as available-for-sale.

All remaining non-derivative financial assets are classified as available-for-sale.

Measurement

Financial assets are initially recognized at fair value plus, in the case of a financial asset not at fair value through profit or loss, any directly attributable incremental transaction costs.

Loans and financial assets held-to-maturity are subsequently carried at amortized cost using the effective interest rate method. Financial assets at fair value through profit or loss are measured at fair value with all changes in fair value recognized in the income statement as incurred. Available-for-sale assets are recorded at fair value with unrealized changes in fair value recognized in other comprehensive income. Financial assets that are designated as hedged items are measured in accordance with the requirements for hedge accounting.

Amortized cost

The amortized cost of a debt instrument is the amount at which it is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization of any difference between the initial amount and the maturity amount, and minus any reduction for impairment. The effective interest rate method is a method of calculating the amortized cost and of allocating the interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the debt instrument or, when appropriate, a shorter period to the net carrying amount of the instrument. When calculating the effective interest rate, all contractual terms are considered. Possible future credit losses are not taken into account. Charges and interest paid or received between parties to the contract that are an integral part of the effective interest rate, transaction costs and all other premiums or discounts are included in the calculation.

Fair value

The consolidated financial statements provide information on the fair value of all financial assets, including those carried at amortized cost where the values are provided in the notes to the financial statements.

Fair value is defined as the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability). For quoted financial assets for which there is an active market, the fair value is the bid price at the reporting date. In the absence of an active market, fair value is estimated by using present value based or other valuation techniques. Where discounting techniques are applied, the discount rate is based on current market rates applicable to financial instruments with similar characteristics. The valuation techniques that include unobservable inputs can result in a different outcome than the actual transaction price at which the asset was acquired. Such differences are not recognized in the income statement immediately but are deferred. They are released over time to the income statement in line with the change in factors (including time) that market participants would consider in setting a price for the asset. Interest accrued to date is not included in the fair value of the financial asset.

Derecognition

A financial asset is derecognized when the contractual rights to the asset's cash flows expire or when the Group retains the right to receive cash flows from the asset but has an obligation to pay any received cash flows in full without delay to a third party and either: has transferred the asset and substantially all the risks and rewards of ownership, or has neither transferred nor retained all the risks and rewards but has transferred control of the asset. Financial assets of which the Group has neither transferred nor retained significantly all the risk and rewards and retained control are recognized to the extent of the Group's continuing involvement. If significantly all risks are retained, the assets are not derecognized.

On derecognition, the difference between the disposal proceeds and the carrying amount is recognized in the income statement as a realized gain or loss. Any cumulative unrealized gain or loss previously recognized in the revaluation reserve in shareholders' equity is also recognized in the income statement.

Security lending and repurchase agreements

Financial assets that are lent to a third party or that are transferred subject to a repurchase agreement at a fixed price are not derecognized as the Group retains substantially all the risks and rewards of the asset. A liability is recognized for cash (collateral) received, on which interest is accrued.

A security that has been received under a borrowing or reverse repurchase agreement is not recognized as an asset. A receivable is recognized for any related cash (collateral) paid by Aegon. The difference between sale and repurchase price is treated as investment income. If the Group subsequently sells that security, a liability to repurchase the asset is recognized and initially measured at fair value.

Collateral

With the exception of cash collateral, assets received as collateral are not separately recognized as an asset until the financial asset they secure defaults. When cash collateral is recognized, a liability is recorded for the same amount.

b. Real estate

Investments in real estate include property held to earn rentals or for capital appreciation, or both. Investments in real estate are presented as 'Investments'. Property that is occupied by the Group and that is not intended to be sold in the near future is classified as real estate held for own use and is presented in 'Other assets and receivables'.

All property is initially recognized at cost. Such cost includes the cost of replacing part of the real estate and borrowing cost for long-term construction projects if recognition criteria are met. Subsequently, investments in real estate are measured at fair value with the changes in fair value recognized in the income statement. Real estate held for own use is carried at its revalued amount, which is the fair value at the date of revaluation less subsequent accumulated depreciation and impairment losses. Depreciation is calculated on a straight line basis over the useful life of a building. Land is not depreciated. Revaluation of real estate for own use is recognized in OCI and accumulated in revaluation reserve in equity. On revaluation the accumulated depreciation is eliminated against the gross carrying amount of the asset and the net amount is restated to the revalued amount.

On disposal of an asset, the difference between the net proceeds received and the carrying amount is recognized in the income statement. Any remaining surplus attributable to real estate in own use in the revaluation reserve is transferred to retained earnings.

Maintenance costs and other subsequent expenditure

Expenditure incurred after initial recognition of the asset is capitalized to the extent that the level of future economic benefits of the asset is increased. Costs that restore or maintain the level of future economic benefits are recognized in the income statement as incurred.

2.8 Investments for account of policyholders

Investments held for account of policyholders consist of investments in financial assets as well as investments in real estate. Investment return on these assets is passed on to the policyholder. Also included are the assets held by consolidated investment funds that are backing liabilities towards third parties. Investments for account of policyholders are valued at fair value through profit or loss.

2.9 Derivatives

a. Definition

Derivatives are financial instruments of which the value changes in response to an underlying variable, that require little or no net initial investment and are settled at a future date.

Assets and liabilities may include derivative-like terms and conditions. With the exception of features embedded in contracts held at fair value through profit or loss, embedded derivatives that are not considered closely related to the host contract are bifurcated, carried at fair value and presented as derivatives. In assessing whether a derivative-like feature is closely related to the contract in which it is embedded, the Group considers the similarity of the characteristics of the embedded derivative and the host contract. Embedded derivatives that transfer significant insurance risk are accounted for as insurance contracts.

Derivatives with positive values are reported as assets and derivatives with negative values are reported as liabilities. Derivatives for which the contractual obligation can only be settled by exchanging a fixed amount of cash for a fixed amount of Aegon N.V. equity instruments are accounted for in shareholders' equity.

b. Measurement

All derivatives recognized on the statement of financial position are carried at fair value.

The fair value is calculated net of the interest accrued to date and is based on market prices, when available. When market prices are not available, other valuation techniques, such as option pricing or stochastic modeling, are applied. The valuation techniques incorporate all factors that market participants would consider and are based on observable market data, to the extent possible.

c. Hedge accounting

As part of its asset liability management, the Group enters into economic hedges to limit its risk exposure. These transactions are assessed to determine whether hedge accounting can and should be applied.

To qualify for hedge accounting, the hedge relationship is designated and formally documented at inception, detailing the particular risk management objective and strategy for the hedge (which includes the item and risk that is being hedged), the derivative that is being used and how hedge effectiveness is being assessed. A derivative has to be highly effective in accomplishing the objective of offsetting either changes in fair value or cash flows for the risk being hedged. The effectiveness of the hedging relationship is evaluated on a prospective and retrospective basis using qualitative and quantitative measures of correlation. Qualitative methods may include comparison of critical terms of the derivative to the hedged item. Quantitative methods include a comparison of the changes in the fair value or discounted cash flow of the hedging instrument to the hedged item. A hedging relationship is considered highly effective if the results of the hedging instrument are within a ratio of 80% to 125% of the results of the hedged item.

For hedge accounting purposes, a distinction is made between fair value hedges, cash flow hedges and hedges of a net investment in a foreign operation.

Following the financial crisis, the reform and replacement of benchmark interest rates such as LIBOR and other interbank offered rates ('IBORs') has become a priority for global regulators. There is currently uncertainty around the timing and precise nature of these changes, in light of which the following assumptions have been made with respect to hedge accounting:

- When considering the 'highly probable' requirement, it is assumed that the current benchmark interest rate on which the hedged positions is based will not change as a result of IBOR reform.
- In assessing whether the hedge is expected to be 'highly effective' on a forward-looking basis, it is assumed that the current benchmark interest rate on which the cash flows of the hedged item and the derivative that hedges it are based is not altered as a result of the IBOR reform.

- Hedge accounting is not discontinued during the period of IBOR-related uncertainty solely because the retrospective effectiveness falls outside the required 80-125% range.
- For macro hedging the assessment whether the hedged risk component is a separately identifiable, is performed only when a hedged item is first included in the hedge and not on an ongoing basis.
- The cash flows hedge reserve relating to the period after the IBOR reform is expected to take effect, is not recycled solely because cash flows are expected to change.

d. Brexit

Since January 31, 2020, the United Kingdom (UK) is no longer a member of the European Union. The UK has until the end of 2020 to negotiate a trade deal with the EU and prevent a hard Brexit (no deal) scenario. A hard Brexit will have consequences for the derivatives contracts Aegon holds with UK counterparties as they may lose their eligibility under European regulation. Aegon transferred part of its derivatives with UK counterparties, clearing members and part of its derivatives that were held at the London Clearing House (LCH) to non-UK counterparties and to Eurex in Frankfurt. Based on new information about Brexit, the future eligibility of LCH and the liquidity at the different venues will be assessed.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges are recognized in the profit and loss account, together with fair value adjustments to the hedged item attributable to the hedged risk. If the hedge relationship no longer meets the criteria for hedge accounting, the cumulative adjustment of the hedged item is, in the case of interest bearing instruments, amortized through the profit and loss account over the remaining term of the original hedge or recognized directly when the hedged item is derecognized.

Aegon applies fair value hedge accounting to portfolio hedges of interest rate risk (fair value macro hedging) under the EU 'carve out' of IFRS-EU. The EU 'carve out' macro hedging enables a group of derivatives (or proportions thereof) to be viewed in combination and jointly designated as the hedging instrument and removes some of the limitations in fair value hedge accounting. Under the EU 'carve out', ineffectiveness in fair value hedge accounting only arises when the revised projection of the amount of cash flows in scheduled time buckets falls below the designated amount of that bucket. Aegon applies fair value hedge accounting for portfolio hedges of interest rate risk (macro hedging) under the EU 'carve out' to mortgage loans. Changes in the fair value of the derivatives are recognized in the profit and loss account, together with the fair value adjustment on the mortgages (hedged items) insofar as attributable to interest rate risk (the hedged risk).

Cash flow hedges

Cash flow hedges are hedges of the exposure to variability in cash flows that is attributable to a particular risk of a forecasted transaction or a recognized asset or liability and could affect profit or loss. To the extent that the hedge is effective, the change in the fair value of the derivative is recognized in the related revaluation reserve in shareholders' equity. Any ineffectiveness is recognized directly in the income statement. The amount recorded in shareholders' equity is released to the income statement to coincide with the hedged transaction, except when the hedged transaction is an acquisition of a non-financial asset or liability. In this case, the amount in shareholders' equity is included in the initial cost of the asset or liability.

Net investment hedges

Net investment hedges are hedges of currency exposures on a net investment in a foreign operation. To the extent that the hedge is effective, the change in the fair value of the hedging instrument is recognized in the net foreign investment hedging reserve in shareholders' equity. Any ineffectiveness is recognized in the income statement. The amount in shareholders' equity is released to the income statement when the foreign operation is disposed of.

Hedge accounting is discontinued prospectively for hedges that are no longer considered effective. When hedge accounting is discontinued for a fair value hedge, the derivative continues to be carried on the statement of financial position with changes in its fair value recognized in the income statement. When hedge accounting is discontinued for a cash flow hedge because the cash flow is no longer expected to occur, the accumulated gain or loss in shareholders' equity is recognized immediately in the income statement. In other situations where hedge accounting is discontinued for a cash flow hedge, including those where the derivative is sold, terminated or exercised, accumulated gains or losses in shareholders' equity are amortized into the income statement when the income statement is impacted by the variability of the cash flow from the hedged item.

2.10 Investments in joint arrangements

In general, joint arrangements are contractual agreements whereby the Group undertakes, with other parties, an economic activity that is subject to joint control. Joint control exists when it is contractually agreed to share control over an economic activity. Joint control exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations each investor has rather than the legal structure of the joint arrangement. Aegon has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method.

Under the equity method of accounting, interests in joint ventures are initially recognized at cost, which includes positive goodwill arising on acquisition. Negative goodwill is recognized in the income statement on the acquisition date. If joint ventures are obtained in successive share purchases, each significant transaction is accounted for separately.

The carrying amount is subsequently adjusted to reflect the change in the Group's share in the net assets of the joint venture and is subject to impairment testing. The net assets are determined based on the Group's accounting policies. Any gains and losses recorded in other comprehensive income by the joint venture are recognized in OCI and reflected in other reserves in shareholders' equity, while the share in the joint ventures net income is recognized as a separate line item in the consolidated income statement. The Group's share in losses is recognized until the investment in the joint ventures' equity and any other long-term interest that are part of the net investment are reduced to nil, unless guarantees exist.

Gains and losses on transactions between the Group and the joint ventures are eliminated to the extent of the Group's interest in the entity, with the exception of losses that are evidence of impairment which are recognized immediately. Own equity instruments of Aegon N.V. that are held by the joint venture are not eliminated.

On disposal of an interest in a joint venture, the difference between the net proceeds and the carrying amount is recognized in the income statement and gains and losses previously recorded directly in the revaluation reserve are reversed and recorded through the income statement.

2.11 Investments in associates

Entities over which the Group has significant influence through power to participate in financial and operating policy decisions, but which do not meet the definition of a subsidiary, are accounted for using the equity method. Interests held by venture capital entities, mutual funds and investment funds that qualify as an associate are accounted for as an investment held at fair value through profit or loss. Interests held by the Group in venture capital entities, mutual funds and investment funds that are managed on a fair value basis, are also accounted for as investments held at fair value through profit or loss.

Interests in associates are initially recognized at cost, which includes positive goodwill arising on acquisition. Negative goodwill is recognized in the income statement on the acquisition date. If associates are obtained in successive share purchases, each significant transaction is accounted for separately.

The carrying amount is subsequently adjusted to reflect the change in the Group's share in the net assets of the associate and is subject to impairment testing. The net assets are determined based on the Group's accounting policies. Any gains and losses recorded in other comprehensive income by the associate are reflected in other reserves in shareholders' equity, while the share in the associate's net income is recognized as a separate line item in the consolidated income statement. The Group's share in losses is recognized until the investment in the associate's equity and any other long-term interest that are part of the net investment are reduced to nil, unless guarantees exist.

Gains and losses on transactions between the Group and the associate are eliminated to the extent of the Group's interest in the entity, with the exception of losses that are evidence of impairment which are recognized immediately. Own equity instruments of Aegon N.V. that are held by the associate are not eliminated.

On disposal of an interest in an associate, the difference between the net proceeds and the carrying amount is recognized in the income statement and gains and losses previously recorded directly in the revaluation reserve are reversed and recorded through the income statement.

2.12 Reinsurance assets

Reinsurance contracts are contracts entered into by the Group in order to receive compensation for claims/benefits incurred on contracts written by the Group (outgoing reinsurance). Reinsurance assets are also held as part of exiting the business. For contracts transferring sufficient insurance risk, a reinsurance asset is recognized for the expected future benefits, less expected future reinsurance premiums. Reinsurance contracts with insufficient insurance risk transfer are accounted for as investment or service contracts, depending on the nature of the agreement.

Reinsurance assets are measured consistently with the assumptions associated with the underlying insurance contracts and in accordance with the terms of each reinsurance contract. They are subject to impairment testing and are derecognized when the contractual rights are extinguished or expire or when the contract is transferred to another party.

Aegon is not relieved of its legal liabilities when entering into reinsurance transactions, therefore the reserves relating to the underlying insurance contracts will continue to be reported on the consolidated statement of financial position during the contractual term of the underlying contracts.

Reinsurance premiums, commissions and claim settlements are accounted for in the same way as the original contracts for which the reinsurance was concluded. The insurance premiums for the original contracts are presented gross of reinsurance premiums paid.

2.13 Deferred expenses

a. Deferred policy acquisition costs (DPAC)

DPAC relates to all insurance contracts as well as investment contracts with discretionary participation features and represents directly attributable costs that are related to the selling, underwriting and initiating of these insurance contracts.

DPAC are deferred to the extent that they are recoverable and are subsequently amortized based on factors such as expected gross profit margins. For products sold in the United States and Asia with amortization based on expected gross profit margins or revenues, the amortization period and pattern are reviewed at each reporting date and any change in estimates is recognized in the income statement. Estimates include, but are not limited to: an economic perspective in terms of future returns on bond and equity instruments, mortality, morbidity and lapse assumptions, maintenance expenses and expected inflation rates.

For all products, DPAC, in conjunction with VOBA where appropriate, is assessed for recoverability at least annually as part of the liability adequacy test for each reporting period. If appropriate, the assumptions included in the determination of estimated gross profits or revenues are adjusted. The portion of DPAC that is determined not to be recoverable is charged to the income statement.

For products sold in the United States and Asia, when unrealized gains or losses arise on available-for-sale assets backing the insurance liabilities, DPAC is adjusted to equal the effect that the realization of the gains or losses (through sale or impairment) would have had on its measurement. This is recognized in OCI and accumulated in the related revaluation reserve in shareholders' equity.

DPAC is derecognized when the related contracts are settled or disposed.

b. Deferred cost of reinsurance

A deferred cost of reinsurance is established when Aegon enters into a reinsurance transaction, except for reinsurance transactions that are entered into as part of a plan to exit a business. When Aegon enters into a reinsurance contract as part of a plan to exit a business, an immediate loss is recognized in the income statement. Upon reinsurance, Aegon is not relieved of its legal liabilities, so the reserves relating to the underlying reinsured contracts will continue to be reported in the consolidated statement of financial position during the contractual term of the underlying contracts.

The difference, if any, between amounts paid in a reinsurance transaction and the amount of the liabilities relating to the underlying reinsured contracts is part of the deferred cost of reinsurance.

When losses on buying reinsurance are deferred, the amortization is based on the assumptions of the underlying insurance contracts. In the Netherlands, the amortization is based on the percentage of premium paid on the reinsurance contract. The amortization is recognized in the income statement.

c. Deferred transaction costs

Deferred transaction costs relate to investment contracts without discretionary participation features under which Aegon will render investment management services. Incremental costs that are directly attributable to securing these investment management contracts are recognized as an asset if they can be identified separately and measured reliably and if it is probable that they will be recovered.

For contracts involving both the origination of a financial liability and the provision of investment management services, only the transaction costs allocated to the servicing component are deferred. The other transaction costs are included in the carrying amount of the financial liability.

The deferred transaction costs are amortized in line with fee income, unless there is evidence that another method better represents the provision of services under the contract. The amortization is recognized in the income statement. Deferred transaction costs are subject to impairment testing at least annually.

Deferred transaction costs are derecognized when the related contracts are settled or disposed.

2.14 Other assets and receivables

Other assets include trade and other receivables, prepaid expenses, equipment and real estate held for own use. Trade and other receivables are initially recognized at fair value and are subsequently measured at amortized cost. Equipment is initially carried at cost, depreciated on a straight line basis over its useful life to its residual value and is subject to impairment testing. The accounting for real estate held for own use is described in note 2.7 Investments.

2.15 Cash and cash equivalents

Cash comprises cash at banks and in-hand. Cash equivalents are short-term, highly liquid investments generally with original maturities of three months or less that are readily convertible to known cash amounts, are subject to insignificant risks of changes in value and are held for the purpose of meeting short-term cash requirements. Money market investments that are held for investment purposes (backing insurance liabilities, investment liabilities or equity based on asset liability management considerations) are not included in cash and cash equivalents but are presented as investments or investments for account of policyholders.

2.16 Impairment of assets

An asset is impaired if the carrying amount exceeds the amount that would be recovered through its use or sale. For tangible and intangible assets, financial assets and reinsurance assets, if not held at fair value through profit or loss, the recoverable amount of the asset is estimated when there are indications that the asset may be impaired. Irrespective of the indications, goodwill and other intangible assets with an indefinite useful life that are not amortized, are tested at least annually.

There are a number of significant risks and uncertainties inherent in the process of monitoring investments and determining if impairment exists. These risks and uncertainties include the risk that the Group's assessment of an issuer's ability to meet all of its contractual obligations will change based on changes in the credit characteristics of that issuer and the risk that the economic outlook will be worse than expected or have more of an impact on the issuer than anticipated. Any of these situations could result in a charge against the income statement to the extent of the impairment charge recorded.

a. Impairment of non-financial assets

Assets are tested individually for impairment when there are indications that the asset may be impaired. For goodwill and intangible assets with an undefined life, an impairment test is performed at least once a year or more frequently as a result of an event or change in circumstances that would indicate an impairment charge may be necessary. The impairment loss is calculated as the difference between the carrying and the recoverable amount of the asset, which is the higher of an asset's value in use and its fair value less cost of disposal. The value in use represents the discounted future net cash flows from the continuing use and ultimate disposal of the asset and reflects its known inherent risks and uncertainties. The valuation utilizes the best available information, including assumptions and projections considered reasonable and supportable by management. The assumptions used in the valuation involve significant judgments and estimates. Refer to note 29 Intangible assets for more details.

Impairment losses are charged to other comprehensive income to the extent that they offset a previously recorded revaluation reserve relating to the same item. Any further losses are recognized directly in the income statement. Impairment of deferred policy acquisition costs is included in note 15 Impairment charges/(reversals).

With the exception of goodwill, impairment losses are reversed when there is evidence that there has been a change in the estimates used to determine the asset's recoverable amount since the recognition of the last impairment loss. The reversal is recognized

in the income statement to the extent that it reverses impairment losses previously recognized in the income statement. The carrying amount after reversal cannot exceed the amount that would have been recognized had no impairment taken place.

Non-financial assets that only generate cash flows in combination with other assets and liabilities are tested for impairment at the level of the cash-generating unit. The goodwill acquired in a business combination, for the purpose of impairment testing, is allocated to cash-generating units, or groups of cash-generating units, that are expected to benefit from the synergies of the combination. The allocation is based on the level at which goodwill is monitored internally and cannot be larger than an operating segment. When impairing a cash-generating unit, any goodwill allocated to the unit is first written-off and recognized in the income statement. The remaining impairment loss is allocated on a pro rata basis among the other assets, on condition that the resulting carrying amounts do not fall below the individual assets' recoverable amounts.

b. Impairment of debt instruments

Debt instruments are impaired if there is objective evidence that a credit event has occurred after the initial recognition of the asset that has a negative impact on the estimated future cash flows. Individually significant loans and other receivables are first assessed separately. All non-impaired assets measured at amortized cost are then grouped by credit risk characteristics and collectively tested for impairment.

For debt instruments carried at amortized cost, the carrying amount of impaired financial assets is reduced through an allowance account. The impairment loss is calculated as the difference between the carrying and recoverable amount of the investment. The recoverable amount is determined by discounting the estimated probable future cash flows at the original effective interest rate of the asset. For variable interest debt instruments, the current effective interest rate under the contract is applied.

For debt instruments classified as available-for-sale, the asset is impaired to its fair value. Any unrealized loss previously recognized in other comprehensive income is taken to the income statement in the impairment loss.

After impairment the interest accretion on debt instruments is recognized using the rate of interest used to discount the future cash flows for the purpose of measuring the impairment loss.

Impairment losses recognized for debt instruments can be reversed if in subsequent periods the amount of the impairment loss decreases and that decrease can be objectively related to a credit event occurring after the impairment was recognized. For debt instruments carried at amortized cost, the carrying amount after reversal cannot exceed what the amortized cost would have been at the reversal date, had the impairment not been recognized.

c. Impairment of equity instruments

For equity instruments, objective evidence of impairment of an investment in an equity instrument classified as available-for-sale includes information about significant changes with an adverse effect that have taken place in the technological, market, economic or legal environment in which the issuer operates, and indicates that the cost of the investment in the equity instrument may not be recovered. A significant or prolonged decline in fair value below initial cost is also considered objective evidence of impairment and always results in a loss being recognized in the income statement. Significant or prolonged decline is defined as an unrealized loss position for generally more than six months or a fair value of less than 80% of the cost price of the investment. Equity investments are impaired to the asset's fair value and any unrealized gain or loss previously recognized in shareholders' equity is taken to the income statement as an impairment loss. The amount exceeding the balance of previously recognized unrealized gains or losses is recognized in the income statement. If an available-for-sale equity security is impaired based upon Aegon's qualitative or quantitative impairment criteria, any further declines in the fair value at subsequent reporting dates are recognized as impairments. Therefore, at each reporting period, for an equity security that is determined to be impaired based upon Aegon's impairment criteria, an impairment is recognized for the difference between the fair value and the original cost basis, less any previously recognized impairments.

Impairment losses on equity instruments cannot be reversed.

d. Impairment of reinsurance assets

Reinsurance assets are impaired if there is objective evidence, as a result of an event that occurred after initial recognition of the reinsurance asset, that not all amounts due under the terms of the contract may be received. In such a case, the value of the reinsurance asset recoverable is determined based on the best estimate of future cash flows, taking into consideration the reinsurer's current and expected future financial conditions plus any collateral held in trust for Aegon's benefit. The carrying value is reduced to this calculated recoverable value, and the impairment loss recognized in the income statement.

2.17 Equity

Financial instruments that are issued by the Group are classified as equity if they represent a residual interest in the assets of the Group after deducting all of its liabilities and the Group has an unconditional right to avoid delivering cash or another financial asset to settle its contractual obligation. In addition to common shares, the Group has issued perpetual securities. Perpetual securities have no final maturity date, repayment is at the discretion of Aegon and for junior perpetual capital securities, Aegon has the option to defer coupon payments at its discretion. The perpetual capital securities are classified as equity rather than debt, are measured at par and those that are denominated in US dollars are translated into euro using historical exchange rates.

Non-cumulative subordinated notes were identified as a compound instrument due to the nature of this financial instrument. For these non-cumulative subordinated notes, Aegon had an unconditional right to avoid delivering cash or another financial asset to settle the coupon payments. The redemption of the principal was however not at the discretion of Aegon and therefore Aegon had a contractual obligation to settle the redemption in cash or another financial asset or through the exchange of financial assets and liabilities at potentially unfavorable conditions for Aegon. Compound instruments were separated into liability components and equity components. The liability component for the non-cumulative subordinated notes was equal to the present value of the redemption amount and carried at amortized cost using the effective interest rate method. The unwinding of the discount of this component was recognized in the income statement. At initial recognition the equity component was assigned the residual amount after deducting the liability component from the fair value of the instrument as a whole. The equity component in US dollars was translated into euro using historical exchange rates. With effect on May 15, 2018, Aegon has exercised its right to redeem USD 525 million non-cumulative subordinated notes, subsequently leading to their redemption. As the Group's obligation under the contract has expired, the liability and equity components of the non-cumulative subordinated notes have been derecognized.

Incremental external costs that are directly attributable to the issuing or buying back of own equity instruments are recognized in equity, net of tax. For compound instruments incremental external costs that were directly attributable to the issuing or buying back of the compound instruments were recognized proportionate to the equity component and liability component, net of tax.

The Group recognizes the income tax consequences of dividends in profit or loss, other comprehensive income or equity according to where it originally recognized the past transactions or events that generated the distributable profits. A liability for non-cumulative dividends payable is not recognized until the dividends have been declared and approved.

Treasury shares are shares issued by Aegon N.V. that are held by Aegon, one of its subsidiaries or by another entity controlled by Aegon. Treasury shares are deducted from Group equity, regardless of the objective of the transaction. No gain or loss is recognized in the income statement on the purchase, sale, issue or cancellation of the instruments. If sold, the difference between the carrying amount and the proceeds is reflected in retained earnings. The consideration paid or received is recognized directly in shareholders' equity. All treasury shares are eliminated in the calculation of earnings per share and dividend per common share.

2.18 Trust pass-through securities and (subordinated) borrowings

A financial instrument issued by the Group is classified as a liability if the contractual obligation must be settled in cash or another financial asset or through the exchange of financial assets and liabilities at potentially unfavorable conditions for the Group.

Trust pass-through securities and (subordinated) borrowings are initially recognized at their fair value including directly attributable transaction costs and are subsequently carried at amortized cost using the effective interest rate method, with the exception of specific borrowings that are designated as at fair value through profit or loss to eliminate, or significantly reduce, an accounting mismatch, or specific borrowings which are carried as at fair value through profit or loss as they are managed and evaluated on a fair value basis. The liability is derecognized when the Group's obligation under the contract expires, is discharged or is cancelled.

Subordinated borrowings include the liability component of non-cumulative subordinated notes. These notes are identified as a compound instrument due to the nature of this financial instrument. Compound instruments are separated into equity components and liability components. The liability component for the non-cumulative subordinated notes is related to the redemption amount. For further information on the accounting policy of the non-cumulative subordinated notes refer to note 2.17 Equity.

2.19 Insurance contracts

Insurance contracts are accounted for under IFRS 4 Insurance Contracts. In accordance with this standard, Aegon continues to apply the existing accounting policies that were applied prior to the adoption of IFRS-EU with certain modifications allowed by IFRS 4 for standards effective subsequent to adoption. Aegon applies, in general, non-uniform accounting policies for insurance liabilities and insurance related intangible assets to the extent that it was allowed under Dutch Accounting Principles. As a result, specific methodologies applied may differ between Aegon's operations as they may reflect local regulatory requirements and local practices for

specific product features in these local markets. At the time of IFRS-EU adoption, Aegon was applying US GAAP for its United States operations whereas in the Netherlands and the United Kingdom, Aegon was applying Dutch Accounting Principles. Since adoption of IFRS-EU, Aegon has considered new and amended standards in those GAAPs which have become effective subsequent to the date of transition to IFRS-EU. If any changes are made to current accounting policies for insurance contracts, these will be in accordance with IFRS 4.

Insurance contracts are contracts under which the Group accepts a significant risk – other than a financial risk – from a policyholder by agreeing to compensate the beneficiary on the occurrence of an uncertain future event by which he or she will be adversely affected. Contracts that do not meet this definition are accounted for as investment contracts. The Group reviews homogeneous books of contracts to assess whether the underlying contracts transfer significant insurance risk on an individual basis. This is considered the case when at least one scenario with commercial substance can be identified in which the Group has to pay significant additional benefits to the policyholder. Contracts that have been classified as insurance are not reclassified subsequently.

Insurance liabilities are recognized when the contract is entered into and the premiums are charged. The liability is derecognized when the contract expires, is discharged, disposed or cancelled. Within the United States, the Netherlands and the United Kingdom, substantially modified contracts are accounted for as an extinguishment of the original liability and the recognition of a new liability.

Insurance assets and liabilities are valued in accordance with the accounting principles that were applied by the Group prior to the transition to IFRS-EU and with consideration of standards effective subsequent to the date of transition to IFRS-EU, as further described in the following paragraphs. In order to reflect the specific nature of the products written, subsidiaries are allowed to apply local accounting principles to the measurement of insurance contracts. All valuation methods used by the subsidiaries are based on the general principle that the carrying amount of the net liability must be sufficient to meet any reasonably foreseeable obligation resulting from the insurance contracts.

a. Life insurance contracts

Life insurance contracts are insurance contracts with life-contingent benefits. The measurement of the liability for life insurance contracts varies depending on the nature of the product.

Liabilities arising from traditional life insurance products that are offered by Aegon, particularly those with fixed and guaranteed account terms, are typically measured using the net premium method. Under this method the liability is determined as the sum of the discounted value of the expected benefits and future administration expenses directly related to the contract, less the discounted value of the expected theoretical premiums that would be required to meet the future cash outflows based on the valuation assumptions used. The liability is either based on current assumptions or calculated using the assumptions established at the time the contract was issued, in which case a margin for risk and adverse deviation is generally included. Furthermore, the liability for life insurance comprises reserves for unearned premiums and accrued annuity benefits payable.

Depending on local accounting principles, the liability may include amounts for future services on contracts where the policy administration charges are higher in the initial years than in subsequent years.

Terms and conditions, including participation features, are considered when establishing the insurance liabilities. Where the Group has discretion over the amount or timing of the bonuses distributed resulting from participation features, a liability is recognized equal to the amount that is available at the reporting date for future distribution to policyholders.

In establishing the liability, guaranteed minimum benefits issued to the policyholder are measured as described in note 2.19.c Embedded derivatives or, if bifurcated from the host contract, as described in note 2.9 Derivatives.

b. Life insurance contracts for account of policyholders

Life insurance contracts under which the policyholder bears the risks associated with the underlying investments are classified as insurance contracts for account of policyholders.

The liability for the insurance contracts for account of policyholders is measured at the policyholder account balance. Contracts with unit-denominated payments are measured at current unit values, which reflect the fair values of the assets of the fund. If applicable, the liability representing the nominal value of the policyholder unit account is amortized over the term of the contract so that interest on actuarial funding is at an expected rate of return.

c. Embedded derivatives

Life insurance contracts may include derivative-like terms and conditions. With the exception of policyholder options to surrender the contract at a fixed amount, contractual features that are not closely related to the insurance contract and that do not themselves meet the definition of insurance contracts are accounted for as derivatives.

Guaranteed minimum benefits

Certain life insurance contracts, issued by the Group, contain guaranteed minimum benefits. Bifurcated guaranteed minimum benefits are classified as derivatives.

In the United States, the additional liability for guaranteed minimum benefits that are not bifurcated is determined each period by estimating the expected value of benefits in excess of the projected account balance and recognizing the excess over the accumulation period based on total expected assessments. The estimates are reviewed regularly and any resulting adjustment to the additional liability is recognized in the income statement. The benefits used in calculating the liabilities are commonly based on the average benefits payable over a range of stochastic scenarios. Where applicable, the calculation of the liability incorporates a percentage of the potential annuitizations that may be elected by the contract holder.

In the Netherlands, an additional liability is established for guaranteed minimum investment returns on group pension plans with profit sharing and on traditional insurance contracts, with profit sharing based on an external interest index, that are not bifurcated. These guarantees are measured at fair value.

d. Shadow accounting

Shadow accounting allows that all gains and losses on investments affect the measurement of the insurance assets and liabilities in the same way, regardless of whether they are realized or unrealized and regardless of whether the unrealized gains and losses are recognized in the income statement or through other comprehensive income in the revaluation reserve. In some instances, realized gains or losses on investments have a direct effect on the measurement of the insurance assets and liabilities. For example, some insurance contracts include benefits that are contractually based on the investment returns realized by the insurer. In addition, realization of gains or losses on available-for-sale investments can lead to unlocking of VOBA or DPAC and can also affect the outcome of the liability adequacy test to the extent that it considers actual future investment returns. For similar changes in unrealized gains and losses, shadow accounting is applied. If an unrealized gain or loss triggers a shadow accounting adjustment to VOBA, DPAC or the insurance liabilities, the corresponding adjustment is recognized through other comprehensive income in the revaluation reserve, together with the unrealized gain or loss.

Some profit sharing schemes issued by the Group entitle the policyholder to a bonus which is based on the actual total return on specific assets held. To the extent that the bonus relates to gains or losses on available-for-sale investments for which the unrealized gains or losses are recognized through other comprehensive income in the revaluation reserve in shareholders' equity, shadow accounting is applied. This means that the increase in the liability is also charged through other comprehensive income to shareholders' equity to offset the unrealized gains rather than to the income statement.

e. Non-life insurance contracts

Non-life insurance contracts are insurance contracts where the insured event is not life-contingent. For non-life products the insurance liability generally includes reserves for unearned premiums, unexpired risk, inadequate premium levels and outstanding claims and benefits. No catastrophe or equalization reserves are included in the measurement of the liability.

The reserve for unearned premiums includes premiums received for risks that have not yet expired. Generally, the reserve is released over the coverage period of the premium and is recognized as premium income.

The liability for outstanding claims and benefits is established for claims that have not been settled and any related cash flows, such as claims handling costs. It includes claims that have been incurred but have not been reported to the Group. The liability is calculated at the reporting date using statistical methods based on empirical data and current assumptions that may include a margin for adverse deviation. Liabilities for claims subject to periodic payment are calculated using actuarial methods consistent with those applied to life insurance contracts. Discounting is applied if allowed by the local accounting principles used to measure the insurance liabilities. Discounting of liabilities is generally applied when there is a high level of certainty concerning the amount and settlement term of the cash outflows.

f. Liability adequacy testing

At each reporting date, the adequacy of the life insurance liabilities (including life insurance contracts for account of policyholders), net of VOBA and DPAC, is assessed using a liability adequacy test.

All tests performed within the Group are based on current estimates of all contractual future cash flows, including related cash flows from policyholder options and guarantees. A number of valuation methods are applied, including discounted cash flow methods, option pricing models and stochastic modeling. Aggregation levels are set either on geographical jurisdiction or at the level of portfolio of contracts that are subject to broadly similar risks and managed together as a single portfolio. Specifically, in the Netherlands the liability adequacy test is performed on a consolidated basis for all life and non-life business, whereas in the Americas and the UK it is performed at the level of the portfolio of contracts. To the extent that the tests involve discounting of future cash flows, the interest rate applied is based on market rates or is based on management's expectation of the future return on investments. These future returns on investments take into account management's best estimate related to the actual investments and, where applicable, reinvestments of these investments at maturity. Aegon the Netherlands, as required locally, adjusts the outcome of the liability adequacy test for the difference between the fair value and the book value of the assets that are measured at amortized cost in the statement of financial position. For details on the fair value (measurement) of Aegon's assets and liabilities, please refer to note 44 Fair value. Only differences between the fair value and the book value build up during the period when the asset were allocated to the insurance portfolio are included in the LAT.

To the extent that the account balances are insufficient to meet future benefits and expenses, any resulting deficiency is recognized in the income statement, initially by impairing the DPAC and VOBA and subsequently by establishing an insurance liability for the remaining loss, unless shadow loss recognition has taken place. In the Netherlands, in situations where market interest rates for the valuation of debt securities leads to a change in the revaluation reserve, and where the result of using the same assumptions for the liabilities could lead to a deficiency in the liability adequacy test that should be recognized in the income statement, shadow loss recognition is applied. Shadow loss recognition is applied to the extent that the deficiency of the insurance liabilities relates to the revaluation of debt securities as a result of movements in interest rates, the addition to the insurance liabilities is then offset against the revaluation reserve. If in subsequent periods such a deficiency of the insurance liability is no longer applicable, shadow loss recognition is reversed via the revaluation reserve.

The adequacy of the non-life insurance liability is tested at each reporting date. Changes in expected claims that have occurred, but that have not been settled, are reflected by adjusting the liability for claims and future benefits. The reserve for unexpired risk is increased to the extent that the future claims and expenses in respect of current insurance contracts exceed the future premiums plus the current unearned premium reserve.

2.20 Investment contracts

Aegon conducts its operations through the following type of investment contracts:

Contracts issued by the Group that do not transfer significant insurance risk, but do transfer financial risk from the policyholder to the Group are accounted for as investment contracts. Depending on whether the Group or the policyholder runs the risks associated with the investments allocated to the contract, the liabilities are classified as investment contracts or as investment contracts for account of policyholders. Investment contract liabilities are recognized when the contract is entered into and are derecognized when the contract expires, is discharged, cancelled or substantially modified.

a. Investment contracts with discretionary participation features

Some investment contracts have participation features whereby the policyholder has the right to receive potentially significant additional benefits which are based on the performance of a specified pool of investment contracts, specific investments held by the Group or on the issuer's net income. If the Group has discretion over the amount or timing of the distribution of the returns to policyholders, the investment contract liability is measured based on the accounting principles that apply to insurance contracts with similar features.

Some unitized investment contracts provide policyholders with the option to switch between funds with and without discretionary participation features. The entire contract is accounted for as an investment contract with discretionary participation features if there is evidence of actual switching resulting in discretionary participation benefits that are a significant part of the total contractual benefits.

b. Investment contracts without discretionary participation features

At inception, investment contracts without discretionary participation features are carried at amortized cost.

Investment contracts without discretionary participation features are carried at amortized cost based on the expected cash flows and using the effective interest rate method. The expected future cash flows are re-estimated at each reporting date and the carrying amount of the financial liability is recalculated as the present value of estimated future cash flows using the financial liability's original effective interest rate. Any adjustment is immediately recognized in the income statement. For these investment contracts deposit accounting is applied, meaning that deposits are not reflected as premium income, but are recognized as part of the financial liability.

The consolidated financial statements provide information on the fair value of all financial liabilities, including those carried at amortized cost. As these contracts are not quoted in active markets, their value is determined by using valuation techniques, such as discounted cash flow methods and stochastic modeling. For investment contracts without discretionary participation features that can be cancelled by the policyholder, the fair value cannot be less than the surrender value.

c. Investment contracts for account of policyholders

Investment contracts for account of policyholders are investment contracts for which the actual return on investments allocated to the contract is passed on to the policyholder. Also included are participations held by third parties in consolidated investment funds that meet the definition of a financial liability.

Investment contracts for account of policyholders are designated at fair value through profit or loss. Contracts with unit-denominated payments are measured at current unit values, which reflect the fair values of the assets of the fund.

For unit-linked contracts without discretionary participation features and subject to actuarial funding, the Group recognizes a liability at the funded amount of the units. The difference between the gross value of the units and the funded value is treated as an initial fee paid by the policyholder for future asset management services and recognized as a deferred revenue liability, refer to note 2.23 Deferred gains.

2.21 Provisions

A provision is recognized for present legal or constructive obligations arising from past events, when it is probable that it will result in an outflow of economic benefits and the amount can be reliably estimated. Management exercises judgment in evaluating the probability that a loss will be incurred.

The amount recognized as a provision is the best estimate of the expenditure required to settle the present obligation at the reporting date, considering all its inherent risks and uncertainties, as well as the time value of money. The estimate of the amount of a loss requires management judgment in the selection of a proper calculation model and the specific assumptions related to the particular exposure. The unwinding of the effect of discounting is recorded in the income statement as an interest expense.

Onerous contracts

With the exception of insurance contracts and investment contracts with discretionary participation features for which potential future losses are already considered in establishing the liability, a provision is recognized for onerous contracts in which the unavoidable costs of meeting the resulting obligations exceed the expected future economic benefits. The unavoidable costs under a contract reflect the least net cost of exiting from the contract, which is the lower of the cost of fulfilling it and any compensation or penalties arising from failure to fulfill it.

2.22 Assets and liabilities relating to employee benefits

a. Short-term employee benefits

A liability is recognized for the undiscounted amount of short-term employee benefits expected to be settled within one year after the end of the period in which the service was rendered. Accumulating short-term absences are recognized over the period in which the service is provided. Benefits that are not service-related are recognized when the event that gives rise to the obligation occurs.

b. Post-employment benefits

The Group has issued defined contribution plans and defined benefit plans. A plan is classified as a defined contribution plan when the Group has no further obligation than the payment of a fixed contribution. All other plans are classified as defined benefit plans.

Defined contribution plans

The contribution payable to a defined contribution plan for services provided is recognized as an expense in the income statement. An asset is recognized to the extent that the contribution paid exceeds the amount due for services provided.

Defined benefit plans

Measurement

The defined benefit obligation is based on the terms and conditions of the plan applicable on the reporting date. In measuring the defined benefit obligation the Group uses the projected unit credit method and actuarial assumptions that represent the best estimate of future variables. The benefits are discounted using an interest rate based on the market yield for high-quality corporate bonds that are denominated in the currency in which the benefits will be paid and that have terms to maturity that approximate the terms of the related pension liability. Actuarial assumptions used in the measurement of the liability include the discount rate, estimated future salary increases, mortality rates and price inflation. To the extent that actual experience deviates from these assumptions, the valuation of defined benefit plans and the level of pension expenses recognized in the future may be affected. Plan improvements (either vested or unvested) are recognized in the income statement at the date when the plan improvement occurs.

Plan assets are qualifying insurance policies and assets held by long-term employee benefit funds that can only be used to pay the employee benefits under the plan and are not available to the Group's creditors. They are measured at fair value and are deducted from the defined benefit obligation in determining the amount recognized on the statement of financial position.

Profit or loss recognition

The cost of the defined benefit plans are determined at the beginning of the year and comprise the following components:

- Current year service cost which is recognized in profit or loss; and
- Net interest on the net defined benefit liability (asset) which is recognized in profit or loss.

Remeasurements of the net defined benefit liability (asset) which is recognized in other comprehensive income are revisited quarterly and shall not be reclassified to profit or loss in a subsequent period.

Deducted from current year service cost are discretionary employee contributions and employee contributions that are linked to service (those which are independent of the number of years of service). Net interest on the net defined benefit liability (asset) shall be determined by multiplying the net defined benefit liability (asset) by the applicable discount rate. Net interest on the net defined benefit liability (asset) comprises interest income on plan assets and interest cost on the defined benefit obligation. Whereby interest income on plan assets is a component of the return on plan assets and is determined by multiplying the fair value of the plan assets by the applicable discount rate. The difference between the interest income on plan assets and the actual return on plan assets is included in the remeasurement of the net defined benefit liability (asset).

Remeasurements of the net defined benefit liability (asset) comprise of:

- Actuarial gains and losses;
- The return on plan assets, excluding amounts included in net interest on the net defined benefit liability (asset); and
- Any change in the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability (asset).

Past service cost and gains or losses on settlements

Past service cost is the change in the present value of the defined benefit obligation for employee service, resulting from a plan amendment or curtailment.

Gains or losses on curtailments or settlements of a defined benefit plan comprise of the difference between:

- The present value of the defined benefit obligation being settled, as determined on the date of settlement; and
- The settlement price, including any plan assets transferred and any payments made directly by Aegon in connection with the settlement.

Aegon recognizes (in the income statement) gains or losses on the curtailment or settlement of a defined benefit plan when the curtailment or settlement occurs.

c. Share-based payments

The Group has issued share-based plans that entitle selected employees to receive Aegon N.V. common shares, subject to pre-defined conditions such as the grant price of the shares and (business and personal) performance criteria.

The expenses recognized for these plans are based on the fair value on the grant date of the shares. The fair value is measured at the market price of Aegon N.V. common shares, adjusted to take into account the non-vesting and market conditions upon which the shares were granted. For example, where the employee is not entitled to receive dividends during the vesting period, this factor is taken into account when estimating the fair value of the shares granted. For the determination of factors such as expected dividends, market observable data has been considered.

The cost for long term incentive plans are recognized in the income statement, together with a corresponding increase in shareholders' equity, as the services are rendered. During this period the cumulative expense recognized at the reporting date reflects management's best estimate of the number of shares expected to vest ultimately.

The withholding of shares to fund the payment to the tax authority in respect of the employee's withholding tax obligation associated with the share-based payment is accounted for as a deduction from equity for the shares withheld, except to the extent that the payment exceeds the fair value at the net settlement date of the equity instruments withheld.

2.23 Deferred gains

Initial fees and front-end loadings paid by policyholders and other clients for future investment management services related to investment contracts without discretionary participation features are deferred and recognized as revenue when the related services are rendered.

2.24 Tax assets and liabilities

a. Current tax receivables and payables

Tax receivables and payables for current and prior periods are measured at the amount that is expected to be received from or paid to the taxation authorities. The tax treatment of transactions or events requires judgement and is often complex and may lead to discussions with tax authorities. Consequently, in a number of jurisdictions, prior year tax returns remain open and subject to tax authority approval or pending litigation for a number of years. The tax assets and liabilities reported are based on the best available information, supported by external advice if necessary, and are reflecting uncertainties. Differences between the final outcome and the estimates originally made are accounted for in the current and deferred tax assets and liabilities in the period in which reasonable certainty is obtained. Measurement is done using the tax rates that have been enacted or substantively enacted by the reporting date.

b. Deferred tax assets and liabilities

Deferred tax assets and liabilities are recognized for the estimated future tax effects of temporary differences between the carrying value of an item and its tax value, with the exception of differences arising from the initial recognition of goodwill and of assets and liabilities that do not impact taxable or accounting profits. A tax asset is recognized for tax loss carryforwards to the extent that it is probable at the reporting date that future taxable profits will be available against which the unused tax losses and unused tax credits can be utilized.

Deferred tax liabilities relating to investments in subsidiaries, associates and joint ventures are not recognized if the Group is able to control the timing of the reversal of the temporary difference and it is probable that the difference will not be reversed in the foreseeable future.

Deferred tax assets and liabilities are reviewed at each reporting period and are measured at tax rates that are expected to apply when the asset is realized or the liability is settled. Since there is no absolute assurance that these assets will ultimately be realized, management reviews Aegon's deferred tax positions at each reporting period to determine if it is probable that the assets will be realized. These reviews include, among other things, the nature and amount of the taxable income and deductible expenses, the expected timing when certain assets will be used or liabilities will be required to be reported and the reliability of historical profitability of businesses expected to provide future earnings. Furthermore, management considers tax-planning opportunities it can utilize to increase the likelihood that the tax assets will be realized. The carrying amount is not discounted and reflects the Group's expectations concerning the manner of recovery or settlement.

Deferred tax assets and liabilities are recognized in relation to the underlying transaction either in profit and loss, other comprehensive income or directly in equity.

2.25 Contingent assets and liabilities

Contingent assets are disclosed in the notes if the inflow of economic benefits is probable, but not virtually certain. When the inflow of economic benefits becomes virtually certain, the asset is no longer contingent and its recognition is appropriate.

A provision is recognized for present legal or constructive obligations arising from past events, when it is probable that it will result in an outflow of economic benefits and the amount can be reliably estimated. If the outflow of economic benefits is not probable, a contingent liability is disclosed, unless the possibility of an outflow of economic benefits is remote.

2.26 Premium income

Gross premiums, including recurring and single premiums, from life and non-life insurance and investment contracts with discretionary participation features are recognized as revenue when they become receivable. For products where deposit accounting is required, the deposits are not reflected as premium income, but are recognized as part of the financial liability. For these products the surrender charges and charges assessed have been included in gross premiums.

Premium loadings for installment payments and additional payments by the policyholder towards costs borne by the insurer are included in the gross premiums. Rebates that form part of the premium rate, such as no-claim rebates, are deducted from the gross premium, others are recognized as an expense. Depending on the applicable local accounting principles, bonuses that are used to increase the insured benefits may be recognized as gross premiums. The insurance premiums for the original contracts are presented gross of reinsurance premiums paid.

2.27 Investment income

For interest-bearing assets, interest is recognized as it accrues and is calculated using the effective interest rate method. Fees and commissions that are an integral part of the effective yield of the financial assets or liabilities are recognized as an adjustment to the effective interest rate of the instrument. Investment income includes the interest income and dividend income on financial assets carried at fair value through profit or loss.

Investment income also includes rental income due.

2.28 Fee and commission income

Fees and commissions from investment management services and mutual funds are performed on an ongoing basis evenly throughout the year and are accounted for monthly (1/12 of the contractual agreement). Performance fees may be charged to policyholders in the event of outperformance in the investments compared to predefined benchmark levels. They are accounted for only when specified hurdles for generating performance fees are achieved i.e. when the full performance obligation is met.

Aegon acts also as an insurance broker selling insurance contracts of other insurance companies to policyholders and receiving direct sales commission as well as commissions over time when the same policyholders renew their contracts. These commissions are recognized only when received as policyholders' renewals are not certain enough to be recorded upfront.

2.29 Policyholder claims and benefits

Policyholder claims and benefits consist of claims and benefits paid to policyholders, including benefits in excess of account value for products for which deposit accounting is applied and the change in the valuation of liabilities for insurance and investment contracts. It includes internal and external claims handling costs that are directly related to the processing and settlement of claims. Amounts receivable in respect of salvage and subrogation are also considered.

2.30 Results from financial transactions

Results from financial transactions include:

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives include fair value changes of financial assets carried at fair value through profit or loss. The net gains and losses do not include interest or dividend income.

Realized gains and losses on financial investments

Gains and losses on financial investments include realized gains and losses on general account financial assets, other than those classified as at fair value through profit or loss.

Net fair value change of derivatives

All changes in fair value are recognized in the income statement, unless the derivative has been designated as a hedging instrument in a cash flow hedge or a hedge of a net investment in a foreign operation. Fair value movements of fair value hedge instruments

are offset by the fair value movements of the hedged item, and the resulting hedge ineffectiveness, if any, is included in this line. In addition, the fair value movements of bifurcated embedded derivatives are included in this line.

Net fair value change on for account of policyholder financial assets at fair value through profit or loss

Net fair value change on for account of policyholder financial assets at fair value through profit or loss includes fair value movements of investments held for account of policyholders (refer to note 2.8 Investments for account of policyholders). The net fair value change does not include interest or dividend income.

Other

In addition, results from financial transactions include gains/losses on real estate (general account and account of policyholders), net foreign currency gains/(losses) and net fair value change on borrowings and other financial liabilities and realized gains on repurchased debt.

2.31 Impairment charges/(reversals)

Impairment charges and reversals include impairments and reversals on investments in financial assets, impairments and reversals on the valuation of insurance assets and other non-financial assets and receivables. Impairment of deferred policy acquisition costs is included in note 15 Impairment charges/ (reversals). Refer to note 15 Impairment charges/(reversals).

2.32 Interest charges and related fees

Interest charges and related fees includes interest expense on trust pass-through securities and other borrowings. Interest expense on trust pass-through securities and other borrowings carried at amortized cost is recognized in profit or loss using the effective interest method.

2.33 Leases

The Group has applied IFRS 16 using the modified retrospective approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4. For further information on the revised Leases standard refer to note 2.1.1. Adoption of new IFRS-EU accounting standards and amendments effective in 2019.

Policy applicable from January 1, 2019

As a lessee

The Group recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The estimated useful lives of right-of-use assets are determined on the same basis as those of real estate and equipment. In addition, the right-of-use asset is periodically reduced by impairment losses (using the same rate to measure the lease liability), if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the Group's incremental borrowing rate. Generally, the Group uses its incremental borrowing rate as the discount rate.

The lease liability is measured at amortized cost using the effective interest method. It is remeasured when there is a change in future lease payments arising from a change in an index or rate, if there is a change in the Group's estimate of the amount expected to be payable under a residual value guarantee, or if the Group changes its assessment of whether it will exercise a purchase, extension or termination option.

The Group presents right-of-use assets that do not meet the definition of investment property in 'Other assets and receivables' and lease liabilities in 'Other liabilities' in the statement of financial position.

Short-term leases and leases of low-value assets

The Group has elected not to recognize right-of-use assets and lease liabilities for short-term leases that have a lease term of 12

months or less and leases of low-value assets, including small office equipment. The Group recognizes the lease payments associated with these leases as an expense on a straight-line basis over the lease term.

As a lessor

Where the Group is the lessor under an operating lease, the assets subject to the operating lease arrangement are presented in the statement of financial position according to the nature of the asset. Income from these leases are recognized in the income statement on a straight line basis over the lease term, unless another systematic basis is more representative of the time pattern in which use benefit derived from the leased asset is diminished.

Policy applicable before January 1, 2019

As a lessee

Arrangements that do not take the form of a lease but convey a right to use an asset in return for a payment are assessed at inception to determine whether they are, or contain, a lease. This involves an assessment of whether fulfillment of the arrangement is dependent on the use of a specific asset and whether the purchaser (lessee) has the right to control the use of the underlying asset.

Leases that do not transfer substantially all the risks and rewards of ownership are classified as operating leases. Payments made under operating leases, where the Group is the lessee, are charged to the income statement on a straight line basis over the period of the lease.

As a lessor

Where the Group is the lessor under an operating lease, the assets subject to the operating lease arrangement are presented in the statement of financial position according to the nature of the asset. Income from these leases are recognized in the income statement on a straight line basis over the lease term, unless another systematic basis is more representative of the time pattern in which use benefit derived from the leased asset is diminished.

2.34 Events after the reporting period

The financial statements are adjusted to reflect events that occurred between the reporting date and the date when the financial statements are authorized for issue, provided they give evidence of conditions that existed at the reporting date.

Events that are indicative of conditions that arose after the reporting date are disclosed, but do not result in an adjustment of the financial statements themselves.

3 Critical accounting estimates and judgment in applying accounting policies

Application of the accounting policies in the preparation of the financial statements requires management to apply judgment involving assumptions and estimates concerning future results or other developments, including the likelihood, timing or amount of future transactions or events. Those estimates are inherently subject to change and actual results could differ from those estimates. Included among the material (or potentially material) reported amounts and disclosures that require extensive use of estimates are: fair value of certain invested assets and derivatives, deferred policy acquisition costs (please refer to paragraph 2.13), value of business acquired and other purchased intangible assets (please refer to paragraph 2.6), goodwill (please refer to paragraph 2.6), policyholder claims and benefits (please refer to paragraph 2.29), insurance guarantees (please refer to paragraph 2.19), pension plans (please refer to paragraph 2.22), income taxes (please refer to paragraph 2.24) and the potential effects of resolving litigation matters (please refer to paragraph 2.25). Accounting policies that are critical to the financial statement presentation and that require complex estimates or significant judgment are described in the following sections.

Valuation of assets and liabilities arising from life insurance contracts

The valuation of certain assets and liabilities arising from insurance contracts is developed using complex valuation models. The liability for life insurance contracts with guaranteed or fixed account terms is either based on current assumptions, on the assumptions established at inception of the contract, reflecting the best estimates at the time increased with a margin for adverse deviation, or on the valuation assumptions (historical cost), without risk margin. All contracts are subject to liability adequacy testing which reflects management's current estimates of future cash flows (including investment returns). To the extent that the liability is based on current assumptions, a change in assumptions will have an immediate impact on the income statement. Also, if a change in assumption results in not passing the liability adequacy test, the entire deficiency is recognized in the income statement. To the extent that the deficiency relates to unrealized gains and losses on available-for-sale investments, the additional liability is recognized through other comprehensive income in the related revaluation reserve in shareholders' equity.

Aegon the Netherlands, as required locally, adjusts the outcome of the liability adequacy test for the difference between the fair value and the book value of the assets that are measured at amortized cost in the statement of financial position. Mortgage loans is the primary asset class for which the difference between the fair value and the book value of assets impacts the LAT. For details on the fair value (measurement) of Aegon's assets and liabilities, please refer to note 44 Fair value.

Some insurance contracts without a guaranteed or fixed contractual term contain guaranteed minimum benefits. Depending on the nature of the guarantee, it may either be bifurcated and presented as a derivative, or be reflected in the value of the insurance liability in accordance with local accounting principles. Given the dynamic and complex nature of these guarantees, stochastic techniques under a variety of market return scenarios are often used for measurement purposes. Such models require management to make numerous estimates based on historical experience and market expectations. Changes in these estimates will immediately affect the income statement.

In addition, certain acquisition costs related to the sale of new policies and the purchase of policies already in force are recorded as DPAC and VOBA assets respectively, and are amortized to the income statement over time. If the assumptions relating to the future profitability of these policies are not realized, the amortization of these costs could be accelerated and may require write-offs due to unrecoverability.

Actuarial and economic assumptions

The main assumptions used in measuring DPAC, VOBA and the liabilities for life insurance contracts with fixed or guaranteed terms relate to mortality, morbidity, investment return and future expenses. Depending on local accounting principles, surrender, lapse, and utilization rates may be considered.

Mortality tables applied are generally developed based on a blend of company experience and industry wide studies, taking into consideration product characteristics, own risk selection criteria, target market and past experience. Mortality experience is monitored through regular studies, the results of which are fed into the pricing cycle for new products and reflected in the liability calculation when appropriate. For contracts insuring survivorship or mortality, allowance may be made for further longevity or mortality improvements. Morbidity assumptions are based on own claims severity and frequency experience, adjusted where appropriate for industry information.

Investment assumptions are prescribed by the local regulator, market observable or based on management's future expectations. In the latter case, the anticipated future investment returns are set by management on a countrywide basis, considering available market information and economic indicators. A significant assumption related to estimated gross profits on variable annuities and variable life insurance products in the United States and some of the smaller countries, is the annual long-term growth rate of the underlying assets. The reconsideration of this assumption may affect the original DPAC or VOBA amortization schedule, referred to as DPAC or VOBA unlocking. The difference between the original DPAC or VOBA amortization schedule and the revised schedule, which is based on actual and estimates of future gross profits, is recognized in the income statement as an expense or a benefit in the period of determination.

Assumptions on future expenses are based on the current level of expenses, adjusted for expected expense inflation if appropriate. In Aegon the Netherlands, the expense basis makes an allowance for planned future cost savings, which are included in the liability adequacy test.

Surrender and lapse rates depend on product features, policy duration and external circumstances such as the interest rate environment and competitor behavior. For policies with account value guarantees based on equity market movements, a dynamic lapse assumption is utilized to reflect policyholder behavior based on whether the guarantee is in the money. Own experience, as well as industry published data, are used in establishing assumptions. Lapse experience is correlated to mortality and morbidity levels, as higher or lower levels of surrenders may indicate future claims will be higher or lower than anticipated. Such correlations are accounted for in the mortality and morbidity assumptions based on the emerging analysis of experience.

Actuarial assumption and model updates

Assumptions are reviewed periodically in the second quarter for the US and Asia and in the fourth quarter for Europe, based on historical experience, observable market data, including market transactions such as acquisitions and reinsurance transactions, anticipated trends and legislative changes. Similarly, the models and systems used for determining our liabilities are reviewed periodically and, if deemed necessary, updated based on emerging best practices and available technology.

During 2019, Aegon implemented actuarial assumption and model updates resulting in a net EUR 196 million charge to income before tax (2018: EUR 121 million charge). Refer to note 5 Segment information for further details.

For the years 2017 through 2019, Aegon kept its long-term equity market return assumption for the estimated gross profits on variable life and variable annuity products in the Americas at 8%. During the three year period, the long-term assumption for 10-year US Treasury yields was 4.25% and the uniform grading period was 10 years. Aegon's assumed returns for US separate account bond funds are 4% over the next 10 years and 6% thereafter. The long term credit spread assumption, net of assumed defaults and expenses, on our most common corporate bonds is 114bps. The 90-day Treasury yield was 1.55%, 2.37% and 1.39% at December 31, 2019, 2018 and 2017, respectively. During the period 2017 to 2019 the 90-day Treasury yield was assumed to have a uniform grading over 10 years to 2.5%. On a quarterly basis, the estimated gross profits are updated for the difference between the estimated market return and the actual market return.

Sensitivities

Please note that the sensitivities listed in the disclosures below represent sensitivities to Aegon's position at the balance sheet date for the respective years. The sensitivities reflect single shocks where other elements remain unchanged. Real world market impacts (e.g. lower interest rates and declining equity markets) may happen simultaneously which can lead to more severe combined impacts and may not be equal to the sum of the individual sensitivities presented in the disclosure.

Sensitivity on variable annuities and variable life insurance products in the United States

A 1% decrease in the expected long-term equity growth rate with regard to Aegon's variable annuities and variable life insurance products in the United States would result in a decrease in DPAC and VOBA balances and reserve strengthening of approximately EUR 111 million (2018: EUR 148 million). The DPAC and VOBA balances for these products in the United States amounted to EUR 2.7 billion at December 31, 2019 (2018: EUR 2.6 billion).

A relative increase of 10% to the mortality assumption was used, dependent on product and characteristics of the block of business, would reduce net income by approximately EUR 204 million (2018: EUR 207 million). A relative 20% increase in the lapse rate assumption would increase net income by approximately EUR 126 million (2018: EUR 89 million).

Any reasonably possible changes in the other assumptions Aegon uses to determine EGP margins (i.e. maintenance expenses) would reduce net income by less than EUR 13 million (2018: EUR 9 million).

Sensitivity on long term care products (LTC) in the United States

Sensitivities of significant product liability assumptions on the LTC IFRS after-tax Gross Present Value Reserve (GPV) margin are indicated below. The GPV is the liability as determined on a best estimate assumption basis. Until an assumption change is of significant amount to breach the current margin of EUR 251 million (loss recognition block of LTC), there will be no IFRS financial impact (2018: EUR 35 million). The GPV margin is the amount by which the IFRS reserve exceeds the GPV liability.

A 5% increase in the incidence rates with regard to Aegon's long term care products would result in a GPV increase of approximately EUR 178 million (2018: EUR 170 million). A 5% decrease in the incidence rates with regard to Aegon's long term care products would result in a GPV decrease of approximately EUR 178 million (2018: EUR 170 million).

Removing the morbidity improvement, which is a component of the incidence assumption, would result in a GPV increase of approximately EUR 535 million (2018: EUR 500 million), of which EUR 445 million (2018: EUR 425 million) relates to the loss recognition block.

Reducing mortality 10% would result in a GPV increase of approximately EUR 89 million (2018: EUR 85 million). Increasing mortality 10% would result in a GPV decrease of approximately EUR 89 million (2018: EUR 85 million).

Removing future mortality improvement would result in a GPV decrease of approximately EUR 89 million (2018: EUR 85 million).

Sensitivity on liability adequacy test (LAT) in the Netherlands

At December 31, 2019 the liability adequacy test (LAT) of Aegon the Netherlands resulted in a deficiency driven by market movements in 2019. The LAT assesses the adequacy of the insurance liabilities by comparing them to their fair value. Aegon the Netherlands adjusts the outcome of the LAT for certain unrealized gains in the bond portfolio and certain differences between the fair value and the book value of assets measured at amortized cost, mainly residential mortgages (shadow loss recognition). Please also refer to Note 2.19f Liability adequacy testing for further details on the accounting policy.

The LAT deficit per December 31, 2019 in Aegon the Netherlands amounted to EUR 5.1 billion, which was partially offset by the shadow loss recognition of EUR 3.4 billion, resulting in a net deficit of EUR 1.7 billion.

During 2019 the outcome of the liability adequacy test in Aegon the Netherlands triggered a review of the existing sensitivities. As a result, starting from 2019, Aegon discloses sensitivities on interest rate, bond credit spread, mortgage spread and liquidity premium assumptions to assess the impact on the LAT test, without taking into account the impact of shadow loss recognition.

The results are indicated below:

An increase of 100 bps in interest rate would result in a decrease in LAT deficit of EUR 3.5 billion. A decrease of 100 bps would result in an increase in LAT deficit of approximately EUR 4.7 billion.

Increasing 50 bps in bond credit spread would lead to an increase in LAT deficit of EUR 0.2 billion. A decrease of 50 bps would result in a decrease in LAT deficit of EUR 0.2 billion.

A 50 bps increase in mortgage spread would result in an increase in LAT deficit of EUR 0.6 billion. A 50 bps decrease would result in a decrease in LAT deficit of EUR 0.6 billion.

A shift up or down by 5 bps in liquidity premium would not result in a significant movement in the LAT deficit.

Given the LAT deficit at December 31, 2019, the above mentioned results would be reflected directly in the income statement. This impact on the income statement will be partially offset by the application of shadow loss recognition, triggered by the interest rate shock.

Determination of fair value and fair value hierarchy

The following is a description of Aegon's methods of determining fair value, and a quantification of its exposure to assets and liabilities measured at fair value.

Fair value is defined as the amount that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability). A fair value measurement assumes that the transaction to sell the asset or transfer the liability takes place either:

- In the principal market for the asset or liability; or
- In the absence of a principal market, in the most advantageous market for the asset or liability.

Aegon uses the following hierarchy for measuring and disclosing of the fair value of assets and liabilities:

- Level I: quoted prices (unadjusted) in active markets for identical assets or liabilities that Aegon can access at the measurement date;
- Level II: inputs other than quoted prices included within Level I that are observable for the asset or liability, either directly (that is, as prices) or indirectly (that is, derived from prices of identical or similar assets and liabilities) using valuation techniques for which all significant inputs are based on observable market data; and
- Level III: inputs for the asset or liability that are not based on observable market data (that is, unobservable inputs) using valuation techniques for which any significant input is not based on observable market data.

The best evidence of fair value is a quoted price in an actively traded market. In the event that the market for a financial instrument is not active or quoted market prices are not available, a valuation technique is used.

The degree of judgment used in measuring the fair value of assets and liabilities generally inversely correlates with the level of observable valuation inputs. Aegon maximizes the use of observable inputs and minimizes the use of unobservable valuation inputs when measuring fair value. Financial instruments, for example, with quoted prices in active markets generally have more pricing observability and therefore less judgment is used in measuring fair value. Conversely, financial instruments for which no quoted prices are available have less observability and are measured at fair value using valuation models or other pricing techniques that require more judgment.

The assets and liabilities categorization within the fair value hierarchy is based on the lowest input that is significant to the fair value measurement.

An active market is one in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis. The judgment as to whether a market is active may include, although not necessarily determinative, lower transaction volumes, reduced transaction sizes and, in some cases, no observable trading activity for short periods. In inactive markets, assurance is obtained that the transaction price provides evidence of fair value or it is determined that adjustments to transaction prices are necessary to measure the fair value of the instrument.

The majority of valuation techniques employ only observable market data, and so the reliability of the fair value measurement is high. However, certain assets and liabilities are valued on the basis of valuation techniques that feature one or more significant market inputs that are unobservable and, for such assets and liabilities, the derivation of fair value is more judgmental. An instrument is classified in its entirety as valued using significant unobservable inputs (Level III) if, in the opinion of management, a significant proportion of the instrument's carrying amount is driven by unobservable inputs. 'Unobservable' in this context means that there is little or no current market data available from which to determine the price at which an at arm's length transaction would be likely to occur. It generally does not mean that there is no market data available at all upon which to base a determination of fair value. Additional information is provided in the table headed 'Effect of changes in significant unobservable assumptions to reasonably possible alternatives' in note 44 Fair Value. While Aegon believes its valuation techniques are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain instruments (both financial and non-financial) could result in a different estimate of fair value at the reporting date.

The valuation techniques applied to financial instrument affected by IBOR reforms remain consistent with those of other market participants, and the uncertainty on the outcome of the reforms has not affected the classification of the instruments.

To operationalize Aegon's fair value hierarchy, individual instruments (both financial and non-financial) are assigned a fair value level based primarily on the type of instrument and the source of the prices (e.g. index, third-party pricing service, broker, internally modeled). Periodically, this logic for assigning fair value levels is reviewed to determine if any modifications are necessary in the context of the current market environment.

4 Financial risks

General

As an insurance group, Aegon is exposed to a variety of risks. Aegon's largest exposures are to changes in financial markets (e.g. foreign currency, interest rate, credit and equity market risks) that affect the value of the investments, liabilities from products that Aegon sells, deferred expenses and value of business acquired. Other risks include insurance related risks, such as changes in mortality, morbidity, bond credit spread and liquidity premium, which are discussed in note 34 Insurance contracts. Aegon manages risk at local level where business is transacted, based on principles and policies established at the Group level. Aegon's integrated approach to risk management involves similar measurement of risk and scope of risk coverage to allow for aggregation of the Group's risk position.

To manage its risk exposure, Aegon has risk policies in place. Many of these policies are group-wide while others are specific to the unique situation of local businesses. The Group level policies limit the Group's exposure to major risks such as equity, interest rates, credit, and currency. The limits in these policies in aggregate remain within the Group's overall tolerance for risk and the Group's financial resources. Operating within this policy framework, Aegon employs risk management programs including asset liability management (ALM) processes and models and hedging programs (which are largely conducted via the use of financial derivative instruments). These risk management programs are in place in each country unit and are not only used to manage risk in each unit, but are also part of the Group's overall risk strategy.

Aegon operates a Derivative Use Policy to govern its usage of derivatives. This policy establishes the control, authorization, execution and monitoring requirements of the usage of such instruments. In addition, the policy stipulates necessary mitigation of credit risk created through derivatives management tools. For derivatives, counterparty credit risk is normally mitigated by requirements to post collateral via credit support annex agreements or through a central clearinghouse.

As part of its risk management programs, Aegon takes inventory of its current risk position across risk categories. Aegon also measures the sensitivity of net income and shareholders' equity under both deterministic and stochastic scenarios. Management uses the insight gained through these 'what if?' scenarios to manage the Group's risk exposure and capital position. The models, scenarios and assumptions used are reviewed regularly and updated as necessary.

Results of Aegon's sensitivity analyses are presented throughout this section to show the estimated sensitivity of net income and shareholders' equity to various scenarios. For each type of market risk, the analysis shows how net income and shareholders' equity would have been affected by changes in the relevant risk variable that were reasonably possible at the reporting date. For each

sensitivity test the impact of a reasonably possible change in a single factor is shown. Management action is taken into account to the extent that it is part of Aegon's regular policies and procedures, such as established hedging programs. However, incidental management actions that would require a change in policies and procedures are not considered.

Each sensitivity analysis reflects the extent to which the shock tested would affect management's critical accounting estimates and judgment in applying Aegon's accounting policies. Market-consistent assumptions underlying the measurement of non-listed assets and liabilities are adjusted to reflect the shock tested. The shock may also affect the measurement of assets and liabilities based on assumptions that are not observable in the market. For example, a shock in interest rates may lead to changes in the amortization schedule of DPAC or to increased impairment losses on equity investments. Although management's short-term assumptions may change if there is a reasonably possible change in a risk factor, long-term assumptions will generally not be revised unless there is evidence that the movement is permanent. This fact is reflected in the sensitivity analyses.

The accounting mismatch inherent in IFRS-EU is also apparent in the reported sensitivities. A change in interest rates has an immediate impact on the carrying amount of assets measured at fair value. However, the shock will not have a similar effect on the carrying amount of the related insurance liabilities that are measured based on locked-in assumptions or on management's long-term expectations. Consequently, the different measurement bases for assets and liabilities lead to increased volatility in IFRS-EU net income and shareholders' equity. Aegon has classified a significant part of its investment portfolio as 'available-for-sale', which is one of the main reasons why the economic shocks tested have a different impact on net income than on shareholders' equity. Unrealized gains and losses on these assets are not recognized in the income statement but are booked through other comprehensive income to the revaluation reserves in shareholders' equity, unless impaired. As a result, economic sensitivities predominantly impact shareholders' equity but leave net income unaffected. The effect of movements of the revaluation reserve on capitalization ratios and capital adequacy are minimal. Aegon's target ratio for the composition of its capital base is based on shareholders' equity excluding the revaluation reserve.

The sensitivities do not reflect what the net income for the period would have been if risk variables had been different because the analysis is based on the exposures in existence at the reporting date rather than on those that actually occurred during the year. Nor are the results of the sensitivities intended to be an accurate prediction of Aegon's future shareholders' equity or earnings. The analysis does not take into account the impact of future new business, which is an important component of Aegon's future earnings. It also does not consider all methods available to management to respond to changes in the financial environment, such as changing investment portfolio allocations or adjusting premiums and crediting rates. Furthermore, the results of the analyses cannot be extrapolated for wider variations since effects do not tend to be linear.

Concentration risk for financial risks are measured and managed at the following levels:

- Concentration per risk type: Risk exposures are measured per risk type as part of Aegon's internal economic framework. A risk tolerance framework is in place which sets risk limits per risk type to target desired risk balance and promote diversification across risk types;
- Concentration per counterparty: Risk exposure is measured and risk limits are in place per counterparty as part of the Counterparty Name Limit Policy; and
- Concentration per sector, geography and asset class: Aegon's investment strategy is translated in investment mandates for its internal and external asset managers. Through these investment mandates limits on sector, geography and asset class are set. Compliance monitoring of the investment mandates is done by the insurance operating companies.

Moreover, concentration of financial risks are measured in Aegon business planning cycle. As part of business planning, the resilience of Aegon's business strategy is tested in several extreme event scenarios. In the Adverse Financial scenario, financial markets are stressed without assuming diversification across different market factors. Within the projection certain management actions may be implemented when management deems this necessary.

Aegon's significant financial risks and related financial information are explained in the order as follows:

- Credit risk
- Equity market risk and other investment risks
- Interest rate risk
- Currency exchange risk
- Liquidity risk

Credit risk

As premiums and deposits are received, these funds are invested to pay for future policyholder obligations. For general account products, Aegon typically bears the risk for investment performance which is equal to the return of principal and interest. Aegon is exposed to credit risk on its general account fixed-income portfolio (debt securities, mortgages and private placements), over-the-counter derivatives and reinsurance contracts. Some issuers have defaulted on their financial obligations for various reasons, including bankruptcy, lack of liquidity, downturns in the economy, downturns in real estate values, operational failure and fraud. During financial downturns, Aegon can incur defaults or other reductions in the value of these securities and loans, which could have a materially adverse effect on Aegon's business, results of operations and financial condition. Investments for account of policyholders are excluded as the policyholder bears the credit risk associated with the investments.

The table that follows shows the Group's maximum exposure to credit risk from investments in general account financial assets, as well as general account derivatives and reinsurance assets, collateral held and net exposure. Please refer to note 45 and 46 for further information on capital commitments and contingencies and on collateral given, which may expose the Group to credit risk.

2019	Maximum exposure to credit risk	Cash	Securities	Letters of credit / guarantees	Real estate property	Master netting agreements	Other	Total collateral	Surplus collateral (or overcollateralization)	Net exposure
Debt securities - carried at fair value	86,853	-	-	267	-	-	-	267	-	86,586
Money market and other short-term investments - carried at fair value	5,327	-	363	-	-	-	-	363	23	4,987
Mortgage loans - carried at amortized cost	38,524	2,648	-	65	61,159	-	-	63,872	26,249	901
Private loans - carried at amortized cost	4,487	51	-	-	-	-	-	51	-	4,436
Other loans - carried at amortized cost	2,353	-	-	-	-	-	2,008	2,008	1,329	1,674
Other financial assets - carried at fair value	4,083	-	-	-	-	-	-	-	-	4,083
Derivatives	10,658	2,666	47	31	-	8,186	-	10,930	283	10
Reinsurance assets	20,835	-	3,884	105	-	-	-	3,989	-	16,845
At December 31	173,120	5,365	4,294	468	61,159	8,186	2,008	81,481	27,884	119,523

	Maximum exposure to credit risk	Cash	Securities	Letters of credit / guarantees	Real estate property	Master netting agreements	Other	Total collateral	Surplus collateral (or overcollateralization)	Net exposure
2018										
Debt securities - carried at fair value	81,253	-	-	169	-	-	-	169	-	81,084
Money market and other short-term investments - carried at fair value	6,307	-	484	-	-	-	-	484	29	5,852
Mortgage loans - carried at amortized cost	36,639	2,535	-	136	57,009	-	-	59,680	23,589	548
Private loans - carried at amortized cost	4,103	45	-	-	-	-	-	45	-	4,058
Other loans - carried at amortized cost	2,310	-	-	-	-	-	1,960	1,960	1,238	1,589
Other financial assets - carried at fair value	3,551	-	-	-	-	-	-	-	-	3,551
Derivatives	7,337	2,627	233	31	-	4,606	-	7,496	225	66
Reinsurance assets	20,505	-	4,035	104	-	-	-	4,139	-	16,366
At December 31	162,006	5,207	4,752	439	57,009	4,606	1,960	73,972	25,081	113,114

Debt securities

Several bonds in Aegon's Americas' portfolio are guaranteed by Monoline insurers. This is shown in the table above in the column 'Letters of credit / guarantees'. Further information on the Monoline insurers is provided below under 'Monoline insurers'.

Money market and short-term investments

The collateral reported for the money market and short-term investments are related to tri-party repurchase agreements (repos). Within tri-party repos Aegon invests under short-term reverse repurchase agreements and the counterparty posts collateral to a third party custodian. The collateral posted is typically high-quality, short-term securities and is only accessible for or available to Aegon in the event the counterparty defaults.

Mortgage loans

The real estate collateral for mortgages includes both residential and commercial properties. The collateral for commercial mortgage loans in Aegon Americas is measured at fair value. At a minimum on an annual basis, a fair value is estimated for each individual real estate property that has been pledged as collateral. When a loan is originally provided, an external appraisal is obtained to estimate the value of the property. In subsequent years, the value is typically estimated internally using various professionally accepted valuation methodologies. Internal appraisals are performed by qualified, professionally accredited personnel. International valuation standards are used and the most significant assumptions made during the valuation of real estate are the current cost of reproducing or replacing the property, the value that the property's net earning power will support, and the value indicated by recent sales of comparable properties. Valuations are primarily supported by market evidence. For Aegon the Netherlands, collateral for the residential mortgages is measured as the foreclosure value which is indexed periodically.

Cash collateral for mortgage loans includes the savings that have been received to redeem the underlying mortgage loans at redemption date. These savings are part of the credit side of the statement of financial position, but reduce the credit risk for the mortgage loan as a whole.

A substantial part of Aegon's Dutch residential mortgage loan portfolio benefits from guarantees by a Dutch government-backed trust (Stichting Waarborgfonds Eigen Woning) through the Dutch Mortgage loan Guarantee program (NHG). With exception of NHG-backed mortgage loans originated after January 1, 2014, for which a 10% lender-incurred haircut applies on realized losses on each defaulted loan, these guarantees cover all principal losses, missed interest payments and foreclosure costs incurred upon termination and settlement of defaulted mortgage loans when lender-specific terms and conditions of the guarantee are met. When not fully met, the trust may pay claims in part or in full, depending on the severity of the breach of terms and conditions. For each specific loan, the guarantee amortizes in line with an equivalent annuity mortgage loan. When the remaining loan balance at default does not exceed the amortized guarantee, it covers the full loss under its terms and conditions. Any loan balance in excess of this decreasing guarantee profile serves as a first loss position for the lender.

Derivatives

The master netting agreements column in the table relates to derivative liability positions which are used in Aegon's credit risk management. The offset in the master netting agreements column includes balances where there is a legally enforceable right of offset, but no intention to settle these balances on a net basis under normal circumstances. As a result, there is a net exposure for credit risk management purposes. However, as there is no intention to settle these balances on a net basis, they do not qualify for net presentation for accounting purposes.

Reinsurance assets

The collateral related to the reinsurance assets include assets in trust that are held by the reinsurer for the benefit of Aegon. The assets in trust can be accessed to pay policyholder benefits in the event the reinsurers fail to perform under the terms of their contract. Further information on the related reinsurance transactions is included in note 26 Reinsurance assets.

Other loans

The collateral included in the other column represents the policyholders account value for policy loans. The excess of the account value over the loan value is included in the surplus collateral column. For further information on the policy loans refer to note 22.1 Financial assets, excluding derivatives.

The total collateral includes both under- and over-collateralized positions. To present a net exposure of credit risk, the over-collateralization, which is shown in the surplus collateral column, is extracted from the total collateral.

Credit risk management

Aegon manages credit risk exposure by individual counterparty, sector and asset class, including cash positions. Normally, Aegon mitigates credit risk in derivative contracts by entering into credit support agreement, where practical, and in ISDA master netting agreements for most of Aegon's legal entities to facilitate Aegon's right to offset credit risk exposure. Main counterparties to these transactions are investment banks which are typically rated 'A' or higher. The credit support agreement will normally dictate the threshold over which collateral needs to be pledged by Aegon or its counterparty. Transactions requiring Aegon or its counterparty to post collateral are typically the result of derivative trades, comprised mostly of interest rate swaps, equity swaps, currency swaps and credit swaps. Collateral received is mainly cash (USD and EUR). The credit support agreements that outline the acceptable collateral require high-quality instruments to be posted. Over the last three years, there was no default with any derivatives counterparty. The credit risk associated with financial assets subject to a master netting agreement is eliminated only to the extent that financial liabilities due to the same counterparty will be settled after the assets are realized. Eligible derivative transactions are traded via Central Clearing Houses as required by EMIR and the Dodd-Frank act. Credit risk in these transactions is mitigated through posting of initial and variation margins.

Aegon may also mitigate credit risk in reinsurance contracts by including downgrade clauses that allow the recapture of business, retaining ownership of assets required to support liabilities ceded or by requiring the reinsurer to hold assets in trust. For the resulting net credit risk exposure, Aegon employs deterministic and stochastic credit risk modeling in order to assess the Group's credit risk profile, associated earnings and capital implications due to various credit loss scenarios.

Aegon operates a Credit Name Limit Policy (CNLP) under which limits are placed on the aggregate exposure that it has to any one counterparty. Limits are placed on the exposure at both group level and individual country units. The limits also vary by a rating system, which is a composite of the main rating agencies (S&P, Moody's and Fitch) and Aegon's internal rating of the counterparty. If an exposure exceeds the stated limit, then the exposure must be reduced to the limit for the country unit and rating category as soon as possible. Exceptions to these limits can only be made after explicit approval from Aegon's Group Risk and Capital Committee (GRCC). The policy is reviewed regularly.

At December 31, 2019, there were two violations of the Credit Name Limit Policy at Group level (December 31, 2018: nil). These related to Bank of America and Republic of Turkey. The Bank of America violation was addressed in early 2020 and the Turkey violation is being monitored.

At December 31, 2019, Aegon's largest corporate credit exposures are to Wilton Re Holdings Ltd, American United Mutual Insurance, SCOR and Reinsurance Group of America. Aegon had large government exposures, the largest being in the Americas, the Netherlands and Germany. Highly rated government bonds and government exposure domestically issued and owned in local currency are excluded from the Credit Name Limit Policy.

Aegon group level long-term counterparty exposure limits are as follows:

Group limits per credit rating

Amounts in EUR million	2019	2018
AAA	900	900
AA	900	900
A	675	675
BBB	450	450
BB	250	250
B	125	125
CCC or lower	50	50

Credit rating

The ratings distribution of general account portfolios of Aegon's major reporting units, excluding reinsurance assets, are presented in the table that follows, organized by rating category and split by assets that are valued at fair value and assets that are valued at amortized cost. Aegon uses a composite rating based on a combination of the external ratings of S&P, Moody's, Fitch and National Association of Insurance Commissioners (NAIC which is for US only) and internal ratings. The rating used is the lower of the external rating and the internal rating.

Credit rating general account investments, excluding reinsurance assets 2019	Americas		The Netherlands		United Kingdom		Southern & Eastern Europe		Europe	
	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value
	AAA	1,311	14,664	1,799	13,342	-	91	-	15	1,799
AA	3,671	4,162	82	7,625	-	624	-	101	82	8,350
A	3,580	19,752	47	8,271	-	307	61	592	108	9,170
BBB	275	19,062	970	1,758	-	120	5	572	974	2,451
BB	15	1,314	49	97	-	1	-	10	49	108
B	4	926	-	2	-	-	36	212	36	214
CCC or lower	-	677	-	-	-	-	-	1	-	1
Assets not rated	1,971	4,028	31,080	1,493	-	959	16	72	31,096	2,524
Total	10,827	64,584	34,025	32,589	-	2,103	118	1,574	34,143	36,266
Past due and / or impaired assets	95	1,051	210	19	-	-	-	-	210	19
At December 31	10,922	65,635	34,235	32,609	-	2,103	118	1,574	34,353	36,286

Credit rating general account investments, excluding reinsurance assets 2019	Asia		Asset Management		Total 2019 ¹⁾		Total carrying value
	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	
AAA	-	1,032	-	164	3,110	29,322	32,431
AA	-	500	-	2	3,752	13,014	16,766
A	-	2,260	-	11	3,688	31,206	34,895
BBB	-	2,530	-	15	1,249	24,058	25,307
BB	-	158	-	27	64	1,678	1,742
B	-	100	-	34	40	1,274	1,314
CCC or lower	-	13	-	9	-	699	699
Assets not rated	42	17	-	5	33,157	6,789	39,947
Total	42	6,611	-	266	45,060	108,040	153,101
Past due and / or impaired assets	-	9	-	-	305	1,101	1,406
At December 31	42	6,620	-	266	45,365	109,142	154,507

¹⁾ Includes investments of Holding and other activities.

Credit rating general account investments, excluding reinsurance assets 2018

	Americas		The Netherlands		United Kingdom		Southern & Eastern Europe		Europe	
	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value
AAA	941	15,338	1,611	12,956	-	84	-	10	1,611	13,050
AA	3,104	3,855	83	6,704	-	594	-	100	83	7,399
A	3,567	17,428	55	2,482	-	291	54	505	109	3,278
BBB	266	17,609	924	1,299	-	95	3	682	927	2,076
BB	7	1,393	52	39	-	1	9	22	61	62
B	-	1,013	-	-	-	-	64	105	64	105
CCC or lower	-	741	-	-	-	-	1	1	1	1
Assets not rated	1,952	4,126	29,933	4,423	-	1,085	13	70	29,946	5,579
Total	9,837	61,501	32,658	27,905	-	2,149	143	1,496	32,801	31,549
Past due and / or impaired assets	108	1,346	277	25	-	-	-	1	277	26
At December 31	9,945	62,847	32,935	27,930	-	2,149	143	1,497	33,078	31,575

Credit rating general account investments, excluding reinsurance assets 2018

	Asia		Asset Management		Total 2018 ¹⁾		Total carrying value
	Amortized cost	Fair value	Amortized cost	Fair value	Amortized cost	Fair value	
AAA	-	987	-	136	2,552	29,518	32,070
AA	-	372	-	-	3,188	11,626	14,813
A	-	1,823	-	5	3,675	22,542	26,218
BBB	-	2,186	-	1	1,193	21,871	23,064
BB	-	140	-	9	68	1,653	1,721
B	-	132	-	17	64	1,267	1,331
CCC or lower	-	22	-	9	1	773	774
Assets not rated	16	14	-	5	31,926	9,960	41,886
Total	16	5,676	-	181	42,666	99,210	141,877
Past due and / or impaired assets	-	27	-	-	385	1,399	1,784
At December 31	16	5,704	-	181	43,052	100,609	143,661

¹⁾ Includes investments of Holding and other activities.

The following table shows the credit quality of the gross positions in the statement of financial position for general account reinsurance assets specifically:

	Carrying value 2019	Carrying value 2018
AAA	-	-
AA	10,477	9,150
A	10,002	11,041
Below A	40	30
Not rated	316	284
At December 31	20,835	20,505

Credit risk concentration

The tables that follow present specific credit risk concentration information for general account financial assets.

Credit risk concentrations – debt securities and money market investments 2019	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Total 2019 ¹⁾	Of which past due and / or impaired assets
Residential mortgage-backed securities (RMBSs)	2,289	311	-	-	311	128	-	2,729	909
Commercial mortgage-backed securities (CMBSs)	3,428	13	128	-	141	584	1	4,154	8
Asset-backed securities (ABSs) - CDOs backed by ABS, Corp. bonds, Bank loans	519	1,050	-	-	1,050	73	-	1,642	4
ABSs – Other	1,724	73	72	6	151	384	-	2,258	1
Financial - Banking	6,561	2,684	154	224	3,061	928	3	10,554	4
Financial - Other	8,885	191	38	71	300	742	154	10,096	4
Industrial	23,158	2,243	234	176	2,653	2,966	57	28,835	61
Utility	3,760	136	67	45	249	402	1	4,411	52
Government bonds	9,558	16,072	449	975	17,497	401	44	27,500	2
At December 31	59,882	22,773	1,143	1,497	25,413	6,609	260	92,180	1,046

¹⁾ Includes investments of Holding and other activities.

Credit risk concentrations – Government bonds per country of risk 2019	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Total 2019 ¹⁾
United States	8,893	1	-	4	6	309	2	9,210
Netherlands	-	6,316	-	-	6,316	-	-	6,316
United Kingdom	-	-	362	-	362	-	18	380
Austria	-	1,227	-	4	1,230	-	-	1,230
Belgium	-	1,097	21	5	1,123	-	-	1,123
Finland	-	135	-	-	135	-	-	135
France	-	1,512	35	3	1,551	-	-	1,551
Germany	-	4,649	-	-	4,649	-	-	4,649
Hungary	2	-	-	345	345	-	-	348
Luxembourg	-	807	-	-	807	-	-	807
Spain	-	95	-	273	368	-	-	368
Rest of Europe	85	216	-	336	552	6	3	646
Rest of world	576	17	32	5	54	85	22	737
Supranational	1	-	-	-	-	-	-	1
At December 31	9,558	16,072	449	975	17,497	401	44	27,500

¹⁾ Includes investments of Holding and other activities.

Credit risk concentrations – Credit rating 2019 ²⁾	Government bonds	Corporate bonds	RMBSs	CMBSs	ABSs	Other	Total 2019 ¹⁾
	AAA	20,324	719	6,344	-	-	1,861
AA	4,903	3,514	1,429	-	-	2	9,848
A	899	22,416	1,378	-	-	-	24,693
BBB	949	22,137	284	-	-	-	23,371
BB	110	1,292	122	-	-	-	1,524
B	297	956	27	-	-	-	1,280
CCC or lower	18	309	1,197	-	-	-	1,524
Assets not rated	-	3	3	-	-	686	691
At December 31	27,500	51,347	10,783	2,549	92,180	2,549	92,180

¹⁾ Includes investments of Holding and other activities.

²⁾ CNLP Ratings are used and are the lower of the Barclay's Rating and the Internal Rating with the Barclay's rating being a blended rating of S&P, Fitch, and Moody's.

Credit risk concentrations – debt securities and money market investments 2018	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Total 2018 ¹⁾	Of which past due and / or impaired assets
Residential mortgage-backed securities (RMBSs)	2,138	395	-	-	395	52	-	2,585	918
Commercial mortgage-backed securities (CMBSs)	3,314	35	127	-	162	537	-	4,013	14
Asset-backed securities (ABSs) - CDOs backed by ABS, Corp. bonds, Bank loans	717	1,669	-	-	1,669	61	-	2,447	3
ABSs – Other	1,915	247	61	6	314	323	-	2,552	40
Financial - Banking	6,423	1,473	132	210	1,815	815	6	9,059	29
Financial - Other	8,863	188	33	116	336	595	121	9,924	19
Industrial	21,060	1,515	213	148	1,875	2,486	33	25,457	187
Utility	3,572	115	60	51	227	370	-	4,169	144
Government bonds	9,607	15,948	438	889	17,275	457	17	27,356	8
At December 31	57,609	21,586	1,064	1,419	24,068	5,696	176	87,560	1,362

¹⁾ Includes investments of Holding and other activities.

Credit risk concentrations – Government bonds per country of risk 2018	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Total 2018 ¹⁾
United States	8,891	-	-	-	-	362	-	9,253
Netherlands	-	6,040	-	-	6,040	-	-	6,040
United Kingdom	-	-	356	1	357	-	17	374
Austria	-	1,102	-	4	1,106	-	-	1,106
Belgium	-	1,000	21	6	1,027	-	-	1,027
Finland	-	949	-	-	949	-	-	949
France	-	1,292	33	5	1,329	-	-	1,329
Germany	-	4,397	-	-	4,397	-	-	4,397
Hungary	3	-	-	410	410	-	-	413
Luxembourg	-	786	-	1	787	-	-	787
Spain	-	89	-	209	298	-	-	298
Rest of Europe	103	264	-	247	511	9	-	623
Rest of world	580	30	28	5	63	86	-	730
Supranational	30	-	-	-	-	-	-	30
At December 31	9,607	15,948	438	889	17,275	457	17	27,356

¹⁾ Includes investments of Holding and other activities.

Credit risk concentrations – Credit rating 2018 ²⁾	Government bonds	Corporate bonds	RMBSs CMBSs	ABSs	Other	Total 2018 ¹⁾
AAA	20,479	772	6,505	1,753	-	29,511
AA	4,949	3,264	1,721	-	-	9,934
A	614	18,482	1,490	1	-	20,587
BBB	961	20,360	349	1	-	21,670
BB	215	1,279	144	-	-	1,638
B	136	1,003	69	-	-	1,207
CCC or lower	1	302	1,318	-	-	1,621
Assets not rated	-	-	-	1,391	-	1,391
At December 31	27,356	45,462	11,596	3,147	87,560	

¹⁾ Includes investments of Holding and other activities.

²⁾ CNLP Ratings are used and are the lower of the Barclay's Rating and the Internal Rating with the Barclay's rating being a blended rating of S&P, Fitch, and Moody's.

Credit risk concentrations – mortgage loans 2019	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Total 2019 ¹⁾	Of which past due and / or impaired assets
Agricultural	69	-	-	-	-	-	-	69	-
Apartment	4,383	-	-	-	-	-	-	4,383	94
Industrial	1,266	-	-	-	-	-	-	1,266	-
Office	1,395	-	-	-	-	-	-	1,395	-
Retail	1,575	8	-	-	8	-	-	1,583	1
Other commercial	258	43	-	-	43	-	-	302	1
Residential	9	29,516	-	1	29,517	-	-	29,526	163
At December 31	8,956	29,567	-	1	29,569	-	-	38,524	259

¹⁾ Includes investments of Holding and other activities.

Credit risk concentrations – mortgage loans 2018	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Total 2018 ¹⁾	Of which past due and / or impaired assets
Agricultural	69	-	-	-	-	-	-	69	15
Apartment	3,993	-	-	-	-	-	-	3,993	92
Industrial	871	-	-	-	-	-	-	871	-
Office	1,342	-	-	-	-	-	-	1,343	-
Retail	1,457	9	-	-	9	-	-	1,466	1
Other commercial	258	35	-	-	35	-	-	292	2
Residential	12	28,592	-	1	28,593	-	-	28,605	227
At December 31	8,002	28,636	-	1	28,637	-	-	36,639	337

¹⁾ Includes investments of Holding and other activities.

The fair value of Aegon Americas commercial and agricultural mortgage loan portfolio as per December 31, 2019, amounted to EUR 9,447 million (2018: EUR 8,059 million). The loan to value (LTV) amounted to approximately 53% (2018: 54%). Of the portfolio 1.06% (2018: 1.25%) is in delinquency (defined as 60 days in arrears). In 2019, Aegon Americas recognized EUR 0 million of net recoveries (2018: EUR 1 million net impairments) on this portfolio. In 2019, there were no foreclosures (2018: EUR 0 million) and no impairments or recoveries associated with foreclosed loans (2018: EUR 0 million).

The fair value of Aegon the Netherlands mortgage loan portfolio as per December 31, 2019, amounted to EUR 33,111 million (2018: EUR 31,686 million). The LTV amounted to approximately 67% (2018: 70%). A significant part of the portfolio 49% (2018: 46%) is government guaranteed. Of the portfolio, 0.1% (2018: 0.2%) is in delinquency (defined as 60 days in arrears). Impairments in 2019 amounted to EUR 0 million (2018: EUR 0 million). During the last ten years defaults of the portfolio have been 5 basis points on average.

Unconsolidated structured entities

Aegon's investments in unconsolidated structured entities such as RMBSs, CMBSs and ABSs and investment funds are presented in the line item 'Investments' of the statement of financial position. Aegon's interests in these unconsolidated structured entities can be characterized as basic interests, Aegon does not have loans, derivatives, guarantees or other interests related to these investments. Any existing commitments such as future purchases of interests in investment funds are disclosed in note 45 Commitments and contingencies.

For debt instruments, specifically for RMBSs, CMBSs and ABSs, the maximum exposure to loss is equal to the carrying amount which is reflected in the credit risk concentration table regarding debt securities and money market investments. To manage credit risk Aegon invests primarily in senior notes of RMBSs, CMBSs and ABSs. Additional information on credit ratings for Aegon's investments in RMBSs, CMBSs and ABSs are disclosed in the sections that describe per category of debt securities the composition and impairment assessments. The composition of the RMBSs, CMBSs and ABSs portfolios of Aegon are widely dispersed looking at the individual amount per entity, therefore Aegon only has non-controlling interests in individual unconsolidated structured entities. Furthermore these investments are not originated by Aegon.

Except for commitments as noted in note 45 Commitments and contingencies, Aegon did not provide, nor is required to provide financial or other support to unconsolidated structured entities. Nor does Aegon have intentions to provide financial or other support to unconsolidated structured entities in which Aegon has an interest or previously had an interest.

For RMBSs, CMBSs and ABSs in which Aegon has an interest at reporting date, the following table presents total income received from those interests. The Investments column reflects the carrying values recognized in the statement of financial position of Aegon's interests in RMBSs, CMBSs and ABSs.

	Total income 2019 December 31, 2019			
	Interest income	Total gains and losses on sale of assets	Total	Investments
2019				
Residential mortgage-backed securities	140	97	237	2,729
Commercial mortgage-backed securities	138	182	320	4,153
Asset-backed securities	47	(1)	45	1,642
ABSs - Other	87	81	168	2,258
Total	412	358	769	10,782

	Total income 2018			December 31, 2018
	Interest income	Total gains and losses on sale of assets	Total	Investments
2018				
Residential mortgage-backed securities	140	(3)	137	2,585
Commercial mortgage-backed securities	139	(41)	98	4,013
Asset-backed securities	54	-	54	2,447
ABSs - Other	84	15	99	2,552
Total	417	(28)	389	11,596

Monoline insurers

EUR 272 million (2018: EUR 178 million) of the bonds in Aegon Americas' and Asia's portfolios are insured by Monoline insurers. An insolvency by one of the Monolines could create significant market price volatility for the affected holdings. Of the EUR 272 million indirect exposure on the Monoline insurers, 6% relates to Municipal Bond Insurance Association, Inc. (MBIA), 54% to Ambac Financial Group, Inc. (AMBAC), and 27% to Assured Guaranty Corporation (AGC) (2018: 15% related to MBIA, 13% to AMBAC, and 52% to AGC).

Additional information on credit risk, unrealized losses and impairments

Debt instruments

The amortized cost and fair value of debt securities, money market investments and other, included in Aegon's available-for-sale (AFS) portfolios, are as follows as of December 31, 2019, and December 31, 2018.

2019	Amortized cost	Unrealized gains	Unrealized losses	Total fair value	Fair value of instruments with unrealized gains	Fair value of instruments with unrealized losses
Debt securities, money market instruments and other						
United States government	7,443	1,377	(8)	8,812	8,478	335
Dutch government	4,869	1,448	-	6,316	6,267	49
Other government	8,901	2,989	(17)	11,872	11,662	210
Mortgage-backed securities	6,366	470	(25)	6,811	5,773	1,037
Asset-backed securities	3,776	103	(9)	3,869	2,881	989
Corporate	40,552	4,853	(167)	45,238	42,801	2,437
Money market investments	5,169	-	-	5,169	4,702	467
Other	976	49	(117)	908	628	280
Total	78,052	11,289	(345)	88,995	83,192	5,803
Of which held by Aegon Americas and NL	69,012	10,493	(327)	79,178	74,025	5,153

2018	Amortized cost	Unrealized gains	Unrealized losses	Total fair value	Fair value of instruments with unrealized gains	Fair value of instruments with unrealized losses
Debt securities, money market instruments and other						
United States government	6,973	603	(127)	7,449	4,772	2,676
Dutch government	4,908	1,136	(3)	6,040	6,002	38
Other government	11,327	684	(54)	11,957	11,105	852
Mortgage-backed securities	6,275	366	(84)	6,557	3,700	2,857
Asset-backed securities	4,948	65	(55)	4,958	1,825	3,133
Corporate	39,770	1,748	(1,138)	40,379	21,441	18,939
Money market investments	5,955	-	-	5,955	5,701	254
Other	919	71	(88)	902	707	194
Total	81,073	4,673	(1,550)	84,196	55,253	28,943
Of which held by Aegon Americas and NL	72,520	4,336	(1,352)	75,504	50,976	24,528

Unrealized bond losses by sector

The composition by industry category of Aegon's available-for-sale (AFS) debt securities, money market investments and other in an unrealized loss position at December 31, 2019, and December 31, 2018, is presented in the following table:

	December 31, 2019		December 31, 2018	
	Carrying value of instruments with unrealized losses	Unrealized losses	Carrying value of instruments with unrealized losses	Unrealized losses
Unrealized losses - debt securities, money market investments and other				
Residential mortgage-backed securities (RMBSs)	413	(18)	446	(30)
Commercial mortgage-backed securities (CMBSs)	494	(6)	2,012	(45)
Asset-backed securities (ABSs) - CDOs backed by ABS, Corp. bonds, Bank loans	662	(5)	2,088	(42)
ABSs - Other	242	(4)	829	(10)
Financial Industry - Banking	349	(20)	2,522	(106)
Financial Industry - Insurance	104	(5)	646	(36)
Financial Industry - Other	615	(15)	1,523	(69)
Industrial	1,293	(105)	10,073	(684)
Utility	249	(10)	1,258	(78)
Government	453	(23)	2,935	(164)
Other	279	(117)	194	(88)
Total held by Aegon Americas and NL	5,153	(327)	24,528	(1,352)
Held by other segments	650	(18)	4,415	(197)
Total	5,803	(345)	28,943	(1,550)

As of December 31, 2019, there are EUR 10,493 million (December 31, 2018: EUR 4,370 million) of gross unrealized gains and EUR 327 million (December 31, 2018: EUR 1,352 million) of gross unrealized losses in the AFS debt securities, money markets and other portfolio of Aegon Americas and Aegon the Netherlands.

US credit and equity market returns were strong during 2019, rebounding from sharp sell-offs at the end of 2018. Credit spreads tightened dramatically, and US equity markets rose throughout the year. Developed-world economic growth was steady and positive, though somewhat lack-luster, with the US generally outperforming most other developed economies. Outside of US, global equity markets were also very strong. The dollar was modestly stronger versus the Euro, and little-changed versus the yen. The US Federal Reserve paused its tightening cycle at the beginning of 2019, and began easing in July, ultimately reducing the Fed Funds rate target by 75 basis points. US Treasury rates declined sharply. Corporate default rates remained low. Oil prices ended the year higher than the very low levels at the end of 2018, but lower than where they traded during most of 2018. Tighter credit spreads and lower US Treasury rates increased the market values of fixed income holdings.

GDP growth in 2019 slowed down markedly. The Eurozone economy was impacted by a manufacturing slowdown. Especially export dependent countries like Germany and Italy were impacted. The slowdown was the result of a combination of factors. The automotive sector was hit by new emission standards and weakness in some export markets like the UK. Also the trade conflict between the US and China, might have resulted in lower Chinese demand. A bright spot remained private consumption and the services sectors, which held up well despite these developments. The Brexit process also resulted in continued uncertainty. The deadline was postponed twice. Firstly, due to the inability of the UK parliament ratify a deal and secondly, to allow for new elections. These elections resulted in a clear majority of the conservative party, which led to an exit from the EU in January 2020.

The ECB decided to ease monetary conditions further. Initially they introduced new targeted longer-term refinancing operations (TLTROs) to ease credit conditions. In September the ECB decided to also reinstate the asset purchase program (APP) at a monthly pace of EUR 20 billion and to lower the deposit rate further into negative territory to -0.5%.

Impairment of financial assets

Aegon regularly monitors industry sectors and individual debt securities for indicators of impairment. These indicators may include one or more of the following: 1) deteriorating market to book ratio, 2) increasing industry risk factors, 3) deteriorating financial condition of the issuer, 4) covenant violations by the issuer, 5) high probability of bankruptcy of the issuer, or 6) downgrades by internationally recognized credit rating agency. Additionally, for asset-backed securities, cash flow trends and underlying levels of collateral are monitored. A security is impaired if there is objective evidence that a loss event has occurred after the initial recognition of the asset that has a negative impact on the estimated future cash flows.

In the sections below a description is provided on the composition of the categories of debt securities and money market investments. Individual issuers rated below investment grade in any sector which have unrealized loss positions greater than EUR 25 million are

disclosed separately. Furthermore, quality ratings of investment portfolios are based on a composite of the main rating agencies (S&P, Moody's and Fitch) and Aegon's internal rating of the counterparty.

Residential mortgage-backed securities

Aegon Americas and Aegon the Netherlands hold EUR 2,533 million (December 31, 2018: EUR 2,497 million) of residential mortgage-backed securities available-for-sale (RMBS), of which EUR 2,222 million (December 31, 2018: EUR 2,102 million) is held by Aegon Americas and EUR 311 million (December 31, 2018: EUR 395 million) by Aegon the Netherlands. Residential mortgage-backed securities are securitizations of underlying pools of non-commercial mortgages on real estate. The underlying residential mortgages have varying credit characteristics and are pooled together and sold in tranches. The following table shows the breakdown of Aegon America's RMBS available-for-sale (AFS) portfolio.

AFS RMBS by quality	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
GSE guaranteed	735	43	-	-	-	778	782
Prime jumbo	6	16	1	2	32	56	62
Alt-A	48	59	15	10	242	373	462
Negative amortization floaters	-	2	-	9	382	394	468
Other housing	2	9	2	7	317	337	449
At December 31, 2019	790	129	18	28	973	1,938	2,222
Of which insured	-	-	16	4	88	109	100

AFS RMBS by quality	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
GSE guaranteed	450	149	-	-	-	599	599
Prime jumbo	-	16	1	5	98	120	124
Alt-A	-	59	17	5	221	301	397
Negative amortization floaters	-	1	-	11	438	450	533
Other housing	-	13	4	16	333	366	450
At December 31, 2018	450	238	22	36	1,089	1,836	2,102
Of which insured	-	-	20	5	99	124	113

A significant part of Aegon America's RMBS holdings are rated below BBB, as the issuances took place before the United States housing downturn that started in 2007.

Additionally, Aegon Americas has investments in RMBS of EUR 67 million (December 31, 2018: EUR 35 million), which are classified as fair value through profit or loss.

RMBS of Aegon Americas are monitored and reviewed on a monthly basis. Detailed cash flow models using the current collateral pool and capital structure on the portfolio are updated and reviewed quarterly. Model output is generated under base and stress-case scenarios. Aegon's RMBS asset specialists utilize widely recognized industry modeling software to perform a loan-by-loan, bottom-up approach to modeling. Key assumptions used in the models are projected defaults, loss severities, and prepayments. Each of these key assumptions varies greatly based on the significantly diverse characteristics of the current collateral pool for each security. Loan-to-value, loan size, and borrower credit history are some of the key characteristics used to determine the level of assumption that is utilized. Defaults were estimated by identifying the loans that are in various delinquency buckets and defaulting a certain percentage of them over the near-term and long-term. Assumed defaults on delinquent loans are dependent on the specific security's collateral attributes and historical performance.

Prepayments and loss severity assumptions were determined by obtaining historical rates from broader market data and by adjusting those rates for vintage, specific pool performance, collateral type, mortgage insurance and estimated loan modifications. Prepayments were estimated by examining historical averages of prepayment activity on the underlying collateral. Quantitative ranges of significant assumptions within Aegon's modeling process for Prime Jumbo, Alt-A, Negative Amortization and subprime RMBS are as follows: prepayment assumptions range from approximately 0% to 33% with a weighted average of approximately 8.44% (2018: 5.45%),

the increase compared to prior year is related to a change in the model from using 'delinquent' loans to using 'defaulted' loans. Assumed loan defaults range from 0% to 56% with a weighted average of approximately 20.42% and are dependent on the specific security's collateral attributes and historical performance, while loss severity assumptions range from approximately 0% to 105%, with a weighted average of approximately 50.19% (2018: 56.96%).

Once the entire pool is modeled, the results are closely analyzed by Aegon's asset specialists to determine whether or not Aegon's particular tranche or holding is at risk for not collecting all contractual cash flows taking into account the seniority and other terms of the tranches held.

Aegon the Netherlands has mandated Aegon Asset Management to invest in RMBS transactions. Aegon Asset Management uses its own proprietary cash flow tools to analyze and stress test RMBS transactions. The key input parameters are default rates and loss given default assumptions, which are established based on historical pool characteristics and current loan level data. Cash flows for each bond are modelled in 225 scenarios of varying severity, ranging from our base case to extreme stress to even unrealistic scenarios to establish breaking points of the tranche. The model takes all deal characteristics, such as waterfall or reserve funds, into account and gives us detailed insight in the risk of principal loss or deferral of contractual cash flows.

The total gross unrealized loss on available-for-sale RMBS of Aegon Americas and Aegon the Netherlands amounted to EUR 18 million (December 31, 2018: EUR 30 million), of which EUR 18 million (December 31, 2018: EUR 29 million) relates to positions of Aegon Americas, and the total net unrealized gain on available-for-sale RMBS was EUR 288 million (December 31, 2018: EUR 269 million), including a EUR 284 million (December 31, 2018: EUR 266 million) net unrealized gain relating to positions of Aegon Americas.

The United States' housing market remains buoyant but has transitioned to a more moderate growth trajectory. The housing market continues to benefit from favorable interest rates, high employment, income growth, demographic and supply conditions and has manifested itself in low borrower delinquencies, better recoveries upon liquidation and short property sale timelines. Although housing affordability has come under pressure from years of price appreciation outpacing wage growth, declining mortgage rates during 2019 have mitigated this risk. The confluence of large rates moves, modest spread tightening and rapid deleveraging helped facilitate modest positive returns for legacy non-agency in second half of 2019.

In general, the European housing market showed further improvement in 2019. House prices are increasing and affordability remains high given the low level of interest rates. Although economic development was healthy, markets are expecting (global) growth to slow. Unemployment levels meanwhile continue to be at historically low levels which is clearly beneficial for consumer risk in general and retail mortgages in particular. Improving fundamentals, deleveraging of the deals and collateral, and negative net supply (together with increasing demand) in the sector were compensated by political related turmoil and expectations of a less benign macroeconomic climate due to increased trade tensions and this resulted in a marginal widening of credit spreads.

There are no individual issuers rated below investment grade in this RMBS sector which have unrealized loss position greater than EUR 25 million.

The fair values of Aegon Americas' available-for-sale (AFS) RMBS instruments were determined as follows:

	Level II	Level III	Total 2019	Level II	Level III	Total 2018
RMBS	2,188	34	2,222	2,060	42	2,102

Commercial mortgage-backed securities

As of December, 31, 2019, Aegon Americas and Aegon the Netherlands hold EUR 3,440 million (December 31, 2018: EUR 3,349 million) of AFS commercial mortgage-backed securities (CMBS), of which EUR 3,427 million (December 31, 2018: EUR 3,314 million) is held by Aegon Americas and EUR 13 million (December 31, 2018: EUR 35 million) by Aegon the Netherlands. CMBS are securitizations of underlying pools of mortgages on commercial real estate. The underlying mortgages have varying risk characteristics and are pooled together and sold in different rated tranches. The company's CMBS include conduit, large loan, single borrower, commercial real estate collateralized debt obligations (CRE CDOs), collateralized debt obligations (CDOs), government agency, and franchise loan receivable trusts.

The total gross unrealized loss on available-for-sale CMBS of Aegon Americas amounted to EUR 6 million as of December 31, 2019 (December 31, 2018: EUR 44 million). The total net unrealized gain on the available-for-sale CMBS as of December 31, 2019, is EUR 157 million (December 31, 2018: EUR 17 million), of which EUR 104 million (December 31, 2018: EUR 17 million) relates to positions of Aegon Americas. CMBS fundamentals remain stable. The delinquency rate continues to fall, led by distressed legacy

loan resolutions. Despite modest spread widening during the 2nd half of 2019, US CMBS prices continue to be supported by lower interest rates.

The tables below summarize the credit quality of Aegon Americas' available-for-sale (AFS) CMBS portfolio. Additionally, as of December 31, 2019, Aegon Americas has no investments in CMBS (December 31, 2018: EUR nil), which are classified as fair value through profit or loss.

CMBS by quality	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
CMBS	2,540	639	109	7	29	3,323	3,427
At December 31, 2019	2,540	639	109	7	29	3,323	3,427

CMBS by quality	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
CMBS	2,635	567	65	3	57	3,326	3,310
CMBS and CRE CDOs	-	-	-	-	5	5	4
At December 31, 2018	2,635	567	65	3	62	3,331	3,314

CMBS of Aegon Americas are monitored and reviewed on a monthly basis. Detailed cash flow models using the current collateral pool and capital structure on the portfolio are updated and reviewed quarterly. Model output is generated under base and several stress-case scenarios by Aegon's internal CMBS asset specialists. For conduit securities, a widely recognized industry modeling software is used to perform a loan-by-loan, bottom-up approach. For non-conduit securities, a CMBS asset specialist works closely with Aegon's real estate valuation group to determine underlying asset valuation and risk. Both methodologies incorporate external estimates on the property market, capital markets, property cash flows, and loan structure. Results are then closely analyzed by the asset specialist to determine whether or not a principal or interest loss is expected to occur.

As the remaining unrealized losses in the CMBS portfolio relate to holdings where Aegon expects to receive full principal and interest, Aegon does not consider the underlying investments to be impaired as of December 31, 2019.

There are no individual issuers rated below investment grade in the CMBS sector which have unrealized loss position greater than EUR 25 million.

The fair values of Aegon Americas' available-for-sale (AFS) CMBS instruments were determined as follows:

	Level II	Level III	Total 2019	Level II	Level III	Total 2018
CMBS	3,427	-	3,427	3,310	4	3,314

Asset-backed securities

Aegon Americas and Aegon the Netherlands hold EUR 3,332 million (December 31, 2018: EUR 4,503 million) of AFS ABS instruments of which EUR 2,239 million (December 31, 2018: EUR 2,626 million) is held by Aegon Americas and EUR 1,093 million (December 31, 2018: EUR 1,877 million) by Aegon the Netherlands. Additionally, as of December 31, 2019, Aegon Americas has investments in ABS of EUR 3 million (December 31, 2018: EUR 6 million), which are classified as fair value through profit or loss. ABS are securitizations of underlying pools of credit card receivables, auto financing loans, small business loans, bank loans, and other receivables. The underlying assets of the asset backed securities have been pooled together and sold in tranches with varying credit ratings.

The total gross unrealized loss on available-for-sale ABS of Aegon Americas and Aegon the Netherlands amounted to EUR 9 million as of December 31, 2019 (December 31, 2018: EUR 52 million). Aegon Americas has EUR 5 million (December 31, 2018: EUR 18 million) of this gross unrealized loss and Aegon the Netherlands EUR 3 million (December 31, 2018: EUR 34 million).

In the United States, increasing investor demand has been met with new issuance in the asset-backed sector. Spreads in the asset-backed sector tightened in 2019. In the second half of 2019, the European ABS market showed a positive performance. Spreads declined in most of the European ABS sectors. Our outlook for European ABS markets remains moderately positive for the short to medium term. Despite the bleaker macroeconomic picture, we still consider ABS fundamentals to be supportive for most European

ABS sectors. In addition, favorable technicals will persist for the European ABS markets. Alongside ECB demand, investor demand is increasing as well driven by the search for yield.

The breakdown by quality of the available-for-sale (AFS) ABS portfolio of Aegon Americas and Aegon the Netherlands is as follows:

ABS US and NL	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
Credit cards	66	1	-	-	-	67	77
Autos	147	-	72	2	-	220	222
Small business loans	-	-	2	6	13	21	21
CDOs backed by ABS, Corp. bonds, Bank loans	1,201	229	45	42	49	1,567	1,569
Other ABS	429	98	760	104	9	1,400	1,444
At December 31, 2019	1,843	329	878	154	71	3,274	3,332

ABS US and NL	AAA	AA	A	BBB	<BBB	Total amortized cost	Total fair value
Credit cards	174	19	-	-	-	193	201
Autos	230	-	58	2	-	290	289
Small business loans	-	-	2	12	46	60	63
CDOs backed by ABS, Corp. bonds, Bank loans	1,535	479	216	146	46	2,423	2,386
Other ABS	525	151	774	88	8	1,547	1,563
At December 31, 2018	2,464	649	1,051	248	100	4,512	4,503

There were no individual issuers rated below investment grade in this ABS sector which has unrealized loss position greater than EUR 25 million.

The fair values of Aegon Americas and Aegon the Netherlands available-for-sale (AFS) ABS instruments were determined as follows:

	Level II	Level III	Total 2019	Level II	Level III	Total 2018
ABSs	2,668	664	3,332	3,650	853	4,503

Corporate - Industrial sector

The Industrial sector is further subdivided into various sub-sectors. A majority of Aegon's available-for-sale portfolio gross unrealized loss is in the Energy sub-sectors.

Corporate – Industrial sector - Energy sub-sector

Within the Energy sub-sector, Aegon Americas and Aegon the Netherlands hold EUR 3,961 million (December 31, 2018: EUR 3,802 million) of AFS bonds, of which EUR 3,844 million (December 31, 2018: EUR 3,592 million) is held by Aegon Americas and EUR 117 million (December 31, 2018: EUR 211 million) by Aegon the Netherlands. In aggregate, the gross unrealized loss on these bonds amounted to EUR 62 million (December 31, 2018: EUR 138 million) and the net unrealized gain on these bonds amounted to EUR 367 million (December 31, 2018: EUR 13 million).

The Energy sub-sector encompasses various industries including integrated oil and gas producers, independent oil and gas producers, midstream processing and transport, oil field services and drilling, and refining. Lower oil and natural gas prices have reduced cash flow for upstream companies, and reduced access to capital for some producers. Oil field service and drilling companies have been pressured by reduced capital spending by their upstream client base and excess capacity which has resulted in pricing concession and margin compression. Refiners are navigating rising feedstock prices and tightening quality spreads as well as uncertainty around global demand. Commodity price pressure has been the result of strong non-OPEC supply growth, high global inventories and concerns on trade and softening global demand, partially offset by supply disruptions and geo-political tensions. In response, OPEC has coordinated a series of agreements to curtail production levels in an effort to reduce global inventories and increase prices. Aegon evaluated the near-term prospects of the issuers in relation to the severity and duration of the unrealized loss and does not consider those investments to be impaired as of December 31, 2019.

There are no individual issuers rated below investment grade in this sub-sector which have unrealized loss positions greater than EUR 25 million.

Unrealized loss by maturity

The table below shows the composition by maturity of all available-for-sale debt securities in an unrealized loss position held by Aegon Americas and Aegon the Netherlands.

	December 31, 2019		December 31, 2018	
	Carrying value of securities with gross unrealized losses	Gross unrealized losses	Carrying value of securities with gross unrealized losses	Gross unrealized losses
Debt securities				
One year or less	247	(1)	643	(18)
Over 1 through 5 years	983	(26)	5,545	(120)
Over 5 through 10 years	1,175	(47)	9,575	(446)
Over 10 years	2,002	(135)	8,317	(680)
Total	4,407	(210)	24,080	(1,264)

Unrealized loss by credit quality

The table below shows the composition by credit quality of debt securities, available-for-sale, in an unrealized loss position held by Aegon Americas and Aegon the Netherlands.

	December 31, 2019		December 31, 2018	
	Carrying value of securities with unrealized losses	Unrealized losses	Carrying value of securities with unrealized losses	Unrealized losses
Debt securities				
AAA	1,340	(10)	6,318	(186)
AA	452	(8)	1,468	(48)
A	662	(13)	5,345	(181)
BBB	1,345	(58)	8,881	(578)
BB	181	(17)	920	(90)
B	186	(25)	742	(87)
Below B	240	(78)	407	(95)
Total	4,407	(210)	24,080	(1,264)

The table below provides the length of time an available-for-sale security has been below cost and the respective unrealized loss.

	At December 31, 2019			
	Investment grade carrying value of securities with unrealized losses	Below investment grade carrying value of securities with unrealized losses	Investment grade unrealized loss	Below investment grade unrealized loss
Debt securities				
0 – 6 months	2,178	132	(35)	(7)
6 – 12 months	128	45	(2)	(4)
> 12 months	1,493	432	(52)	(110)
Total	3,799	608	(89)	(121)

At December 31, 2018				
	Investment grade carrying value of securities with unrealized losses	Below investment grade carrying value of securities with unrealized losses	Investment grade unrealized loss	Below investment grade unrealized loss
Debt securities				
0 – 6 months	8,354	977	(227)	(58)
6 – 12 months	9,976	609	(504)	(96)
> 12 months	3,681	483	(261)	(119)
Total	22,012	2,069	(992)	(272)

The unrealized loss increased during 2019 due mainly to widening credit spreads and increasing US Treasury rates.

Aging and severity unrealized losses

The table below provides the length of time a below investment grade security has been in an unrealized loss and the percentage of carrying value (CV) to amortized cost in Aegon Americas and Aegon the Netherlands.

	2019		2018	
	Carrying value	Unrealized losses	Carrying value	Unrealized losses
Aging and severity unrealized losses debt securities				
CV 70-100% of amortized cost	131	(6)	970	(53)
CV 40-70% of amortized cost	1	(1)	7	(5)
CV < 40% of amortized cost	-	-	-	-
0-6 months	132	(7)	977	(58)
CV 70-100% of amortized cost	43	(3)	577	(76)
CV 40-70% of amortized cost	1	(1)	31	(18)
CV < 40% of amortized cost	-	-	-	(1)
6-12 months	45	(4)	609	(96)
CV 70-100% of amortized cost	175	(21)	143	(21)
CV 40-70% of amortized cost	33	(22)	8	(5)
CV < 40% of amortized cost	4	(9)	1	(2)
12-24 months	213	(52)	151	(28)
CV 70-100% of amortized cost	192	(24)	265	(34)
CV 40-70% of amortized cost	13	(9)	58	(43)
CV < 40% of amortized cost	14	(25)	8	(13)
> 24 months	219	(58)	331	(90)
Total	608	(121)	2,069	(272)

There are no individual issuers rated below investment grade which has an unrealized loss greater than EUR 25 million.

Realized gains and losses on debt securities of Aegon Americas and Aegon the Netherlands

The following table provides the realized gains and losses on the debt securities of Aegon Americas and Aegon the Netherlands for the twelve months ended December 31, 2019, and December 31, 2018.

Gross realized gains and (losses)	Gross realized gains	Gross realized losses
December 31, 2019		
Debt securities	405	(66)
December 31, 2018		
Debt securities	156	(378)

The table below provides the length of time the security was below cost prior to the sale and the respective realized loss for assets not considered impaired.

	Gross realized losses		Total
	0 -12 months	>12 months	
December 31, 2019			
Debt securities	(32)	(34)	(66)
December 31, 2018			
Debt securities	(145)	(233)	(378)

Impairment losses and recoveries

The composition of Aegon Americas and Aegon the Netherlands' bond impairment losses and recoveries by issuer for the periods ended December 31, 2019, and December 31, 2018, is presented in the table below. Those issuers with impairments or recoveries above EUR 25 million are specifically noted.

	2019 (Impairment) / recovery	2018 (Impairment) / recovery
Impairments:		
Other (none individually greater than EUR 25 million)	(49)	(24)
Subtotal	(49)	(24)
Recoveries:		
Total recoveries	66	34
Sub-total	66	34
Net (impairments) and recoveries	17	10

Net (impairments) and recoveries

Net recoveries for the twelve months ended December 31, 2019, totaled EUR 17 million (twelve months ended December 31, 2018: EUR 10 million net recoveries).

For the twelve months ended December 31, 2019, Aegon recognized EUR 66 million (twelve months ended December 31, 2018: EUR 34 million) in recoveries on previously impaired securities. In each case where a recovery was taken on structured securities, improvements in underlying cash flows for the security were documented and modeling results improved significantly. Recoveries on non-structured securities were supported by documented credit events combined with significant market value improvements.

Past due and impaired assets

The tables that follow provide information on past due and individually impaired financial assets for the whole Aegon Group. An asset is past due when a counterparty has failed to make a payment when contractually due. Assets are impaired when an impairment loss has been charged to the income statement relating to this asset. After the impairment loss is reversed in subsequent periods, the asset is no longer considered to be impaired. When the terms and conditions of financial assets have been renegotiated, the terms and conditions of the new agreement apply in determining whether the financial assets are past due.

Aegon's policy is to pursue realization of the collateral in an orderly manner as and when liquidity permits. Aegon generally does not use the non-cash collateral for its own operations.

	2019				2018			
	0-6 months	6-12 months	> 1 year	Total	0-6 months	6-12 months	> 1 year	Total
Past due but not impaired assets								
Debt securities - carried at fair value	70	21	10	101	108	121	48	277
Mortgage loans	198	3	-	201	192	22	2	215
Other loans	35	4	4	43	41	2	2	45
Accrued interest	1	-	1	2	3	3	-	6
Other financial assets - carried at fair value	22	-	-	22	-	-	-	-
At December 31	326	28	16	370	344	148	52	544

Impaired financial assets	Carrying amount 2019	Carrying amount 2018
Shares	30	33
Debt securities - carried at fair value	945	1,085
Mortgage loans	58	122
Other loans	3	3
Other financial assets - carried at fair value	4	5
At December 31	1,039	1,247

Equity instruments classified as available-for-sale

Objective evidence of impairment of an investment in an equity instrument classified as available-for-sale includes information about significant changes with an adverse effect that have taken place in the technological, market, economic or legal environment in which the issuer operates, and indicates that the cost of the investment in the equity instrument may not be recovered. A significant or prolonged decline in the fair value of an investment in an equity instrument below its cost is also objective evidence of impairment. Significant or prolonged decline is generally defined within Aegon as an unrealized loss position for more than six months or a fair value of less than 80% of the cost price of the investment. Additionally, as part of an ongoing process, internal equity analysts actively monitor earnings releases, company fundamentals, new developments and industry trends for any signs of possible impairment.

These factors typically require significant management judgment. The impairment review process has resulted in EUR 7 million of impairment charges for the twelve months ended December 31, 2019 (twelve months ended December 31, 2018: EUR 4 million) for Aegon Americas and Aegon the Netherlands.

As of December 31, 2019, there are EUR 47 million of gross unrealized gains and EUR 24 million of gross unrealized losses in the equity portfolio of Aegon (December 31, 2018: EUR 40 million of gross unrealized gains and EUR 20 million of gross unrealized losses).

The table below represents the unrealized gains and losses on share positions held by Aegon Americas and Aegon the Netherlands.

	Cost basis	Carrying value	Net unrealized gains / (losses)	Carrying value of securities with gross unrealized gains	Gross unrealized gains	Carrying value of securities with gross unrealized losses	Gross unrealized losses
December 31, 2019							
Shares	290	312	23	254	47	58	(24)
December 31, 2018							
Shares	371	391	20	304	40	86	(20)

The composition of shares by industry sector in an unrealized loss position held by Aegon Americas and Aegon the Netherlands at December 31, 2019, and December 31, 2018 is presented in the following table.

Unrealized losses on shares	2019		2018	
	Carrying value of instruments with unrealized losses	Unrealized losses	Carrying value of instruments with unrealized losses	Unrealized losses
Financials	28	(10)	49	(15)
Other	30	(14)	37	(6)
Total	58	(24)	86	(20)

Impairment losses on shares

The table below provides the length of time the shares held by Aegon Americas and Aegon the Netherlands were below cost prior to their impairment in 2019 and 2018.

In million EUR	0- 6 months
2019	
Shares	(2)
2018	
Shares	(5)

Equity market risk and other investments risk

Fluctuations in the equity, real estate and capital markets have affected Aegon's profitability, capital position and sales of equity related products in the past and may continue to do so. Exposure to equity, real estate and capital markets exists in both assets and liabilities. Asset exposure exists through direct equity investment, where Aegon bears all or most of the volatility in returns and investment performance risk. Equity market exposure is also present in insurance and investment contracts for policyholders where funds are invested in equities, backing variable annuities, unit-linked products and mutual funds. Although most of the risk remains with the policyholder, lower investment returns can reduce the asset management fee earned by Aegon on the asset balance in these products. In addition, some of this business has minimum return or accumulation guarantees.

The general account equity, real estate and other non-fixed-income portfolio of Aegon is as follows:

Equity, real estate and non-fixed income exposure	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Total 2019
Equity funds	161	35	-	63	98	-	-	-	259
Common shares ¹⁾	130	-	17	4	21	11	2	94	258
Preferred shares	208	-	-	-	-	-	-	70	279
Investments in real estate	653	2,229	-	19	2,248	-	-	-	2,901
Hedge funds	699	-	-	-	-	-	2	-	702
Other alternative investments	1,366	405	-	-	405	-	-	17	1,787
Other financial assets	1,055	1,080	874	10	1,964	-	1	-	3,020
At December 31	4,272	3,750	891	96	4,736	11	6	181	9,205

¹⁾ Common shares in Holding and other activities includes the elimination of treasury shares in the general account for an amount of EUR nil million.

Equity, real estate and non-fixed income exposure	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Total 2018
Equity funds	141	196	-	63	260	-	-	-	401
Common shares ¹⁾	203	-	3	6	9	7	1	66	287
Preferred shares	187	-	-	-	-	-	-	46	233
Investments in real estate	530	2,150	-	21	2,171	-	-	-	2,700
Hedge funds	678	1	-	-	1	-	2	-	681
Other alternative investments	1,206	438	-	-	438	-	-	22	1,666
Other financial assets	555	832	1,046	9	1,887	-	1	-	2,443
At December 31	3,501	3,617	1,050	99	4,765	7	5	134	8,412

¹⁾ Common shares in Holding and other activities includes the elimination of treasury shares in the general account for an amount of EUR nil million.

Market risk concentrations – shares	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Total 2019 ¹⁾	Of which impaired assets
Communication	26	-	-	-	-	-	-	32	-
Consumer	7	-	-	-	-	-	-	9	2
Financials	416	3	-	3	6	11	2	455	1
Funds	-	1,440	17	63	1,520	-	-	1,616	19
Industries	21	-	-	-	-	-	1	22	4
Other	29	-	-	7	7	-	2	88	2
At December 31	499	1,443	17	74	1,534	11	5	2,221	30

¹⁾ Includes investments of Holding and other activities.

Market risk concentrations – shares	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Total 2018 ¹⁾	Of which impaired assets
Communication	26	-	-	-	-	-	-	32	-
Consumer	6	-	-	-	-	-	-	7	-
Financials	466	3	-	3	6	7	-	491	3
Funds	-	1,410	3	69	1,482	-	-	1,558	26
Industries	19	-	-	-	-	-	-	19	-
Other	15	-	-	2	2	-	4	54	3
At December 31	532	1,412	3	74	1,490	7	4	2,161	33

¹⁾ Includes investments of Holding and other activities.

The table that follows sets forth the closing levels of certain major indices at the end of the last five years.

	2019	2018	2017	2016	2015
S&P 500	3,231	2,507	2,674	2,239	2,044
Nasdaq	8,973	6,635	6,903	5,383	5,007
FTSE 100	7,542	6,728	7,688	7,143	6,242
AEX	605	488	545	483	442

The sensitivity analysis of net income and shareholders' equity to changes in equity prices is presented in the table below. The sensitivity of shareholders' equity and net income to changes in equity markets reflects changes in the market value of Aegon's portfolio, changes in DPAC amortization, contributions to pension plans for Aegon's employees and the strengthening of the guaranteed minimum benefits, when applicable. Aegon generally has positive income benefits from equity market increases and negative impacts from equity market declines as it earns fees on policyholder account balances and provides minimum guarantees for account values. Aegon uses options and other equity derivatives to provide protection against the negative impact of equity market declines.

Sensitivity analysis of net income and shareholders' equity to equity markets

Immediate change of	Estimated approximate effects on net income	Estimated approximate effects on shareholders' equity
2019		
Equity increase 10%	307	450
Equity decrease 10%	(374)	(525)
Equity increase 25%	721	1,083
Equity decrease 25%	(456)	(837)
2018		
Equity increase 10%	293	405
Equity decrease 10%	(273)	(379)
Equity increase 25%	789	1,069
Equity decrease 25%	(308)	(562)

Interest rate risk

Aegon bears interest rate risk with many of its products. In cases where cash flows are highly predictable, investing in assets that closely match the cash flow profile of the liabilities can offset this risk. For some Aegon country units, local capital markets are not well developed, which prevents the complete matching of assets and liabilities for those businesses. For some products, cash flows are less predictable as a result of policyholder actions that can be affected by the level of interest rates.

In periods of rapidly increasing interest rates, policy loans, surrenders and withdrawals may increase. Premiums in flexible premium policies may decrease as policyholders seek investments with higher perceived returns. This activity may result in cash payments by Aegon requiring the sale of invested assets at a time when the prices of those assets are adversely affected by the increase in market interest rates; this may result in realized investment losses. These cash payments to policyholders result in a decrease in total invested assets and a decrease in net income. Among other things, early withdrawals may also require accelerated amortization of DPAC, which in turn reduces net income.

During periods of sustained low interest rates, Aegon may not be able to preserve margins as a result of minimum interest rate guarantees and minimum guaranteed crediting rates provided on policies. Also, investment earnings may be lower because the interest earnings on new fixed-income investments are likely to have declined with the market interest rates. Mortgage loans and redeemable bonds in the investment portfolio are more likely to be repaid as borrowers seek to borrow at lower interest rates and Aegon may be required to reinvest the proceeds in securities bearing lower interest rates. Accordingly, net income declines as a result of a decrease in the spread between returns on the investment portfolio and the interest rates either credited to policyholders or assumed in reserves.

Aegon manages interest rate risk closely, taking into account all of the complexity regarding policyholder behavior and management action. Aegon employs sophisticated interest rate measurement techniques and actively uses derivatives and other risk mitigation tools to closely manage its interest rate risk exposure. Aegon operates an Investment & Counterparty Risk policy that limits the amount of interest rate risk to which the Group is exposed. All derivative use is governed by Aegon's Derivative Use Policy. A detailed description on the use of derivatives within Aegon is included in note 24 Derivatives.

The following table shows interest rates at the end of each of the last five years.

	2019	2018	2017	2016	2015
3-month US LIBOR	1.91%	2.81%	1.69%	1.00%	0.61%
3-month EURIBOR	(0.38%)	(0.31%)	(0.33%)	(0.32%)	(0.13%)
10-year US Treasury	1.91%	2.69%	2.41%	2.43%	2.27%
10-year Dutch government	(0.06%)	0.39%	0.53%	0.35%	0.79%

The sensitivity analysis in the table below shows an estimate of the effect of a parallel shift in the yield curves on net income and shareholders' equity arising from the impact on general account investments and offset due to liabilities from insurance and investment contracts. In general, increases in interest rates are beneficial to Aegon. However, timing and valuation differences between assets and liabilities may cause short-term reductions in net income as rates rise. Rising interest rates would also cause the fair value of the available-for-sale bond portfolio to decline and the level of unrealized gains could become too low to support recoverability of the full deferred tax asset triggering an allowance charge to income. The offsetting economic gain on the insurance and investment contracts is however not fully reflected in the sensitivities because many of these liabilities are not measured at fair value. The short to medium term reduction in net income due to rising interest rates would be offset by higher net income in later years, all else being equal. Therefore, higher interest rates are not considered a long-term risk to the Group. However, a long sustained period of low interest rates will erode net income due to lower returns earned on reinvestments and due to lower long term returns from decreased overall portfolio yields.

Parallel movement of yield curve	Estimated approximate effects on net income	Estimated approximate effects on shareholders' equity
2019		
Shift up 100 basis points	370	(3,263)
Shift down 100 basis points	(585)	2,499
2018		
Shift up 100 basis points	(563)	(3,874)
Shift down 100 basis points	843	3,067

The hedge strategy targets minimal mismatch according to the Aegon economic framework which aligns with Solvency II Own Funds and stabilize Solvency II ratio volatility.

Currency exchange rate risk

As an international group, Aegon is subject to foreign currency translation risk. Foreign currency exposure exists mainly when policies are denominated in currencies other than the issuer's functional currency. Currency risk in the investment portfolios backing insurance and investment liabilities is managed using asset liability matching principles. Assets allocated to equity are kept in local currencies to the extent shareholders' equity is required to satisfy regulatory and self-imposed capital requirements. Therefore, currency exchange rate fluctuations will affect the level of shareholders' equity as a result of translation of subsidiaries into euro, the Group's presentation currency. Aegon holds the remainder of its capital base (perpetual capital securities, subordinated and senior debt) in various currencies in amounts that are targeted to correspond to the book value of the country units. This balancing mitigates currency translation impacts on shareholders' equity and leverage ratios. Aegon does not hedge the income streams from the main

non-euro units and, as a result, earnings may fluctuate due to currency translation. As Aegon has significant business segments in the Americas and in the United Kingdom, the principal sources of exposure from currency fluctuations are from the differences between the US dollar and the euro and between the UK pound and the euro. Aegon may experience significant changes in net income and shareholders' equity because of these fluctuations.

Aegon operates an investment & Counterparty Risk Policy which applies currency risk exposure limits both at Group and regional levels, and under which direct currency speculation or program trading by country units is not allowed unless explicit approval has been granted by the Group Risk and Capital Committee and the Management Board. Assets should be held in the functional currency of the business written or hedged back to that currency. Where this is not possible or practical, remaining currency exposure should be sufficiently documented and limits are placed on the total exposure at both group level and for individual country units.

Information on Aegon's three year historical net income/(loss) and shareholders' equity in functional currency are shown in the table below:

	2019	2018	2017
Net income			
Americas (in USD)	1,323	61	1,762
United Kingdom (in GBP)	(29)	35	71
Equity in functional currency			
Americas (in USD) ¹⁾	18,117	15,111	17,617
United Kingdom (in GBP)	1,358	1,671	1,905

¹⁾ Comparative figures have been reclassified to conform to the current year presentation as the elimination logic has changed. This reclassification is not considered material as there is no effect on consolidated group figures.

The exchange rates for US dollar and UK pound per euro for each of the last five year ends are set forth in the table below:

Closing rates	2019	2018	2017	2016	2015
USD	1.12	1.14	1.20	1.05	1.09
GBP	0.85	0.90	0.89	0.85	0.74

Aegon Group companies' foreign currency exposure from monetary assets and liabilities denominated in foreign currencies is not material.

The sensitivity analysis in the following table shows an estimate of the effect of movements in the exchange rates of Aegon's non-euro currencies relative to the euro on net income and shareholders' equity.

Sensitivity analysis of net income and shareholders' equity to translation risk

Movement of currency exchange rates ¹⁾	Estimated approximate effects on net income	Estimated approximate effects on shareholders' equity
2019		
Increase by 15% of USD currencies relative to the euro	203	2,528
Increase by 15% of GBP currencies relative to the euro	(11)	241
Increase by 15% of non-euro currencies relative to the euro	211	2,906
Decrease by 15% of USD currencies relative to the euro	(158)	(1,830)
Decrease by 15% of GBP currencies relative to the euro	9	(163)
Decrease by 15% of non-euro currencies relative to the euro	(150)	(2,094)
2018		
Increase by 15% of USD currencies relative to the euro	1	1,909
Increase by 15% of GBP currencies relative to the euro	4	269
Increase by 15% of non-euro currencies relative to the euro	20	2,301
Decrease by 15% of USD currencies relative to the euro	3	(1,389)
Decrease by 15% of GBP currencies relative to the euro	(2)	(179)
Decrease by 15% of non-euro currencies relative to the euro	(9)	(1,659)

¹⁾ The effect of currency exchange movements is reflected as a one-time shift up or down in the value of the non-euro currencies relative to the euro on December 31.

Liquidity risk

Liquidity risk is inherent in much of Aegon's business. Each asset purchased and liability incurred has its own liquidity characteristics. Some liabilities are surrenderable while some assets, such as privately placed loans, mortgage loans, real estate and limited partnership interests, have low liquidity. If Aegon requires significant amounts of cash on short notice in excess of normal cash requirements and existing credit facilities, it may have difficulty selling these investments at attractive prices or in a timely manner. Liquidity risk is also affected by our use of collateralized financial derivatives to mitigate risk.

Aegon operates a Liquidity Risk Policy under which country units are obliged to maintain sufficient levels of highly liquid assets to meet cash demands by policyholders and account holders over the next two years. Potential cash demands are assessed under a stress scenario including spikes in disintermediation risk due to rising interest rates and concerns over Aegon's financial strength due to multiple downgrades of the Group's credit rating. At the same time, the liquidity of assets other than cash and government issues is assumed to be severely impaired for an extended period of time. All legal entities and Aegon Group must maintain enough liquidity in order to meet all cash needs under this extreme scenario.

Aegon held EUR 31,066 million of general account investments in cash, money market products and government bonds that are readily saleable or redeemable on demand (2018: EUR 32,116 million). The Group expects to meet its obligations, even in a stressed liquidity event, from operating cash flows and the proceeds of maturing assets as well as these highly liquid assets. Further, the Group has access to back-up credit facilities, as disclosed in note 37 Borrowings, amounting to EUR 3,403 million which were unused at the end of the reporting period (2018: EUR 3,680 million).

The maturity analysis below shows the remaining contractual maturities of each category of financial liabilities (including coupon interest). When the counterparty has a choice of when an amount is paid, the liability is included on the basis of the earliest date on which it can be required to be paid. Financial liabilities that can be required to be paid on demand without any delay are reported in the category 'On demand.' If there is a notice period, it has been assumed that notice is given immediately and the repayment has been presented at the earliest date after the end of the notice period. When the amount payable is not fixed, the amount reported is determined by reference to the conditions existing at the reporting date. For example, when the amount payable varies with changes in an index, the amount disclosed may be based on the level of the index at the reporting date.

To manage the liquidity risk arising from financial liabilities, Aegon holds liquid assets comprising cash and cash equivalents and investment grade investment securities for which there is an active and liquid market. These assets can be readily sold to meet liquidity requirements. For this reason, Aegon believes that it is not necessary to disclose a maturity analysis in respect of these assets to enable users to evaluate the nature and extent of liquidity risk.

Maturity analysis – gross undiscounted contractual cash flows (for non-derivatives)

	On demand	< 1 yr amount	1 < 5 yrs amount	5 < 10 yrs amount	> 10 yrs amount	Total amount
2019						
Trust pass-through securities	-	9	36	106	67	218
Subordinated loans	-	109	437	347	3,077	3,971
Borrowings	-	3,967	4,202	1,109	1,119	10,397
Investment contracts ¹⁾	14,281	1,930	1,888	1,001	795	19,895
Investment contracts for account of policyholders ¹⁾	32,463	26,298	6	3	2	58,772
Lease liabilities	-	51	120	66	92	331
Other financial liabilities	4,867	2,713	313	96	257	8,245
Total financial liabilities (excluding investment/insurance contracts)	4,867	6,798	4,988	1,658	4,520	22,831
2018						
Trust pass-through securities	-	9	36	110	69	223
Subordinated loans	-	66	266	201	1,400	1,933
Borrowings	-	1,713	8,136	1,499	2,825	14,174
Investment contracts ¹⁾	13,305	1,439	1,831	985	1,517	19,077
Investment contracts for account of policyholders ¹⁾	29,360	19,670	20	26	91	49,166
Other financial liabilities	5,849	2,445	81	45	38	8,457
Total financial liabilities (excluding investment/insurance contracts)	5,849	4,234	8,519	1,854	4,332	24,787

¹⁾ Excluding investment contracts with discretionary participating features.

Aegon's liquidity management is based on expected claims and benefit payments rather than on the contractual maturities.

The projected cash benefit payments in the table below are based on management's best estimates of the expected gross benefits and expenses, partially offset by the expected gross premiums, fees and charges relating to the existing business in force. Estimated cash benefit payments are based on mortality, morbidity and lapse assumptions based on Aegon's historical experience, modified for recently observed trends. Actual payment obligations may differ if experience varies from these assumptions. The cash benefit payments are presented on an undiscounted basis and are before deduction of tax and before reinsurance.

Financial liabilities relating to insurance and investment contracts ¹⁾

	On demand	< 1 yr amount	1 < 5 yrs amount	5 < 10 yrs amount	> 10 yrs amount	Total amount
2019						
Insurance contracts	-	3,500	13,003	15,668	119,044	151,216
Insurance contracts for account of policyholders	-	9,666	36,782	36,571	130,299	213,318
Investment contracts	-	8,857	5,837	2,503	4,347	21,544
Investment contracts for account of policyholders	181	10,311	28,244	31,766	81,024	151,527
	181	32,335	83,868	86,508	334,714	537,605
2018						
Insurance contracts	-	5,255	17,147	17,891	126,514	166,807
Insurance contracts for account of policyholders	-	8,382	35,238	36,455	130,475	210,550
Investment contracts	-	6,679	6,985	2,739	5,087	21,490
Investment contracts for account of policyholders	169	8,839	23,185	28,747	64,185	125,125
	169	29,155	82,556	85,831	326,261	523,972

¹⁾ The liability amount in the consolidated financial statements reflects the discounting for interest as well as adjustments for the timing of other factors as described above. As a result, the sum of the cash benefit payments shown for all years in the table exceeds the corresponding liability amounts included in notes 34 Insurance contracts and 35 Investments contracts.

The following table details the Group's liquidity analysis for its derivative financial instruments, based on the undiscounted contractual net cash inflows and outflows on derivative instruments that settle on a net basis, and the undiscounted gross inflows and outflows on those derivatives that require gross settlement.

**Maturity analysis relating to derivatives ¹⁾
(Contractual cash flows)**

	On demand	< 1 yr amount	1 < 5 yrs amount	5 < 10 yrs amount	> 10 yrs amount	Total amount
2019						
Gross settled						
Cash inflows	-	17,162	3,098	4,470	11,628	36,357
Cash outflows	-	(17,056)	(2,922)	(3,570)	(10,071)	(33,619)
Net settled						
Cash inflows	-	865	3,091	3,537	6,798	14,292
Cash outflows	-	(983)	(2,594)	(2,832)	(7,716)	(14,126)
2018						
Gross settled						
Cash inflows	-	23,453	8,092	11,323	21,233	64,101
Cash outflows	-	(23,143)	(7,351)	(10,832)	(20,816)	(62,141)
Net settled						
Cash inflows	-	156	709	982	2,230	4,078
Cash outflows	-	(66)	(288)	(516)	(5,743)	(6,614)

¹⁾ Derivatives includes all financial derivatives regardless whether they have a positive or a negative value. It does not include bifurcated embedded derivatives. These are presented together with the host contract. For interest rate derivatives only, cash flows related to the pay leg are taken into account for determining the gross undiscounted cash flows.

For maturity information on other obligations, please refer to note 45 Commitments and contingencies.

5 Segment information

Aegon's operating segments are based on the businesses as presented in internal reports that are regularly reviewed by the Executive Board which is regarded as the chief operating decision maker. All reportable segments are involved in insurance or reinsurance business, asset management or services related to these activities. The reportable segments are:

- Americas: one operating segment which covers business units in the United States, Brazil and Mexico, including any of the units' activities located outside these countries;
- Europe: which covers the following operating segments: the Netherlands, United Kingdom and Southern and Eastern Europe;
- Asia: one operating segment which covers businesses operating in Hong Kong, Singapore, China, Japan, India and Indonesia including any of the units' activities located outside these countries;
- Asset Management: one operating segment which covers business activities from Aegon Asset Management;
- Holding and other activities: one operating segment which includes financing, reinsurance activities, employee and other administrative expenses of holding companies.

For Europe, the underlying businesses (the Netherlands, United Kingdom, Southern and Eastern Europe) are separate operating segments which under IFRS 8 cannot be aggregated, therefore further details will be provided for these operating segments in this segment note.

Aegon's segment information is prepared by consolidating on a proportionate basis Aegon's joint ventures and associated companies.

Change in operating segments

Aegon has changed the grouping of the operating segments included in the performance measure as of 2019. Previously, the operating segments 'Spain & Portugal' and 'Central & Eastern Europe' were disclosed separately in the segment information whilst as of 2019 these are disclosed combined under the operating segment 'Southern & Eastern Europe'. The tables presented in this note have been updated to reflect this change.

Performance Measure

Aegon uses the non-IFRS-EU performance measure underlying earnings before tax. Underlying earnings before tax reflects Aegon's profit from underlying business operations and mainly excludes components that relate to accounting mismatches that are dependent on market volatility, updates to best estimate actuarial and economic assumptions and model updates or events that are considered outside the normal course of business. There is no standardized meaning to these measures under IFRS-EU or any other recognized set of accounting standards.

Aegon believes that its performance measure underlying earnings before tax provides meaningful information about the underlying results of Aegon's business, including insight into the financial measures that Aegon's senior management uses in managing

the business. Among other things, Aegon's senior management is compensated based in part on Aegon's results against targets using underlying earnings before tax. While many other insurers in Aegon's peer group present substantially similar performance measures, the performance measures presented in this document may nevertheless differ from the performance measures presented by other insurers.

The reconciliation from underlying earnings before tax to income before tax, being the most comparable IFRS-EU measure, is presented in the tables in this note.

The items that are excluded from underlying earnings before tax as described further below are: fair value items, realized gains or losses on investments, impairment charges/reversals, other income or charges, run-off businesses and share in earnings of joint ventures and associates.

Included in underlying earnings before tax is management's best estimate expected return on these products. Any over- or underperformance compared to management's expected return is excluded from underlying earnings before tax.

Fair value items

Fair value items include the over- or underperformance of investments and guarantees held at fair value for which management's best estimate investment return is included in underlying earnings before tax.

In addition, hedge ineffectiveness on hedge transactions, fair value changes on economic hedges without natural offset in earnings and for which no hedge accounting is applied and fair value movements on real estate are included under fair value items.

Certain assets held by Aegon are carried at fair value and managed on a total return basis, with no offsetting changes in the valuation of related liabilities. These include assets such as investments in hedge funds, private equities, real estate (limited partnerships), convertible bonds and structured products. Underlying earnings before tax exclude any over- or underperformance compared to management's best estimate investment return on assets. Based on current holdings and asset returns, the long-term expected return on an annual basis is 3-10%, depending on asset class, including cash income and market value changes. The expected earnings from these asset classes are net of deferred policy acquisition costs (DPAC) where applicable.

In addition, certain products offered by Aegon Americas contain guarantees and are reported on a fair value basis and include the total return annuities and guarantees on variable annuities. The earnings on these products are impacted by movements in equity markets and risk-free interest rates. Short-term developments in the financial markets may therefore cause volatility in earnings.

The fair value movements of certain guarantees and the fair value change of derivatives that hedge certain risks on these guarantees of Aegon's businesses in the Netherlands and Japan are excluded from underlying earnings before tax, because management's best estimate expected return for these guarantees is set at zero. In addition, fair value items include market related results on our loyalty bonus reserves in the United Kingdom. The value of these reserves are directly related to policyholder investments which value is directly impacted by movements in equity and bond markets.

Holding and other activities include certain issued bonds that are held at fair value through profit or loss (FVTPL). The interest rate risk on these bonds is hedged using swaps. The fair value movement resulting from changes in Aegon's credit spread used in the valuation of these bonds are excluded from underlying earnings before tax and reported under fair value items.

Realized gains or losses on investments

Realized gains or losses on investments includes realized gains and losses on available-for-sale investments, mortgage loans and other loan portfolios.

Impairment charges/(reversals)

Impairment charges/(reversals) include impairments on available-for-sale debt securities, shares including the effect of deferred policyholder acquisition costs, mortgage loans and other loan portfolios at amortized cost, joint ventures and associates. Impairment reversals include reversals on available-for-sale debt securities. For Aegon the Netherlands, the expected impairments on alternative assets classes (e.g. illiquid investments – including consumer loans and catastrophe bonds – and residential real estate) are allocated to underlying earnings in order to present management's best estimate investment return in underlying earnings. Deviations from the expected impairments are presented as part of impairment charges / (reversals) in non-underlying earnings.

Other income or charges

Other income or charges includes the following:

- Items which cannot be directly allocated to a specific line of business;
- The impact of actuarial and economic assumption and model updates used to support calculations of our liabilities for insurance and investment contracts sold to policyholders and related assets (refer to note 3 Critical accounting estimates and judgement in applying accounting policies); and
- Items that are outside the normal course of business, including restructuring charges.

In the Consolidated income statement, these restructuring charges are included in operating expenses. Actuarial assumption and model updates are recorded in 'Policyholder claims and benefits' in the Consolidated income statement.

Run-off businesses

Run-off businesses includes results of business units where management in earlier years has decided to exit the market and to run -off the existing block of business. This line only includes results related to the run-off of the remaining institutional spread-based business, structured settlements blocks of business, the life reinsurance business and the bank-owned and corporate-owned life insurance (BOLI/COLI) business in the United States. Aegon has other blocks of business for which sales have been discontinued and of which the earnings are included in underlying earnings before tax.

Share in earnings of joint ventures and associates

Earnings from Aegon's joint ventures in China, India, Japan, Mexico, the Netherlands, Spain and Portugal, and Aegon's associates in Brazil, France, the Netherlands and United Kingdom are reported on an underlying earnings before tax basis.

The following table presents Aegon's segment results.

Income statement - Underlying earnings	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Eliminations	Segment total	Joint ventures and associates eliminations	Consolidated
2019 Underlying earnings before tax	1,124	648	139	88	875	62	139	(228)	1	1,973	50	2,023
Fair value items	272	(365)	(131)	7	(490)	(4)	-	(4)	-	(226)	(88)	(314)
Realized gains / (losses) on investments	125	240	3	27	271	9	-	1	-	405	(2)	403
Impairment charges	(54)	(30)	-	-	(30)	(1)	-	(10)	-	(95)	-	(95)
Impairment reversals	68	5	-	-	5	1	-	-	-	73	-	73
Other income / (charges)	(156)	(1)	(38)	33	(5)	(18)	(7)	(95)	-	(281)	-	(281)
Run-off businesses	23	-	-	-	-	-	-	-	-	23	-	23
Income / (loss) before tax	1,401	496	(27)	155	625	48	133	(335)	1	1,872	(40)	1,832
Income tax (expense) / benefit	(220)	(113)	(7)	(19)	(140)	(14)	(36)	65	-	(344)	40	(304)
Net income / (loss)	1,182	383	(34)	136	486	33	97	(270)	1	1,528	(0)	1,528
<i>Inter-segment underlying earnings</i>	(61)	(105)	(87)	(16)	(208)	(4)	193	79				
Revenues 2019												
Life insurance gross premiums	7,279	1,765	6,282	552	8,598	737	-	11	(8)	16,617	(691)	15,926
Accident and health insurance	1,416	228	28	110	366	91	-	-	-	1,872	(50)	1,823
General insurance	-	130	-	382	512	-	-	1	(1)	512	(122)	390
Total gross premiums	8,694	2,123	6,309	1,044	9,476	828	-	12	(9)	19,002	(864)	18,138
Investment income	3,172	2,224	1,830	76	4,130	303	5	269	(284)	7,595	(64)	7,531
Fee and commission income	1,757	237	197	50	484	59	627	-	(187)	2,740	(218)	2,523
Other revenues	8	-	-	-	-	1	1	5	-	16	(10)	6
Total revenues	13,631	4,583	8,337	1,171	14,091	1,191	633	286	(480)	29,352	(1,155)	28,197
<i>Inter-segment revenues</i>	1	12	-	-	12	-	187	280				

Income statement - Underlying earnings	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Eliminations	Segment total	Joint ventures and associates eliminations	Consolidated
2018 Underlying earnings before tax	1,216	615	128	96	839	55	151	(189)	1	2,074	72	2,146
Fair value items	(613)	280	59	6	346	3	-	5	-	(260)	(119)	(379)
Realized gains / (losses) on investments	(204)	46	83	-	129	(8)	2	4	-	(77)	(2)	(79)
Impairment charges	(46)	4	-	(2)	2	(5)	-	(9)	-	(58)	-	(58)
Impairment reversals	37	2	-	1	2	-	-	-	-	39	-	39
Other income / (charges)	(397)	(132)	(252)	(26)	(409)	(7)	(5)	(57)	-	(875)	1	(874)
Run-off businesses	(14)	-	-	-	-	-	-	-	-	(14)	-	(14)
Income / (loss) before tax	(20)	815	19	76	909	36	149	(247)	1	829	(47)	782
Income tax (expense) / benefit	71	(134)	20	(19)	(133)	(25)	(44)	46	-	(84)	47	(37)
Net income / (loss)	51	681	38	57	777	11	105	(201)	1	744	-	744
Inter-segment underlying earnings	(73)	(101)	(82)	(18)	(200)	(5)	198	80				
Revenues												
2018												
Life insurance gross premiums	7,004	1,632	7,509	622	9,763	779	-	9	(7)	17,548	(579)	16,969
Accident and health insurance	1,571	219	29	102	351	94	-	-	-	2,015	(36)	1,979
General insurance	-	136	-	343	479	-	-	1	(1)	479	(112)	367
Total gross premiums	8,575	1,987	7,539	1,067	10,592	873	-	10	(8)	20,042	(727)	19,316
Investment income	3,125	2,265	1,346	83	3,695	268	5	286	(284)	7,095	(59)	7,035
Fee and commission income	1,826	211	198	63	473	58	632	-	(206)	2,782	(224)	2,558
Other revenues	5	-	-	-	-	2	1	4	-	12	(6)	5
Total revenues	13,530	4,463	9,083	1,213	14,760	1,201	638	300	(499)	29,930	(1,016)	28,914
Inter-segment revenues	1	2	-	-	2	-	206	290				

Income statement - Underlying earnings	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Eliminations	Segment total	Joint ventures and associates eliminations	Consolidated
2017 Underlying earnings before tax	1,381	557	116	71	744	49	136	(170)	-	2,140	61	2,200
Fair value items	170	(173)	(82)	-	(255)	-	-	24	-	(61)	(97)	(158)
Realized gains / (losses) on investments	157	184	62	1	248	4	3	-	-	413	(5)	408
Impairment charges	(38)	(3)	-	(2)	(5)	(1)	-	(3)	-	(47)	-	(47)
Impairment reversals	22	10	-	-	10	-	-	-	-	32	-	32
Other income / (charges)	(353)	296	40	-	336	(19)	(49)	16	-	(68)	(4)	(72)
Run-off businesses	30	-	-	-	-	-	-	-	-	30	-	30
Income / (loss) before tax	1,369	872	137	70	1,078	33	90	(134)	-	2,437	(44)	2,393
Income tax (expense) / benefit	198	(162)	(56)	(15)	(233)	(28)	(42)	29	-	(76)	44	(32)
Net income / (loss)	1,567	710	81	56	846	5	48	(105)	-	2,361	-	2,361
Inter-segment underlying earnings	(78)	(111)	(87)	(12)	(209)	(1)	214	73				
Revenues				-	-							
2017												
Life insurance gross premiums	7,437	1,857	9,603	619	12,079	983	-	7	(9)	20,498	(546)	19,952
Accident and health insurance	2,115	203	32	84	319	97	-	-	-	2,531	(20)	2,511
General insurance	-	148	-	319	467	-	-	1	(1)	466	(103)	363
Total gross premiums	9,553	2,208	9,635	1,022	12,865	1,080	-	8	(10)	23,496	(670)	22,826
Investment income	3,368	2,172	1,517	85	3,774	246	4	295	(291)	7,396	(58)	7,338
Fee and commission income	1,919	326	235	60	621	63	609	-	(221)	2,991	(189)	2,802
Other revenues	5	-	-	3	3	1	-	4	-	13	(5)	7
Total revenues	14,844	4,706	11,387	1,170	17,263	1,390	613	308	(522)	33,895	(922)	32,973
Inter-segment revenues	-	(1)	-	-	-	3	222	298				

The Group uses underlying earnings before tax in its segment reporting as an important indicator of its financial performance. The reconciliation from underlying earnings before tax to income before tax, being the most comparable IFRS-EU measure, is presented in the table below. For those items that cannot be directly reconciled to the respective notes, the explanation is provided below the table. Aegon believes that underlying earnings before tax, together with the other information included in this report, provides a meaningful measure for the investing public to evaluate Aegon's business relative to the businesses of its peers.

	Note	2019	2018	2017
Underlying earnings before tax		1,973	2,074	2,140
Elimination of share in earnings of joint ventures and associates		50	72	61
Rental income	7	(76)	(72)	(61)
Dividend income	7	9	30	-
Recovered claims and benefits	9	-	2	-
Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives	10	(17)	(295)	(437)
Net fair value change on borrowings and other financial liabilities	10	7	6	-
Realized gains and losses on financial investments	10	399	(92)	431
Gains and (losses) on investments in real estate	10	317	261	193
Net fair value change of derivatives	10	538	(36)	(276)
Net foreign currency gains and (losses)	10	-	(2)	5
Realized gains and (losses) on repurchased debt	10	-	1	1
Other income	11	200	8	540
Change in valuation of liabilities for insurance contracts	12	(1,231)	(341)	(254)
Change in valuation of liabilities for investment contracts	12	(13)	13	(19)
Benefits and claims paid life	12	7	-	-
Policyholder claims and benefits - Other	12	50	(9)	34
Commissions and expenses	14	(319)	(428)	256
Impairment (charges) reversals	15	(105)	(20)	(16)
Interest charges and related fees	16	21	-	-
Other charges	17	(1)	(375)	(235)
Run-off businesses	5	23	(14)	30
Income / (loss) before tax		1,832	782	2,393

- Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives is reported as part of the respective line in note 10 and reflects the over- or underperformance of investments and guarantees held at fair value for which the expected long-term return is included in underlying earnings before tax.
- Net fair value change of derivatives is reported as part of the respective line in note 10 and includes: 1) the over- or underperformance of derivatives of EUR 34 million gain (2018: EUR 3 million gain, 2017: EUR 9 million gain) for which the expected long-term return is included in underlying earnings before tax; 2) Net fair value change on economic hedges where no hedge accounting is applied of EUR 482 million gain (2018: EUR 32 million loss, 2017: EUR 278 million loss); 3) Ineffective portion of hedge transactions to which hedge accounting is applied of EUR 22 million gain (2018: EUR 7 million loss, 2017: EUR 7 million loss).
- Net foreign currency gains and (losses) are reported as part of the respective line in note 10.
- Change in valuation of liabilities for insurance contracts is reported as part of the respective line in note 12.
- Change in valuation of liabilities for investment contracts is reported as part of the respective line in note 12.
- Policyholder claims and benefits - Other are reported as part of the 'Other' line in note 12 and is related to policyholder tax.
- Commissions and expenses include: 1) Restructuring charges of EUR 220 million (2018: EUR 279 million charge, 2017: EUR 116 million charge) which are reported as part of Employee and Administration expenses lines in note 14; 2) Amortization of deferred expenses of EUR 32 million income (2018: charge of EUR 67 million, 2017: income of EUR 285 million) which is reported as part of the respective line in note 14. This is offset against realized gains and losses and impairments on financial investments; 3) Amortization of VOBA and future servicing rights of EUR 5 million charge (2018: charge of EUR 20 million; 2017: income of EUR 94 million) which is reported as part of the respective line in note 14. Commissions and expenses include a DPAC/VOBA fair value adjustment of EUR 151 million gain (2018: loss of EUR 88 million; 2017: gain of EUR 135 million).

- Impairment (charges) reversals include: 1) Impairment charges and reversals on financial assets, excluding receivables of EUR 60 million charge (2018: EUR charge of 41 million, 2017: charge of EUR 42 million) as shown in note 15; 2) Impairment charges and reversals on non-financial assets and receivables of EUR 109 million charge (2018: EUR 19 million charge; 2017: EUR 1 million reversal) reported as part of the respective line in note 15.
- There are no interest charges and related fees that are classified for segment reporting purposes as non-underlying earnings.

Impact from assumption and model updates

The 2019 assumption changes and model updates amounted to a negative impact of EUR 196 million and mainly relates to Aegon's businesses in the Americas and the Netherlands. Assumption changes and model updates in the Americas led to a net negative impact of EUR 64 million mainly driven by updates to Universal Life products for surrender, lapse and mortality to reflect actual experience, partially offset by gains driven by updates to the annuitization of Variable Deferred Annuities Guaranteed Minimum Income Benefit and to the returns on Equity-Index Universal Life. In the second half of 2019, a negative impact of EUR 75 million resulted mostly from expense assumption updates in the Americas. Assumption changes and model updates in the Netherlands led to a negative impact of EUR 57 million mainly related to model enhancements and expense assumption updates which more than offset favorable longevity assumption changes.

In 2018, the pre-tax charge of EUR 121 million has been recorded in other income/(charges) in respect of assumption changes and model updates. The impact is mainly attributable to Aegon's business in the Americas and the Netherlands. Assumption changes and model updates in the Americas led to a net negative impact of EUR 6 million, which includes charges of EUR 164 million, mainly driven by Americas Life mortality updates to reflect actual experience, partially offset by gains of EUR 158 million, mainly driven by the positive impact from new expense allocation methodology within Retirement plans and Variable and Fixed annuities lines of business, Universal Life model update using results from AXIS model and a Variable Annuities (WB) modelling enhancement in discount curve upon account exhaustion. In the Netherlands, assumption changes and model updates led to a net loss of EUR 111 million, which includes charges of EUR 219 million mainly related to the population mortality best estimate update to reflect latest available data and an improvement in the modelling of policyholder behavior (lapses) and the lowering of IFRS ultimate forward rate from 4.25% to 3.65%. This was partly offset by EUR 108 million gains driven by the TKP/UL model conversion.

Other selected income statement items	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Eliminations	Total
2019										
Amortization of deferred expenses, VOBA and future servicing rights	685	4	117	37	159	32	-	-	-	876
Depreciation	44	18	12	11	40	1	1	2	-	87
Impairment charges / (reversals) on financial assets, excluding receivables	(12)	72	-	-	72	-	-	-	-	60
Impairment charges / (reversals) on non- financial assets and receivables	3	94	-	3	96	-	-	10	-	109
2018										
Amortization of deferred expenses, VOBA and future servicing rights	852	25	119	52	196	24	-	-	-	1,072
Depreciation	38	12	14	12	38	1	1	2	-	80
Impairment charges / (reversals) on financial assets, excluding receivables	(9)	34	-	1	35	5	-	9	-	41
Impairment charges / (reversals) on non- financial assets and receivables	19	15	1	-	16	1	-	-	-	36
2017										
Amortization of deferred expenses, VOBA and future servicing rights	336	27	134	55	217	33	-	-	-	586
Depreciation	44	16	28	11	56	1	3	2	-	105
Impairment charges / (reversals) on financial assets, excluding receivables	19	17	-	2	19	-	-	3	-	42
Impairment charges / (reversals) on non- financial assets and receivables	(2)	3	-	-	2	-	-	-	-	-

	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Total
Number of employees									
2019									
Number of employees - headcount	8,570	3,582	2,261	2,853	8,696	4,540	1,535	416	23,757
Of which Aegon's share of employees in joint ventures and associates	651	-	62	104	166	4,172	173	-	5,162
2018									
Number of employees - headcount	8,824	3,548	3,135	2,837	9,520	6,344	1,464	390	26,543
Of which Aegon's share of employees in joint ventures and associates	559	-	58	86	144	5,983	168	-	6,854
2017									
Number of employees - headcount	10,951	3,089	3,435	2,947	9,471	6,025	1,500	371	28,318
Of which Aegon's share of employees in joint ventures and associates	549	-	-	83	83	5,702	163	-	6,497

	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Eliminations	Total
Summarized assets and liabilities per segment										
2019										
Assets										
Cash and Cash equivalents	822	9,627	305	152	10,084	91	166	1,100	-	12,263
Investments	75,076	60,757	2,034	1,711	64,502	6,662	266	244	-	146,750
Investments for account of policyholders	107,963	25,491	91,848	994	118,332	82	-	-	(4)	226,374
Investments in joint ventures	-	1,159	-	476	1,635	192	153	3	-	1,983
Investments in associates	79	106	9	-	116	28	129	21	(10)	363
Deferred expenses	8,999	360	913	45	1,318	487	-	-	-	10,804
Other assets	27,078	11,996	2,546	271	14,813	1,905	126	32,118	(33,455)	42,585
Total assets	220,017	109,496	97,655	3,648	210,800	9,448	840	33,486	(33,469)	441,123
Liabilities										
Insurance contracts	73,784	40,554	1,518	1,411	43,483	7,825	-	17	(1,655)	123,454
Insurance contracts for account of policyholders	77,988	25,328	31,559	815	57,702	20	-	-	-	135,710
Investment contracts	6,662	11,716	211	2	11,930	2	-	-	-	18,594
Investment contracts for account of policyholders	29,976	2,301	61,305	181	63,788	62	-	-	-	93,826
Other liabilities	15,468	22,802	1,459	323	24,585	229	322	8,421	(4,534)	44,491
Total liabilities	203,877	102,702	96,052	2,733	201,487	8,138	322	8,438	(6,189)	416,074

Summarized assets and liabilities per segment	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Eliminations	Total
2018										
Assets										
Cash and Cash equivalents	683	6,004	315	148	6,468	90	213	1,290	-	8,744
Investments	71,056	58,137	2,114	1,660	61,911	5,720	181	157	-	139,024
Investments for account of policyholders	95,343	23,767	73,958	1,187	98,912	103	-	-	(5)	194,353
Investments in joint ventures	1	1,001	-	472	1,474	152	119	-	-	1,745
Investments in associates	72	85	8	5	98	17	131	8	-	327
Deferred expenses	9,209	66	896	74	1,036	665	-	-	-	10,910
Other assets ¹⁾	27,782	7,421	1,893	272	9,571	1,907	123	27,576	(29,045)	37,928
Total assets	204,145	96,481	79,184	3,819	179,471	8,654	767	29,031	(29,050)	393,031
Liabilities										
Insurance contracts	71,584	34,878	1,435	1,339	37,651	7,726	-	15	(1,648)	115,328
Insurance contracts for account of policyholders	68,126	23,855	24,086	1,022	48,963	24	-	-	-	117,113
Investment contracts	6,943	10,795	223	85	11,103	2	-	-	-	18,048
Investment contracts for account of policyholders	27,217	2,101	50,532	169	52,802	79	-	-	-	80,097
Other liabilities	17,055	17,579	1,047	400	19,026	67	293	6,156	(3,012)	39,586
Total liabilities	190,924	89,208	77,322	3,015	169,545	7,898	293	6,171	(4,660)	370,171

¹⁾ Comparative figures have been reclassified to conform to the current year presentation as the elimination logic has changed. This reclassification is not considered material as there is no effect on consolidated group figures.

Amounts included in the tables on investments are presented on an IFRS basis, which means that investments in joint ventures and associates are not consolidated on a proportionate basis. Instead, these investments are included on a single line using the equity method of accounting.

	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Eliminations	Total
Investments										
2019										
Shares	499	1,443	17	74	1,534	11	5	173	-	2,221
Debt securities	54,970	22,773	1,055	1,497	25,324	6,465	93	1	-	86,853
Loans	10,922	34,235	-	118	34,353	42	-	48	-	45,365
Other financial assets	8,032	78	962	3	1,043	145	168	21	-	9,410
Investments in real estate	653	2,229	-	19	2,248	-	-	-	-	2,901
Investments general account	75,076	60,757	2,034	1,711	64,502	6,662	266	244	-	146,750
Shares	-	8,490	16,583	218	25,292	-	-	-	(4)	25,288
Debt securities	877	11,652	8,043	173	19,868	-	-	-	-	20,744
Unconsolidated investment funds	106,926	695	61,738	598	63,031	82	-	-	-	170,039
Other financial assets	161	4,653	4,898	4	9,555	-	-	-	-	9,716
Investments in real estate	-	-	586	-	586	-	-	-	-	586
Investments for account of policyholders	107,963	25,491	91,848	994	118,332	82	-	-	(4)	226,374
Investments on balance sheet	183,039	86,248	93,882	2,704	182,834	6,745	266	244	(4)	373,124
Off-balance sheet investments third parties	220,039	4,802	123,904	5,461	134,167	1,001	170,158	-	(818)	524,547
Total revenue-generating investments	403,078	91,050	217,786	8,166	317,002	7,746	170,424	244	(822)	897,671
Investments										
Available-for-sale	59,899	19,591	1,556	1,570	22,718	6,602	153	32	-	89,404
Loans	10,922	34,235	-	118	34,353	42	-	48	-	45,365
Financial assets at fair value through profit or loss	111,565	30,193	91,740	997	122,930	100	113	164	(4)	234,867
Investments in real estate	653	2,229	586	19	2,834	-	-	-	-	3,487
Total investments on balance sheet	183,039	86,248	93,882	2,704	182,834	6,745	266	244	(4)	373,124
Investments in joint ventures	-	1,159	-	476	1,635	192	153	3	-	1,983
Investments in associates	79	106	9	-	116	28	129	21	(10)	363
Other assets	36,899	21,983	3,764	468	26,215	2,483	292	33,218	(33,455)	65,652
Consolidated total assets	220,017	109,496	97,655	3,648	210,800	9,448	840	33,486	(33,469)	441,123

¹ Due to the announced divestment of Aegon's 50% stake in the joint venture with Sony Life, Revenue Generating Investments of Japan are no longer included in 2019. Off-balance investments for Japan amount to EUR 2.3 billion per December 31, 2019.

	Americas	The Netherlands	United Kingdom	Southern & Eastern Europe	Europe	Asia	Asset Management	Holding and other activities	Eliminations	Total
Investments										
2018										
Shares	532	1,412	3	74	1,490	7	4	128	-	2,161
Debt securities	51,681	21,586	1,005	1,417	24,007	5,526	36	3	-	81,253
Loans	9,945	32,935	-	143	33,078	16	-	12	-	43,052
Other financial assets	8,367	54	1,105	5	1,165	170	142	14	-	9,858
Investments in real estate	530	2,150	-	21	2,171	-	-	-	-	2,700
Investments general account	71,056	58,137	2,114	1,660	61,911	5,720	181	157	-	139,024
Shares	-	7,403	13,044	198	20,644	-	-	-	(5)	20,640
Debt securities	1,716	11,283	7,259	183	18,725	-	-	-	-	20,441
Unconsolidated investment funds	93,548	1,059	48,296	795	50,149	103	-	-	-	143,800
Other financial assets	79	4,022	4,748	11	8,782	-	-	-	-	8,861
Investments in real estate	-	-	612	-	612	-	-	-	-	612
Investments for account of policyholders	95,343	23,767	73,958	1,187	98,912	103	-	-	(5)	194,353
Investments on balance sheet	166,399	81,904	76,072	2,847	160,823	5,823	181	157	(5)	333,377
Off-balance sheet investments third parties	204,184	3,339	106,347	5,851	115,537	2,818	149,197	-	(774)	470,963
Total revenue-generating investments	370,583	85,243	182,419	8,698	276,360	8,641	149,378	157	(778)	804,341
Investments										
Available-for-sale	55,921	19,974	1,459	1,483	22,916	5,686	131	21	-	84,675
Loans	9,945	32,935	-	143	33,078	16	-	12	-	43,052
Financial assets at fair value through profit or loss	100,002	26,846	74,001	1,200	102,047	121	50	123	(5)	202,339
Investments in real estate	530	2,150	612	21	2,783	-	-	-	-	3,312
Total investments on balance sheet	166,399	81,904	76,072	2,847	160,823	5,823	181	157	(5)	333,377
Investments in joint ventures	1	1,001	-	472	1,474	152	119	-	-	1,745
Investments in associates	72	85	8	5	98	17	131	8	-	327
Other assets ¹⁾	37,674	13,491	3,104	495	17,075	2,662	336	28,866	(29,045)	57,582
Consolidated total assets	204,145	96,481	79,184	3,819	179,471	8,654	767	29,031	(29,050)	393,031

¹⁾ Comparative figures have been reclassified to conform to the current year presentation as the elimination logic has changed. This reclassification is not considered material as there is no effect on consolidated group figures.

6 Premium income and premiums paid to reinsurers

	2019	2018	2017
Life insurance	15,926	16,969	19,952
Non-life insurance	2,212	2,346	2,874
Total premium income	18,138	19,316	22,826
- Accident and health insurance	1,823	1,979	2,511
- General insurance	390	367	363
Non-life insurance premium income	2,212	2,346	2,874

Premium income decreased by EUR 1,178 million in 2019 (2018: EUR 3,510 million) mainly driven by a reduction of upgraded Life insurance policies to the retirement platform in the UK, which represents EUR 1,777 million (2018: EUR 3,439 million; 2017: EUR 5,139 million) of total premium income Life insurance.

	2019	2018	2017
Life insurance	2,276	2,500	3,214
Non-life insurance	158	163	217
Total premiums paid to reinsurers	2,434	2,663	3,431
- Accident and health insurance	138	152	205
- General insurance	19	11	13
Non-life insurance paid to reinsurers	158	163	217

7 Investment income

	2019	2018	2017
Interest income	5,835	5,783	6,052
Dividend income	1,571	1,124	1,164
Rental income	125	129	121
Total investment income	7,531	7,035	7,338
Investment income related to general account	5,291	5,268	5,394
Investment income for account of policyholders	2,240	1,767	1,944
Total	7,531	7,035	7,338

Included in interest income is EUR 146 million (2018: EUR 160 million; 2017: EUR 190 million) in respect of interest income accrued on impaired financial assets. The interest income on financial assets that are not carried at fair value through profit or loss amounted to EUR 4,943 million (2018: EUR 4,811 million; 2017: EUR 5,056 million).

Lease income is included within rental income. Please refer to note 45 Commitments and Contingencies for future lease payments (lease rights).

Total investment income from:	2019	2018	2017
Shares	1,571	1,124	1,164
Debt securities and money market instruments	3,959	3,899	4,248
Loans	1,779	1,704	1,686
Real estate	125	129	121
Other	97	181	119
Total	7,531	7,035	7,338

Investment income from financial assets held for general account:	2019	2018	2017
Available-for-sale	3,267	3,180	3,467
Loans	1,779	1,704	1,686
Financial assets designated at fair value through profit or loss	125	212	148
Real estate	83	82	71
Derivatives	39	72	31
Other	(2)	18	(10)
Total	5,291	5,268	5,394

8 Fee and commission income

	2019	2018	2017
Fee income from asset management	1,824	1,853	2,126
Commission income	585	594	535
Other	114	112	140
Total fee and commission income	2,523	2,558	2,802

Included in fee and commission income is EUR 225 million of fees on trust and fiduciary activities (2018: EUR 215 million; 2017: EUR 190 million).

9 Income from reinsurance ceded

	2019	2018	2017
Recovered claims and benefits	3,367	3,127	3,669
Change in technical provisions	(53)	372	497
Commissions	218	241	122
Total	3,532	3,740	4,288

The decrease in income from reinsurance ceded in 2018 reflects the completion of the BlackRock Part VII transfer on July 1, 2018, in the UK. Refer to note 48 Business combinations for more details on these transactions.

10 Results from financial transactions

Results from financial transactions comprise:	2019	2018	2017
Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives	279	(79)	232
Realized gains and (losses) on financial investments	399	(92)	431
Gains and (losses) on investments in real estate	317	261	193
Net fair value change of derivatives	1,505	(514)	(1,301)
Net fair value change on account of policyholder financial assets at fair value through profit or loss	33,188	(11,326)	20,524
Net fair value change on investments in real estate for account of policyholders	(18)	5	38
Net foreign currency gains and (losses)	77	44	(20)
Net fair value change on borrowings and other financial liabilities	15	29	10
Realized gains and (losses) on repurchased debt	-	1	1
Total	35,761	(11,670)	20,108

Net fair value change of general account financial investments at fair value through profit or loss, other than derivatives comprise:	2019	2018	2017
Shares	99	69	25
Debt securities and money market investments	85	(143)	127
Other	95	(5)	80
Total	279	(79)	232

Other mainly includes net fair value changes of limited partnerships such as hedge and private equity funds.

Realized gains and losses on financial investments comprise:	2019	2018	2017
Shares	11	25	165
Debt securities and money market investments	372	(147)	242
Loans	32	16	20
Other	(16)	14	3
Total	399	(92)	431

Realized gains and losses on financial investments comprise:	2019	2018	2017
Available-for-sale investments	368	(108)	411
Loans	32	16	20
Total	399	(92)	431

Net fair value change of derivatives comprise:	2019	2018	2017
Net fair value change on economic hedges where no hedge accounting is applied	2,636	317	(63)
Net fair value change on bifurcated embedded derivatives	(1,153)	(824)	(1,231)
Ineffective portion of hedge transactions to which hedge accounting is applied	22	(7)	(7)
Total	1,505	(514)	(1,301)

The ineffective portion of hedge transactions to which hedge accounting is applied comprises:	2019	2018	2017
Fair value change on hedging instruments in a fair value hedge	(355)	(31)	121
Fair value change on hedged items in a fair value hedge	377	23	(127)
Ineffectiveness fair value hedge	22	(9)	(6)
Ineffectiveness cash flow hedges	-	2	-
Total	22	(7)	(7)

Net fair value change on for account of policyholder financial assets at fair value through profit or loss comprise:	2019	2018 ¹⁾	2017 ¹⁾
Shares	4,591	(2,318)	2,372
Debt securities and money market investments	863	(421)	166
Unconsolidated investment funds	26,450	(8,158)	17,720
Derivatives	1,284	(429)	265
Total	33,188	(11,326)	20,524

¹⁾ Numbers in previous years recorded as "Other" are now recorded in the line "Derivatives".

Net fair value change on for account of policyholder financial assets at fair value through profit or loss increased in 2019 compared to 2018, mainly from favorable equity markets and decreasing interest rates. Net fair value changes on for account of policyholder financial assets at fair value through profit or loss are offset by changes in technical provisions reported as part of the lines Change in valuation of liabilities for insurance contracts and Change in valuation of liabilities for investment contracts in note 12 Policyholder claims and benefits.

Net fair value change on borrowings and other financial liabilities	2019	2018	2017
Borrowings	8	23	10
Other financial liabilities	7	6	-
Total	15	29	10

11 Other income

	2019	2018	2017
Other income	200	8	540

Other income of EUR 200 million for 2019 includes a gain of EUR 101 million on pension plan amendments in the Netherlands following the move from a defined benefit plan to a defined contribution plan, as well as a book gain of EUR 70 million on the divestment of the business in Slovakia and Czech Republic. Refer to note 48 Business combinations for more details on this divestment.

Other income in 2017 of EUR 540 million mainly related to a book gain of EUR 231 million (USD 250 million) from the divestment of the payout annuity and the BOLI/COLI businesses in the Americas and a book gain of EUR 208 million on the sale of the Unirobe Meeüs Groep. Furthermore, a release of an expense reserve of EUR 82 million (GBP 71 million) was recorded that was embedded in the liabilities for insurance contracts following the completion of the Part VII transfer to Rothesay Life. Also EUR 17 million (GBP 14 million) related to the completion of the Part VII transfer of annuities reinsured to Legal & General in 2016 was included. An insurance business transfer scheme under Part VII of the United Kingdom Financial Services and Markets Act 2000 allows an insurer to transfer policies as at a fixed time and date to another insurer, along with related contracts with other parties. For more details refer to note 48 Business combinations.

12 Policyholder claims and benefits

	2019	2018	2017
Benefits and claims paid life	18,824	19,673	23,634
Benefits and claims paid non-life	1,635	1,658	1,903
Change in valuation of liabilities for insurance contracts	30,620	(2,639)	22,741
Change in valuation of liabilities for investment contracts	5,768	(8,143)	(2,644)
Other	(50)	9	(34)
Total	56,797	10,557	45,599

Policyholder claims and benefits includes claims and benefits in excess of account value for products for which deposit accounting is applied and the change in valuation of liabilities for insurance and investment contracts. The lines "Change in valuation of liabilities for insurance contracts" and "Change in valuation of liabilities for investment contracts" reflect movements in technical provisions resulting from "Net fair value change on for account of policyholder financial assets at fair value through profit or loss" included in note 10 Results from financial transactions of EUR 33,188 million positive (2018: EUR 11,326 million negative, 2017: EUR 20,524 million positive). In addition, the line "Change in valuation of liabilities for insurance contracts" includes an increase of technical provisions for life insurance contracts of EUR 2,431 million (2018: increase of EUR 1,403 million, 2017: increase of EUR 601 million).

13 Profit sharing and rebates

	2019	2018	2017
Surplus interest bonuses	2	2	2
Profit appropriated to policyholders	15	21	21
Total	17	23	23

14 Commissions and expenses

	2019	2018	2017
Commissions	2,423	2,445	2,661
Employee expenses	2,149	2,061	2,234
Administration expenses	1,537	1,477	1,424
Deferred expenses	(832)	(831)	(980)
Amortization of deferred expenses	755	928	543
Amortization of VOBA and future servicing rights	120	144	43
Total	6,153	6,224	5,925

Included in administration expenses is an amount of EUR 87 million of depreciation and amortization that relates to equipment, software and real estate held for own use (2018: EUR 80 million; 2017: EUR 105 million).

Employee expenses	2019	2018	2017
Salaries	1,321	1,261	1,470
Post-employment benefit costs	287	277	318
Social security charges	127	120	151
Other personnel costs	378	367	267
Shares	36	36	28
Total	2,149	2,061	2,234

An amount of EUR 43 million is included in employee expenses relating to defined contributions (2018: EUR 44 million; 2017: EUR 46 million).

Long Term Incentive Plans

Selected senior employees within Aegon, who have not been classified as 'Material Risk Takers', can be granted the conditional right to receive Aegon shares at the start of a performance year. The grant price for these shares is equal to the volume weighted average price (VWAP) on the Euronext stock exchange in Amsterdam during the period between December 15 preceding a plan year and January 15 of a plan year. The actual allocation of these shares to eligible employees depends on Aegon Group performance, the employee's unit performance and individual performance on predefined financial and non-financial performance indicators and targets, as well as the continued employment of the employee.

Once allocated, the shares are deferred and cliff-vest two years after allocation. In specific circumstances Aegon's Supervisory Board can reclaim variable compensation that has already been allocated (but still unvested) or vested (claw back).

Variable Compensation Material Risk Takers

Members of the Executive Board and the Management Board as well as other senior employees are classified as 'Material Risk Takers' in accordance with the Solvency II Legal Framework (up to 2018 these employees were classified as 'Identified Staff' in accordance with Capital Requirements Directives). In line with these rules, variable compensation awards for Material Risk Takers is partially paid out directly after allocation and partly deferred, as well as split into cash and Aegon shares. The shares are conditionally granted at the start of the performance year. The grant price of these shares is equal to the volume weighted average price (VWAP) on the Euronext stock exchange in Amsterdam during the period between December 15 preceding a plan year and January 15 of the plan year. The actual allocation of these shares to eligible employees depends on Aegon Group performance, the employee's unit performance and individual performance against predefined financial and non-financial performance indicators and targets, as well as the continued employment of the employee.

The deferred shares of the variable compensation award cliff-vest three years after allocation, while the deferred parts for members of the Executive Board tranche-vest during a three-year period after allocation. The latter vesting schedule also applied to variable compensation of Identified Staff in the Netherlands up to 2018. Before each vesting moment, the Supervisory Board can decide to adjust an award downwards based on the annual ex-post risk assessment, which takes into account significant and exceptional circumstances which were not (sufficiently) reflected in the initial performance assessment.

For the Members of the Executive Board, the shares are subject to an additional holding period of three years. During this holding period it is not allowed to sell the vested shares, with the exception of shares withheld or sold to cover for the payment of any applicable taxes, social security premiums and possible other deductions by the government due for which the Company holds a withholding obligation in connection with the vesting of the shares. In specific circumstances Aegon's Supervisory Board can reclaim variable compensation that has already vested (claw back).

The following overview contains the cumulative number of shares and their status in relation to active Long Term Incentive Plans and variable compensation allocated to Material Risk Takers.

Number of shares per plan year

	2015	2016	2017	2018	2019	Total
Conditionally granted ¹⁾	5,178,633	6,809,814	6,722,418	6,513,984	7,378,113	32,602,962
Allocated ²⁾	4,942,275	7,155,420	7,461,564	6,123,546	-	25,682,805

¹⁾ The at target number of shares which were conditionally granted for the plan year.

²⁾ The allocated number of shares based on the actual performance during the plan year.

Number of shares per plan year

	2015	2016	2017	2018	2019	Total
Unvested at January 1, 2018	4,314,494	6,591,429	7,679,628	-	-	18,585,551
Conditionally granted ¹⁾	-	-	-	6,513,984	-	6,513,984
Allocated ²⁾	-	11,471	739,146	166,371	-	916,988
Forfeited	(102,383)	(169,629)	(364,515)	-	-	(636,527)
Vested	(1,831,944)	(189,300)	(810,028)	-	-	(2,831,272)
Unvested at December 31, 2018	2,380,167	6,243,971	7,244,231	6,680,355	-	22,548,724
Conditionally granted ¹⁾	-	-	-	-	7,378,113	7,378,113
Allocated ²⁾	-	22,580	30,730	(390,438)	958,501	621,373
Forfeited	(3,912)	(44,746)	(331,606)	(169,383)	-	(549,647)
Vested	(2,376,255)	(2,530,968)	(426,360)	(457,079)	(6,600)	(5,797,262)
Unvested at December 31, 2019	-	3,690,837	6,516,995	5,663,455	8,330,014	24,201,301
Grant price (in EUR) ³⁾	6.106	5.128	5.246	5.405	4.162	
Fair value of shares at grant date (in EUR)	5.159 to 6.018	3.990 to 4.898	4.040 to 4.933	4.143 to 5.054	2.741 to 3.737	

¹⁾ The at target number of shares which were conditionally granted for the plan year.

²⁾ The allocated number of shares based on the actual performance during the plan year. Per 2017 sign-on shares are not allocated anymore to the plan year(s) in which the vesting takes place. Instead, sign-on shares are allocated in the calendar year of commencement. Allocation to a previous plan year concerns backdated corrections to the administration (e.g. the allocation to the 2016 plan year, during the 2018 calendar year).

³⁾ This is the volume weighted average price (VWAP) of Aegon on the Euronext Amsterdam stock exchange for the period December 15 to January 15. For instance for the 2019 plan year, this is the VWAP for the period December 15, 2018 to January 15, 2019.

Aegon applies a net settlement option for participants in order to meet their income tax obligations when their shares vest. This means that Aegon will not sell shares on the market, but hold these shares within Aegon and settle directly with the tax authorities in cash rather than selling shares first.

15 Impairment charges / (reversals)**Impairment charges / (reversals) comprise:**

	2019	2018	2017
Impairment charges on financial assets, excluding receivables	133	71	70
Impairment reversals on financial assets, excluding receivables	(73)	(39)	(32)
Impairment charges and reversals on non-financial assets and receivables	109	46	4
Total	169	78	42

Impairment charges on financial assets, excluding receivables, from:

	2019	2018	2017
Shares	7	5	2
Debt securities and money market instruments	50	30	17
Loans	76	35	50
Total	133	71	70

Impairment reversals on financial assets, excluding receivables, from:	2019	2018	2017
Debt securities and money market instruments	(67)	(34)	(17)
Loans	(5)	(3)	(13)
Other	(1)	(2)	(2)
Total	(73)	(39)	(32)

Impairment charges/(reversals) on non-financial assets and receivables amount to EUR 109 million and are mainly related to a write-off of VOBA and DPAC amounting to EUR 76 million as a result of a liability adequacy test (LAT) deficit in Aegon the Netherlands. Refer to note 34 "Insurance contracts" for further details on the LAT impact. In addition, 2019 includes the dilution of the capital injections in India (ALIC) of EUR 10 million and impairments to software in the Netherlands of EUR 9 million.

Impairment charges/(reversals) on non-financial assets and receivables in 2018 amounted to EUR 46 million mainly due to updated valuations on various real estate properties in the Americas and impairments to software in the Netherlands.

For more details on impairments on financial assets, excluding receivables, refer to note 4 Financial risks.

16 Interest charges and related fees

	2019	2018	2017
Subordinated loans	88	62	34
Trust pass-through securities	8	8	9
Borrowings	252	300	283
Other	164	136	108
Total	513	507	435

Other includes interest charges on short term borrowings and bank fees.

The interest charges accrued on financial assets and liabilities that are not carried at fair value through profit or loss amounted to EUR 298 million (2018: EUR 143 million; 2017: EUR 162 million).

17 Other charges

	2019	2018	2017
Other charges	1	375	235

Other charges in 2018 of EUR 375 million include the gross settlement amount of a class action lawsuit regarding certain monthly deduction rate adjustments on universal life insurance policies and other related plaintiff and administration fees. The settlement relates to a block of around 70,000 universal life policies on which Transamerica raised the monthly deduction rates in 2015 and 2016. These adjustments were necessitated by, among other factors, low long-term interest rates and changes in future mortality experience, and were in accordance with the contractual terms of the policies. Nonetheless, the increases were challenged by policyholders in several court cases. To remove the uncertainty of ongoing litigation for Aegon and its customers, the decision was made to settle with the plaintiffs. In January 2019, a court approved the aforementioned settlement with universal life policyholders. Resolution of this class action ended a number of other related cases, including other related class actions. Over 99% of affected policyholders participated in the settlement. While less than 1% of policyholders opted out of the settlement, they represented approximately 43% of the value of the settlement fund. The settlement fund was reduced proportionally for opt outs, although Aegon continues to hold a provision for these policyholders. The charge to the income statement for 2018 was EUR 140 million (USD 166 million). Included in the charge is a release of the technical provision (USD 38 million) and a reduction of the amortization of other intangible assets (USD 6 million).

Other charges in 2018 also include a loss of EUR 93 million (USD 110 million) related to the divestment of the last substantial block of its life reinsurance business to SCOR Global Life. Under the terms of the agreement, Aegon's Transamerica life subsidiaries reinsured approximately USD 700 million of liabilities through SCOR Global Life. The transaction covered the last substantial block of life reinsurance business that Transamerica retained after it divested the vast majority of its reinsurance business to SCOR Global Life in 2011 and 2017.

Furthermore, other charges in 2018 include a loss of EUR 93 million (GBP 81 million) from the divestment of Aegon Ireland Plc. For more details on the divestment of Aegon Ireland Plc. refer to note 48 Business combinations.

Other charges in 2017 of EUR 235 million mainly relate to the book loss of EUR 105 million (USD 119 million) regarding the divestment of a block of life reinsurance business in the Americas and a charge of EUR 85 million (USD 100 million), regarding a provision in anticipation of a possible settlement in connection with an investigation by the SEC. In addition, an impairment of deferred transaction costs of EUR 36 million (GBP 32 million) was recorded as a result of the agreed sale of Aegon Ireland plc. For more details on the divestment of a block of US reinsurance run off business and Aegon Ireland plc. refer to note 48 Business combinations.

18 Income tax

	Note	2019	2018	2017
Current tax				
Current year		118	54	220
Adjustments to prior years		(14)	(36)	47
		104	18	267
Deferred tax				
	40			
Origination / (reversal) of temporary differences		162	32	363
Changes in tax rates / bases		25	(42)	(550)
Changes in deferred tax assets as a result of recognition / write off of previously not recognized / recognized tax losses, tax credits and deductible temporary differences		4	(35)	(45)
Non-recognition of deferred tax assets		17	17	41
Adjustments to prior years		(8)	48	(45)
		200	19	(235)
Income tax for the period (income) / charge		304	37	32

Adjustments to prior years include shifts between current and deferred tax.

	2019	2018	2017
Reconciliation between standard and effective income tax:			
Income before tax	1,832	782	2,393
Income tax calculated using weighted average applicable statutory tax rates	386	185	710
Difference due to the effects of:			
Non-taxable income	(76)	(78)	(155)
Non-tax deductible expenses	22	28	28
Changes in tax rate/base	25	(42)	(550)
Different tax rates on overseas earnings	(1)	-	(1)
Tax credits	(67)	(68)	(67)
Other taxes	57	29	67
Adjustments to prior years	(22)	11	2
Origination and change in contingencies	-	2	9
Changes in deferred tax assets as a result of recognition / write off of previously not recognized / recognized tax losses, tax credits and deductible temporary differences	4	(35)	(45)
Non-recognition of deferred tax assets	17	17	41
Tax effect of (profit) / losses from joint ventures and associates	(11)	(9)	(7)
Other	(31)	(3)	(1)
	(82)	(148)	(678)
Income tax for the period (income) / charge	304	37	32

The weighted average applicable statutory tax rate for 2019 is 21.1% (2018: 23.7%; 2017: 29.7%). The decrease in the weighted average applicable statutory tax rate compared to 2018 is mainly due to the relatively high contribution of income before tax in the United States versus income before tax in the Netherlands and negative income before tax in the United Kingdom.

Non-taxable income in 2019 comprises of the regular non-taxable items such as the Dividend Received Deduction in the US and the Participation Exemption in the Netherlands. Compared to 2017 the non-taxable income decreased because of the decrease of the US corporate income tax rate from 35% to 21% as from January 1, 2018. Non-taxable income in 2017 includes the tax exempt sale proceeds of the Dutch Unirobe Meeùs Group.

Changes in tax rate/base in 2017 highly benefited by the decrease of the US corporate income tax rate from 35% to 21% as from January 1, 2018.

In the Netherlands, the corporate income tax rate will decrease from 25% to 21.7% as from January 1, 2021. The beneficial impact of the previous enacted tax rate change in the Netherlands is included in the 2018 change in tax rate/base. In 2019 part of this beneficial impact is reversed due to the new enacted tax rate. In the UK, the corporate income tax rate will decrease from 19% to 17% with effect from April 1, 2020.

Tax credits include tax benefits from US investments that provide affordable housing to individuals and families that meet median household income requirements.

Adjustments to prior year consists of one time tax benefit in the Netherlands in respect of the 2017 and 2018 tax returns filed.

Other mainly relates to the one off tax benefit in the UK due to the release of the historic deferred tax balances held in respect of the pension scheme deficit when the Defined Benefit pension scheme moved to surplus.

The following tables present income tax related to components of other comprehensive income and retained earnings.

	2019	2018	2017
Items that will not be reclassified to profit and loss:			
Changes in revaluation reserve real estate held for own use	1	7	9
Remeasurements of defined benefit plans	90	(15)	(175)
	92	(8)	(166)
Items that may be reclassified subsequently to profit and loss:			
(Gains) / losses on revaluation of available-for-sale investments	(724)	531	(157)
(Gains) / losses transferred to the income statement on disposal and impairment of available-for-sale investments	94	(17)	441
Changes in cash flow hedging reserve	3	1	567
Movement in foreign currency translation and net foreign investment hedging reserve	(5)	(20)	76
	(632)	494	927
Total income tax related to components of other comprehensive income	(541)	486	762

In 2017, the income tax related to components of OCI included a deferred tax benefit of EUR 479 million caused by the decrease of the US corporate income tax rate from 35% to 21% as from January 1, 2018.

	2019	2018	2017
Income tax related to equity instruments and other			
Income tax related to equity instruments	31	51	38
Other	(1)	(12)	14
Total income tax recognized directly in retained earnings	50	26	58

19 Earnings per share

Basic earnings per share

Basic earnings per share is calculated by dividing the net income attributable to owners, after deduction of coupons on perpetual securities and non-cumulative subordinated notes by the weighted average number of common shares, excluding common shares purchased by the Company and held as treasury shares (refer to note 30.1 Share capital – par value and 30.3 Treasury shares respectively).

	2019	2018	2017
Net income / (loss) attributable to owners	1,528	744	2,361
Coupons on perpetual securities	(88)	(102)	(103)
Coupons on non-cumulative subordinated notes	-	(11)	(28)
Net income / (loss) attributable to owners for basic earnings per share calculation	1,440	631	2,230
Net income / (loss) attributable to common shareholders	1,430	626	2,214
Net income / (loss) attributable to common shareholders B	10	4	16
Weighted average number of common shares outstanding (in million)	2,042	2,036	2,042
Weighted average number of common shares B outstanding (in million)	572	571	575
Basic earnings per common share (EUR per share)	0.70	0.31	1.08
Basic earnings per common share B (EUR per share)	0.02	0.01	0.03

Diluted earnings per share

The diluted earnings per share equaled the basic earnings per share for all years disclosed since there were no Long Term Incentive Plans which were considered dilutive.

20 Dividend per common share

Final dividend 2019

At the Annual General Meeting of Shareholders currently scheduled for May 15, 2020, the Executive Board will, in line with its earlier announcement and absent a further significant deterioration of market circumstances, propose a final dividend for the year 2019 of EUR 0.16 per common share and EUR 0.004 per common share B, which has financial rights attached to it of 1/40th of a common share. After taking into account the interim dividend 2019 of EUR 0.15 per common share, this will result in a total 2019 dividend of EUR 0.31 per common share. After taking the interim dividend 2019 of EUR 0.00375 per common share B into account, this will result in a total 2019 dividend of EUR 0.00775 per common share B.

Interim dividend 2019

The interim dividend 2019 was paid in cash or stock at the election of the shareholder. Approximately 55% of holders of common shares elected to receive the cash dividend. The remaining 45% opted for stock dividend. The cash dividend amounted to EUR 0.15 per common share, the stock dividend amounted to one new Aegon common share for every 25 common shares held. The stock dividend and cash dividend are approximately equal in value. The interim dividend was payable as of September 20, 2019. The interim dividend 2019 for common shares B amounted to 1/40th of the dividend paid on common shares.

To neutralize the dilutive effect of the 2019 interim dividend paid in shares, Aegon executed a program to repurchase 43,149,667 common shares. Between October 1, 2019, and November 8, 2019, these common shares were repurchased at an average price of EUR 3.89 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

Final dividend 2018

At the Annual General Meeting of Shareholders on May 17, 2019 a final dividend was approved for the year 2018 of EUR 0.15 per common share payable in either cash or stock. After taking into account the interim dividend 2018 of EUR 0.14 per common share, which results in a total 2018 dividend of EUR 0.29 per common share. With respect to the common shares B, each of which has financial rights attached to it of 1/40th of a common share, the final dividend amounted to EUR 0.00375. After taking into account the interim dividend 2018 of EUR 0.0035 per common share B, which results in a total 2018 dividend of EUR 0.00725 per common share B. Approximately 55% of holders of common shares elected to receive the cash dividend. The remaining 45% opted for stock dividend. The final dividend was payable as of June 21, 2019. The stock dividend amounted to one new Aegon common share for every 28 common shares held. The stock dividend and cash dividend are approximately equal.

To neutralize the dilutive effect of the 2018 final dividend paid in shares, Aegon executed a share buyback program to repurchase 32,873,805 common shares. Between July 1, 2019 and August 2, 2019, these common shares were repurchased at an average price of EUR 4.52 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

Interim dividend 2018

The interim dividend 2018 was paid in cash or stock at the election of the shareholder. Approximately 56% of holders of common shares elected to receive the cash dividend. The remaining 44% have opted for stock dividend. The cash dividend amounted to EUR 0.14 per common share, the stock dividend amounted to one new Aegon common share for every 37 common shares held. The stock dividend and cash dividend are approximately equal in value. The interim dividend was payable as of September 21, 2018. The interim dividend 2018 for common shares B amounted to 1/40th of the dividend paid on common shares.

To neutralize the dilutive effect of the 2018 interim dividend paid in shares, Aegon executed a program to repurchase 24,133,950 common shares. Between October 1, 2018, and November 9, 2018, these common shares were repurchased at an average price of EUR 5.43 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

Final dividend 2017

The Annual General Meeting of Shareholders on May 18, 2018, a final dividend was approved over the year 2017 of EUR 0.14 per common share payable in either cash or stock, related to the second half of 2017. Approximately 58% of holders of common shares elected to receive the cash dividend. The remaining 42% opted for stock dividend. The final dividend was payable as of June 22, 2018. The stock dividend amounted to one new Aegon common share for every 39 common shares held. The stock dividend and cash dividend are approximately equal.

To neutralize the dilutive effect of the 2017 final dividend paid in shares, Aegon executed a program to repurchase 21,954,140 common shares. Between July 2, 2018, and August 10, 2018, these common shares were repurchased at an average price of EUR 5.34 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

Interim dividend 2017

The interim dividend 2017 was paid in cash or stock at the election of the shareholder. Approximately 57% of holders of common shares elected to receive the cash dividend. The remaining 43% have opted for stock dividend. The cash dividend amounted to EUR 0.13 per common share, the stock dividend amounted to one new Aegon common share for every 36 common shares held. The stock dividend and cash dividend are approximately equal in value. The interim dividend was payable as of September 15, 2017. The interim dividend 2017 for common shares B amounted to 1/40th of the dividend paid on common shares.

To neutralize the dilutive effect of the 2016 final and 2017 interim dividend paid in shares, Aegon executed a program to repurchase 51,864,626 common shares. Between October 2, 2017, and December 15, 2017, these common shares were repurchased at an average price of EUR 5.0950 per share. These shares will be held as treasury shares and will be used to cover future stock dividends.

21 Cash and cash equivalents

	2019	2018	2017
Cash at bank and in hand	4,619	3,725	3,720
Short-term deposits	2,518	2,524	2,544
Money market investments	5,116	2,493	4,496
Short-term collateral	11	2	7
At December 31	12,263	8,744	10,768

The carrying amounts disclosed reasonably approximate the fair values as at the year-end.

EUR 7.2 billion (2018: EUR 6.2 billion) of cash collateral is received related to securities lending, repurchase agreements and margins on derivatives transactions. A corresponding liability to repay the cash is recognized in other liabilities (refer to note 41 Other liabilities). Refer to note 46 Transfer of financial assets for details on collateral received and paid. Investment of cash collateral received is restricted through limitations on credit worthiness, duration, approved investment categories and borrower limits. EUR 11 million (2018: EUR 2 million) of the cash collateral received is included in cash and cash equivalents and the remainder is included in other asset classes as that collateral is typically reinvested. Aegon earns a share of the spread between the collateral earnings and the rebate paid to the borrower of the securities. Income from securities lending programs was approximately EUR 6 million (2018: EUR 8 million; 2017: EUR 11 million).

The weighted effective interest rate on short-term deposits in 2019 was 0.38% negative (2018: 0.39% negative) and these deposits have an average maturity of 19 days (2018: 28 days).

For the purposes of the cash flow statement, cash and cash equivalents comprise the following:

	Note	2019	2018	2017
Cash and cash equivalents		12,263	8,744	10,768
Cash classified as Assets held for sale		-	-	260
Bank overdrafts	41	-	-	(2)
Bank overdrafts classified as Liabilities held for sale		-	-	(1)
Net cash and cash equivalents		12,263	8,744	11,026

Cash and cash equivalents include cash and demand balances held at the Dutch Central Bank. The Dutch Central Bank requires Aegon Bank N.V. to place 1% of their deposits with agreed maturity or the savings accounts (without restrictions to withdraw their money) in an account with the Dutch Central Bank. This deposit is renewed every 42-49 days, based on an updated valuation of total assets. The interest paid on this deposit is equal to the ECB deposit rate which was -50bp as from 18 September 2019 (-40bp throughout 2018 up to 18 September 2019). The year-end minimum required balance on deposit by the Dutch Central Bank was EUR 79 million (2018: EUR 70 million). These deposits are therefore not freely available.

	2019	2018	2017
Summary cash flow statement			
Net cash flows from operating activities	7,302	517	553
Net cash flows from investing activities	(86)	(438)	(1,196)
Net cash flows from financing activities	(3,730)	(2,395)	519
Net increase in cash and cash equivalents	3,486	(2,317)	(125)

Net cash and cash equivalents at December 31, 2019, are positively impacted by effects of changes in exchange rates of EUR 33 million (2018: EUR 35 million positive; 2017: EUR 196 million negative).

Analysis of cash flows

2019 compared to 2018

Net cash flows from operating activities

Total net cash flow from operating activities increased by EUR 6,785 million to a EUR 7,302 million inflow (2018: EUR 517 million inflow). The main movements are the cash inflows regarding insurance and investment liabilities general account and for account of policyholder (refer to note 34 Insurance contracts and note 35 Investment contracts), cash inflows from disposal of derivatives (refer to note 24 Derivatives) and net purchase of investments for account of policyholder (refer to note 23 Investments for account of policyholders) partially offset by outflow from results from financial transactions (refer to note 10 Results from financial transactions).

Net cash flows from investing activities

Net cash flows from investing activities increased by EUR 352 million to a EUR 86 million outflow (2018: EUR 438 million outflow). The total consideration paid for acquisitions/capital contributions in joint ventures and associates, was EUR 269 million. The total consideration received for disposals, excluding transferred assets and reinsurance assets from reinsurance transactions, was EUR 155 million. Transferred cash and cash equivalents amounts to an outflow of EUR 17 million as a result of disposal of entities over which control is lost. The outflow in 2019 is mainly driven by the expansion of the joint venture arrangement with Banco Santander in Spain and capital injections to support growth in Amvest, offset by the sale off the businesses in Czech Republic and Slovakia (refer to note 48 Business combinations).

Net cash flows from financing activities

Net cash flow from financing activities decreased by EUR 1,312 million to a EUR 3,707 million outflow (2018: EUR 2,395 million outflow). The decrease is a result of proceeds and repayments of borrowings (refer to the table below and note 37 Borrowings) and other equity instruments redeemed (refer to note 31 Other equity instruments).

2018 compared to 2017

Net cash flows from operating activities

Total net cash flow from operating activities decreased slightly by EUR 36 million to a EUR 517 million inflow (2017: EUR 553 million inflow). The main movements are the inflow from results from financial transactions (refer to note 10 Result from financial transactions) offset by cash outflows regarding insurance and investment liabilities for account of policyholder (refer to note 34 Insurance contracts and note 35 Investment contracts).

Net cash flows from investing activities

Net cash flows from investing activities increased by EUR 758 million to a EUR 438 million outflow (2017: EUR 1,196 million outflow). The total consideration paid for acquisitions, including cash in acquired entities, was EUR 89 million. The total consideration received for disposals, excluding transferred assets and reinsurance assets from reinsurance transactions, was EUR 214 million. Total consideration received in cash and cash equivalents amounted to EUR 202 million, as an earn-out of EUR 2 million was part of the total consideration. Transferred cash and cash equivalents amounts to an outflow of EUR 416 million as a result of reinsurance transactions and disposal of entities over which control is lost. The outflow in 2018 is mainly driven by the acquisition of Robidus, the divestment of Aegon Ireland plc and the divestment of the last substantial block of US Life reinsurance business (refer to note 48 Business combinations).

Net cash flows from financing activities

Net cash flow from financing activities decreased by EUR 2,914 million to a EUR 2,395 million outflow (2017: EUR 519 million inflow). The decrease is a result of proceeds and repayments of borrowings (refer to the table below and note 37 Borrowings) and other equity instruments redeemed (refer to note 31 Other equity instruments).

Reconciliation of liabilities arising from financing activities

The table below shows the reconciliation between the net cash flows from financing activities and the liabilities as included in the consolidated statement of financial position.

Reconciliation of debt from financing activities	Cash flows					Non-cash changes					At December 31, 2019
	At January 1, 2019	Addition	Repayment	Disposal of a business	Realized gains / losses in income statement	Movements related to fair value hedges	Amortization	Transfer to/ from other headings	Other	Net exchange difference	
Subordinated borrowings	1,389	806	-	-	-	-	1	-	-	11	2,207
Trust pass-through securities	133	-	-	-	-	1	(1)	-	-	2	136
Borrowings	12,061	4,117	(7,014)	-	(8)	-	1	-	-	149	9,307
Assets held to hedge Trust pass-through securities	10	-	-	-	1	-	-	-	-	-	11

Reconciliation of debt from financing activities	Cash flows					Non-cash changes					At December 31, 2018
	At January 1, 2018	Addition	Repayment	Disposal of a business	Realized gains / losses in income statement	Movements related to fair value hedges	Amortization	Transfer to/ from other headings	Other	Net exchange difference	
Subordinated borrowings	764	640	-	-	-	-	2	(68)	-	52	1,389
Trust pass-through securities	133	-	-	-	-	(6)	-	-	-	6	133
Borrowings	13,635	3,545	(5,211)	(151)	(23)	-	2	-	-	263	12,061
Assets held to hedge Trust pass-through securities	15	-	-	-	(6)	-	-	-	-	1	10

22 Investments

Investments for general account comprise financial assets, excluding derivatives, as well as investments in real estate.

	Note	2019	2018
Available-for-sale (AFS)		89,404	84,675
Loans		45,365	43,052
Financial assets at fair value through profit or loss (FVTPL)		9,080	8,597
Total financial assets, excluding derivatives	22.1	143,849	136,324
Investments in real estate	22.2	2,901	2,700
Total investments for general account		146,750	139,024

22.1 Financial assets, excluding derivatives

	AFS	FVTPL	Loans	Total	Fair value
2019					
Shares	409	1,813	-	2,221	2,221
Debt securities	82,918	3,934	-	86,853	86,853
Money market and other short-term investments	5,169	158	-	5,327	5,327
Mortgage loans	-	-	38,524	38,524	42,567
Private loans	-	-	4,487	4,487	5,159
Deposits with financial institutions	-	-	141	141	141
Policy loans	-	-	2,024	2,024	2,024
Other	908	3,175	188	4,272	4,272
At December 31, 2019	89,404	9,080	45,365	143,849	148,563
2018					
Shares	478	1,682	-	2,161	2,161
Debt securities	77,340	3,913	-	81,253	81,253
Money market and other short-term investments	5,955	352	-	6,307	6,307
Mortgage loans	-	-	36,639	36,639	39,758
Private loans	-	-	4,103	4,103	4,494
Deposits with financial institutions	-	-	141	141	141
Policy loans	-	-	1,973	1,973	1,973
Other	902	2,649	196	3,747	3,747
At December 31, 2018	84,675	8,597	43,052	136,324	139,834

Of the debt securities, money market and other short-term investments, mortgage loans and private loans EUR 14,736 million is current (2018: EUR 13,324 million).

Refer to note 44 Fair value for further detail on fair value measurement.

Loan allowance

Movement on the loan allowance account during the year were as follows:

	2019	2018
At January 1	(138)	(165)
Addition charged to income statement	(76)	(35)
Reversal to income statement	5	3
Amounts written off	44	40
Net exchange differences	-	(1)
Other	-	20
At December 31	(165)	(138)

22.2 Investments in real estate

	2019	2018
At January 1	2,700	2,147
Additions	179	472
Subsequent expenditure capitalized	16	3
Disposals	(331)	(209)
Fair value gains / (losses)	317	261
Net exchange differences	9	27
Other	11	(1)
At December 31	2,901	2,700

100% of the value of Aegon's properties, both for general account and for account of policyholders, were appraised (2018: 99%), of which 99% was performed by independent external appraisers (2018: 98%).

Of the investments in real estate EUR 653 million (2018: EUR 530 million) is held by Aegon Americas and EUR 2,229 million (2018: EUR 2,150 million) is held by Aegon the Netherlands.

Aegon Americas has invested in a commercial property portfolio, consisting of office, retail and industrial buildings. These non-cancellable leases have remaining lease terms up to 20 years. Most leases include a clause to enable upward revision of the rental charge on an annual basis according to either a fixed schedule or prevailing market conditions.

Aegon the Netherlands has invested in long-term residential property leases that can be terminated subject to a short-term notice. Under Dutch law, the maximum annual rent increase on residential property rented in the affordable housing segment is specified by the Dutch national government and equals the annual inflation rate plus a small margin.

Refer to note 45 Commitments and contingencies for a description of non-cancellable lease rights.

Rental income of EUR 83 million (2018: EUR 82 million; 2017: EUR 71 million) is reported as part of investment income in the income statement. Direct operating expenses (including repairs and maintenance) arising from investment property that generated rental income during the period amounted to EUR 59 million (2018: EUR 63 million; 2017: EUR 71 million). In 2019, EUR 2 million of direct operating expenses is related to investment properties that did not generate rental income during the period (2018: EUR 2 million; 2017: EUR 1 million).

There are no restrictions on the realizability of investment property or the remittance of income and proceeds of disposal.

Refer to note 45 Commitments and contingencies for a summary of contractual obligations to purchase investment property.

23 Investments for account of policyholders

Investments for account of policyholders comprise financial assets at fair value through profit or loss, excluding derivatives, and investments in real estate.

	Note	2019	2018
Shares		25,288	20,640
Debt securities		20,744	20,441
Money market and other short-term investments		1,805	1,578
Deposits with financial institutions		3,278	3,263
Unconsolidated investment funds		170,039	143,800
Other		4,634	4,020
Total investments for account of policyholders at fair value through profit or loss, excluding derivatives		225,788	193,741
Investments in real estate	23.1	586	612
Total investments for account of policyholders		226,374	194,353

Refer to note 44 Fair value for a summary of all financial assets and financial liabilities at fair value through profit or loss.

23.1 Investments in real estate for account of policyholders

	2019	2018
At January 1	612	655
Subsequent expenditure capitalized	2	2
Disposals	(43)	(43)
Fair value gains / (losses)	(18)	5
Net exchange differences	34	(7)
At December 31	586	612

The investment properties are leased out under operating leases.

Rental income of EUR 42 million (2018: EUR 47 million; 2017: EUR 50 million) is reported as part of investment income in the income statement. Direct operating expenses relating to investments in real estate for account of policyholder amounted to EUR 6 million in 2019 (2018: EUR 4 million, 2017: EUR 4 million). There are no restrictions on the realizability of investment property or the remittance of income and proceeds of disposal.

Refer to note 45 Commitments and contingencies for a summary of contractual obligations to purchase investment property.

24 Derivatives

	Derivative asset		Derivative liability	
	2019	2018	2019	2018
Derivatives for general account				
Derivatives not designated in a hedge	10,027	6,737	10,277	6,367
Derivatives designated as fair value hedges	128	196	809	540
Derivatives designated as cash flow hedges	390	289	320	151
Derivatives designated as Net foreign investment hedges	112	115	96	114
	10,658	7,337	11,501	7,174
Derivatives for account of policyholders				
Derivatives not designated in a hedge	499	278	114	56
Total derivatives ¹⁾	11,157	7,615	11,616	7,230

¹⁾ Refer to note 44 Fair value for a summary of all financial assets and financial liabilities at fair value through profit or loss.

The fair value of derivatives on the asset and liability side of the consolidated statement of financial position increased during 2019 mainly due to changes in interest rates and changes in the credit spread, as well as purchases, disposals and maturities. Refer to note 44 Fair value for details on fair value measurement of derivatives.

Of the derivatives EUR 581 million (2018: EUR 1,643 million) and EUR 2,300 million (2018: EUR 1,886 million) are current derivative assets and liabilities respectively.

Aegon the Netherlands partially hedges the risk of future longevity increases in the Netherlands related to a part of its insurance liabilities. These longevity derivatives are constructed to pay out if the mortality rates in future years have decreased more than a pre-determined percentage compared with the base scenario at the moment of signing the contract.

The above mentioned transactions are used to enhance Aegon's risk-return profile and to improve capital efficiency.

The derivatives are measured at fair value through profit or loss in accordance with IAS 39. The value of the longevity derivatives are calculated using an internal model as there is no active market for this type of derivatives. For more details refer to the paragraph on underwriting risk included in note 34 Insurance contracts and the paragraph on derivatives included in note 44 Fair value.

Use of derivatives**Derivatives not designated in a hedge - general account**

Derivatives not designated in a hedge – general account	Derivative asset		Derivative liability	
	2019	2018	2019	2018
Derivatives held as an economic hedge	10,011	6,641	7,070	3,767
Bifurcated embedded derivatives	16	5	3,197	2,588
Other	-	91	9	12
Total	10,027	6,737	10,277	6,367

Aegon utilizes derivative instruments as a part of its asset liability risk management practices. The derivatives held for risk management purposes are classified as economic hedges to the extent that they do not qualify for hedge accounting, or that Aegon has elected not to apply hedge accounting. The economic hedges of certain exposures relate to an existing asset, liability or future reinvestment risk. In all cases, these are in accordance with internal risk guidelines and are closely monitored for continuing compliance.

Bifurcated embedded derivatives that are not closely related to the host contracts have been bifurcated and recorded at fair value in the consolidated statement of financial position. These bifurcated embedded derivatives are embedded in various institutional products, modified coinsurance and unit-linked insurance contracts in the form of guarantees for minimum benefits. Please refer to note 36 Guarantees in insurance contracts for more disclosures about these guarantees.

CDSs

Aegon has entered into free-standing credit derivative transactions. The positions outstanding at the end of the year were:

Credit derivative disclosure by quality	2019		2018	
	Notional	Fair value	Notional	Fair value
AAA	10	-	16	-
AA	106	3	97	1
A	915	13	764	10
BBB	3,258	70	3,201	45
BB	97	3	226	5
B or lower	58	-	54	(3)
Total	4,444	89	4,358	57

Certain derivatives are used to add risk by selling protection in the form of single name and index based credit default swaps. This involves the purchase of high quality, low risk assets and the sale of credit derivatives. The table above provides a breakdown in credit quality of these credit derivatives.

Derivatives designated as fair value hedges

Aegon's fair value hedges consist mainly of interest rate swaps, swaptions, equity and fixed income total return swaps, equity options, equity futures, bond futures and variance swaps that are used to protect against changes in the fair value of interest rate and equity sensitive instruments or liabilities. Gains and losses on derivatives designated under fair value hedge accounting are recognized in the income statement. The effective portion of the fair value change on the hedged item is also recognized in the income statement. As a result, only the net accounting ineffectiveness has an impact on the net result.

Aegon has entered into interest rate swap agreements that effectively convert certain fixed-rate assets and liabilities to a floating-rate basis (generally to six months or less LIBOR). These hedges are used for portfolio management to better match assets to liabilities or to protect the value of the hedged item from interest rate movements. These agreements involve the payment or receipt of fixed-rate interest amounts in exchange for floating-rate interest amounts over the life of the agreement without the exchange of the underlying principal amounts. Some of the arrangements use forward starting swaps to better match the duration of assets and liabilities.

Aegon has entered into cross-currency interest rate swap agreements that effectively convert certain foreign currency fixed-rate and floating-rate assets and liabilities to US dollar floating-rate assets and liabilities. These agreements involve the exchange of the underlying principal amounts.

For the years ended December 31, 2019, 2018 and 2017, Aegon recognized gains and (losses) related to the ineffectiveness portion of designated fair value hedges of EUR 22 million, EUR (9) million and EUR (6) million respectively. No portion of derivatives was excluded when assessing hedge effectiveness.

For the year ended December 31, 2019, Aegon the Netherlands recognized EUR 375 million positive fair value changes on mortgage loans using fair value hedge accounting under the EU carve out version of IAS 39 in the income statement (2018: EUR 31 million positive). This amount was offset by EUR 354 million negative fair value changes recognized on the derivatives used as hedging instrument (2018: EUR 45 million negative).

Derivatives designated as cash flow hedges

Aegon has entered primarily into interest rate swap agreements that effectively convert certain variable-rate assets and liabilities to a fixed-rate basis in order to match the cash flows of the assets and liabilities within Aegon's portfolio more closely. These agreements involve the payment or receipt of variable-rate interest amounts in exchange for fixed-rate interest amounts over the life of the agreement without the exchange of the underlying principal amounts. Aegon hedges its exposure to the variability of future cash flows from the interest rate movements for terms up to 25 years for hedges converting existing floating-rate assets and liabilities to fixed-rate assets.

Aegon uses forward starting interest rate swap agreements to hedge the variability in future cash flows associated with the forecasted purchase of fixed-income assets. These agreements reduce the impact of future interest rate changes on the forecasted transaction. Fair value adjustments for these interest rate swaps are deferred and recorded in equity until the occurrence of the forecasted transaction at which time the interest rate swaps will be terminated. The accumulated gain or loss in equity will be amortized into investment income as the acquired asset affects income. Aegon hedges its exposure to the variability of future cash flows from interest rate movements for terms up to 24 years. The cash flows from these hedging instruments are expected to affect the profit and loss for approximately the next 33 years. For the year ended December 31, 2019, the contracts for which cash flow hedge accounting was terminated resulted in deferred gains of EUR 112 million (2018: EUR 57 million) that are recognized directly in equity to be reclassified into net income during the period when the cash flows occur of the underlying hedged items. During the year ended December 31, 2019, none of Aegon's cash flow hedges were discontinued as it was highly probable that the original forecasted transactions would occur by the end of the originally specified time period documented at the inception of the hedging relationship. Aegon projects investment needs many years into the future in order to support the insurance liabilities and pay all contractual obligations arising from the policies in force today.

In addition, Aegon also makes use of cross currency swaps to convert variable or fixed foreign currency cash flows into fixed cash flows in local currencies. The cash flows from these hedging instruments are expected to occur over the next 31 years. These agreements involve the exchange of the underlying principal amounts.

For the year ended December 31, 2019, Aegon recognized EUR 0 million of hedge ineffectiveness on cash flow hedges (2018: EUR 2 million loss; 2017: EUR 0 million). In 2019, EUR 51 million gain was reclassified from equity into the income statement (2018: EUR 62 million loss, 2017: EUR 113 million loss). The amount of deferred gains or losses to be reclassified from equity into net income during the next 12 months is expected to be EUR 89 million gain.

The periods when the cash flows are expected to occur are as follows:

	< 1 year	1 – 5 years	5 – 10 years	> 10 years	2019 Total
Cash inflows	597	928	875	5,764	8,165
Cash outflows	-	1	3	-	4
Net cash flows	597	927	872	5,764	8,160

	< 1 year	1 – 5 years	5 – 10 years	> 10 years	2018 Total
Cash inflows	95	321	301	5,582	6,299
Cash outflows	-	1	3	-	5
Net cash flows	95	320	297	5,582	6,294

Effect of uncertainty of IBOR reform on derivatives designated as fair value and cash flows hedges

The future of IBORs (Interbank Offered Rates) such as Euribor, Eonia and LIBOR has been a major topic on the global agenda since the G20 asked the Financial Stability Board (FSB) to undertake a fundamental review of leading interest rate benchmarks in 2013. The FSB proposed new standards to reform interest rate benchmarks and the use of transaction-based input data instead of non-transactional/panel input data. In the EU this is adopted in the new Benchmark Regulation (BMR) which stipulates that from January 2020 only BMR compliant benchmarks may be used within the EU.

Despite current uncertainties on how the transition from IBORs to alternative benchmarks will be managed, it is widely acknowledged that IBOR benchmarks impact financial products and contracts, including among others derivatives, corporate bonds, structured debt products, deposits and mortgages. Aegon recognizes that IBOR transitions potentially have implications for all reporting units, including its insurance, asset management and banking activities. In order to facilitate an orderly transition from the different IBORs to the new risk free rates Aegon has established for each region a project group led by the local CFO. Transition plans have been prepared by each unit covering the impact on the business- and operating models and include among others project solutions and actions, timelines and ownership to ensure timely preparation and implementation. Aegon has identified a number of legal, financial, pricing, operational and conduct risks and are in the process of addressing these. Aegon continues to analyze these risks and their evolution over the course of the transition. In addition Aegon will continue to engage with industry participants on the transition while monitoring further transition guidance and insights from the different market working groups and regulators.

The majority of the fair value and cash flow hedges are directly exposed to changes in benchmark rates (predominantly Eonia, Euribor, and USD Libor), as it is not clear until when these benchmark rates will be continued and how they will transition to alternative rates. For example, the majority of financial instruments designated as fair value or cash flow hedges have a maturity date beyond December 31, 2021 (Net notional amount: EUR 12,165 million).

Aegon applies the reliefs offered in IAS 39 to ensure that this uncertainty does not result in the early termination of hedge accounting, whilst also assuming for measurement purposes that, owing to the general principle of equivalence, transitions to alternative rates will not result in significant contract modifications.

Net foreign investment hedges

Aegon funds its investments in insurance subsidiaries with a mixture of debt and equity. Aegon aims to denominate debt funding in the same currency as the functional currency of the investment. Investments outside the Eurozone, the United States and the United Kingdom are funded in euros. When the debt funding of investments is not in the functional currency of the investment, Aegon uses derivatives to swap the currency exposure of the debt instrument to the appropriate functional currency. This policy will ensure that total capital will reflect currency movements without distorting debt to shareholders' equity ratios. Aegon utilizes various financial instruments as designated hedging instruments of its foreign investments. These instruments include long-term and short-term borrowings, short-term debts to credit institutions, cross currency swap contracts and forward foreign exchange contracts.

25 Investments in joint ventures and associates

	Joint ventures		Associates	
	2019	2018	2019	2018
At January 1	1,745	1,712	327	308
Additions	151	120	39	23
Disposals	(1)	(211)	-	(1)
Share in net income	214	210	12	6
Share in changes in equity (note 30.6)	8	8	4	2
Impairment losses	-	-	(7)	(1)
Dividends	(120)	(94)	(10)	(3)
Net exchange difference	2	4	(1)	(8)
Other	(16)	(5)	-	-
At December 31	1,983	1,745	363	327

In 2018, one of the Amvest funds with a carrying value of EUR 211 million was liquidated. Based on the termination agreement, Aegon received a distribution of its share of the assets and liabilities. As a result, the investment properties, being the main asset class in the fund, were recognized as part of investments in real estate of Aegon.

With the exception of a limited number of immaterial venture capital entities, all joint ventures and associates are unlisted and are accounted for using the equity method and are considered to be non-current. The investments in joint ventures and associates include interest in insurance companies that are required to maintain a minimum solvency margin based on local directives. Such restrictions can affect the ability of these joint ventures and associates to transfer funds in the form of cash dividends, or repayment of loans or advances, and therefore, there can be no assurance that these restrictions will not become a limitation in the future. Refer to note 45 Commitments and contingencies for any commitments and contingencies related to investments in joint ventures. There are no unrecognized shares of losses in joint ventures and associates. The financial statements of the principal joint ventures and associates have the same reporting date as the Group. Refer to note 49 Group companies for a listing of the investments in joint ventures and associates and the Group's percentage holding.

Summarized financial information of joint ventures

The summarized financial information presented in the following table presents the joint ventures on a 100% basis. Aegon considers its investment in AMVEST Vastgoed B.V. (AMVEST) a material joint venture and is therefore presented separately.

	AMVEST		Other Joint ventures	
	2019	2018	2019	2018
Summarized statement of financial position				
Cash and cash equivalents	124	132	525	511
Other current assets	42	157	1,261	896
Total current assets	166	289	1,786	1,407
Non-current assets	4,319	3,304	7,451	6,723
Total assets	4,486	3,593	9,236	8,130
Current financial liabilities excluding trade payables and other provisions	-	-	17	27
Other current liabilities	175	154	661	590
Total current liabilities	175	154	678	617
Non-current financial liabilities excluding trade payables and other provisions	709	590	439	416
Other non-current liabilities	-	-	6,883	6,040
Total non-current financial liabilities	709	590	7,321	6,456
Total liabilities	884	745	8,000	7,073
Net assets	3,602	2,848	1,237	1,057
Summarized statement of comprehensive income				
Revenue	111	89	1,846	1,599
Results from financial transactions	299	349	1	(1)
Depreciation and amortization	-	-	(12)	(14)
Interest income	-	-	56	51
Interest expense	(8)	(6)	(4)	(4)
Profit or loss	406	438	244	226
Income tax (expense) or income	(9)	(6)	(62)	(82)
Post-tax profit or (loss)	398	432	183	144
Other comprehensive income	-	-	13	12
Total comprehensive income	398	432	196	156
Dividends received	55	24	64	70

An overview of the summarized financial information of the carrying amount of the joint ventures is as follows:

	AMVEST		Other Joint ventures	
	2019	2018	2019	2018
Net assets of joint venture as presented above	3,602	2,848	1,237	1,057
Net assets of joint venture excluding goodwill	3,602	2,848	857	681
Group share of net assets of joint venture, excluding goodwill	1,159	1,001	445	352
Goodwill on acquisition	-	-	380	376
Carrying amount	1,159	1,001	824	728

In 2018, the difference in the carrying value of investments in joint ventures of EUR 1,745 million and the total of the carrying value of joint ventures presented above of EUR 1,729 million relates to joint ventures with a negative carrying value of EUR 16 million which have been reclassified to Provisions.

Aegon's group share of net assets of joint ventures, as presented in the table above, is less than Aegon's share of the net assets as presented in the summarized financial information on a 100% basis, due to the inclusion of third parties in the joint ventures.

The following table includes the summarized financial information of the joint ventures based on the Group's relative holding.

	AMVEST		Other Joint ventures	
	2019	2018	2019	2018
Post-tax profit or loss	125	144	88	66
Other comprehensive income	-	-	7	5
Total comprehensive income	125	144	95	71

Summarized financial information of associates

	2019	2018
Post-tax profit or loss	7	6
Other comprehensive income	(7)	2
Total comprehensive income	-	9
Carrying amount	350	327

The summarized financial information of associates presented above is based on the Group's relative holding.

26 Reinsurance assets

Assets arising from reinsurance contracts related to:	2019	2018
Life insurance general account	19,046	18,712
Life insurance for account of policyholders	-	2
Non-life insurance	1,376	1,356
Investment contracts	412	437
At December 31	20,835	20,507

Amounts due from reinsurers in respect of claims already paid by the Group are included in note 28 Other assets and receivables.

Of the reinsurance assets EUR 13 million is current (2018: EUR 12 million).

	Life insurance general account	Life insurance for account of policyholders	Total life insurance
Movements during the year in reinsurance assets relating to life insurance:			
At January 1, 2019	18,712	2	18,714
Gross premium and deposits – existing and new business	2,170	-	2,170
Unwind of discount / interest credited	887	-	887
Insurance liabilities released	(3,028)	-	(3,028)
Fund charges released	(85)	-	(85)
Changes to valuation of expected future benefits	(16)	-	(16)
Net exchange differences	369	-	369
Disposal of a business	-	(2)	(2)
Transfer to/from insurance contracts	22	-	22
Other movements	16	-	16
At December 31, 2019	19,046	-	19,046
At January 1, 2018	17,419	2	17,421
Gross premium and deposits – existing and new business	2,038	3	2,041
Unwind of discount / interest credited	860	-	860
Insurance liabilities released	(2,518)	(3)	(2,521)
Fund charges released	(82)	-	(82)
Changes to valuation of expected future benefits	109	-	109
Policy transfers	25	-	25
Net exchange differences	858	-	858
Other movements	2	-	2
At December 31, 2018	18,712	2	18,714

	2019	2018
Movements during the year in reinsurance assets relating to non-life insurance:		
At January 1	1,356	1,327
Gross premium and deposits – existing and new business	99	84
Unwind of discount / interest credited	88	84
Insurance liabilities released	(127)	(123)
Changes in unearned premiums	(30)	(28)
Incurred related to current year	80	77
Incurred related to prior years	56	36
Release for claims settled current year	(23)	(18)
Release for claims settled prior years	(124)	(130)
Change in IBNR	(19)	12
Shadow accounting adjustment	-	(24)
Net exchange differences	25	65
Other movements	(4)	(8)
At December 31	1,376	1,356

	2019	2018
Assets arising from reinsurance contracts related to:		
Normal course of business	7,101	6,900
Exit of a business	13,734	13,606
At December 31	20,835	20,507

27 Deferred expenses

	2019	2018
DPAC for insurance contracts and investment contracts with discretionary participation features	9,972	10,457
Deferred cost of reinsurance	389	23
Deferred transaction costs for investment management services	442	431
At December 31	10,804	10,910
Current	882	957
Non-current	9,921	9,953

	2019			2018		
	DPAC	Deferred costs of reinsurance	Deferred transaction costs	DPAC	Deferred costs of reinsurance	Deferred transaction costs
At January 1	10,457	23	431	9,688	41	406
Costs deferred during the year	807	360	24	802	-	29
Amortization through income statement	(754)	17	(22)	(914)	(19)	(23)
Shadow accounting adjustments	(656)	(11)	-	455	-	-
Impairments	(65)	-	-	-	-	-
Net exchange differences	223	-	9	433	1	18
Disposal of group assets	(35)	-	-	-	-	-
Other	(5)	-	-	(7)	-	-
At December 31	9,972	389	442	10,457	23	431

In December 2019, Aegon the Netherlands entered into a longevity reinsurance contract with Canada Life Reinsurance. The contract reinsures a specified portfolio of insurance contracts against possible future mortality developments. The reinsurer will pay benefits as long as the participants live and receive fixed payments from Aegon the Netherlands. EUR 360 million is recognized as deferred cost of reinsurance with regard to this reinsurance contract, which will be amortized over the duration of the underlying insurance contracts.

28 Other assets and receivables

	Note	2019	2018
Real estate held for own use and equipment	28.1	489	498
Receivables	28.2	6,655	6,019
Accrued income	28.3	1,442	1,436
Right-of-use assets	28.4	255	-
At December 31		8,841	7,954

28.1 Real estate held for own use and equipment

Net book value	General account real estate held for own use	Equipment	Total
At January 1, 2018	307	223	530
At December 31, 2018	263	235	498
At December 31, 2019	208	281	489
Cost			
At January 1, 2019	363	538	901
Additions	-	105	106
Capitalized subsequent expenditure	(4)	-	(4)
Disposals	(94)	(24)	(118)
Unrealized gains/(losses) through equity	(4)	-	(4)
Realized gains/(losses) through income statement	10	-	10
Net exchange differences	4	9	13
Other	-	(5)	(5)
At December 31, 2019	276	624	900
Accumulated depreciation and impairment losses			
At January 1, 2019	100	303	403
Depreciation through income statement	5	60	64
Disposals	(32)	(22)	(54)
Impairment losses reversed	(6)	-	(6)
Net exchange differences	2	5	7
Other	-	(3)	(3)
At December 31, 2019	68	343	411
Cost			
At January 1, 2018	396	488	885
Additions	1	63	64
Acquired through business combinations	-	1	1
Capitalized subsequent expenditure	18	-	18
Disposals	(26)	(26)	(52)
Unrealized gains/(losses) through equity	(32)	-	(32)
Transfer to investments in real estate	(1)	-	(1)
Realized gains/(losses) through income statement	(4)	-	(4)
Net exchange differences	11	12	23
At December 31, 2018	363	538	901
Accumulated depreciation and impairment losses			
At January 1, 2018	90	265	355
Depreciation through income statement	4	54	58
Disposals	(16)	(22)	(38)
Impairment losses	18	-	18
Transfer to investments in real estate	(1)	-	(1)
Net exchange differences	4	5	9
At December 31, 2018	100	303	403

General account real estate held for own use are mainly held by Aegon Americas and Aegon the Netherlands, with relatively smaller holdings at Aegon Hungary and Aegon Spain. The carrying value under a historical cost model amounted to EUR 231 million (2018: EUR 301 million).

51% of the value of the general account real estate held for own use was last revalued in 2019 (2018: 57%), based on market value appraisals by qualified internal and external appraisers. 99% of the appraisals in 2019 were performed by independent external appraisers (2018: 99%).

General account real estate held for own use has not been pledged as security for liabilities, nor are there any restrictions on title. Depreciation expenses are recorded in Commissions and expenses in the income statement. The useful lives of buildings range between 40 and 50 years.

None of the equipment is held for lease (2018: none). Equipment has not been pledged as security for liabilities, nor are there any restrictions on title. Depreciation expenses have been recorded in Commissions and expenses in the income statement. Equipment is generally depreciated over a period of three to five years.

28.2 Receivables

	2019	2018
Loans to associates	16	12
Loans to joint ventures	-	18
Receivables from policyholders	945	969
Receivables from brokers and agents	288	396
Receivables from reinsurers	777	1,129
Cash outstanding from assets sold	320	116
Trade receivables	1,484	1,321
Cash collateral	1,383	616
Reverse repurchase agreements	76	-
Income tax receivable	102	102
Other	1,300	1,382
Provision for doubtful debts	(34)	(41)
At December 31	6,655	6,019
Current	6,611	5,989
Non-current	43	30

With the exception of receivables from reinsurers, the receivables balances presented above are mostly not externally rated.

The movements in the provision for doubtful debts during the year were as follows:

	2019	2018
At January 1	(41)	(48)
Additions charged to earnings	(9)	(7)
Unused amounts reversed through the income statement	8	4
Disposal of business	4	-
Used during the year	5	10
At December 31	(34)	(41)

28.3 Accrued income

	2019	2018
Accrued interest	1,436	1,415
Other	6	21
At December 31	1,442	1,436

Of accrued income EUR 1,442 million is current (2018: EUR 1,421 million).

28.4 Right-of-use assets

Net book value	Real estate for own use	Equipment	Other	Total
At December 31, 2019	227	25	3	255
Cost				
At January 1, 2019	213	18	5	235
Additions	40	19	1	59
Modification of lease contracts	2	-	-	3
Net exchange differences	8	-	-	8
At December 31, 2019	262	37	5	305
Accumulated depreciation and impairment losses				
At January 1, 2019	-	-	-	-
Depreciation through income statement	35	13	2	50
At December 31, 2019	36	13	2	50

Right-of-use assets are mainly held by Aegon UK and Aegon Americas and they are mainly office buildings held for own use.

For information on the Lease liabilities and respective maturity analysis, please refer to note 41 Other liabilities and note 4 Financial risks, respectively.

29 Intangible assets

Net book value	Goodwill	VOBA	Future servicing rights	Software	Other	Total
At December 31, 2019	392	952	84	69	61	1,559
At December 31, 2018	384	1,123	91	64	64	1,727
At January 1, 2018	293	1,153	99	51	36	1,633
Cost						
At January 1, 2019	554	6,858	361	327	166	8,265
Additions	-	-	-	35	4	39
Capitalized subsequent expenditure	-	-	-	7	-	7
Disposals	-	-	-	(9)	-	(9)
Net exchange differences	13	145	5	11	3	178
At December 31, 2019	567	7,003	366	371	173	8,479
Accumulated amortization, depreciation and impairment losses						
At January 1, 2019	169	5,735	270	263	101	6,538
Amortization through income statement	-	112	8	16	7	143
Shadow accounting adjustments	-	72	-	-	-	72
Disposals	-	-	-	(7)	-	(7)
Impairment losses	3	11	-	20	-	34
Net exchange differences	3	121	4	9	3	140
At December 31, 2019	175	6,051	282	301	111	6,920
Cost						
At January 1, 2018	462	6,565	359	294	128	7,808
Additions	-	-	-	45	2	47
Acquisitions through business combinations	85	-	-	7	33	126
Capitalized subsequent expenditure	-	-	-	5	-	5
Disposals	-	-	-	(19)	-	(19)
Net exchange differences	6	293	2	(6)	2	298
At December 31, 2018	554	6,858	361	327	166	8,265
Accumulated amortization, depreciation and impairment losses						
At January 1, 2018	169	5,412	260	243	92	6,176
Amortization through income statement	-	135	8	16	6	165
Shadow accounting adjustments	-	(56)	-	-	-	(56)
Disposals	-	-	-	(6)	-	(6)
Impairment losses	-	-	-	15	-	15
Net exchange differences	-	244	2	(5)	3	243
At December 31, 2018	169	5,735	270	263	101	6,538

Amortization and depreciation through income statement is included in Commissions and expenses. None of the intangible assets have titles that are restricted or have been pledged as security for liabilities.

With the exception of goodwill, all intangible assets have a finite useful life and are amortized accordingly. VOBA and future servicing rights are amortized over the term of the related insurance contracts, which can vary significantly depending on the maturity of the acquired portfolio. The amortization is based on either the expected future premiums, revenues or the expected gross profit margins, which for the most significant blocks of business ranges between 50 and 80 years. Future servicing rights are amortized over a period of 10 to 30 years of which 15 years remain at December 31, 2019 (2018: 13 years). Software is generally depreciated over an average period of 3 to 5 years of which 4 years remain at December 31, 2019 (2018: 4 years).

In 2018, Goodwill and Other increased by EUR 85 million and EUR 33 million respectively following the acquisition of Robidus in September 2018. For details of the acquisition, refer to note 48 Business combinations.

Goodwill

The goodwill balance has been allocated across the cash-generating units which are expected to benefit from the synergies inherent in the goodwill. Goodwill is tested for impairment both annually and when there are specific indicators of a potential impairment. The recoverable amount is the higher of the value in use and fair value less costs of disposal for a cash-generating unit. The operating assumptions used in all the calculations are best estimate assumptions and based on historical data where available.

The economic assumptions used in all the calculations are based on observable market data and projections of future trends. All the cash-generating units tested showed that the recoverable amounts were higher than their carrying values, including goodwill. A reasonably possible change in any key assumption is not expected to cause the carrying value of the cash-generating units to exceed its recoverable amount.

A geographical summary of the cash-generating units to which the goodwill is allocated is as follows:

Goodwill	2019	2018
Americas	183	182
Southern & Eastern Europe	29	30
Asset Management	34	33
United Kingdom	57	54
The Netherlands	89	85
At December 31	392	384

Goodwill in Aegon Americas is allocated to groups of cash-generating units including variable annuities, fixed annuities and the retirement plans cash-generating unit. Value in use calculations of Aegon Americas have been actuarially determined based on business plans covering a period of typically three years and pre-tax risk adjusted discount rates. Based on the value in use tests, goodwill in the Americas for the group of annuities cash-generating units (2019: EUR 127 million: 2018: EUR 127 million) and the retirement plans cash-generating unit (2019: EUR 56 million: 2018: EUR 55 million) remain unchanged from prior year except for the impact of currency translation adjustments. The value in use tests assume business plans covering a period of three years further extrapolated to ten years, where the new business levels for years 4-10 assumed a 0% growth rate (2018: 0%). The pre-tax adjusted discount rate was 17% for annuities and 18% for retirement plans.

To determine the recoverable amounts of the cash generating units of Aegon Southern and Eastern Europe (SEE), value in use was calculated, and compared to the carrying amounts. Value in use has been determined based on a business plan covering a period of typically 3 years, that, in certain instances was further extrapolated to 20 years where the new business levels for years 4-20 assumed a growth rate based on the business plan of the third year, prudentially decreased by 20% (2018: 20%). Other key assumptions used for the calculation were pre-tax risk adjusted discount rate of ranging between 8.6%-25.2% (2018: 9.1%-28.5%), new business contribution, renewals, asset fees, investment return, persistency and expenses. Operating assumptions are best estimate assumptions and based on historical data where available. Economic assumptions are based on observable market data and projections of future trends.

As of 2018, goodwill that was provisionally allocated to the cash-generating unit – Cofunds Ltd., is allocated to Aegon UK, whose value in use exceeded its carrying value. Assessment of value in use at this level is considered to reflect the expected benefit flowing to Aegon UK from the synergies arising from the acquisition of Cofunds. The value in use of Scottish Equitable plc (SE plc) is the most material part of the Aegon UK value in use calculation, and it is determined using SE plc's Solvency II own funds value with adjustments for contract boundaries, risk margin and SE plc's share of the defined benefit pension scheme liability. An allowance has also been made for the present value of the next 3 years profits, from expected new business. This is considered a key assumption which if it does not arise would reduce the value in use, however a headroom would still remain.

For Aegon the Netherlands, goodwill was allocated to Robidus - a cash generating unit whose value in use exceeds its carrying value. The value in use calculations were based on business plans covering a period of five years, pre-tax discount rate of 8.2%, post-tax discount rate of 8.1%, and terminal growth rate at 2%. The goodwill arises mainly from new customers, future software platform developments, synergies, and assembled workforce.

VOBA

The movement in VOBA over 2019 can be summarized and compared to 2018 as follows:

	2019	2018
At January 1	1,123	1,153
Amortization / depreciation through income statement	(112)	(135)
Shadow accounting adjustments	(72)	56
Impairment losses	(11)	-
Net exchange differences	24	49
At December 31	952	1,123

30 Shareholders' equity

Issued share capital and reserves attributable to shareholders of Aegon N.V.

	Note	2019	2018	2017
Share capital – par value	30.1	323	322	322
Share premium	30.2	7,213	7,487	7,731
Total share capital		7,536	7,808	8,053
Retained earnings		11,275	10,313	9,984
Treasury shares	30.3	(281)	(337)	(325)
Total retained earnings		10,994	9,975	9,659
Revaluation reserves	30.4	5,868	3,436	4,898
Remeasurement of defined benefit plans	30.5	(2,397)	(1,850)	(1,669)
Other reserves	30.6	456	149	(390)
Total shareholders' equity		22,457	19,518	20,550

Share capital transactions relating to common shares

	2019	2018	2017
	Number of shares (thousands)	Number of shares (thousands)	Number of shares (thousands)
Transactions in 2019:			
Final dividend 2018 ¹⁾	(32,874)		
Share buyback program (final dividend 2018)	32,874		
Interim dividend 2019 ¹⁾	(35,370)		
Share buyback program (interim dividend 2019)	43,150		
Transactions in 2018:			
Final dividend 2017 ¹⁾		(21,954)	
Share buyback program (final dividend 2017)		21,954	
Interim dividend 2018 ¹⁾		(24,134)	
Share buyback program (interim dividend 2018)		24,134	
Transactions in 2017:			
Final dividend 2016 ¹⁾			(26,916)
Interim dividend 2017 ²⁾			(24,948)
Issuance of common shares with a par value of EUR 0.12			21,099
Share buyback program (final dividend 2016 and interim dividend 2017)			51,865

¹⁾ Dividend distribution paid from treasury shares (note 30.3)

²⁾ Dividend distribution paid from treasury shares (note 30.3) and issuance of common shares performed in the year.

30.1 Share capital – par value

	2019	2018	2017
Common shares	253	251	251
Common shares B	70	70	70
At December 31	323	322	322

Common shares	2019	2018	2017
Authorized share capital	720	720	720
Number of authorized shares (in million)	6,000	6,000	6,000
Par value in cents per share	12	12	12

Common shares B	2019	2018	2017
Authorized share capital	360	360	360
Number of authorized shares (in million)	3,000	3,000	3,000
Par value in cents per share	12	12	12

	Common shares		Common shares B	
	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount
At January 1, 2017	2,074,549	249	585,022	70
Dividend	21,099	3	-	-
At December 31, 2017	2,095,648	251	585,022	70
Dividend	-	-	-	-
At December 31, 2018	2,095,648	251	585,022	70
Dividend	9,491	1	-	-
At December 31, 2019	2,105,139	253	585,022	70

The table below represents weighted average number of common shares including treasury shares attributable to Aegon N.V.:

	Weighted average number of common shares (thousands)	Weighted average number of common shares B (thousands)
2017	2,080,792	585,022
2018	2,095,648	585,022
2019	2,098,326	585,022

All issued common shares and common shares B each have a nominal value of EUR 0.12 and are fully paid up. Repayment of capital can only be initiated by the Executive Board, is subject to approval of the Supervisory Board and must be resolved by the General Meeting of Shareholders. Moreover, repayment on common shares B needs approval of the related shareholders. Refer to 'Other information' for further information on dividend rights.

Vereniging Aegon, based in The Hague, the Netherlands, holds all of the issued and outstanding common shares B.

Under the terms of the 1983 Amended Merger Agreement, dated May 2013, Vereniging Aegon has a call option relating to common shares B. Vereniging Aegon may exercise its call option at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to keep or restore its total stake at 32.6%, irrespective of the circumstances which cause the total shareholding to be or become lower than 32.6%. Refer to Note 50 Related party transactions for transactions between Aegon N.V. and Vereniging Aegon.

30.2 Share premium

	2019	2018	2017
At January 1	7,487	7,731	7,873
Share dividend	(273)	(244)	(142)
At December 31	7,213	7,487	7,731
Share premium relating to:			
- Common shares	5,560	5,834	6,078
- Common shares B	1,653	1,653	1,653
Total share premium	7,213	7,487	7,731

The share premium account reflects the balance of paid-in amounts above par value at issuance of new shares less the amounts charged for share dividends.

30.3 Treasury shares

On the reporting date, Aegon N.V. and its subsidiaries held 66,583,671 (2018: 62,562,070) of its own common shares and 25,309,920 (2018: 13,856,480) own common shares B with a par value of EUR 0.12 each.

Movements in the number of treasury common shares held by Aegon N.V. were as follows:

	2019		2018		2017	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
At January 1	61,418	326	64,488	314	47,473	178
Transactions in 2019:						
Sale: transactions, average price 5.10	(3,657)	(19)				
Sale: 1 transaction, average price 5.25	(32,874)	(173)				
Purchase: 1 transaction average price 4.52	32,874	149				
Sale: 1 transaction, average price 5.16	(35,370)	(183)				
Purchase: 1 transaction average price 3.89	43,150	168				
Transactions in 2018:						
Sale: transactions, average price 3.76			(3,070)	(12)		
Sale: 1 transaction, average price 4.62			(21,954)	(101)		
Purchase: 1 transaction average price 5.34			21,954	117		
Sale: 1 transaction, average price 5.09			(24,134)	(123)		
Purchase: 1 transaction average price 5.43			24,134	131		
Transactions in 2017:						
Sale: transactions, average price EUR 3.44					(4,085)	(14)
Sale: 1 transaction, average price EUR 3.68					(26,916)	(99)
Sale: 1 transaction, average price EUR 3.77					(3,849)	(14)
Purchase: 1 transaction, average price EUR 5.09					51,865	263
At December 31	65,540	269	61,418	326	64,488	314

Movements in the number of treasury common shares B held by Aegon N.V. were as follows:

	2019		2018		2017	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
At January 1	13,856	2	15,346	2	17,325	2
Transactions in 2019:						
Sale: 1 transaction, average price 0.12	(1,774)	-				
Purchase: 1 transaction average price 0.10	13,227	1				
Transactions in 2018:						
Sale: 1 transaction, average price EUR 0.11			(1,489)	-		
Transactions in 2017:						
Sale: 1 transaction, average price EUR 0.11					(1,979)	-
Sale: 1 transaction, average price EUR 0.11					(13,043)	(1)
Purchase: 1 transaction, average price EUR 0.13					13,043	2
At December 31	25,310	3	13,856	2	15,346	2

As part of their insurance and investment operations, subsidiaries within the Group also hold Aegon N.V. common shares, both for their own account and for account of policyholders. These shares have been treated as treasury shares and are (de)recognized at the consideration paid or received.

	2019		2018		2017	
	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount
Common shares						
Held by Aegon N.V.	65,540	269	61,418	326	64,488	314
Held by subsidiaries	1,043	9	1,144	9	1,162	9
Common shares B						
Held by Aegon N.V.	25,310	3	13,856	2	15,346	2
At December 31	91,893	281	76,419	337	80,996	325

	Weighted average number of treasury shares, including treasury shares held by subsidiaries (thousands)	Weighted average number of treasury shares B (thousands)
2017	38,490	9,841
2018	60,129	14,415
2019	56,467	13,070

30.4 Revaluation reserves

	Available-for-sale investments	Real estate held for own use	Cash flow hedging reserve	Total
At January 1, 2019	1,910	46	1,479	3,436
Gross revaluation	3,470	(4)	89	3,556
Net (gains) / losses transferred to income statement	(412)	-	(97)	(509)
Net (gains) / losses transferred to retained earnings	-	(32)	-	(32)
Foreign currency translation differences	8	1	27	37
Tax effect	(630)	8	3	(619)
At December 31, 2019	4,348	19	1,502	5,868
At January 1, 2018	3,427	68	1,402	4,898
Gross revaluation	(2,142)	(32)	85	(2,090)
Net (gains) / losses transferred to income statement	66	-	(80)	(14)
Foreign currency translation differences	46	2	71	119
Tax effect	514	7	1	522
Other	-	-	-	1
At December 31, 2018	1,910	46	1,479	3,436
At January 1, 2017	3,326	59	1,904	5,289
Gross revaluation	1,403	8	(115)	1,296
Net (gains) / losses transferred to income statement	(1,330)	-	(738)	(2,069)
Foreign currency translation differences	(228)	(8)	(216)	(452)
Tax effect	285	9	567	860
Other	(28)	-	1	(27)
At December 31, 2017	3,427	68	1,402	4,898

The revaluation accounts for both available-for-sale investments and for real estate held for own use include unrealized gains and losses on these investments, net of tax. Upon sale, the amounts realized are recognized in the income statement (for available-for-sale investments) or transferred to retained earnings (for real estate held for own use). Upon impairment, unrealized losses are recognized in the income statement.

The closing balances of the revaluation reserve for available-for-sale investments relate to the following instruments:

	2019	2018	2017
Shares	25	22	40
Debt securities	4,348	1,911	3,401
Other	(26)	(23)	(14)
Revaluation reserve for available-for-sale investments	4,348	1,910	3,427

The cash flow hedging reserve includes (un)realized gains and losses on the effective portions of hedging instruments, net of tax. The amounts are recognized in the income statement at the moment of realization of the hedged position to offset the gain or loss from the hedged cash flow. No amounts have been released from equity to be included in the initial measurement of non-financial assets or liabilities.

30.5 Remeasurement of defined benefit plans

	2019	2018	2017
At January 1	(1,850)	(1,669)	(1,820)
Remeasurements of defined benefit plans	(612)	(134)	224
Tax effect	90	(15)	(175)
Net exchange differences	(25)	(32)	102
Total remeasurement of defined benefit plans	(2,397)	(1,850)	(1,669)

30.6 Other reserves

	Foreign currency translation reserve	Net foreign investment hedging reserve	Equity movements of joint ventures and associates	Total
At January 1, 2019	499	(370)	19	149
Movement in foreign currency translation and net foreign investment hedging reserves	312	(10)	-	302
Disposal of a business	(1)	-	-	(1)
Tax effect	(10)	5	-	(5)
Equity movements of joint ventures	-	-	8	8
Equity movements of associates	-	-	4	4
At December 31, 2019	800	(374)	31	456
At January 1, 2018	(80)	(321)	11	(390)
Movement in foreign currency translation and net foreign investment hedging reserves	562	(46)	(3)	513
Disposal of a business	50	(14)	-	36
Tax effect	(32)	12	-	(20)
Equity movements of joint ventures	-	-	8	8
Equity movements of associates	-	-	2	2
Other	-	-	1	1
At December 31, 2018	499	(370)	19	149
At January 1, 2017	1,734	(418)	31	1,347
Movement in foreign currency translation and net foreign investment hedging reserves	(1,929)	129	-	(1,800)
Disposal of a business	7	-	-	7
Tax effect	108	(32)	-	76
Equity movements of joint ventures	-	-	(15)	(15)
Equity movements of associates	-	-	(5)	(5)
At December 31, 2017	(80)	(321)	11	(390)

The foreign currency translation reserve includes the currency results from investments in non-euro denominated subsidiaries. The amounts are released to the income statement upon the sale of the subsidiary.

The net foreign investment hedging reserve is made up of gains and losses on the effective portions of hedging instruments, net of tax. The amounts are recognized in the income statement at the moment of realization of the hedged position to offset the gain or loss from the net foreign investment.

The equity movements of joint ventures and associates reflect Aegon's share of changes recognized directly in the joint venture's and associate's equity.

31 Other equity instruments

	Perpetual contingent convertible securities	Junior perpetual capital securities	Perpetual cumulative subordinated bonds	Non-cumulative subordinated notes	Long Term Incentive Plans ¹⁾	Total
At January 1, 2019	-	2,808	454	-	58	3,320
Shares granted	-	-	-	-	21	21
Shares vested	-	-	-	-	(26)	(26)
Securities issued	500	-	-	-	-	500
Securities redeemed	-	(1,244)	-	-	-	(1,244)
At December 31, 2019	500	1,564	454	-	53	2,571
At January 1, 2018	-	3,008	454	271	61	3,794
Shares granted	-	-	-	-	16	16
Shares vested	-	-	-	-	(19)	(19)
Securities redeemed	-	(200)	-	(271)	-	(471)
At December 31, 2018	-	2,808	454	-	58	3,320
At January 1, 2017	-	3,008	454	271	65	3,797
Shares granted	-	-	-	-	26	26
Shares vested	-	-	-	-	(30)	(30)
Securities redeemed	-	-	-	-	-	-
At December 31, 2017	-	3,008	454	271	61	3,794

¹ Long Term Incentive Plans include the shares granted to personnel which are not yet vested.

Perpetual contingent convertible securities	Coupon rate	Coupon date	Year of next call	2019	2018	2017
EUR 500 million	5.625%	Semi-annually, April 15	2029	500	-	-
At December 31				500	-	-

The perpetual contingent convertible securities of EUR 500 million issued on April 4, 2019 have a fixed coupon of 5.625% until the first call date and reset thereafter to 5 year mid swap plus a margin of 5.207%.

The securities have been issued at par and have subordination provisions, rank junior to all other liabilities and senior to shareholders' equity only. The conditions of the securities contain certain provisions for optional and required coupon payment cancellation. Although the securities have no stated maturity, Aegon has the right to call the securities for redemption at par for the first time between April 15, 2029 and October 15, 2029 and every reset date (October 15, with five year intervals) thereafter. Upon breach of certain regulatory capital requirement levels, the securities convert into common shares.

Junior perpetual capital securities	Coupon rate	Coupon date, as of	Year of next call	2019	2018	2017
USD 500 million	6.50%	Quarterly, December 15	Called in 2019	-	424	424
USD 250 million	floating LIBOR rate ¹⁾	Quarterly, December 15	2020	212	212	212
USD 500 million	floating CMS rate ²⁾	Quarterly, July 15	2020	402	402	402
USD 1 billion	6.375%	Quarterly, June 15	Called in 2019	-	821	821
EUR 950 million	floating DSL rate ³⁾	Quarterly, July 15	2020	950	950	950
EUR 200 million	6.0%	Annually, July 21	Called in 2018	-	-	200
At December 31				1,564	2,808	3,008

¹ The coupon of the USD 250 million junior perpetual capital securities is reset each quarter based on the then prevailing three-month LIBOR yield plus a spread of 87.5 basis points, with a minimum of 4%.

² The coupon of the USD 500 million junior perpetual capital securities is reset each quarter based on the then prevailing ten-year US dollar interest rate swap yield plus a spread of ten basis points, with a maximum of 8.5%.

³ The coupon of the EUR 950 million junior perpetual capital securities is reset each quarter based on the then prevailing ten-year Dutch government bond yield plus a spread of ten basis points, with a maximum of 8%.

The interest rate exposure on some of these securities has been swapped to a three-month LIBOR and/or EURIBOR based yield.

With effect on June 15, 2019, Aegon has exercised its right to redeem USD 500 million 6.5% perpetual capital securities issued in 2005. The securities had no stated maturity, however Aegon had the right to call the securities for redemption and exercised this right with effect on June 15, 2019.

With effect on December 15, 2019, Aegon has exercised its right to redeem USD 1 billion 6.375% perpetual capital securities issued in 2005. The securities had no stated maturity, however Aegon had the right to call the securities for redemption and exercised this right with effect on December 15, 2019.

The securities have been issued at par. The securities have subordination provisions, rank junior to all other liabilities and senior to shareholders' equity only. The conditions of the securities contain certain provisions for optional and required coupon payment deferral and, in situations under Aegon's control, mandatory coupon payment events. Although the securities have no stated maturity, Aegon has the right to call the securities for redemption at par for the first time on the coupon date in the years as specified, or on any coupon payment date thereafter.

Perpetual cumulative subordinated bonds	Coupon rate	Coupon date	Year of next call	2019	2018	2017
EUR 203 million	4.260% ^{1), 4)}	Annually, March 4	2021	203	203	203
EUR 114 million	1.506% ^{2), 4)}	Annually, June 8	2025	114	114	114
EUR 136 million	1.425% ^{3), 4)}	Annually, October 14	2028	136	136	136
At December 31				454	454	454

¹ The coupon of the EUR 203 million bonds was originally set at 7.125% until March 4, 2011. Subsequently, the coupon has been reset at 4.26% until March 4, 2021.

² The coupon of the EUR 114 million bonds was originally set at 8% until June 8, 2005. Subsequently, the coupon has been reset at 4.156% until June 8, 2015 and 1.506% until June 8, 2025.

³ The coupon of the EUR 136 million bonds was originally set at 7.25% until October 14, 2008. Subsequently, the coupon has been reset at 5.185% until October 14, 2018 and 1.425% until October 14, 2028.

⁴ If the bonds are not called on the respective call dates and after consecutive period of ten years, the coupons will be reset at the then prevailing effective yield of ten-year Dutch government securities plus a spread of 85 basis points.

The bonds have the same subordination provisions as dated subordinated debt. In addition, the conditions of the bonds contain provisions for interest deferral.

Although the bonds have no stated maturity, Aegon has the right to call the bonds for redemption at par for the first time on the coupon date in the year of next call.

Non-cumulative subordinated notes	Coupon rate	Coupon date	Year of next call	2019	2018	2017
USD 525 million	8%	Quarterly, February 15	Called in 2018	-	-	271
At December 31				-	-	271

With effect on May 15, 2018, Aegon has exercised its right to redeem USD 525 million non-cumulative subordinated notes, subsequently leading to their redemption. The securities had a stated maturity of 30 years, however, Aegon had the right to call the securities for redemption at par on any coupon payment date.

The non-cumulative subordinated notes were initially issued on February 7, 2012, in aggregate principal amount of 8.00%, due 2042, in an underwritten public offering in the United States registered with the US Securities and Exchange Commission.

32 Subordinated borrowings

	Coupon rate	Coupon date	Year of next call	2019	2018
Fixed to floating subordinated notes					
EUR 700 million	4%	Annually, April 25	2024	697	696
USD 800 million	5.5%	Semi-annually, April 11	2028	707	693
Fixed subordinated notes					
USD 925 million ¹⁾	5.1%	Quarterly, March 15	2024	804	-
At December 31				2,207	1,389

¹⁾ Issued by a subsidiary of, and guaranteed by Aegon N.V.

The subordinated debt securities of USD 925 million issued on October 22, 2019 have a fixed coupon of 5.1%. The securities are first callable on December 15, 2024 and maturing on December 15, 2049.

The subordinated debt securities of USD 800 million issued on April 11, 2018 have a fixed coupon of 5.5% until the first call date and floating thereafter with a margin including a 100 basis points step-up. The securities are first callable on April 11, 2028 and maturing on April 11, 2048.

These securities are subordinated and rank senior to the junior perpetual capital securities and the perpetual contingent convertible securities, equally with the perpetual cumulative subordinated bonds and junior to all other liabilities. The conditions of the securities contain certain provisions for optional and required deferral of interest payments. There have been no defaults or breaches of conditions during the period.

The fair value of these loans amounted to EUR 2,416 million (2018: EUR 1,355 million).

33 Trust pass-through securities

	Coupon rate	Coupon date	Year of issue	Year of maturity	Year of next call	2019	2018
USD 225 million ¹⁾	7.65%	Semi-annually, December 1	1996	2026	n.a.	92	90
USD 190 million ¹⁾	7.625%	Semi-annually, November 15	1997	2037	n.a.	44	43
At December 31						136	133

¹⁾ Issued by a subsidiary of, and guaranteed by Aegon N.V.

Trust pass-through securities are securities through which the holder participates in a trust. The assets of these trusts consist of junior subordinated deferrable interest debentures issued by Transamerica Corporation. The trust pass-through securities carry provisions with regard to deferral of distributions for extension periods up to a maximum of 10 consecutive semi-annual periods. The trust pass-through securities are subordinated to all other unsubordinated borrowings and liabilities of Transamerica Corporation. There were no defaults or breaches of conditions during the period.

The fair value of these loans amounted to EUR 144 million (2018: EUR 128 million).

34 Insurance contracts

34.1 Underwriting risk

Aegon's earnings depend significantly upon the extent to which actual claims experience differs from the assumptions used in setting the prices for products and establishing the technical liabilities and liabilities for claims. To the extent that actual claims experience is less favorable than the underlying assumptions used in establishing such liabilities, income would be reduced. Furthermore, if these higher claims were part of a permanent trend, Aegon may be required to change best estimate assumptions for future claims which could increase the required reserves for these future claims, which could reduce income. In addition, certain acquisition costs related to the sale of new policies and the purchase of policies already in force have been recorded as assets on the statement of financial position and are being amortized into the income statement over time. If the assumptions relating to the future profitability of these policies (such as future claims, investment income and expenses) are not realized, the amortization of these costs could be accelerated and may even require write offs should there be an expectation of unrecoverability. This could have a materially adverse effect on Aegon's business, results of operations and financial condition.

Sources of underwriting risk include policyholder behavior (such as lapses, surrender of policies or partial withdrawals), policy claims (such as mortality, longevity or morbidity) and expenses. For some product lines, Aegon is at risk if policy lapses increase as sometimes

Aegon is unable to fully recover upfront expenses in selling a product despite the presence of commission recoveries or surrender charges and fees. There are also products where Aegon is at risk if lapses decrease, for example where this would result in a higher utilization rate of product guarantees. For mortality and morbidity risk, Aegon sells certain types of policies that are at risk if mortality or morbidity increases, such as term life insurance and accident insurance, Aegon also sells certain types of policies that are at risk if mortality decreases (longevity risk) such as annuity products. Aegon is also at risk if expenses are higher than the expenses assumed beforehand by management and that were priced into the products.

Aegon monitors and manages its underwriting risk by underwriting risk type. Attribution analysis is performed on earnings and reserve movements in order to understand the source of any material variation in actual results from what was expected. Aegon's units also perform experience studies for underwriting risk assumptions, comparing Aegon's experience to industry experience as well as combining Aegon's experience and industry experience based on the depth of the history of each source to Aegon's underwriting assumptions. Where policy charges are flexible in products, Aegon uses these analyses as the basis for modifying these charges, with a view to maintain a balance between policyholder and shareholder interests. Aegon also has the ability to reduce expense levels over time, thus mitigating unfavorable expense variation.

Sensitivity analysis of net income and shareholders' equity to various underwriting risks is shown in the table that follows. Aegon's best estimate assumptions already include expected future developments and the sensitivities represent an increase or decrease of lapse rates, mortality rates and morbidity rates, compared to Aegon's best estimate assumptions. These underwriting sensitivities were run using a permanent shock applied to all of Aegon's products, exposed to an increase and to a decrease in the rates. The table below indicates that the morbidity sensitivity has the largest impact and in aggregate, Aegon is exposed to a decrease in mortality rates.

Sensitivity analysis of net income and shareholders' equity to changes in various underwriting risks

Estimated approximate effect	2019		2018	
	On shareholders' equity	On net income	On shareholders' equity	On net income
20% increase in lapse rates	152	143	94	109
20% decrease in lapse rates	(169)	(156)	(139)	(154)
5% increase in mortality rates	261	192	252	63
5% decrease in mortality rates	(322)	(240)	(418)	(210)
10% increase in morbidity rates	(370)	(376)	(525)	(446)
10% decrease in morbidity rates	191	196	183	125

Aegon the Netherlands partially hedges and reinsures the risk of future longevity increases in the Netherlands related to a part of its insurance liabilities.

34.2 Insurance contracts for general account

	2019	2018
Life insurance	109,879	102,452
Non-life insurance		
- Unearned premiums and unexpired risks	6,002	5,341
- Outstanding claims	2,417	2,338
- Incurred but not reported claims	772	820
Incoming reinsurance	4,385	4,377
At December 31	123,454	115,328

	2019	2018
Non-life insurance:		
- Accident and health insurance	8,955	8,247
- General insurance	235	252
Total non-life insurance	9,190	8,499

Movements during the year in life insurance:	2019	2018
At January 1	102,452	98,452
Disposals	(44)	-
Portfolio transfers and acquisitions	(8)	95
Gross premium and deposits – existing and new business	6,913	6,293
Unwind of discount / interest credited	3,795	3,711
Insurance liabilities released	(9,921)	(9,582)
Changes in valuation of expected future benefits	800	617
Loss recognized as a result of liability adequacy testing	1,587	49
Shadow accounting adjustments	1,948	(299)
Net exchange differences	1,271	3,087
Transfer (to) / from reinsurance assets	18	-
Transfer (to) / from insurance contracts for account of policyholders	1,050	27
Other	17	1
At December 31	109,879	102,452

The LAT deficit per December 31, 2019 in Aegon the Netherlands amounted to EUR 5.1 billion, which was partially offset by the shadow loss recognition of EUR 3.4 billion, resulting in a net deficit of EUR 1.7 billion. The LAT deficit of EUR 1.7 billion for December 31, 2019 is recorded in the income statement and led to the recognition of an increase in insurance contracts liabilities as at December 31, 2019.

The positive LAT headroom of Aegon the Netherlands at the end of 2018 of EUR 0.6 billion was negatively impacted by adverse credit spread movements (widening mortgage spreads, tightened liquidity premium) of EUR 0.8 billion and the impact of lower interest rate of EUR 1.1 billion.

The LAT deficit was partly recorded as an impairment of DPAC and VOBA balances (EUR 76 million) (refer to note 15 “Impairment charges/(reversals)”) and for the remainder by increasing the insurance liability by EUR 1.8 billion.

Due to the positive LAT headroom of Aegon the Netherlands at the end of 2018, changes in the LAT margin triggered by up or down interest shocks could be absorbed by the revaluation reserves on available for sale assets (shadow accounting). However, due to the current deficit, changes in the LAT margin of Aegon the Netherlands, triggered by up or down interest shocks, will now be directly recognized in the income statement.

As a result, the IFRS income statement of Aegon the Netherlands is now less sensitive for interest movements as the interest risk was, and is, economically hedged using derivatives largely offsetting the impact of a changed LAT margin. Please refer to note 4 Financial risks for the updated Group sensitivities on interest rate risk.

Furthermore, as a result of the current negative LAT headroom position, future results will become more volatile due to changes in credit spreads as these are not hedged. Please find below the estimated sensitivities on shareholders' equity and on net income, for up and down shocks for credit spreads, mortgage spreads for the bond and mortgage portfolio and liquidity premium shocks for general account insurance liabilities.

Movements during the year in non-life insurance:	2019	2018
At January 1	8,499	8,484
Gross premiums – existing and new business	1,594	1,563
Unwind of discount / interest credited	481	450
Insurance liabilities released	(1,087)	(1,052)
Changes in valuation of expected future claims	(7)	(8)
Change in unearned premiums	(720)	(742)
Change in unexpired risks	2	2
Incurred related to current year	718	747
Incurred related to prior years	316	195
Release for claims settled current year	(292)	(278)
Release for claims settled prior years	(788)	(704)
Shadow accounting adjustments	422	(459)
Change in IBNR	(73)	(51)
Net exchange differences	131	354
Other	(5)	(2)
At December 31	9,191	8,499

Movements during the year in incoming reinsurance:	2019	2018
At January 1	4,377	3,913
Gross premium and deposits – existing and new business	1,397	1,441
Unwind of discount / interest credited	211	199
Insurance liabilities released	(1,668)	(1,557)
Changes in valuation of expected future benefits	(30)	190
Shadow accounting adjustments	12	(11)
Loss recognized as a result of liability adequacy	3	(4)
Net exchange differences	81	205
Other	2	2
At December 31	4,385	4,377

Sensitivity analysis of net income and shareholders' equity	Estimated approximate effects on net income	Estimated approximate effects on shareholders' equity
2019		
Shift up 50 basis points - Bond credit spreads	(205)	(2,386)
Shift down 50 basis points - Bond credit spreads	198	2,117
Shift up 50 basis points - Mortgage spreads	(440)	(440)
Shift down 50 basis points - Mortgage spreads	467	467
Shift up 5 basis points - Liquidity premium	104	101
Shift down 5 basis points - Liquidity premium	(105)	(103)

¹ The sensitivities shown above were collected for the first time in 2019, therefore we do not provide comparatives.

34.3 Insurance contracts for account of policyholders

Insurance contracts for account of policyholders	2019	2018
At January 1	117,113	122,168
Disposal of a business	(196)	-
Portfolio transfers and acquisitions	(10)	(140)
Gross premium and deposits – existing and new business	9,122	9,716
Unwind of discount / interest credited	19,780	(5,311)
Insurance liabilities released	(11,103)	(10,471)
Fund charges released	(1,677)	(1,671)
Changes in valuation of expected future benefits	861	(245)
Transfer (to) / from insurance contracts	(1,050)	(27)
Net exchange differences	2,868	3,092
Other	2	2
At December 31	135,710	117,113

35 Investment contracts

35.1 Investment contracts for general account

	Without discretionary participation features	With discretionary participation features	Total
At January 1, 2019	17,825	223	18,048
Deposits	13,234	-	13,234
Withdrawals	(13,768)	-	(13,768)
Investment contracts liabilities released	-	(23)	(23)
Interest credited	247	-	247
Net exchange differences	128	12	140
Transfer to/from other headings	724	-	724
Other	(7)	-	(7)
At December 31, 2019	18,382	211	18,594
At January 1, 2018	16,665	278	16,943
Portfolio transfers and acquisitions	271	-	271
Deposits	10,308	-	10,308
Withdrawals	(10,101)	-	(10,101)
Investment contracts liabilities released	-	(53)	(53)
Interest credited	236	-	236
Net exchange differences	335	(2)	332
Transfer to/from other headings	133	-	133
Other	(22)	-	(22)
At December 31, 2018	17,825	223	18,048

Investment contracts consist of the following:

	2019	2018
Institutional guaranteed products	339	944
Fixed annuities	6,237	5,981
Savings accounts	11,517	10,586
Investment contracts with discretionary participation features	211	223
Other	289	314
At December 31	18,594	18,048

35.2 Investment contracts for account of policyholders

	Without discretionary participation features	With discretionary participation features	Total
At January 1, 2019	49,847	30,250	80,097
Gross premium and deposits – existing and new business	10,545	1,066	11,610
Withdrawals	(10,228)	-	(10,228)
Interest credited	9,244	5,511	14,755
Investment contracts liabilities released	-	(4,815)	(4,815)
Fund charges released	(142)	-	(142)
Net exchange differences	1,898	1,858	3,755
Transfer to/from other headings	(1,210)	-	(1,210)
Other	1	-	1
At December 31, 2019	59,956	33,870	93,826
At January 1, 2018	37,169	37,265	74,434
Additions	18,415	-	18,415
Gross premium and deposits – existing and new business	6,432	1,279	7,711
Withdrawals	(10,279)	-	(10,279)
Interest credited	(2,682)	(1,475)	(4,157)
Investment contracts liabilities released	-	(6,506)	(6,506)
Fund charges released	(157)	-	(157)
Net exchange differences	1,084	(312)	772
Transfer to/from other headings	(137)	-	(137)
Other	2	-	2
At December 31, 2018	49,847	30,250	80,097

The addition in investment contracts for account of policyholders in 2018 of EUR 18.4 billion (GBP 16.3 billion) reflects the completion of the BlackRock Part VII transfer on July 1, 2018, in the UK.

36 Guarantees in insurance contracts

For financial reporting purposes Aegon distinguishes between the following types of minimum guarantees:

- Financial guarantees: these guarantees are treated as bifurcated embedded derivatives, valued at fair value and presented as derivatives (refer to note 2.9 and note 44 Fair value);
- Total return annuities: these guarantees are not bifurcated from their host contracts because they are presented and valued at fair value together with the underlying insurance contracts (refer to note 2.19);
- Life contingent guarantees in the United States: these guarantees are not bifurcated from their host contracts, presented and valued in accordance with insurance accounting together with the underlying insurance contracts (refer to note 2.19); and
- Minimum investment return guarantees in the Netherlands: these guarantees are not bifurcated from their host contracts, valued at fair value and presented together with the underlying insurance contracts (refer to note 2.19 and note 44 Fair value).

In addition to the guarantees mentioned above, Aegon has traditional life insurance contracts that include minimum guarantees that are not valued explicitly; however, the adequacy of all insurance liabilities, net of VOBA and DPAC, and including all guarantees, are assessed periodically (refer to note 2.19).

a. Financial guarantees

In the United States and in the United Kingdom, a guaranteed minimum withdrawal benefit (GMWB) is offered directly on some variable annuity products Aegon issues and is also assumed from a ceding company. Additionally, Aegon offers guarantees on variable annuities sold through its joint venture in Japan. Variable annuities allow a customer to provide for the future on a tax-deferred basis and to participate in equity or bond market performance. Variable annuities allow a customer to select payout options designed to help meet the customer's need for income upon maturity, including lump sum payment or income for life or for a period of time. This benefit guarantees that a policyholder can withdraw a certain percentage of the account value, starting at a certain age or duration, for either a fixed period or during the life of the policyholder.

In the Netherlands, individual variable unit-linked products have a minimum benefit guarantee if premiums are invested in certain funds. The sum insured at maturity or upon the death of the beneficiary has a minimum guaranteed return (in the range of 3% to 4%)

if the premium has been paid for a consecutive period of at least ten years and is invested in a mixed fund and/or fixed-income funds. No guarantees are given if invested is in equity only.

The following table provides information on the liabilities for financial guarantees for minimum benefits, net of present value of the expected future premiums that are received to cover these guarantees:

	2019			2018		
	United States ¹⁾	The Netherlands ²⁾	Total ³⁾	United States ¹⁾	The Netherlands ²⁾	Total ³⁾
At January 1	766	1,678	2,445	247	1,547	1,794
Incurring guarantee benefits ⁴⁾	518	57	575	491	131	622
Paid guarantee benefits	(1)	-	(1)	(1)	-	(1)
Net exchange differences	13	-	13	29	-	29
At December 31	1,296	1,735	3,031	766	1,678	2,445
Account value ⁵⁾	34,503	8,626	43,130	30,788	8,175	38,963
Net amount at risk ⁶⁾	236	2,002	2,239	235	2,004	2,239

¹⁾ Guaranteed minimum accumulation and withdrawal benefits.

²⁾ Fund plan and unit-linked guarantees.

³⁾ Balances are included in the derivatives liabilities on the face of the statement of financial position; refer to note 24 Derivatives.

⁴⁾ Incurring guarantee benefits mainly comprise the effect of guarantees from new contracts, releases related to expired out-of-the-money guarantees and fair value movements during the reporting year.

⁵⁾ Account value reflects the actual fund value for the policyholders.

⁶⁾ The net amount at risk represents the sum of the positive differences between the discounted maximum amount payable under the guarantees and the account value.

The increase of incurred guarantee benefits mainly relates to decreasing interest rates and credit spreads movements offset by rising equity markets in 2019. The decreasing interest rates and rising equity markets also increased the account value in 2019.

Aegon Americas mitigates the exposure from the elective guaranteed minimum withdrawal benefit rider issued with a ceding company's variable annuity contracts. The rider is essentially a return of premium guarantee, which is payable over a period of at least 14 years from the date that the policyholder elects to start withdrawals. At contract inception, the guaranteed remaining balance is equal to the premium payment. The periodic withdrawal is paid by the ceding company until the account value is insufficient to cover additional withdrawals. Once the account value is exhausted, Aegon pays the periodic withdrawals until the guaranteed remaining balance is exhausted. At December 31, 2019, the reinsured account value was EUR 1.8 billion (2018: EUR 1.7 billion) and the guaranteed remaining balance was EUR 1.1 billion (2018: EUR 1.1 billion).

The GMWB rider Aegon assumed from the ceding company is accounted for as a derivative and is carried in Aegon's statement of financial position at fair value. At December 31, 2019, the contract had a value of EUR 37 million (2018: EUR 36 million). Aegon entered into a derivative program to mitigate the overall exposure to equity market and interest rate risks associated with the reinsurance contract. This program involves selling equity futures contracts and equity total return swap contracts (S&P 500, Midcap, Russell 2000, and the MCSI EAFE index in accordance with Aegon's exposure) to mitigate the effect of equity market movement on the reinsurance contract and the purchase of interest rate swaps, treasury futures and treasury forwards to mitigate the effect of movements in interest rates on the reinsurance contracts.

Aegon the Netherlands provides guarantees to its customers on expiry date for certain insurance contracts. In order to mitigate the risks related to the guarantees Aegon the Netherlands has setup a hedging program. Aegon the Netherlands does not use reinsurance in order to mitigate risks related to insurance contracts with a guarantee component. The net amount at risk represents the sum of the positive differences between the discounted maximum amount payable under the guarantees and the account value, which is the actual fund value of the policyholder.

b. Total return annuities

Total Return Annuity (TRA) is an annuity product in the United States which provides customers with a pass-through of the total return on an underlying portfolio of investment securities (typically a mix of corporate and convertible bonds) subject to a cumulative minimum guarantee. Both the assets and liabilities are carried at fair value, however, due to the minimum guarantee not all of the changes in the market value of the asset will be offset in the valuation of the liability. This product exists for the fixed annuity line of business and represents a closed block.

The fixed annuities product balance as of December 31, 2019, amounted to EUR 234 million (2018: EUR 243 million).

c. Life contingent guarantees in the United States

Certain variable insurance contracts in the United States also provide guaranteed minimum death benefits (GMDB) and guaranteed minimum income benefits (GMIB). Under a GMDB, the beneficiaries receive the greater of the account balance or the guaranteed amount upon the death of the insured. The net amount at risk for GMDB contracts is defined as the current GMDB in excess of the capital account balance at the reporting date.

The GMIB feature provides for minimum payments if the contract holder elects to convert to an immediate payout annuity. The guaranteed amount is calculated using the total deposits made by the contract holder, less any withdrawals and sometimes includes a roll-up or step-up feature that increases the value of the guarantee with interest or with increases in the account value.

The additional liability for guaranteed minimum benefits that are not bifurcated are determined each period by estimating the expected value of benefits in excess of the projected account balance and recognizing the excess over the accumulation period based on total expected assessments. The estimates are reviewed regularly and any resulting adjustment to the additional liability is recognized in the income statement. The benefits used in calculating the liabilities are based on the average benefits payable over a range of stochastic scenarios. Where applicable, the calculation of the liability incorporates a percentage of the potential annuitizations that may be elected by the contract holder.

The following table provides information on the liabilities for guarantees for minimum benefits that are included in the valuation of the host contracts:

	2019			2018		
	GMDB ¹⁾	GMIB ²⁾	Total ⁴⁾	GMDB ¹⁾	GMIB ²⁾	Total ⁴⁾
At January 1	519	906	1,425	364	608	972
Incurred guarantee benefits ⁵⁾	(27)	(210)	(238)	197	282	479
Paid guarantee benefits	(53)	(27)	(81)	(65)	(23)	(88)
Net exchange differences	10	17	27	23	39	62
At December 31	448	686	1,133	519	906	1,425
	GMDB ^{1), 3)}	GMIB ^{2), 3)}		GMDB ^{1), 3)}	GMIB ^{2), 3)}	
Account value ⁶⁾	54,411	5,331		48,174	4,770	
Net amount at risk ⁷⁾	1,268	688		2,839	888	
Average attained age of contract holders	70	71		70	71	

¹⁾ Guaranteed minimum death benefit in the United States.

²⁾ Guaranteed minimum income benefit in the United States.

³⁾ Note that the variable annuity contracts with guarantees may offer more than one type of guarantee in each contract; therefore, the amounts listed are not mutually exclusive.

⁴⁾ Balances are included in the insurance liabilities on the face of the statement of financial position; refer to note 34 Insurance contracts.

⁵⁾ Incurred guarantee benefits mainly comprise the effect of guarantees from new contracts, releases related to expired out-of-the-money guarantees and value changes as a consequence of interest movements during the reporting year.

⁶⁾ Account value reflects the actual fund value for the policyholders.

⁷⁾ The net amount at risk is defined as the present value of the minimum guaranteed annuity payments available to the contract holder determined in accordance with the terms of the contract in excess of the current account balance.

d. Minimum investment return guarantees in the Netherlands

The traditional life and pension products offered by Aegon in the Netherlands include various products that accumulate a cash value. Premiums are paid by customers at inception or over the term of the contract. The accumulation products pay benefits on the policy maturity date, subject to survival of the insured. In addition, most policies also pay death benefits if the insured dies during the term of the contract. The death benefits may be stipulated in the policy or depend on the gross premiums paid to date. Premiums and amounts insured are established at inception of the contract. The amount insured can be increased as a result of profit sharing, if provided for under the terms and conditions of the product. Minimum interest guarantees exist for all generations of traditional accumulation products written. Older generations contain a 4% guarantee; in 1999 the guarantee decreased to 3% and in 2013 the guarantee decreased to 0%.

The traditional group pension contracts offered by Aegon in the Netherlands include large group insurance contracts that have an individually determined asset investment strategy underlying the pension contract. The guarantee given is that the profit sharing is the maximum of 0% and the realized return on an asset portfolio specified in the policy conditions, adjusted for technical interest rates ranging from 3% to 4%. If the adjusted return is negative, the 0% minimum is effective, but the loss in any given year is carried forward to be offset against any future surpluses within the contract period. In general, a guarantee is given for the life

of the underlying employees so that their pension benefit is guaranteed. Large group contracts also share technical results (mortality risk and disability risk). The contract period is typically five years and the premiums are fixed over this period.

These guarantees are valued at fair value and are included as part of insurance liabilities with the underlying host insurance contracts in note 34 Insurance contracts.

The following table provides information on the liabilities for guarantees that are included in the valuation of the host contracts, net of the present value of the expected future premiums that are received to cover these guarantees:

	2019	2018
	GMI ^{1), 2)}	GMI ^{1), 2)}
At January 1	5,063	4,719
Incurring guarantee benefits ³⁾	1,358	344
At December 31	6,422	5,063
Account value ⁴⁾	19,985	18,346
Net amount at risk ⁵⁾	6,335	4,933

¹⁾ Guaranteed minimum investment return in the Netherlands.

²⁾ Balances are included in the insurance liabilities on the face of the statement of financial position; refer to note 34 Insurance contracts.

³⁾ Incurred guarantee benefits mainly comprise the effect of guarantees from new contracts, releases related to expired out-of-the-money guarantees and fair value movements during the reporting year.

⁴⁾ Account value reflects the liability value of the insurance contracts as a whole.

⁵⁾ The net amount at risk represents the sum of the differences between the guaranteed and actual amount that is credited to the policyholders. For Individual policies only positive differences are included, for Group pensions contracts carry forwards of negative differences are recognized.

Fair value measurement of guarantees in insurance contracts

The fair values of guarantees mentioned above (with the exception of life contingent guarantees in the United States) are calculated as the present value of future expected payments to policyholders less the present value of assessed rider fees attributable to the guarantees. For further details refer to note 44 Fair value.

For equity volatility, Aegon uses a term structure assumption with market-based implied volatility inputs for the first five years and a long-term forward rate assumption of 25% thereafter. The volume of observable option trading from which volatilities are derived generally declines as the contracts' term increases, therefore, the volatility curve grades from implied volatilities for five years to the ultimate rate. The resulting volatility assumption in year 20 for the S&P 500 index (expressed as a spot rate) was 21.1% at December 31, 2019, and 23.3% at December 31, 2018. Correlations of market returns across underlying indices are based on historical market returns and their inter-relationships over a number of years preceding the valuation date. Assumptions regarding policyholder behavior, such as lapses, included in the models are derived in the same way as the assumptions used to measure insurance liabilities.

These assumptions are reviewed at each valuation date, and updated based on historical experience and observable market data, including market transactions such as acquisitions and reinsurance transactions. Disclosure on interest rate risk, including interest rate risk sensitivity is included in note 4 Financial risks.

Aegon utilizes different risk management strategies to mitigate the financial impact of the valuation of these guarantees on the results including asset and liability management and derivative hedging strategies to hedge certain aspects of the market risks embedded in these guarantees.

Guarantees valued at fair value contributed a net gain before tax of EUR 424 million (2018: loss of EUR 56 million) to earnings. The main drivers of this gain before tax are a gain of EUR 1,585 million related to an increase in equity markets (2018: EUR 532 million loss), a gain of EUR 12 million related to increases in equity volatility (2018: EUR 8 million loss), a fair value gain on hedges related to the guarantee reserves of EUR 1,840 million (2018: EUR 527 million gain), a gain of EUR 42 million related to widening own credit spread (2018: EUR 148 million gain) and other and DPAC offset contributed a gain of EUR 273 million (2018: EUR 233 million loss). These gains are partly offset by negative results related to decreases in risk free rates of EUR 3,281 million (2018: EUR 32 million gain).

Guarantee reserves increased by EUR 1,937 million in 2019 (2018: increase of EUR 1,081 million) to EUR 9,645 million (2018: EUR 7,708 million).

37 Borrowings

	2019	2018
Capital funding	1,745	1,774
Operational funding	7,562	10,287
At December 31	9,307	12,061
Current	4,969	1,379
Non-current	4,338	10,682
Fair value of borrowings	9,783	12,421

Aegon's borrowings are defined separately as capital funding and operational funding. Capital funding includes debt securities that are issued for general corporate purposes and for capitalizing its business units. Capital funding is part of the Company's total capitalization that is used for financing its subsidiaries and the cash held at the holding company. Operational funding includes debt securities that are issued for financing of dedicated pools of assets. These assets are either legally segregated or tracked as separate portfolios.

Capital funding

A detailed composition of capital funding is included in the following table:

(sorted at maturity)	Coupon rate	Coupon date	Issue / Maturity	2019	2018
EUR 75 million Medium-Term Notes ¹⁾	4.625%	December 9	2004 / 19	-	78
USD 500 million Senior Notes ^{1), 2)}	5.75%	Semi-annually	2005 / 20	461	457
EUR 500 million Senior Unsecured Notes	1.00%	December 8	2016 / 23	497	496
GBP 250 million Medium-Term Notes	6.125%	December 15	1999 / 31	293	277
GBP 400 million Senior Unsecured Notes	6.625%	Semi-annually	2009 / 39	467	440
Other				26	26
At December 31				1,745	1,774

¹⁾ Measured at fair value.

²⁾ Issued by subsidiaries of, and guaranteed by, Aegon N.V.

These loans are considered senior debt in calculating financial leverage in note 43 Capital management and solvency.

Operational funding

During 2019, the operational funding decreased by EUR 2.7 billion mainly due to the early redemption of a USD 1.54 billion Variable Funding Surplus Note (EUR 1.4 billion), following a restructuring of this financing transaction in the US. In addition, a further decrease was driven by the redemption of 'SAECURE 14' of EUR 0.9 billion and the pay down of FHLB advances of EUR 1.7 billion. This was partly offset by an increase in other mortgage loan funding of EUR 0.5 billion, the issuance of EUR 500 million senior non-preferred notes with a coupon of 0.625%, and a transaction under the Dutch SAECURE program ('SAECURE 18') to sell Class A mortgage backed securities (RMBS). 'SAECURE 18 NHG' consists of EUR 512 million of class A notes with an expected weighted average life of 4.8 years and a coupon of 3 month Euribor plus 40bps.

During 2018, the operational funding decreased by EUR 1.1 billion mainly due to the redemption of 'SAECURE 13' of EUR 0.7 billion, paydown of FHLB advances of EUR 0.7 billion and a decrease in other mortgage funding of EUR 0.5 billion. This was partly offset by a transaction under the Dutch SAECURE program ('SAECURE 16') to sell Class A mortgage backed securities (RMBS). 'SAECURE 16' consists of EUR 875 million of class A notes with an expected weighted average life of 4.1 years and a coupon of 3 month Euribor plus 40bps.

	Coupon rate	Coupon date	Issue / Maturity	2019	2018
Revolving Loan Facility Warehouse Mortgage Loans ¹⁾	Floating	Monthly	- / 2020-22	817	375
EUR 1,367 million "SAECURE 14" RMBS Note ^{1), 2)}	Floating	Quarterly	2014 / 19	-	874
EUR 1,443 million "SAECURE 15" RMBS Note ^{1), 3)}	Floating	Quarterly	2014 / 20	917	1,038
EUR 875 million "SAECURE 16" RMBS Note ^{1), 4)}	Floating	Quarterly	2018 / 23	820	875
EUR 512 million "SAECURE 18" RMBS Note ^{1), 5)}	Floating	Quarterly	2019/25	491	-
EUR 750 million Conditional Pass-Through Covered Bond ^{1), 6)}	0.267%	Annual	2015 / 20	749	748
EUR 500 million Conditional Pass-Through Covered Bond ^{1), 7)}	0.250%	Annual	2016 / 23	498	497
EUR 500 million Conditional Pass-Through Covered Bond ^{1), 8)}	0.750%	Annual	2017 / 27	489	488
EUR 500 million Conditional Pass-Through Covered Bond ^{1), 9)}	0.375%	Annual	2017 / 24	498	497
USD 1.54 billion Variable Funding Surplus Note ^{10), 11)}	Floating	Quarterly	2006 / 36	-	1,388
FHLB Secured borrowings ¹⁾	Floating	Quarterly	2016 / 46	1,777	3,495
Aegon Bank Senior Non-Preferred debt ¹⁾	Fixed	Annual	2019/24	497	-
Other				8	12
At December 31				7,562	10,287

¹⁾ Issued by a subsidiary of Aegon N.V.

²⁾ The first optional redemption date is January 30, 2019; the final maturity date is January 30, 2092. Notes are fully collateralized by mortgage loans which are part of Aegon's general account investments.

³⁾ The first optional redemption date is January 30, 2020; the final maturity date is January 30, 2092. Notes are fully collateralized by mortgage loans which are part of Aegon's general account investments.

⁴⁾ The first optional redemption date is October 30, 2023; the final legal maturity date is October 30, 2091. Notes are fully collateralized by mortgage loans which are part of Aegon's general account investments.

⁵⁾ The first optional redemption date is July 28, 2025; the final legal maturity date is April 28, 2092. Notes are fully collateralized by mortgage loans which are part of Aegon's general account investments.

⁶⁾ The maturity date is December 1, 2020; the extended due for payment date is December 1, 2052.

⁷⁾ The maturity date is May 25, 2023; the extended due for payment date is May 25, 2055.

⁸⁾ The maturity date is June 27, 2027; the extended due for payment date is June 27, 2059.

⁹⁾ The maturity date is November 21, 2024; the extended due for payment date is November 21, 2056.

¹⁰⁾ Outstanding amounts can vary up to the maximum stated nominal amount.

¹¹⁾ This debenture is issued by a wholly owned captive that is consolidated in the Aegon N.V. consolidated financial statements. A guarantee has been provided by Aegon N.V. - refer to note 45 Commitments and contingencies.

Other

Included in borrowings is EUR 461 million relating to borrowings measured at fair value (2018: EUR 536 million). For the year 2019, Aegon's credit spread had a negative impact of EUR 1 million on income before tax (2018: positive impact of EUR 1 million) and a positive impact of EUR 1 million on shareholders' equity (2018: negative impact of EUR 3 million). The cumulative negative impact of Aegon's credit spread for borrowings in portfolio at year-end, based on observable market data, on income before tax amounted to EUR 28 million (2018: EUR 26 million).

The difference between the contractually required payment at maturity date and the carrying amount of the borrowings amounted to EUR 40 million negative (2018: EUR 8 million negative).

Undrawn committed borrowing facilities:

	2019	2018
Floating-rate		
- Expiring within one year	516	260
- Expiring beyond one year	2,887	3,420
At December 31	3,403	3,680

There were no defaults or breaches of conditions during the period.

38 Provisions

	2019	2018
At January 1	320	210
Additional provisions	42	231
Disposals	(60)	(94)
Unused amounts reversed through the income statement	(3)	(1)
Used during the year	(90)	(34)
Net exchange differences	5	8
At December 31	214	320
Current	137	275
Non-current	77	45

The provisions as at December 31, 2019 mainly consist of litigation provisions of EUR 90 million (2018: EUR 198 million) mainly related to a settlement in the US relating to increases in monthly deduction rates on universal life products (refer to note 45 Commitments and contingencies), restructuring provisions of EUR 43 million (2018: EUR 30 million), provisions regarding fees payable upon purchase and surrender of unit-linked policies in the Polish Life Insurance portfolio of EUR 14 million (2018: EUR 17 million) and other provisions of EUR 66 million (2018: EUR 76 million) including the remaining provision related to the harbor workers' former pension fund Optas.

39 Defined benefit plans

	2019	2018
Retirement benefit plans	4,076	3,714
Other post-employment benefit plans	283	275
Total defined benefit plans	4,359	3,989
Retirement benefit plans in surplus	1	-
Other post-employment benefit plans in surplus	-	-
Total defined benefit assets	1	-
Retirement benefit plans in deficit	4,077	3,714
Other post-employment benefit plans in deficit	283	275
Total defined benefit liabilities	4,360	3,989

	2019			2018		
	Retirement benefit plans	Other post-employment benefit plans	Total	Retirement benefit plans	Other post-employment benefit plans	Total
Movements during the year in defined benefit plans						
At January 1	3,714	275	3,989	3,657	293	3,950
Defined benefit expenses	227	17	244	192	13	206
Remeasurements of defined benefit plans	607	5	612	157	(23)	134
Contributions paid	(298)	-	(298)	(234)	-	(234)
Benefits paid	(100)	(18)	(118)	(99)	(19)	(118)
Net exchange differences	14	4	18	37	11	47
Other ¹⁾	(89)	-	(88)	5	-	5
At December 31	4,076	283	4,359	3,714	275	3,989

¹⁾ In 2019, 'Other' mainly relates to the plan amendment from The Netherlands as described in the section on 'Aegon the Netherlands' in this note.

The amounts recognized in the statement of financial position are determined as follows:

	2019			2018		
	Retirement benefit plans	Other post-employment benefit plans	Total	Retirement benefit plans	Other post-employment benefit plans	Total
Present value of wholly or partly funded obligations	4,807	-	4,807	4,027	-	4,027
Fair value of plan assets	(4,420)	-	(4,420)	(3,525)	-	(3,525)
	386	-	386	502	-	502
Present value of wholly unfunded obligations ¹⁾	3,690	283	3,973	3,212	275	3,487
At December 31	4,076	283	4,359	3,714	275	3,989

¹⁾ As all pension obligations are insured at subsidiary Aegon Levensverzekering almost all assets held by Aegon Nederland backing retirement benefits of EUR 2,736 millions (2018: EUR 2,568 million) do not meet the definition of plan assets and as such were not deducted in calculating this amount. Instead, these assets are recognized as general account assets. Consequently, the return on these assets does not form part of the calculation of defined benefit expenses.

The fair value of Aegon's own transferable financial instruments included in plan assets and the fair value of other assets used by Aegon included in plan assets was nil in both 2019 and 2018.

	2019			2018		
	Retirement benefit plans	Other post-employment benefit plans	Total	Retirement benefit plans	Other post-employment benefit plans	Total
Defined benefit expenses						
Current year service cost	148	8	157	121	10	131
Net interest on the net defined benefit liability (asset)	80	9	89	87	8	96
Past service cost	(1)	-	(1)	(16)	(5)	(21)
Total defined benefit expenses	227	17	244	192	13	206

	2017		
	Retirement benefit plans	Other post-employment benefit plans	Total
Current year service cost	148	11	158
Net interest on the net defined benefit liability (asset)	99	10	109
Past service cost	(5)	(1)	(6)
Total defined benefit expenses	242	19	262

Defined benefit expenses are included in 'Commissions and expenses' in the income statement.

Movements during the year of the present value of the defined benefit obligations	2019	2018
At January 1	7,514	7,572
Current year service cost	157	131
Interest expense	221	213
<i>Remeasurements of the defined benefit obligations:</i>		
- Actuarial gains and losses arising from changes in demographic assumptions	40	(28)
- Actuarial gains and losses arising from changes in financial assumptions	1,126	(102)
Past service cost	(1)	(21)
Contributions by plan participants	8	11
Benefits paid	(353)	(409)
Net exchange differences	144	144
Other ¹⁾	(76)	5
At December 31	8,779	7,514

¹⁾ In 2019, 'Other' mainly relates to the plan amendment from Aegon the Netherlands as described in the section on 'Aegon the Netherlands' in this note.

Movements during the year in plan assets for retirement benefit plans	2019	2018
At January 1	3,525	3,622
Interest income (based on discount rate)	133	117
Remeasurements of the net defined liability (asset)	566	(264)
Contributions by employer	306	245
Benefits paid	(235)	(291)
Net exchange differences	126	96
At December 31	4,420	3,525

Breakdown of plan assets for retirement benefit plans	2019				2018			
	Quoted	Unquoted	Total	in % of total plan assets	Quoted	Unquoted	Total	in % of total plan assets
Equity instruments	160	3	164	4%	106	5	111	3%
Debt instrument	465	361	826	19%	369	343	712	20%
Real estate	-	119	119	3%	-	111	111	3%
Derivatives	-	57	57	1%	-	149	149	4%
Investment funds	3	2,484	2,487	56%	11	1,945	1,956	55%
Other	15	752	767	17%	14	471	484	14%
At December 31	644	3,776	4,420	100%	500	3,025	3,525	100%

Defined benefit plans are mainly operated by Aegon USA, Aegon the Netherlands and Aegon UK. The following sections contain a general description of the plans in each of these subsidiaries and a summary of the principal actuarial assumptions applied in determining the value of defined benefit plans.

Aegon USA

Aegon USA has defined benefit plans covering substantially all its employees that are qualified under the Internal Revenue Service Code, including all requirements for minimum funding levels. The defined benefit plans are governed by the Board of Directors of Transamerica Corporation. The Board of Directors has the full power and discretion to administer the plan and to apply all of its provisions, including such responsibilities as, but not limited to, developing the investment policy and managing assets for the plan, maintaining required funding levels for the plan, deciding questions related to eligibility and benefit amounts, resolving disputes that may arise from plan participants and for complying with the plan provisions, and legal requirements related to the plan and its operation. The benefits are based on years of service and the employee's eligible annual compensation. The plans provide benefits based on a traditional final average formula or a cash balance formula (which defines the accrued benefit in terms of a stated account balance), depending on the age and service of the plan participant. The defined benefit plans have a deficit of EUR 388 million at December 31, 2019 (2018: EUR 450 million deficit).

Investment strategies are established based on asset and liability studies by actuaries which are updated as they consider appropriate. These studies, along with the investment policy, assist to develop the appropriate investment criteria for the plan, including asset allocation mix, return objectives, investment risk and time horizon, benchmarks and performance standards, and restrictions and prohibitions. The overall goal is to maximize total investment returns to provide sufficient funding for the present and anticipated future benefit obligations within the constraints of a prudent level of portfolio risk and diversification. Aegon believes that the asset allocation is an important factor in determining the long-term performance of the plan. The plan uses multiple asset classes as well as sub-classes to meet the asset allocation and other requirements of the investment policy, which minimizes investment risk. From time to time the actual asset allocation may deviate from the desired asset allocation ranges due to different market performance among the various asset categories. If it is determined that rebalancing is required, future additions and withdrawals will be used to bring the allocation to the desired level.

Aegon USA maintains minimum required funding levels as set forth by the Internal Revenue Code. If contributions are required, the funding would be provided from the Company's general account assets. Pension plan contributions were not required for Aegon USA in 2019 or 2018. However, with the Aegon N.V. Management Board approval of a proposal from Transamerica Corporation, Transamerica Corporation made a pension plan contribution of EUR 223 million in September 2019 (EUR 190 million in September 2018) that was over and above the minimum required funding levels as set forth by the Internal Revenue Code.

Aegon USA also sponsors supplemental retirement plans to provide senior management with benefits in excess of normal retirement benefits. The plans are unfunded and are not qualified under the Internal Revenue Code. The supplemental retirement plans are governed by either Transamerica Corporation, or the Compensation Committee of the Board of Directors of Transamerica Corporation.

Transamerica Corporation, or the Compensation Committee of the Board of Directors has the full power and discretion to apply all of the plan's provisions, including such responsibilities as, but not limited to, interpret the plan provisions, to make factual determinations under the plan, to determine plan benefits, and to comply with any statutory reporting and disclosure requirements. The benefits are based on years of service and the employee's eligible annual compensation. The plans provide benefits based on a traditional final average formula or a cash balance formula (which defines the accrued benefit in terms of a stated account balance), depending on the age and service of the plan participant. The company funds the benefit payments of the supplemental retirement plans from its general account assets. The unfunded amount related to these plans, for which a liability has been recorded, was EUR 272 million (2018: EUR 241 million unfunded).

Aegon USA provides health care benefits to retired employees through continuation of coverage primarily in self funded plans, and partly in fully insured plans, which are classified as unfunded per IAS 19 financial guidance. The postretirement health care benefits under the Plans are administered by Transamerica Corporation, which has delegated the claims administration to third-party administrators. Aegon USA maintains two plans which provide continuation of coverage for retiree medical benefits. For each plan, Aegon USA has the fiduciary responsibility to administer the plan in accordance with its terms, and decides questions related to eligibility and determines plan provisions and benefit amounts.

Under the Employee Retirement Income Security Act (ERISA), Aegon USA has the fiduciary responsibility to monitor the quality of services provided by the third-party claims administrator and to replace the third-party administrator if needed. In addition, Aegon USA has the fiduciary obligation to interpret the provisions of the plans, and to comply with any statutory reporting and disclosure requirements. Finally, Aegon USA reviews the terms of the plans and makes changes to the plans if and when appropriate. Aegon USA funds the benefit payments or premium payments of the post-retirement health care plans from its general account assets. The post-retirement health benefit liability amounted to EUR 217 million (2018: EUR 210 million).

The weighted average duration of the defined benefit obligation is 12.6 years (2018: 12.2 years).

The principal actuarial assumptions that apply for the year ended December 31 are as follows:

Actuarial assumptions used to determine defined benefit obligations at year-end	2019	2018
Demographic actuarial assumptions		
Mortality	US mortality table ¹⁾	US mortality table ²⁾
Financial actuarial assumptions		
Discount rate ³⁾	3.23%/3.02%	4.22% / 4.05%
Salary increase rate	4.00%	3.85%
Health care trend rate	6.60%	7.00%

¹⁾ 2019 assumption- PRI-2012 Employee, Health Annuitant and Contingent Survivor Tables (90% white collar/ 10% blue collar) projected with Scale MP -2019.

²⁾ 2018 Assumption- RP2014 Employee and Health Annuitant Tables projected with Scale MP - 2018

³⁾ Aegon USA has separate discount rates beginning with 2018 – 3.23% for all pension plans and 3.02% for post retirement welfare plan 2019.

The principal actuarial assumptions have an effect on the amounts reported for the defined benefit obligation. A change as indicated in the table below in the principal actuarial assumptions would have the following effects on the defined benefit obligation per year-end:

	Estimated approximate effects on the defined benefit obligation	
	2019	2018
Demographic actuarial assumptions		
10% increase in mortality rates	(83)	(70)
10% decrease in mortality rates	92	77
Financial actuarial assumptions		
100 basis points increase in discount rate	(417)	(351)
100 basis points decrease in discount rate	514	430
100 basis points increase in salary increase rate	29	29
100 basis points decrease in salary increase rate	(27)	(26)
100 basis points increase in health care trend rate	12	12
100 basis points decrease in health care trend rate	(11)	(11)

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognized within the statement of financial position.

	Target allocation of plan assets for retirement benefit plans for the next annual period is:
Equity instruments	19-28%
Debt instruments	47-58%
Other	20-28%

Aegon the Netherlands

Aegon the Netherlands has a number of defined benefit plans and a small number of defined contribution plans. The defined benefit plans are subject to Dutch Pension regulations and governed by the Board of Directors of Aegon the Netherlands. The Board of Directors has the full power and discretion to administer the plan including developing investment policy and managing assets for the plans (although these assets do not qualify as 'plan assets' as defined by IFRS), deciding questions related to eligibility and benefit amounts, and any disputes that may arise from plan participants and for complying with the plan provisions, and legal requirements related to the plan and its operation. Aegon the Netherlands runs, in principle, full actuarial and investment risk regarding the defined benefit plans. This includes the risks of low interest rates, low returns and increased longevity. A part of this risk can be attributed to plan participants by lowering indexation or by increasing employee contributions.

Furthermore, the specific statutory requirements governing the administration of group pension schemes have been laid down in the Pension Act (Pensioenwet / Pw). Insurers are subject to prudential supervision pursuant to the Financial Supervision Act (Wet op het financieel toezicht / Wft).

Investment strategies are established based on asset and liability studies. The overall goal is to maximize total investment returns to provide sufficient funding for the present and anticipated future benefit obligations within the constraints of a prudent level of portfolio risk. These studies use for example return objectives and various investment instruments. Investment restrictions are updated regularly and they result in asset allocation mix and hedges.

The contributions to the retirement benefit plan of Aegon the Netherlands are paid by both the employees and the employer, with the employer contribution being variable¹. The benefits covered are retirement benefits, disability, death and survivor pension and are based on an average wage system. The defined benefit plans were unfunded by EUR 3,413 million at December 31, 2019. (2018: EUR 2,967 million). The defined benefit plans are largely backed by investment, although these assets do not qualify as 'plan assets' as defined by IFRS. The average remaining duration of the defined benefits obligation is 21.9 years (2018: 20.9 years).

Aegon the Netherlands also has a post-retirement medical plan that contributes to the health care coverage of employees and beneficiaries after retirement. For this plan, Aegon the Netherlands has the responsibility to administer the plan in accordance with its terms, and decides on questions related to eligibility and determines plan provisions and benefit amounts. In addition, Aegon the Netherlands has the obligation to interpret the provisions of the plans, and to comply with any statutory reporting and disclosure requirements. Finally, Aegon the Netherlands reviews the terms of the plans and makes changes to the plans if and when appropriate. The liabilities related to these other post-employment benefit plans are fully unfunded and amount to EUR 65 million at December 31, 2019 (2018: EUR 65 million). The weighted average duration of the other post-employment benefit plans is 12.4 years (2018: 11.7 years).

Plan amendments

In 2019, Aegon the Netherlands amended the current defined pension plans for their own employees. The entitlements build up under the existing defined benefit scheme will continue to exist and will remain insured at Aegon Levensverzekering, but is closed to new entrants. All contributions after January 1, 2020, will be made to a new individual defined contribution pension scheme. The new Aegon Pension Plan will be between Aegon the Netherlands and Aegon Capital and comes into effect on January 1, 2020.

The plan amendment resulted in a release of EUR 101 million in 2019 which is included in note 11 'Other income'. This release is driven by the effect of no longer taking into account future salary increases under the new defined contribution pension scheme.

¹ Aegon Nederland deducts employee contributions from the total pension expenses.

The minimum tax-qualified retirement age for occupational retirement plans in the Netherlands is triggered by an increase in average life expectancy as determined by the Central Bureau of Statistics. Effective January 1, 2018, the tax-qualified retirement age in combination with the maximum annual benefit accrual of 1.875% becomes 68. As a result Aegon has changed the retirement age of its pension plan from 67 to 68 years as from January 1, 2018.

The principal actuarial assumptions that apply for the year-ended December 31 are as follows:

Actuarial assumptions used to determine defined benefit obligations at year-end	2019	2018
Demographic actuarial assumptions		
Mortality	NL mortality table ¹⁾	NL mortality table ¹⁾
Financial actuarial assumptions		
Discount rate	0.94%	1.74%
Salary increase rate ²⁾	Curve 2019	Curve 2018
Indexation ³⁾	59.2 % of Curve 2019	57.75% of Curve 2018

¹⁾ Based on prospective mortality table of the Dutch Actuarial Society with minor methodology adjustments.

²⁾ Based on Dutch Consumer Price Index.

³⁾ Based on Dutch Consumer Price Index.

The principal actuarial assumptions have an effect on the amounts reported for the defined benefit obligation. A change as indicated in the table below in the principal actuarial assumptions of the retirement benefit plan would have the following effects per year-end:

	Estimated approximate effects on the defined benefit obligation	
	2019	2018
Demographic actuarial assumptions		
10% increase in mortality rates	(100)	(81)
10% decrease in mortality rates	112	90
Financial actuarial assumptions		
100 basis points increase in discount rate	(645)	(534)
100 basis points decrease in discount rate	893	733
100 basis points increase in salary increase rate	1	18
100 basis points decrease in salary increase rate	-	(18)
25 basis points increase in indexation	194	167
25 basis points decrease in indexation	(177)	(152)

The above sensitivity analysis is based on a change in one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit obligation recognized within the statement of financial position.

Aegon UK

Aegon UK operated a defined benefit pension scheme providing benefits for staff based on final pensionable salary and years of service. The scheme closed to new entrants a number of years ago and closed to future accrual on March 31, 2013. Aegon UK now offers a defined contribution pension scheme to all employees.

The pension scheme is administered separately from Aegon UK and is governed by Trustees, who are required to act in the best interests of the pension scheme members.

The pension scheme Trustees are required to carry out triennial valuations on the scheme's funding position, with the latest valuation being as at March 31, 2019. As part of this triennial valuation process, a schedule of contributions is agreed between the Trustees and Aegon UK in accordance with UK pensions legislation and guidance issued by the Pensions Regulator in the UK. The schedule of contributions includes deficit reduction contributions to clear any scheme deficit. Under IAS 19, the defined benefit plan has a surplus of EUR 1.5 million at December 31, 2019 (2018: EUR 51 million deficit). During 2019, EUR 83 million (2018: EUR 55 million)

of contributions were paid into the scheme. The 2019 contributions included a one off payment of EUR 29 million in addition to the schedule of contributions.

The investment strategy for the scheme is determined by the trustees in consultation with Aegon UK. Currently 30% of assets are invested in growth assets (i.e. primarily equities) and 70% are liability driven investments where the investments are a portfolio of fixed interest and inflation-linked bonds and related derivatives, selected to broadly match the interest rate and inflation profile of liabilities.

Under the scheme rules, pensions in payment increase in line with the UK Retail Price Index, and deferred benefits increase in line with the UK Consumer Price Index. The pension scheme is therefore exposed to UK inflation changes as well as interest rate risks, investment returns and changes in the life expectancy of pensioners.

During 2019, the scheme purchased a buy-in policy in the name of the Trustee to cover full scheme benefits for a group of pensioners. The liability (and matching asset) calculated on the year end assumptions has been included in the funded position as at 31 December 2019.

The weighted average duration of the defined benefit obligation is 21.6 years (2018: 21.6 years).

The principal actuarial assumptions that apply for the year ended December 31 are as follows:

Actuarial assumptions used to determine defined benefit obligations at year-end	2019	2018
Demographic actuarial assumptions		
Mortality	UK mortality table ¹⁾	UK mortality table ²⁾
Financial actuarial assumptions		
Discount rate	2.08%	2.94%
Price inflation	3.08%	3.32%

¹⁾ Club Vita tables based on analysis of Scheme membership CMI 2017 1.5%/1.25% p.a. (males/females)

²⁾ Club Vita tables based on analysis of Scheme membership CMI 2017 1.5%/1.25% p.a. (males/females)

The principal actuarial assumptions have an effect on the amounts reported for the defined benefit obligation. A change as indicated in the table below in the principal actuarial assumptions would have the following effects on the defined benefit obligation per year-end:

	Estimated approximate effects on the defined benefit obligation	
	2019	2018
Demographic actuarial assumptions		
10% increase in mortality rates	(48)	(34)
10% decrease in mortality rates	54	38
Financial actuarial assumptions		
100 basis points increase in discount rate	(306)	(235)
100 basis points decrease in discount rate	414	313
100 basis points increase in price inflation	130	119
100 basis points decrease in price inflation	(281)	(192)

The above sensitivity analysis is based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the pension liability recognized within the statement of financial position.

	Target allocation of plan assets for retirement benefit plans for the next annual period is:
Equity instruments	32%
Debt instruments	68%

All other operating segments

Businesses included in all other operating segments mostly operate defined contribution plans. Please refer to note 14 Commissions and expenses for the employee expenses regarding these contribution plans.

40 Deferred tax

	2019	2018
Deferred tax assets	193	125
Deferred tax liabilities	1,394	610
Total net deferred tax liability / (asset)	1,202	484

Deferred tax assets comprise temporary differences on:

	2019	2018
Real Estate	(520)	-
Financial assets	76	(7)
Insurance and investment contracts	440	-
Deferred expenses, VOBA and other intangible assets	(112)	(125)
Defined benefit plans	7	12
Tax losses and credits carried forward	183	167
Other	119	79
At December 31	193	125

Deferred tax liabilities comprise temporary differences on:

	2019	2018
Real estate	124	520
Financial assets	1,716	887
Insurance and investment contracts	(1,031)	(1,433)
Deferred expenses, VOBA and other intangible assets	1,663	1,788
Defined benefit plans	(249)	(257)
Tax losses and credits carried forward	(551)	(147)
Other	(279)	(748)
At December 31	1,394	610

The following table provides a movement schedule of net deferred tax broken-down by those items for which a deferred tax asset or liability has been recognized.

	Real estate	Financial assets	Insurance and investment contracts	Deferred expenses, VOBA and other intangible assets	Defined benefit plans	Tax losses and credits carried forward	Other	Total
At January 1, 2019	519	895	(1,434)	1,914	(269)	(314)	(837)	474
Charged to income statement	125	111	(20)	(175)	108	63	(12)	200
Charged to OCI	(8)	628	-	-	(90)	-	(9)	520
Net exchange differences	1	9	(17)	37	(5)	(9)	(17)	(2)
Disposal of a business	-	-	-	-	-	-	2	2
Transfer to/from other headings	-	-	-	-	-	(473)	473	-
Other	7	(3)	-	-	-	-	3	7
At December 31, 2019	644	1,640	(1,471)	1,775	(256)	(734)	(398)	1,202
At January 1, 2018	554	1,820	(1,787)	1,892	(295)	(296)	(863)	1,025
Acquisitions / Additions	-	-	-	9	-	-	-	9
Charged to income statement	(31)	(454)	401	(63)	23	(1)	143	19
Charged to OCI	(7)	(514)	2	-	17	(2)	12	(494)
Net exchange differences	4	46	(51)	82	(14)	(4)	(38)	25
Transfer to/from other headings	-	(3)	-	(6)	-	-	9	-
Other	-	-	-	-	-	(11)	(90)	(101)
At December 31, 2018	519	895	(1,434)	1,914	(269)	(314)	(827)	484

The position as per January 1, 2019 has been adjusted due to the initial application of IFRS 16. Reference is made to note 2.1.1 for details.

In 2019, the increase of deferred tax liability primarily related to an increase of unrealized profits in respect of financial assets mainly driven by a decrease in interest rates.

In 2018, the movement in other of EUR 90 million is caused by the redemption of the non-cumulative subordinated note. Refer to note 31 "Other equity instruments".

Transfer to/from other headings in 2019 includes the transfer between the columns "other" and "tax losses and credits carried forward", in relation to credits carried forward for an amount of EUR 473 million.

Deferred corporate income tax assets are recognized for tax losses and credits carried forward to the extent that the realization of the related tax benefit through future taxable profits is probable. For an amount of gross EUR 1,379 million; tax EUR 236 million related to tax losses carried forward (2018: gross EUR 1,317 million; tax EUR 225 million) and an amount of tax EUR 391 million related to tax credits carried forward (2018: tax EUR 473 million) the realization of the deferred tax asset is dependent on the projection of future taxable profits as well as foreign income from existing business in excess of the profits arising from the reversal of existing taxable temporary differences. For comparative purposes the figures relating to the gross amount and tax amount for 2018 have been adjusted since several entities with deferred tax assets dependent on future taxable profits reported profits and were therefore not required to be included.

For the following amounts, arranged by loss carry forward periods, the deferred corporate income tax asset is not recognized:

	Gross amounts ¹⁾		Not recognized deferred tax assets	
	2019	2018	2019	2018
< 5 years	79	65	20	15
≥ 5 – 10 years	18	21	4	5
≥ 10 – 15 years	27	20	51	36
≥ 15 – 20 years	1	-	-	-
Indefinitely	488	385	107	86
At December 31	613	490	182	142

¹⁾ The gross value of state tax loss carry forward is not summarized in the disclosure, due to the fact that the United States files in different state jurisdictions with various applicable tax rates and apportionment rules

Deferred corporate income tax assets in respect of deductible temporary differences are recognized to the extent that the realization of the related tax benefit through future taxable profits is probable. For an amount of gross EUR 406 million; tax EUR 99 million (2018: gross EUR 162 million; tax EUR 29 million) the realization of the deferred corporate income tax asset is dependent on future taxable profits in excess of the profits arising from the reversal of existing taxable temporary differences.

Aegon did not recognize deferred corporate income tax assets in respect of deductible temporary differences relating to Financial assets and Other items for the amount of gross EUR 32 million; tax EUR 6 million (2018: gross EUR 40 million; tax EUR 8 million).

Deferred corporate income tax liabilities have not been recognized for withholding tax and other taxes that would be payable on the unremitted earnings of certain subsidiaries. The unremitted earnings totaled gross EUR 1,774 million; tax EUR 383 million (2018: gross EUR 1,770 million; tax EUR 361 million).

All deferred corporate income taxes are non-current by nature.

41 Other liabilities

	2019	2018
Payables due to policyholders	1,363	1,172
Payables due to brokers and agents	296	373
Payables out of reinsurance	1,597	1,327
Social security and taxes payable	117	108
Income tax payable	3	2
Investment creditors	940	1,195
Cash collateral on derivative transactions	4,243	3,396
Cash collateral on securities lent	2,146	2,480
Cash collateral - other	59	49
Repurchase agreements	719	322
Commercial paper	58	82
Lease liabilities	311	-
Other creditors	2,968	2,947
At December 31	14,819	13,454
Current	14,097	13,309
Non-current	722	146

The carrying amounts disclosed reasonably approximate the fair values at year-end, given the predominantly current nature of the other liabilities.

42 Accruals

	2019	2018
Accrued interest	292	237
Accrued expenses	134	151
At December 31	426	388

The carrying amounts disclosed reasonably approximate the fair values as at the year-end.

43 Capital management and solvency Strategic importance

Aegon's approach towards capital management plays a vital role in supporting the execution of its strategy. The key capital management priority is to ensure adequate capitalization to cover Aegon's obligations towards its policyholders and debtholders while providing sustainable dividends to shareholders. This priority is accomplished by allocating capital to products that offer high growth and return prospects. Furthermore, a priority for capital management for several years has been to shift the product portfolio from focusing mostly on capital intensive spread business to diversifying the portfolio to include more capital light fee business.

Management of capital

Disciplined risk and capital management support Aegon's decisions in deploying the capital that is generated in the Company's businesses and that is provided for by investors. Aegon balances the funding of new business growth with the funding required to ensure that its obligations towards policyholders and debtholders are always adequately met, and providing for a sustainable dividend to shareholders.

Aegon's goal for both its operating units and for the Aegon group as a whole is to maintain a strong financial position and to be able to sustain losses from extreme business and market conditions. The company's overall capital management strategy is based on adequate solvency capital, capital quality, and the use of leverage.

Aegon's ERM framework ensures that the Aegon Group and its operating companies are adequately capitalized and that obligations towards policyholders are always adequately met. Firmly embedded in this larger framework, Aegon's capital management framework builds on a set of key pillars: the use of internal target capital management zones, an internal target range for the use of gross financial leverage and, supported by robust risk and capital monitoring processes that timely trigger and escalate interventions if needed to ensure that capital is always being managed towards these internal target ranges, and is prevented from falling below the regulatory minimum capital requirements.

Capital adequacy

The capitalization of the Aegon Group and its operating units is managed in relation to the most stringent of local regulatory requirements, rating agency requirements and/or self-imposed criteria. Aegon manages its Solvency II capital in relation to the required capital. Under Aegon's capital management framework the own funds are managed such that the Group Solvency II ratio remains within the target range of 150% - 200% even in an adverse event. The Solvency contribution of Aegon US insurance entities under Deduction & Aggregation (D&A) involves converting 150% Risk-Based Capital Company Action Level into Solvency Capital Requirement (SCR) and reducing own funds by a 100% RBC Company Action Level requirement to reflect transferability restrictions. The methodology is subject to annual review.

Minimum solvency requirements

Insurance laws and regulations in local regulatory jurisdictions often contain minimum regulatory capital requirements. For insurance companies in the European Union, Solvency II formally defines a lower capital requirement, being the Minimum Capital Requirement (MCR). An irreparable breach of the MCR would lead to a withdrawal of the Company's insurance license. Similarly, for the US insurance entities the withdrawal of the insurance license is triggered by a breach of the 100% Authorized Control Level (ACL), which is set at 50% of the Company Action Level (CAL).

With the introduction of Solvency II for EEA countries, Aegon views the higher capital requirement, 100% of the SCR, as the level around which EU supervisors will formally require management to provide regulatory recovery plans. For the US insurance entities this is viewed at 100% Company Action Level (CAL).

During 2019, the Aegon Group and the regulated entities within the Aegon Group that are subject to regulatory capital requirements on a solo-level continued to comply with such requirements, except for Aegon España, S.A.U. de Seguros y Reaseguros (Aegon Spain). Aegon Spain used to apply a transitional arrangement related to its technical provisions and applied the Solvency II matching adjustment. At the instruction of the Spanish Insurance Regulator (DGSFP), Aegon Spain no longer applies the matching adjustment and the transitional arrangements. As a consequence of this, the Solvency II ratio of Aegon Spain dropped below the 100% and Aegon Group contributed with a capital injection in Aegon Spain to restore the Solvency II position.

Capital quality

Aegon's capital consists of 3 Tiers as an indication of its quality, with Tier 1 capital ranking highest. It is to be noted that the Group own funds do not include any contingent liability potentially arising from unit-linked products sold, issued or advised on by Aegon in the Netherlands in the past as the potential liability cannot be reliably quantified at this point. Further, the available own funds is an estimate, has not been filed with the regulator and is subject to supervisory review.

The below table provides the composition of Aegon's available own funds across Tiers:

	December 31, 2019 Available own funds	December 31, 2018 Available own funds
Available own funds		
Unrestricted Tier 1	12,724	12,204
Restricted Tier 1	2,614	3,406
Tier 2	2,370	1,487
Tier 3	762	505
Total available own funds	18,470	17,602

As at December 31, 2019, Tier 1 capital accounted for 83% of own funds (2018: 89%), including EUR 1,617 million of junior perpetual capital securities (2018: EUR 2,931 million) and EUR 479 million of perpetual cumulative subordinated bonds (2018: EUR 476 million) which are both classified as grandfathered restricted Tier 1 capital. In addition, Aegon issued EUR 500 million perpetual contingent convertible security in 2019, which is Solvency II compliant capital contributing EUR 518 million to restricted Tier 1 capital. The decrease in Tier 1 capital is mainly due to the redemptions of USD 1 billion perpetual capital securities issued in 2005, partly offset by the issuance of perpetual contingent convertible security during 2019.

As at December 31, 2019, Tier 2 capital accounted for 13% of own funds (2018: 8%), including USD 925 million subordinated notes issued by Aegon Funding Corporate LLC (AFC) during 2019 contributing EUR 823 million to Tier 2 capital, EUR 773 million of subordinated liabilities which are classified as Solvency II compliant Tier 2 capital (2018: EUR 716 million), EUR 774 million of fixed floating subordinated notes (2018: EUR 771 million) which are classified as grandfathered Tier 2 capital. Changes in Tier 2 capital compared to previous year is mainly related to the issuance of subordinated notes by AFC.

The grandfathered restricted Tier 1 and Tier 2 capital instruments are grandfathered such that they are considered as capital under the Solvency II framework for up to 10 years. For the terms and conditions of these grandfathered instruments refer to note 31 Other equity instruments and note 32 Subordinated borrowings.

It is to be noted that the difference between the amounts mentioned above for junior perpetual capital securities and perpetual cumulative subordinated bonds, and those in note 31 Other equity instruments and note 32 Subordinated borrowings, stem from valuation differences between Solvency II (market value) and IFRS-EU rules (refer to related accounting policies in note 2, paragraphs 2.17 and 2.18).

Tier 3 capital as of December 31, 2019 is comprised of deferred tax assets balances related to Solvency II entities.

IFRS-EU equity compares to Solvency II own funds as follows:

	December 31, 2019	December 31, 2018
Shareholders' Equity	22,457	19,518
IFRS adjustments for Other Equity instruments and non controlling interests	2,591	3,342
Group Equity	25,048	22,860
Solvency II revaluations & reclassifications	(8,214)	(6,911)
Transferability restrictions ¹⁾	(1,973)	(1,884)
Excess of Assets over Liabilities	14,861	14,065
Availability adjustments	4,446	4,326
Fungibility adjustments ²⁾	(838)	(789)
Available own funds	18,470	17,602

¹⁾ This includes the transferability restriction related to the RBC CAL conversion methodology.

²⁾ Amongst others, this contains the exclusion of Aegon Bank.

The Solvency II revaluations and reclassification of EUR 8,214 million negative (2018: EUR 6,911 million negative) mainly stem from the difference in valuation and presentation between IFRS-EU and Solvency II frameworks. The change in Solvency II revaluations per December 31, 2019 compared to December 31, 2018 is mainly driven by lower interest rates during 2019, increasing the revaluation reserves in Aegon US. The Solvency II revaluations and reclassification can be grouped into four categories:

- Items that are not recognized under Solvency II. The most relevant examples of this category for Aegon include Goodwill, DPAC and other intangible assets (EUR 1,932 million negative, 2018: EUR 2,024 million negative);
- Items that have a different valuation treatment between IFRS-EU and Solvency II. Solvency II is a market consistent framework hence all assets and liabilities are to be presented at fair value while IFRS-EU also includes other valuation treatments in addition to fair value. The most relevant examples of this category for Aegon Group include Loans and Mortgages, Reinsurance Recoverables, and Technical provisions. The revaluation difference stemming from this category amounted to EUR 2,753 million positive (2018: EUR 2,471 million positive) compared to the IFRS-EU Statement of Financial Position;
- The Net Asset Value of subsidiaries that are included under the Deduction & Aggregation method (on provisional equivalence or Standard Formula basis) in the Group Solvency II results. The revaluation difference stemming from this category amounted to EUR 5,663 million negative (2018: EUR 4,095 million negative) compared to the IFRS-EU Statement of Financial Position, which is mainly driven by lower interest rates during 2019;
- Reclassification of subordinated liabilities of EUR 3,372 million negative (2018: EUR 3,262 negative). The movement of subordinated liabilities mainly stem from the redemption of perpetual capital securities, the issuance Restricted Tier 1 perpetual contingent convertible securities, and the issuance of Tier 2 subordinated notes during 2019.

The transferability restrictions reflect the restrictions on US Life Companies DTA and capping of Tier 1 unrestricted own funds as a consequence of the RBC CAL conversion methodology as described above.

The availability adjustments are changes to the availability of own funds of Aegon Group in accordance with Solvency II requirements. Examples include the adjustments for subordinated liabilities, ring-fenced fund, treasury shares and foreseeable dividend.

Finally, the fungibility restrictions limit the availability of own funds on Aegon Group level as prescribed by Supervisory Authorities. These limitations refer to charitable trusts in the Americas for which the local Supervisory Authority could limit the upstream of capital to the Group and Aegon Bank which is under a different regulatory regime but under the same Supervisory Authority and therefore excluded for Solvency II purposes.

Capital leverage

Aegon's total capitalization reflects the capital employed in the business units and consists of shareholders' capital and total gross financial leverage. Aegon's gross financial leverage ratio is calculated by dividing total financial leverage by total capitalization. Aegon aims to keep total gross financial leverage within a range of 26% to 30% of total capitalization as measured by the gross financial leverage ratio, and a fixed charge coverage in the range of 6-8x the interest payments on financial leverage.

Aegon defines total financial leverage as debt or debt-like funding issued for general corporate purposes and for capitalizing Aegon's business units. Total financial leverage includes hybrid instruments, in addition to both subordinated and senior debt. Aegon's total capitalization comprises the following components:

- Shareholders' equity excluding revaluation reserves based on IFRS as adopted by the EU;
- Non-controlling interests and Long Term Incentive Plans not yet vested; and
- Total financial leverage.

The following table shows the composition of Aegon's total capitalization, the calculation of the gross financial leverage ratio and its fixed charge coverage:

	Note	2019	2018
Total shareholders' equity - based on IFRS as adopted by the EU	30	22,457	19,518
Non-controlling interests and Long Term Incentive Plans not yet vested	31, SOFP ²⁾	73	80
Revaluation reserves	30	(5,868)	(3,436)
Adjusted shareholders' equity		16,662	16,162
Perpetual contingent convertible securities	31	500	-
Junior perpetual capital securities	31	1,564	2,808
Perpetual cumulative subordinated bonds	31	454	454
Fixed floating subordinated notes	32	1,404	1,389
Fixed subordinated notes	32	804	-
Trust pass-through securities	33	136	133
Currency revaluation other equity instruments ¹⁾		54	110
Hybrid leverage		4,916	4,895
Senior debt ³⁾	37	1,738	1,774
Senior leverage		1,738	1,774
Total gross financial leverage		6,653	6,669
Total capitalization		23,316	22,831
Gross financial leverage ratio ⁴⁾		28.5%	29.2%
Fixed Charge Coverage		7.7x	8.2x

¹⁾ Other equity instruments that are denominated in foreign currencies are, for purpose of calculating hybrid leverage, revalued to the period-end exchange rate.

²⁾ Non-controlling interests are disclosed in the statement of financial position.

³⁾ Senior debt for the gross financial leverage calculation also contains swaps for an amount of EUR (7) million (2018: EUR (1) million).

⁴⁾ To align closer to definitions used by peers and rating agencies, Aegon has retrospectively changed the definition of adjusted shareholders' equity used in calculating the gross financial leverage ratio. Shareholders' equity will no longer be adjusted for the remeasurement of defined benefit plans. All figures, including comparatives, are based on the new definition, unless stated otherwise.

Aegon N.V. is subject to legal restrictions with regard to the amount of dividends it can pay to its shareholders. Under Dutch law, the amount that is available to pay dividends consists of total shareholders' equity less the issued and outstanding capital and the reserves required by law. The legal reserves in respect of the foreign currency translation reserve (FCTR), group companies and the revaluation reserves, cannot be freely distributed. In case of negative balances for individual reserves legally to be retained, no distributions can be made out of retained earnings to the level of these negative amounts. Total distributable items under Dutch law amounted to EUR 13,569 million as at December 31, 2019 (2018: EUR 13,307 million). The following table shows the composition of the total distributable items:

	2019	2018
Distributable items ¹⁾		
Equity attributable to shareholders	22,457	19,518
Non-distributable items:		
Share capital	(323)	(322)
Legal reserves ²⁾	(8,565)	(5,890)
At December 31	13,569	13,307

¹⁾ Distributable items under Dutch law; note that Solvency II ratios also possibly restricts the distribution of dividends.

²⁾ The legal reserves in respect of the foreign currency translation reserve (FCTR), group companies and the positive revaluations in the revaluation reserves, cannot be freely distributed.

The ability of Aegon's subsidiaries, principally insurance companies, to pay dividends to the holding company is constrained by the requirement for these subsidiaries to remain adequately capitalized to the levels set by local insurance regulations and governed by local insurance supervisory authorities. Based on the capitalization level of the local subsidiary, local insurance supervisors are able to restrict and/or prohibit the transfer of dividends to the holding company. In addition, the ability of subsidiaries to pay dividends to the holding company can be constrained by the requirement for these subsidiaries to hold sufficient shareholders' equity as determined by law. The capitalization level and shareholders' equity of the subsidiaries can be impacted by various factors (e.g. general economic conditions, capital market risks, underwriting risk factors, changes in government regulations, and legal and arbitrational proceedings). To mitigate the impact of such factors on the ability to pay dividends, the subsidiaries hold additional capital in excess of the levels required by local insurance regulations, as reflected in Aegon's target capitalization ranges.

44 Fair value

The estimated fair values of Aegon's assets and liabilities correspond with the amounts that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When available, Aegon uses quoted market prices in active markets to determine the fair value of investments and derivatives. In the absence of an active market, the fair value of investments in financial assets is estimated by using other market observable data, such as corroborated external quotes and present value or other valuation techniques. An active market is one in which transactions are taking place regularly on an arm's length basis. Fair value is not determined based upon a forced liquidation or distressed sale.

Valuation techniques are used when Aegon determines the market is inactive or quoted market prices are not available for the asset or liability at the measurement date. However, the fair value measurement objective remains the same, that is, to estimate the price at which an orderly transaction to sell the asset or to transfer the liability would take place between market participants at the measurement date under current market conditions (i.e. an exit price at the measurement date from the perspective of a market participant that holds the asset or owes the liability). Therefore, unobservable inputs reflect Aegon's own assumptions about the assumptions that market participants would use in pricing the asset or liability (including assumptions about risk). These inputs are developed based on the best information available.

Aegon employs an oversight structure over valuation of financial instruments that includes appropriate segregation of duties. Senior management, independent of the investing functions, is responsible for the oversight of control and valuation policies and for reporting the results of these policies. For fair values determined by reference to external quotation or evidenced pricing parameters, independent price determination or validation is utilized to corroborate those inputs. Further details of the validation processes are set out below.

Valuation of assets and liabilities is based on a pricing hierarchy, in order to maintain a controlled process that will systematically promote the use of prices from sources in which Aegon has the most confidence, where the least amount of manual intervention exists and to embed consistency in the selection of price sources. Depending on asset type the pricing hierarchy consists of a waterfall that starts with making use of market prices from indices and follows with making use of third-party pricing services or brokers.

Fair value hierarchy

The table below provides an analysis of assets and liabilities recorded at fair value on a recurring basis by level of the fair value hierarchy:

	Level I	Level II	Level III	Total 2019
Assets carried at fair value				
Available-for-sale				
Shares	92	160	157	409
Debt securities	25,528	56,317	1,074	82,918
Money market and other short-term instruments	1,255	3,914	-	5,169
Other investments at fair value	-	426	482	908
	26,875	60,817	1,712	89,404
Fair value through profit or loss				
Shares	106	306	1,401	1,813
Debt securities	204	3,727	4	3,934
Money market and other short-term instruments	19	139	-	158
Other investments at fair value	1	1,125	2,049	3,175
Investments for account of policyholders ¹⁾	120,271	103,712	1,805	225,788
Derivatives	96	11,006	56	11,157
Investments in real estate	-	-	2,901	2,901
Investments in real estate for policyholders	-	-	586	586
	120,696	120,014	8,802	249,512
Revalued amounts				
Real estate held for own use	-	-	208	208
	-	-	208	208
Total assets at fair value	147,571	180,831	10,722	339,124
Liabilities carried at fair value				
Investment contracts for account of policyholders ²⁾	-	59,759	197	59,956
Borrowings ³⁾	-	461	-	461
Derivatives	59	8,476	3,081	11,616
Total liabilities at fair value	59	68,696	3,278	72,033

¹⁾ The investments for account of policyholders included in the table above only include investments carried at fair value through profit or loss.

²⁾ The investment contracts for account of policyholders included in the table above represents only those investment contracts carried at fair value.

³⁾ Total borrowings on the statement of financial position contain borrowings carried at amortized cost that are not included in the above schedule.

	Level I	Level II	Level III	Total 2018
Assets carried at fair value				
Available-for-sale				
Shares	82	155	241	478
Debt securities	24,652	51,446	1,242	77,340
Money market and other short-term instruments	1,427	4,528	-	5,955
Other investments at fair value	-	409	493	902
	26,160	56,538	1,976	84,675
Fair value through profit or loss				
Shares	217	239	1,226	1,682
Debt securities	1,868	2,028	17	3,913
Money market and other short-term instruments	17	335	-	352
Other investments at fair value	1	1,272	1,376	2,649
Investments for account of policyholders ¹⁾	103,977	87,893	1,871	193,741
Derivatives	53	7,527	35	7,615
Investments in real estate	-	-	2,700	2,700
Investments in real estate for policyholders	-	-	612	612
	106,134	99,295	7,837	213,266
Revalued amounts				
Real estate held for own use	-	-	263	263
	-	-	263	263
Total assets at fair value	132,294	155,833	10,077	298,204
Liabilities carried at fair value				
Investment contracts for account of policyholders ²⁾	-	49,641	206	49,847
Borrowings ³⁾	-	536	-	536
Derivatives	93	4,648	2,489	7,230
Total liabilities at fair value	93	54,824	2,695	57,613

¹⁾ The investments for account of policyholders included in the table above only include investments carried at fair value through profit or loss.

²⁾ The investment contracts for account of policyholders included in the table above represents only those investment contracts carried at fair value.

³⁾ Total borrowings on the statement of financial position contain borrowings carried at amortized cost that are not included in the above schedule.

Significant transfers between Level I, Level II and Level III

Aegon's policy is to record transfers of assets and liabilities between Level I, Level II and Level III at their fair values as of the beginning of each reporting period.

The table below shows transfers between Level I and Level II for financial assets and financial liabilities recorded at fair value on a recurring basis.

	Total 2019		Total 2018	
	Transfers Level I to Level II	Transfers Level II to Level I	Transfers Level I to Level II	Transfers Level II to Level I
Assets carried at fair value				
Available-for-sale				
Debt securities	12	3	-	-
	12	3	-	-
Fair value through profit or loss				
Shares	8	8	3	1
Investments for account of policyholders	-	8	-	(4)
	8	16	3	(3)
Total assets at fair value	20	19	3	(3)
Total Liabilities carried at fair value	-	-	-	-

Transfers are identified based on transaction volume and frequency, which are indicative of an active market.

Movements in Level III financial instruments measured at fair value

The following table summarizes the change of all assets and liabilities measured at estimated fair value on a recurring basis using significant unobservable inputs (Level III), including realized and unrealized gains (losses) of all assets and liabilities and unrealized gains (losses) of all assets and liabilities still held at the end of the respective period.

	At January 1, 2019	Acquisitions through business combinations	Disposal of a business	Total gains / losses in income statement ¹	Total gains / losses in OCI ²	Purchases	Sales	Settlements	Net exchange difference	Reclassification	Transfers from levels I and II	Transfers to levels I and II	Transfers to disposal groups	At December 31, 2019	Total unrealized gains and (losses) for the period recorded in the P&L for instruments held at December 31, 2019 ³
Assets carried at fair value															
Available-for-sale															
Shares	241	-	-	-	(5)	22	(100)	-	4	2	-	(7)	-	157	-
Debt securities	1,242	-	-	3	21	319	(317)	(68)	19	(2)	52	(195)	-	1,074	-
Money markets and other short-term instruments	-	-	-	-	-	1,061	(855)	(103)	-	-	126	(229)	-	-	-
Other investments at fair value	493	-	-	(100)	(56)	183	(25)	(23)	9	-	-	-	-	482	-
	1,976	-	-	(97)	(40)	1,584	(1,297)	(194)	32	1	178	(431)	-	1,712	-
Fair value through profit or loss															
Shares	1,226	-	-	72	-	368	(266)	-	1	-	-	-	-	1,401	62
Debt securities	17	-	-	(1)	-	1	(12)	(1)	-	(1)	-	-	-	4	-
Other investments at fair value	1,376	-	-	34	-	884	(268)	-	23	-	85	(86)	-	2,049	36
Investments for account of policyholders	1,871	-	-	45	-	435	(567)	-	20	-	-	-	-	1,805	86
Derivatives	35	-	-	19	-	35	(33)	-	-	-	-	-	-	56	20
Investments in real estate	2,700	-	-	317	-	206	(331)	-	9	-	-	-	-	2,901	2
Investments in real estate for policyholders	612	-	-	(18)	-	2	(43)	-	34	-	-	-	-	586	(27)
	7,837	-	-	468	-	1,931	(1,521)	(1)	88	(1)	85	(86)	-	8,802	179
Revalued amounts															
Real estate held for own use	263	-	-	7	3	(5)	(62)	-	3	-	-	-	-	208	-
	263	-	-	7	3	(5)	(62)	-	3	-	-	-	-	208	-
Total assets at fair value															
	10,077	-	-	379	(37)	3,509	(2,880)	(194)	122	-	263	(517)	-	10,722	179
Liabilities carried at fair value															
Investment contracts for account of policyholders	206	-	-	9	-	4	(23)	-	1	-	-	-	-	197	(10)
Derivatives	2,489	-	-	597	4	-	(22)	-	13	-	-	-	-	3,081	84
	2,695	-	-	605	4	4	(46)	-	15	-	-	-	-	3,278	75

¹ Includes impairments and movements related to fair value hedges. Gains and losses are recorded in the line item Results from financial transactions of the income statement.

² Total gains and losses are recorded in line items: Gains / (losses) on revaluation of available-for-sale investments, (Gains) / losses transferred to the income statement on disposal and impairment of available-for-sale investments and Changes in revaluation reserve real estate held for own use of the statement of other comprehensive income.

³ Total gains / (losses) for the period during which the financial instrument was in Level III.

Assets carried at fair value	At January 1, 2018	Acquisitions through business combinations	Disposal of a business	Total gains / losses in income statement ¹	Total gains / losses in OCI ²	Purchases	Sales	Settlements	Net exchange difference	Reclassification	Transfers from levels I and II	Transfers to levels I and II	Transfers to disposal groups	At December 31, 2018	Total unrealized gains and (losses) for the period recorded in the P&L for instruments held at December 31, 2018 ³
Available-for-sale															
Shares	288	-	-	21	(12)	9	(77)	-	10	2	-	-	-	241	-
Debt securities	1,447	-	-	26	2	494	(76)	(452)	51	1	58	(310)	-	1,242	-
Other investments at fair value	583	-	-	(83)	(38)	125	(102)	(21)	25	3	-	-	-	493	-
	2,318	-	-	(36)	(48)	629	(255)	(473)	87	6	58	(310)	-	1,976	-
Fair value through profit or loss															
Shares	604	-	-	104	-	541	(61)	1	1	36	-	-	-	1,226	105
Debt securities	4	-	-	(25)	-	37	-	-	-	-	-	-	-	17	(24)
Other investments at fair value	1,255	-	-	11	-	332	(307)	-	64	-	94	(72)	-	1,376	3
Investments for account of policyholders	1,784	130	-	76	-	537	(660)	-	3	-	-	-	-	1,871	35
Derivatives	57	-	-	57	-	-	(80)	-	-	-	-	-	-	35	59
Investments in real estate	2,147	-	-	261	-	474	(209)	-	27	-	-	-	-	2,700	202
Investments in real estate for policyholders	655	-	-	5	-	2	(43)	-	(7)	-	-	-	-	612	4
	6,506	130	-	490	-	1,924	(1,360)	-	90	36	94	(72)	-	7,837	383
Revalued amounts															
Real estate held for own use	307	-	(1)	(19)	(39)	17	(10)	-	7	-	-	-	-	263	5
	307	-	(1)	(19)	(39)	17	(10)	-	7	-	-	-	-	263	5
Total assets at fair value	9,130	130	(1)	435	(87)	2,570	(1,624)	(472)	185	42	151	(382)	-	10,077	388
Liabilities carried at fair value															
Investment contracts for account of policyholders	219	-	-	(10)	-	7	(14)	-	4	-	-	-	-	206	-
Derivatives	1,845	-	-	613	-	-	-	-	31	-	-	-	-	2,489	613
	2,064	-	-	604	-	7	(14)	-	35	-	-	-	-	2,695	614

¹ Includes impairments and movements related to fair value hedges. Gains and losses are recorded in the line item Results from financial transactions of the income statement.

² Total gains and losses are recorded in line items: Gains / (losses) on revaluation of available-for-sale investments, (Gains) / losses transferred to the income statement on disposal and impairment of available-for-sale investments and Changes in revaluation reserve real estate held for own use of the statement of other comprehensive income.

³ Total gains / (losses) for the period during which the financial instrument was in Level III.

During 2019, Aegon transferred certain financial instruments from Level II to Level III of the fair value hierarchy. The reason for the change in level was that the market liquidity for these securities decreased, which led to a change in market observability of prices. Prior to transfer, the fair value for the Level II securities was determined using observable market transactions or corroborated broker quotes respectively for the same or similar instruments. The amount of assets and liabilities transferred to Level III was EUR 263 million (2018: EUR 151 million). Since the transfer, all such assets have been valued using valuation models incorporating significant non market-observable inputs or uncorroborated broker quotes.

Similarly, during 2019, Aegon transferred EUR 517 million (2018: EUR 382 million) of financial instruments from Level III to other levels of the fair value hierarchy. The change in level was mainly the result of a return of activity in the market for these securities and that for these securities the fair value could be determined using observable market transactions or corroborated broker quotes for the same or similar instruments.

Valuation techniques and significant unobservable inputs

The table below presents information about the significant unobservable inputs used for recurring fair value measurements for certain Level III financial instruments.

	Valuation technique ¹⁾	Significant unobservable input ²⁾	December 31, 2019	Range (weighted average)	December 31, 2018	Range (weighted average)
Assets carried at fair value						
Available-for-sale						
Shares	Net asset value ³⁾	n.a.	119	n.a.	205	n.a.
	Other	n.a.	38	n.a.	36	n.a.
			157		241	
Debt securities	Broker quote	n.a.	818	n.a.	985	n.a.
	Discounted cash flow	Credit spread	25	3.24%	17	3.38%
	Discounted cash flow	Constant Prepayment Rate	7	25.00%	-	-
	Discounted cash flow	Constant Prepayment Rate	30	7.82%	-	-
	Other	n.a.	193	n.a.	240	n.a.
			1,074		1,242	
Other investments at fair value						
Tax credit investments	Discounted cash flow	Discount rate	435	6.5%	435	6.8%
Investment funds	Net asset value ³⁾	n.a.	14	n.a.	24	n.a.
Other	Other	n.a.	33	n.a.	34	n.a.
			482		493	
At December 31			1,712		1,976	
Fair value through profit or loss						
Shares	Other	n.a.	1,401	n.a.	1,226	n.a.
Debt securities	Other	n.a.	4	n.a.	17	n.a.
			1,405		1,243	
Other investments at fair value						
Investment funds	Net asset value ³⁾	n.a.	1,984	n.a.	1,334	n.a.
Other	Other	n.a.	65	n.a.	42	n.a.
			2,049		1,376	
Derivatives						
Longevity swap	Discounted cash flow	Mortality	55	n.a.	33	n.a.
Other	Other	n.a.	-	n.a.	-	n.a.
			55		33	
Real estate						
Investments in real estate	Direct capitalization technique	Capitalization rate	580	4.25% - 5.5% (3.3%)	427	4.25% - 7.5% (4.4%)
	Appraisal value	n.a.	2,229	n.a.	2,150	n.a.
	Other	n.a.	92	n.a.	123	n.a.
			2,901		2,700	
At December 31			6,410		5,352	
Revalued amounts						
Real estate held for own use	Direct capitalization technique	Capitalization rate	54	7.75% - 9.50% (9.0%)	53	8.25% - 9.50% (8.9%)
	Appraisal value	n.a.	108	n.a.	101	n.a.
	Other	n.a.	46	n.a.	108	n.a.
			208		263	
At December 31			208		263	
Total assets at fair value ⁴⁾			8,330		7,592	
Liabilities carried at fair value						
Derivatives						
Embedded derivatives in insurance contracts	Discounted cash flow	Own credit spread	3,072	0.2% - 0.3% (0.24%)	2,484	0.25% - 0.40% (0.30%)
Longevity swap	Discounted cash flow	Mortality	9	n.a.	5	n.a.
Other	Other	n.a.	-	n.a.	-	n.a.
			3,081		2,489	

¹⁾ Other in the table above (column Valuation technique) includes investments for which the fair value is uncorroborated and no broker quote is received.

²⁾ Not applicable (n.a.) has been included when the unobservable inputs are not developed by the Group and are not reasonably available. Refer to the section Fair value measurement in this note for a detailed description of Aegon's methods of determining fair value and the valuation techniques.

³⁾ Net asset value is considered the best approximation to the fair value of these financial instruments.

⁴⁾ Investments for account of policyholders are excluded from the table above and from the disclosure regarding reasonably possible alternative assumptions. Policyholder assets, and their returns, belong to policyholders and do not impact Aegon's net income or equity. The effect on total assets is offset by the effect on total liabilities. Derivatives exclude derivatives for account of policyholders amounting to EUR 1 million (2018: EUR 2 million).

For reference purposes, the valuation techniques included in the table above are described in more detail on the following pages.

Effect of changes in significant unobservable assumptions to reasonably possible alternatives

From all significant unobservable inputs, own credit spread as included in the discount rate for embedded derivatives in insurance contracts is considered significant. It is estimated that changing the other significant unobservable inputs to reflect reasonable possible alternatives in valuation would have no significant impact for the Group.

An increase in own credit spread results in lower valuation, while a decrease results in a higher valuation of the embedded derivatives.

The table below presents the impact on a fair value measurement of a change in the own credit spread by 20 basis points included in the discount rate.

	December 31, 2019	Effect of reasonably possible alternative assumptions (+/-)		December 31, 2018	Effect of reasonably possible alternative assumptions (+/-)	
		Increase	Decrease		Increase	Decrease
Financial liabilities carried at fair value						
Embedded derivatives in insurance contracts	3,072	158	(152)	2,484	131	(126)

Fair value information about assets and liabilities not measured at fair value

The following table presents the carrying values and estimated fair values of assets and liabilities, excluding assets and liabilities which are carried at fair value on a recurring basis.

2019	Carrying amount December 31, 2019	Estimated fair value hierarchy			Total estimated fair value December 31, 2019
		Level I	Level II	Level III	
Assets					
Mortgage loans - held at amortized cost	38,524	-	1	42,566	42,567
Private loans - held at amortized cost	4,487	-	65	5,094	5,159
Other loans - held at amortized cost	2,353	45	2,080	228	2,353
Liabilities					
Subordinated borrowings - held at amortized cost	2,207	1,560	855	-	2,416
Trust pass-through securities - held at amortized cost	136	-	144	-	144
Borrowings – held at amortized cost	8,845	1,728	30	7,565	9,322
Investment contracts - held at amortized cost	18,382	-	-	18,964	18,964

2018	Carrying amount December 31, 2018	Estimated fair value hierarchy			Total estimated fair value December 31, 2018
		Level I	Level II	Level III	
Assets					
Mortgage loans - held at amortized cost	36,639	-	1	39,757	39,758
Private loans - held at amortized cost	4,103	-	42	4,452	4,494
Other loans - held at amortized cost	2,310	13	2,064	233	2,310
Liabilities					
Subordinated borrowings - held at amortized cost	1,389	1,355	-	-	1,355
Trust pass-through securities - held at amortized cost	133	-	128	-	128
Borrowings – held at amortized cost	11,525	1,570	28	10,287	11,885
Investment contracts - held at amortized cost	17,825	-	-	18,028	18,028

Certain financial instruments that are not carried at fair value are carried at amounts that approximate fair value, due to their short-term nature and generally negligible credit risk. These instruments include cash and cash equivalents, short-term receivables and accrued interest receivable, short-term liabilities, and accrued liabilities. These instruments are not included in the table above.

Fair value measurement

The description of Aegon's methods of determining fair value and the valuation techniques are described on the following pages.

Shares

When available, Aegon uses quoted market prices in active markets to determine the fair value of its investments in shares. For Level III unquoted shares, the net asset value can be considered the best approximation to the fair value. Net asset value is the value of an entity's assets minus the value of its liabilities and may be the same as the book value or the equity value of the entity.

Also for unquoted shares, the fair value may be estimated using other methods, such as observations of the price/earnings or price/cash flow ratios of quoted companies considered comparable to the companies being valued. Valuations are adjusted to account for company-specific issues and the lack of liquidity inherent in an unquoted investment. Adjustments for lack of liquidity are generally based on available market evidence. In addition, a variety of other factors are reviewed by management, including, but not limited to, current operating performance, changes in market outlook and the third-party financing environment.

Available-for-sale shares include shares in a Federal Home Loan Bank (FHLB) for an amount of EUR 91 million (2018: EUR 176 million), which are reported as part of the line-item Net asset value. A FHLB has implicit financial support from the United States government. The redemption value of the shares is fixed at par and they can only be redeemed by the FHLB.

Debt securities

The fair values of debt securities are determined by management after taking into consideration several sources of data. When available, Aegon uses quoted market prices in active markets to determine the fair value of its debt securities. As stated previously, Aegon's valuation policy utilizes a pricing hierarchy which dictates that publicly available prices are initially sought from indices and third-party pricing services. In the event that pricing is not available from these sources, those securities are submitted to brokers to obtain quotes, the majority of which are non-binding. As part of the pricing process, Aegon assesses the appropriateness of each quote (i.e. as to whether the quote is based on observable market transactions or not) to determine the most appropriate estimate of fair value.

When broker quotes are not available, securities are priced using internal cash flow modeling techniques. These valuation methodologies commonly use the following inputs: reported trades, bids, offers, issuer spreads, benchmark yields, estimated prepayment speeds, issue specific credit adjustments, indicative quotes from market makers and/or estimated cash flows.

To understand the valuation methodologies used by third-party pricing services Aegon reviews and monitors the applicable methodology documents of the third-party pricing services. Any changes to their methodologies are noted and reviewed for reasonableness. In addition, Aegon performs in-depth reviews of prices received from third-party pricing services on a sample basis. The objective for such reviews is to demonstrate that Aegon can corroborate detailed information such as assumptions, inputs and methodologies used in pricing individual securities against documented pricing methodologies. Only third-party pricing services and brokers with a substantial presence in the market and with appropriate experience and expertise are used.

Third-party pricing services will often determine prices using recently reported trades for identical or similar securities. The third-party pricing service makes adjustments for the elapsed time from the trade date to the reporting date to take into account available market information. Lacking recently reported trades, third-party pricing services and brokers will use modeling techniques to determine a security price where expected future cash flows are developed based on the performance of the underlying collateral and discounted using an estimated market rate.

Periodically, Aegon performs an analysis of the inputs obtained from third-party pricing services and brokers to ensure that the inputs are reasonable and produce a reasonable estimate of fair value. Aegon's asset specialists and investment valuation specialists consider both qualitative and quantitative factors as part of this analysis. Several examples of analytical procedures performed include, but are not limited to, recent transactional activity for similar debt securities, review of pricing statistics and trends and consideration of recent relevant market events. Other controls and procedures over pricing received from indices, third-party pricing services, or brokers include validation checks such as exception reports which highlight significant price changes, stale prices or unpriced securities. Additionally, Aegon performs back testing on a sample basis. Back testing involves selecting a sample of securities trades and comparing the prices in those transactions to prices used for financial reporting. Significant variances between the price used for financial reporting and the transaction price are investigated to explain the cause of the difference.

Credit ratings are also an important consideration in the valuation of securities and are included in the internal process for determining Aegon's view of the risk associated with each security. However, Aegon does not rely solely on external credit ratings and there is an internal process, based on market observable inputs, for determining Aegon's view of the risks associated with each security.

Aegon's portfolio of private placement securities (held at fair value under the classification of available-for-sale or fair value through profit or loss) is valued using a matrix pricing methodology. The pricing matrix is obtained from a third-party service provider and indicates current spreads for securities based on weighted average life, credit rating, and industry sector. Each month, Aegon's asset specialists review the matrix to ensure the spreads are reasonable by comparing them to observed spreads for similar bonds traded in the market. Other inputs to the valuation include coupon rate, the current interest rate curve used for discounting and a liquidity premium to account for the illiquid nature of these securities. The liquidity premiums are determined based upon the pricing of recent transactions in the private placements market; comparing the value of the privately offered security to a similar public security. The impact of the liquidity premium for private placement securities to the overall valuation is insignificant.

Aegon's portfolio of debt securities can be subdivided into Residential mortgage-backed securities (RMBS), Commercial mortgage-backed securities (CMBS), Asset-backed securities (ABS), Corporate bonds and Government debt. Below relevant details of the valuation methodologies for these specific types of debt securities are described.

Residential mortgage-backed securities, commercial mortgage-backed securities and asset-backed securities

Valuations of RMBS, CMBS and ABS are monitored and reviewed on a monthly basis. Valuations per asset type are based on a pricing hierarchy which uses a waterfall approach that starts with market prices from indices and follows with third-party pricing services or brokers. The pricing hierarchy is dependent on the possibilities of corroboration of the market prices. If no market prices are available, Aegon uses internal models to determine fair value. Significant inputs included in the internal models are generally determined based on relative value analyses, which incorporate comparisons to instruments with similar collateral and risk profiles. Market standard models may be used to model the specific collateral composition and cash flow structure of each transaction. The most significant unobservable input is liquidity premium which is embedded in the discount rate.

Corporate bonds

Valuations of corporate bonds are monitored and reviewed on a monthly basis. The pricing hierarchy is dependent on the possibility of corroboration of market prices when available. If no market prices are available, valuations are determined by a discounted cash flow methodology using an internally calculated yield. The yield is comprised of a credit spread over a given benchmark. In all cases the benchmark is an observable input. The credit spread contains both observable and unobservable inputs. Aegon starts by taking an observable credit spread from a similar bond of the given issuer, and then adjust this spread based on unobservable inputs. These unobservable inputs may include subordination, liquidity and maturity differences. The weighted average credit spread used in valuation of corporate bonds has decreased to 2.5% (December 31, 2018: 3.4%).

Government debt

When available, Aegon uses quoted market prices in active markets to determine the fair value of its government debt investments. When Aegon cannot make use of quoted market prices, market prices from indices or quotes from third-party pricing services or brokers are used.

Money market and other short-term investments and deposits with financial institutions

The fair value of assets maturing within a year is assumed to be approximated by their carrying amount adjusted for credit risk where appropriate. Credit risk adjustments are based on market observable credit spreads if available, or management's estimate if not market observable.

Tax credit investments

The Level III fair value of tax credit investments is determined by using a discounted cash flow valuation technique. This valuation technique takes into consideration projections of future capital contributions and distributions, as well as future tax credits and the tax benefits of future operating losses. The present value of these cash flows is calculated by applying a discount rate. In general, the discount rate is determined based on the cash outflows for the investments and the cash inflows from the tax credits and/or tax benefits (and the timing of these cash flows). These inputs are unobservable in the market place. The discount rate used in valuation of tax credit investments has decreased to 6.5% (December 31, 2018: 6.8%).

Investment funds: Real estate funds, private equity funds and hedge funds

The fair values of investments held in non-quoted investment funds are determined by management after taking into consideration information provided by the fund managers. Aegon reviews the valuations each month and performs analytical procedures and trending analyses to ensure the fair values are appropriate. The net asset value is considered the best valuation method that approximates the fair value of the funds.

Mortgage loans, policy loans and private loans (held at amortized cost)

For private loans, fixed interest mortgage loans and other loans originated by the Group, the fair value used for disclosure purposes is estimated by discounting expected future cash flows using a current market rate applicable to financial instruments with similar yield and maturity characteristics. For fixed interest mortgage loans, the market rate is adjusted for expenses, prepayment rates, lapse assumptions (unobservable inputs), liquidity and credit risk (market observable inputs). An increase in expense spread, prepayment rates and/or prepayment assumptions, would decrease the fair value of the mortgage loan portfolio.

The fair value of floating interest rate mortgage loans, policy loans and private placements used for disclosure purposes is assumed to be approximated by their carrying amount, adjusted for changes in credit risk. Credit risk adjustments are based on market observable credit spreads if available, or management's estimate if not market observable.

Derivatives

Where quoted market prices are not available, other valuation techniques, such as option pricing or stochastic modeling, are applied. The valuation techniques incorporate all factors that a typical market participant would consider and are based on observable market data when available. Models are validated before they are used and calibrated to ensure that outputs reflect actual experience and comparable market prices.

Fair values for exchange-traded derivatives, principally futures and certain options, are based on quoted market prices in active markets. Fair values for over-the-counter (OTC) derivative financial instruments represent amounts estimated to be received from or paid to a third party in settlement of these instruments. These derivatives are valued using pricing models based on the net present value of estimated future cash flows, directly observed prices from exchange-traded derivatives, other OTC trades, or external pricing services. Most valuations are derived from swap and volatility matrices, which are constructed for applicable indices and currencies using current market data from many industry standard sources. Option pricing is based on industry standard valuation models and current market levels, where applicable. The pricing of complex or illiquid instruments is based on internal models or an independent third party. For long-dated illiquid contracts, extrapolation methods are applied to observed market data in order to estimate inputs and assumptions that are not directly observable. To value OTC derivatives, management uses observed market information, other trades in the market and dealer prices.

Some OTC derivatives are so-called longevity derivatives. The payout of longevity derivatives is linked to publicly available mortality tables. The derivatives are measured using the present value of the best estimate of expected payouts of the derivative plus a risk margin. The best estimate of expected payouts is determined using best estimate of mortality developments. Aegon determined the risk margin by stressing the best estimate mortality developments to quantify the risk and applying a cost-of-capital methodology. Depending on the duration of the longevity swaps either the projected mortality development or discount rate are the most significant unobservable inputs.

Aegon normally mitigates counterparty credit risk in derivative contracts by entering into collateral agreements where practical and in ISDA master netting agreements for each of the Group's legal entities to facilitate Aegon's right to offset credit risk exposure. Changes in the fair value of derivatives attributable to changes in counterparty credit risk were not significant.

Embedded derivatives in insurance contracts including guarantees

Bifurcated guarantees for minimum benefits in insurance and investment contracts are carried at fair value. These guarantees include Guaranteed minimum withdrawal benefits (GMWB) in the United States and United Kingdom which are offered on some variable annuity products and are also assumed from a ceding company; minimum investment return guarantees on insurance products offered in the Netherlands, including group pension and traditional products; variable annuities sold in Europe. Additionally, Aegon offers guarantees on variable annuities sold through its joint venture in Japan.

Since the price of these guarantees is not quoted in any market, the fair values of these guarantees are based on discounted cash flows calculated as the present value of future expected payments to policyholders less the present value of assessed rider fees attributable to the guarantees. Given the complexity and long-term nature of these guarantees which are unlike instruments available in financial markets, their fair values are determined by using stochastic models under a variety of market return scenarios. A variety of factors are considered, including own credit spread, expected market rates of return, equity and interest rate volatility, correlations of market returns, discount rates and actuarial assumptions. The most significant unobservable factor is own credit spread. The weighted average own credit spread used in the valuations of embedded derivatives in insurance contracts decreased to 0.2% (2018: 0.3%).

The expected returns are based on risk-free rates. Aegon added a premium to reflect the credit spread as required. The credit spread is set by using the Credit default swap (CDS) spreads of a reference portfolio of life insurance companies (including Aegon), adjusted

to reflect the subordination of senior debt holders at the holding company level to the position of policyholders at the operating company level (who have priority in payments over other creditors). Aegon's assumptions are set by region to reflect differences in the valuation of the guarantee embedded in the insurance contracts.

Aegon extrapolates yield curves beyond market observable maturities. The discount rates converge linearly in 10 years to an Ultimate Forward Rate of 3.65% in the Netherlands and 4.25% in the US from the last liquid point. The uniform last liquid point for all Aegon's major currencies (EUR, USD and GBP) is set at 30 years.

Since many of the assumptions are unobservable and are considered to be significant inputs to the liability valuation, the liability included in future policy benefits has been reflected within Level III of the fair value hierarchy. Refer to note 36 Guarantees in insurance contracts for more details about Aegon's guarantees.

Real estate

Valuations of Level III investments in real estate and real estate held for own use are conducted in full by independent external appraisers at least every three to five years and reviewed at least once a year by qualified internal appraisers to ensure the value correctly reflects the fair value at the reporting date. Appraisals are different for each specific local market, but are based on market guidelines such as International Valuation Standards, Uniform Standards of Professional Appraisal Practice or guidelines issued by the Investment Property Databank. Valuations are mostly based on active market prices, adjusted for any difference in the nature, location or condition of the specific property. If such information is not available, other valuation methods are applied, considering the value that the property's net earning power will support, the value indicated by recent sales of comparable properties and the current cost of reproducing or replacing the property. Discount rates used in the valuation of real estate reflect the risk embedded in the projected cash flows for the asset being valued. Capitalization rates represent the income rate for a real estate property that reflects the relationship between a single year's net operating income expectancy and the total property price or value. For property held for own use, appraisers consider the present value of the future rental income cash flows that could be achieved had the real estate been rented to a third party.

Trust pass-through securities and subordinated borrowings

Trust pass-through securities and subordinated borrowings are either carried at fair value (if they are designated as financial liabilities at fair value through profit or loss) or amortized cost (with fair value being disclosed in the notes to the consolidated financial statements). For the determination of the fair value of these instruments, the level hierarchy as described by IFRS-EU is used. The preferred method of obtaining the fair value of the fair value option bonds is the quoted price (Level I). In case markets are less liquid or the quoted prices are not available, an internal model is used, based on parameters which are market observable (Level II). Aegon uses a discounted cash flow method including yield curves such as deposit rates, floating rates and 3-month swap rates. In addition, Aegon includes own credit spread based on Aegon's credit default swap curve.

Investment contracts

Investment contracts issued by Aegon are either carried at fair value (if they are designated as financial liabilities at fair value through profit or loss) or amortized cost (with fair value being disclosed in the notes to the consolidated financial statements). These contracts are not quoted in active markets and their fair values are determined by using valuation techniques, such as discounted cash flow methods and stochastic modeling or in relation to the unit price of the underlying assets. All models are validated and calibrated. A variety of factors are considered, including time value, volatility, policyholder behavior, servicing costs and fair values of similar instruments.

Similar to embedded derivatives in insurance contracts, certain investment products are not quoted in active markets and their fair values are determined by using valuation techniques. Because of the dynamic and complex nature of these cash flows, stochastic or similar techniques under a variety of market return scenarios are often used. A variety of factors are considered, including expected market rates of return, market volatility, correlations of market returns, discount rates and actuarial assumptions.

The expected returns are based on risk-free rates, such as the current London Interbank Offered Rate (LIBOR) swap rates and associated forward rates, the Overnight Index Swap (OIS) curve or the current rates on local government bonds. Market volatility assumptions for each underlying index are based on observed market implied volatility data and/or observed market performance. Correlations of market returns for various underlying indices are based on observed market returns and their inter-relationships over a number of years preceding the valuation date. Current risk-free spot rates are used to determine the present value of expected future cash flows produced in the stochastic projection process.

Assumptions on customer behavior, such as lapses, included in the models are derived in the same way as the assumptions used to measure insurance liabilities.

Summary of total financial assets and financial liabilities at fair value through profit or loss

The table that follows summarizes the carrying amounts of financial assets and financial liabilities that are classified as at fair value through profit or loss, with appropriate distinction between those financial assets and financial liabilities held for trading and those that, upon initial recognition, were designated as at fair value through profit or loss.

	2019		2018	
	Trading	Designated	Trading	Designated
Investments for general account	277	8,803	174	8,424
Investments for account of policyholders	-	225,788	-	193,741
Derivatives with positive values not designated as hedges	10,527	-	7,015	-
Total financial assets at fair value through profit or loss	10,804	234,591	7,188	202,165
Investment contracts for account of policyholders	-	59,956	-	49,847
Derivatives with negative values not designated as hedges	10,391	-	6,424	-
Borrowings	-	461	-	536
Total financial liabilities at fair value through profit or loss	10,391	60,417	6,424	50,383

Investments for general account

The Group manages certain portfolios on a total return basis which have been designated at fair value through profit or loss. This includes portfolios of investments in limited partnerships and limited liability companies (primarily hedge funds) for which the performance is assessed internally on a total return basis. In addition, some investments that include an embedded derivative that would otherwise have required bifurcation, such as convertible instruments, preferred shares and credit linked notes, have been designated at fair value through profit or loss.

Aegon has certain insurance and investment liabilities that are carried at fair value with changes in the fair value recognized in the income statement. The Group has elected to designate the investments backing those liabilities at fair value through profit or loss, as a classification of available-for-sale would result in accumulation of unrealized gains and losses in a revaluation reserve within equity whilst changes to the liability would be reflected in net income (accounting mismatch).

Investments for account of policyholders

Investments held for account of policyholders comprise assets that are linked to various insurance and investment contracts for which the financial risks are borne by the customer. Under the Group's accounting policies these insurance and investment liabilities are measured at the fair value of the linked assets with changes in the fair value recognized in the income statement. To avoid an accounting mismatch the linked assets have been designated as at fair value through profit or loss.

In addition, the investment for account of policyholders include with profit assets, where an insurer manages these assets together with related liabilities on a fair value basis in accordance with a documented policy of asset and liability management. In accordance with the Group's accounting policies, these assets have been designated as at fair value through profit or loss.

Investment contracts for account of policyholders

With the exception of the financial liabilities with discretionary participating features that are not subject to the classification and measurement requirements for financial instruments, all investment contracts for account of policyholders that are carried at fair value or at the fair value of the linked assets are included in the table above.

Derivatives

With the exception of derivatives designated as a hedging instrument, all derivatives held for general account and held for account of policyholders are included in the table above.

Borrowings

Borrowings designated as at fair value through profit or loss includes financial instruments that are managed on a fair value basis together with related financial assets and financial derivatives (refer to note 37 Borrowings).

Gains and losses on financial assets and financial liabilities classified at fair value through profit or loss

Gains and losses recognized in the income statement on financial assets and financial liabilities classified as at fair value through profit or loss can be summarized as follows:

	2019		2018	
	Trading	Designated	Trading	Designated
Net gains and (losses)	21,374	13,574	(4,540)	(7,356)

No loans and receivables were designated at fair value through profit or loss.

Changes in the fair value of investment contracts for account of policyholders designated at fair value through profit or loss were not attributable to changes in Aegon's credit spread. There are also no differences between the carrying amounts of these financial liabilities and the contractual amounts payable at maturity (net of surrender penalties).

Refer to note 37 Borrowings for the impact of Aegon's own credit spread on the fair value of the borrowings designated at fair value through profit or loss.

45 Commitments and contingencies**Investments contracted**

In the normal course of business, the Group has committed itself through purchase and sale transactions of investments, mostly to be executed in the course of 2020. The amounts represent the future outflow and inflow, respectively, of cash related to these investment transactions that are not reflected in the consolidated statement of financial position.

	2019		2018	
	Purchase	Sale	Purchase	Sale
Real estate	168	3	156	66
Mortgage loans	859	79	3,187	67
Private loans	394	-	1,224	-
Other	1,824	-	2,222	-

Aegon has committed itself, through certain subsidiaries, to invest in real estate, private loans, mortgage loans and receivables and investment funds.

Real estate commitments represent the committed pipeline of investments in real estate projects. The sale of real estate relates to properties that are under contract to be sold as per December 31, 2019.

Mortgage loans commitments represent undrawn mortgage loan facility provided and outstanding proposals on mortgages. The sale of mortgage loans relates to pre-announced redemptions on mortgage loans. Private loans represents deals on Aegon's portfolio of private placement securities that Aegon has committed to, but have not yet settled and funded. Other commitments include future purchases of interests in investment funds and limited partnerships.

Future lease payments

	< 1 year amounts	1 < 2 years amounts	2 < 3 years amounts	3 < 4 years amounts	4 < 5 years amounts	> 5 years amounts
2019						
Operating lease rights	49	42	32	26	19	47
	< 1 year amounts	1 - 5 years amounts	> 5 years amounts			
2018						
Operating lease obligations	73	144	169			
Operating lease rights	50	127	52			

The operating lease rights relate to non-cancellable commercial property leases.

Other commitments and contingencies

	2019	2018
Guarantees	380	437
Standby letters of credit	12	12
Share of contingent liabilities incurred in relation to interests in joint ventures	14	49
Other guarantees	13	14
Other commitments and contingent liabilities	7	7

Guarantees include those guarantees associated with the sale of investments in low-income housing tax credit partnerships in the United States, which mostly can be called upon immediately. Standby letters of credit amounts reflected above are the liquidity commitment notional amounts. In addition to the guarantees shown in the table, guarantees have been given for fulfillment of contractual obligations such as investment mandates related to investment funds.

Contractual obligations

In March 2019, affiliates of Transamerica Corporation entered into a series of agreements with Long Term Care Group (LTCG), an independent third party administrator, to transfer the administration and claims management of its long term care insurance business line. The transaction enables Transamerica to accelerate the enhancement of its digital capabilities and the modernization of its long term care insurance platform. Over the course of the multi-year contract, Transamerica will pay approximately USD 390 million to LTCG. These fees represents compensation for administering Transamerica's long term care product line including new business, policyholder service, claims processing and care management. The agreement also contains a termination clause in which case Transamerica – subject to certain limitations – agrees to compensate LTCG, on a specified schedule, for early termination.

In April 2018, affiliates of Transamerica Corporation entered into a series of agreements with affiliates of Tata Consultancy Services Limited ('TCS') to administer the Company's US life insurance, voluntary benefits, and annuity business lines. The collaboration enables Transamerica to accelerate the enhancement of its digital capabilities and the modernization of its platforms to service its customers in all lines of business. Over the course of the multi-year contract, Transamerica will pay more than USD 2 billion to TCS. These fees represent compensation for administering Transamerica's over 10 million policies and are driven by both new business and policies already in force. In addition, this commitment includes remaining transition and conversion charges of approximately USD 107 million (period 2020-2022) as well as administrative, IT and finance service fees which are contingent on TCS meeting specified milestones in the underlying agreement with Transamerica. The agreement also contains a termination clause in which case Transamerica – subject to certain limitations – agrees to compensate TCS, on a specified schedule, for early termination.

Transamerica Corporation, a wholly-owned subsidiary of Aegon N.V., previously had a parental guarantee to TLIC Riverwood Reinsurance, Inc. (TRRI), an affiliated captive reinsurer, for the cash payments required fulfilling reinsurance payments to Transamerica Life Insurance Company, to the extent that the assets in the captive (TRRI) are not sufficient to cover reinsurance obligations. As of December 31, 2018, this amounted to EUR 1,892 million (2017 EUR: 1,793 million). In 2019, the parental guarantee was cancelled resulting in a EUR 0 balance.

In November 2018, Aegon UK announced an extended partnership with Atos BPS Ltd (Atos) to service and administer its Existing Business (non-Platform customers). The agreement is a 15-year contract under which Aegon UK pays Atos to administer around 1.4 million customers, which took effect on 1 June 2019 as planned. At year-end 2019, outstanding transition and conversion charges are estimated to amount to approximately GBP 60 million, which are expected to be recorded over the next two years, with fixed payments to Atos defined in the agreement and subject to completion of milestones which have been agreed with Aegon UK.

On October 31, 2017 Aegon the Netherlands sold its shares in Unirobe Meeüs Groep (UMG) for EUR 295 million to Aon Groep Nederland. Under the share purchase agreement between Aegon Nederland and the buyer, Aegon the Netherlands indemnifies and holds the buyer and its group (including UMG) harmless for and against any damage suffered or incurred which is the result of the Unit Linked Insurances Claims until 2027 with respect to Unit Linked Policies in the portfolio of UMG prior to 1 January 2017. The aggregate liability for Aegon the Netherlands is maximized at an amount equal to the purchase price.

An Aegon N.V. indirect US life subsidiary has a net worth maintenance agreement with its subsidiary Transamerica Life (Bermuda) Ltd, pursuant to which Transamerica Life Insurance Company, a US life insurance subsidiary, will provide capital sufficient to maintain a S&P 'AA' financial strength rating and capital sufficient to comply with the requirements of the countries in which its branches are located.

Aegon N.V. has guaranteed and is severally liable for the following:

- Due and punctual payment of payables under letter of credit agreements applied for by Aegon N.V. as co-applicant with its captive insurance companies that are subsidiaries of Transamerica Corporation and Commonwealth General Corporation. At December 31, 2019, the letter of credit arrangements utilized by captives to provide collateral to affiliates amounted to EUR 2,249 million (2018: EUR 3,469 million); as of that date no amounts had been drawn, or were due under these facilities. Other letter of credit arrangements for subsidiaries amounted to EUR 10 million (2018: EUR 60 million); as of that date no amounts had been drawn, or were due under these facilities;
- Due and punctual payment of payables under letter of credit agreements or guarantees provided for subsidiaries of Transamerica Corporation at December 31, 2019 amounted to EUR 1,666 million (2018: EUR 3,164 million). As of that date no amounts had been drawn, or were due under letter of credit facilities.
- Due and punctual payment of payables by the consolidated group companies Transamerica Corporation, Aegon Funding Company LLC and Commonwealth General Corporation with respect to fixed subordinated notes, bonds, capital trust pass-through securities and notes issued under commercial paper programs amounting to EUR 1,449 million (2018: EUR 614 million); and
- Due and punctual payment of any amounts owed to third parties by the consolidated group company Aegon Derivatives N.V. in connection with derivative transactions. Aegon Derivatives N.V. only enters into derivative transactions with counterparties with which ISDA master netting agreements, including collateral support annex agreements, have been agreed. Net (credit) exposure on derivative transactions with these counterparties was therefore limited as of December 31, 2019.

Legal and arbitration proceedings, regulatory investigations and actions

Aegon faces significant risks of litigation as well as regulatory investigations and actions relating to its and its subsidiaries' insurance, pensions, retirement administration, securities, investment management, investment advisory and annuities businesses as well as Aegon's corporate compliance, including compliance with employment, sanctions, anti-corruption and tax regulations.

Aegon subsidiaries regularly receive inquiries from local regulators and policyholder advocates in various jurisdictions, including the United States, the Netherlands, Poland and the United Kingdom. In some cases, Aegon subsidiaries have modified business practices in response to inquiries or findings of inquiries. Regulators may seek fines or penalties, or changes to the way Aegon operates.

Due to the geographic spread of its business, Aegon Group may be subject to tax audits or litigation in various jurisdictions. Although uncertainties are provided for adequately in the tax position, the ultimate outcome of the tax audits of litigation may result in an outcome that differs from the amounts provided for.

Insurance companies and their affiliated regulated entities are routinely subject to litigation, investigation and regulatory activity by various governmental and enforcement authorities, individual claimants and policyholder advocate groups involving issues such as, but not limited to, product fees and costs, including transparency and adequacy of disclosure of initial costs, ongoing costs, and costs due on policy surrender as well as changes to costs over time; employment or distribution relationships; operational and internal controls and processes; environmental matters; competition and antitrust matters; data privacy; information security; intellectual property; and anti-money laundering, anti-bribery and economic sanctions compliance.

Government and regulatory investigations may result in the institution of administrative, injunctive or other proceedings and/or the imposition of monetary fines, penalties and/or disgorgement as well as other remedies, sanctions, damages and restitutionary amounts. There can be no assurance that government and regulatory investigations will not have a material and adverse effect on Aegon's reputation, financial position, results of operations or liquidity.

Many of Aegon's products are affected by fluctuations in equity markets as well as interest rate movements, which may prove to be volatile or disappointing to customers. Significant investment risks are often borne by the customer. Disputes and investigations initiated by governmental entities and private parties may lead to orders or settlements including payments or changes to business practices even if Aegon believes the underlying claims are without merit.

The existence of potential claims may remain unknown for long periods of time after the events giving rise to such claims. Determining the likelihood of exposure to Aegon and the extent of any such exposure may not be possible for long periods of time after Aegon becomes aware of such potential claims. Once litigation is initiated, it may be protracted and subject to multiple levels of appeal.

Aegon cannot predict the effect of litigation, investigations or other actions on its businesses or the insurance industry. In some jurisdictions, plaintiffs may seek recovery of very large or indeterminate amounts under claims of bad faith, resulting in punitive or treble damages. Damages alleged may not be quantifiable or supportable, or may have no relationship to economic losses or final awards. Separate from financial loss, litigation, regulatory action, legislative changes or changes in public opinion may require Aegon

to change its business practices, which could have a material adverse impact on Aegon's businesses, results of operations, cash flows and financial position.

Aegon has defended and will continue to defend itself when it believes claims are without merit. Aegon has also settled and will seek to settle certain claims, including through policy modifications, as it believes appropriate. While Aegon intends to resist claims, there can be no assurance that claims brought against Aegon will not have a material adverse impact on its businesses, results of operations, and financial position.

Proceedings in which Aegon is involved

Several US insurers, including Aegon subsidiaries, have been named in class actions as well as individual litigation relating to increases in monthly deduction rates ("MDR") on universal life products. Plaintiffs generally allege that the increases were made to recoup past losses rather than to cover the future costs of providing insurance coverage. In one such class action against Aegon's subsidiary pending in the US federal district court for the Central District of California, the parties agreed to settle the case which resulted in a net charge to the income statement for 2018 of USD 166 million. In January 2019, a court approved the aforementioned settlement. Over 99% of affected policyholders participated in the settlement. While less than 1% of policyholders opted out, they represent approximately 43% of the value of the settlement fund. The settlement fund was reduced proportionally for opt outs, although Aegon continues to hold a provision for these policyholders. Resolution of this class action ended a number of other related cases, including several other class actions. At this time it is impracticable for Aegon to quantify a range or maximum liability or the timing of the financial impact, if any, of the remaining MDR increase related litigation, as the potential financial impacts are dependent both on the outcomes of court proceedings and future developments in financial markets and mortality. If decided adversely to Aegon, these claims could have a material adverse effect on Aegon's business, results of operations, and financial position.

Unclaimed property administrators and state insurance regulators performed examinations and multi-state examinations of the life insurance industry in the United States, including certain of Aegon's subsidiaries. Aegon subsidiaries, like other major US insurers, entered into resolutions with state treasurers and insurance regulators regarding unclaimed property and claims settlement practices. As of December 2019, there remained a provision of USD 25 million for unclaimed property obligations, which is management's best estimate of the still-outstanding exposure. The final amount may vary based on subsequent regulatory review.

Aegon's US-based subsidiaries may face employment-related lawsuits from time to time. For example, several US-based Aegon subsidiaries have been named in a class action alleging that the business model inappropriately characterizes distributors as independent contractors instead of employees. Depending on the outcome, these lawsuits, along with similar claims against other companies, as well as regulatory action could necessitate a change in the distribution model and could result in significant settlements or judgments.

A former subsidiary of Transamerica Corporation was involved in a contractual dispute with a Nigerian travel broker that arose in 1976. That dispute was resolved in Delaware court for USD 235 thousand plus interest in 2010. The plaintiff took the Delaware judgment relating to the 1976 dispute to a Nigerian court and alleged that it was entitled to approximately the same damages for 1977 through 1984 despite the absence of any contract relating to those years. The Nigerian trial court issued a judgment in favor of the plaintiff of the alleged actual damages as well as pre-judgment interest of approximately USD 120 million. On appeal this decision was reversed on procedural grounds and remanded back to the trial court which ruled to dismiss the case; however, the Plaintiff appealed the trial court's ruling. The appeal is still pending. Aegon has no material assets located in Nigeria.

In Poland, owners of unit-linked policies continue to file claims in civil court against Aegon over fees payable upon purchase or surrender of the product. Plaintiffs claim that these fees are not contractually supported. Aegon faces a significant number of these cases. For reasons of commercial necessity as well as at the instigation of the regulatory authorities, Aegon decided to modify the fee structure. As of 2019, a provision of EUR 14 million remains, which represents management's best estimate of the exposure. The final amount may vary based on regulatory developments and the outcome of litigation.

In the Netherlands, unit linked products ('beleggingsverzekeringen') have been controversial and the target of litigation since at least 2005. Allegations include excessive cost, unfair terms, inadequate disclosure, and failure to perform as illustrated. Consumer groups have formed to address these issues and initiate mass claims against insurers. Regulators as well as the Dutch Parliament have been involved ever since, with the principal goal of achieving an equitable resolution. Aegon has made improvements across its product lines, including after settlements reached in 2009 with Stichting Woekerpolis and Stichting Verliespolis. In 2013 Aegon took a charge of EUR 25 million after the Dutch Supreme Court ruled adversely in litigation concerning premium amounts charged in the KoersPlan product. Some of the unit linked products are still involved in ongoing litigation. In September 2014, consumer interest group Vereniging Woekerpolis.nl filed a claim against Aegon in court. The claim related to a range of unit linked products that Aegon sold

in the past, including Aegon products involved in the earlier litigation. The claim challenges a variety of elements of these products, on multiple legal grounds, including allegations made previously. In June 2017, the court issued a verdict which upheld the principle that disclosures must be evaluated according to the standards at the time when the relevant products were placed in-force. Most of the claims of Vereniging Woekerpolis.nl were dismissed under this standard, although the court found that Aegon did not adequately disclose certain charges on a limited set of policies. The district court did not decide on the reasonableness of the cost levels and whether the previous compensation arrangements provide sufficient compensation. This court decision has been appealed by both parties. Aegon expects the claims and litigation on unit linked products to continue for the foreseeable future. Developments in similar cases against other Dutch insurers currently before regulators and courts may also affect Aegon. At this time, Aegon is unable to estimate the range or potential maximum liability. There can be no assurances that these matters, in the aggregate, will not ultimately result in a material adverse effect on Aegon's business, results of operations and financial position.

Securities leasing products ('aandelenlease producten') have also been the subject of litigation in the Netherlands. Although sales of securities leasing products ended more than a decade ago, litigation relating to these products has resurfaced. In 2016, the Dutch Supreme Court ruled on a case involving a securities leasing product sold by one of Aegon's competitors. It decided that the financial institution was liable if a broker ('remisier') that advised on the sale of the institution's products was not properly licensed. In July 2016, consumer interest group Platform Aandelenlease filed a claim against Aegon Bank regarding securities leasing product Sprintplan. Allegations include, among other things, a lack of a proper license of the brokers involved. In October 2017, the district court of The Hague ruled in favor of Aegon that the Sprintplan liability had been conclusively determined in earlier proceedings and there were no grounds to hold further collective proceedings. The plaintiff appealed. In February 2020, the Court of Appeal rejected all claims filed by Platform Aandelenlease against Aegon Bank. Platform Aandelenlease may appeal in cassation against this ruling. In addition, Aegon is involved in claims for compensation and the cancellation or nullification of contracts concerning the Vliegwiël product, a variation on securities leasing products. Currently, proceedings are pending before the Dutch courts and the Complaint Institute for Financial Services ('Klachteninstituut Financiële Dienstverlening'), with numerous cases having been initiated by Leaseproces B.V. At this time, Aegon is unable to estimate the range or potential maximum liability. There can be no assurances that this matter will not ultimately result in a material adverse effect on Aegon's business, results of operations and financial position.

46 Transfers of financial assets

Transfers of financial assets occur when Aegon transfers contractual rights to receive cash flows of financial assets or when Aegon retains the contractual rights to receive the cash flows of the transferred financial asset, but assumes a contractual obligation to pay the cash flows to one or more recipients in that arrangement.

In the normal course of business Aegon is involved in the following transactions:

- Transferred financial assets that are not derecognized in their entirety:
 - Securities lending; whereby Aegon legally (but not economically) transfers assets and receives cash and non-cash collateral. The transferred assets are not derecognized. The obligation to repay the cash collateral is recognized as a liability. The non-cash collateral is not recognized in the statement of financial position; and
 - Repurchase activities; whereby Aegon receives cash for the transferred assets. The financial assets are legally (but not economically) transferred, but are not derecognized. The obligation to repay the cash received is recognized as a liability.
- Transferred financial assets that are derecognized in their entirety and Aegon does not have a continuing involvement (normal sale);
- Transferred financial assets that are derecognized in their entirety, but where Aegon has a continuing involvement;
- Collateral accepted in the case of securities lending, reverse repurchase agreement and derivative transactions; and
- Collateral pledged in the case of (contingent) liabilities, repurchase agreements, securities borrowing and derivative transactions.

The following disclosures provide details for transferred financial assets that are not derecognized in their entirety, transferred financial asset that are derecognized in their entirety, but where Aegon has a continuing involvement and assets accepted and pledged as collateral.

46.1 Transferred financial assets that have not been derecognized in their entirety

The following table reflects the carrying amount of financial assets that have been transferred to another party in such a way that part or all of the transferred financial assets do not qualify for derecognition. Furthermore, it reflects the carrying amounts of the associated liabilities.

	2019			
	Available-for-sale financial assets		Financial assets at fair value through profit or loss	
	Shares	Debt securities	Debt securities	Investments for account of policyholders
Carrying amount of transferred assets	144	3,127	20	161
Carrying amount of associated liabilities	155	3,304	21	4

	2018			
	Available-for-sale financial assets		Financial assets at fair value through profit or loss	
	Shares	Debt securities	Debt securities	Investments for account of policyholders
Carrying amount of transferred assets	81	3,310	404	249
Carrying amount of associated liabilities	91	3,396	416	69

Securities lending and repurchase activities

The table above includes financial assets that have been transferred to another party under securities lending and repurchase activities.

Aegon retains substantially all risks and rewards of those transferred assets, this includes credit risk, settlement risk, country risk and market risk. The assets are transferred in return for cash collateral or other financial assets. Non-cash collateral is not recognized in the statement of financial position. Cash collateral is recorded on the statement of financial position as an asset and an offsetting liability is established for the same amount as Aegon is obligated to return this amount upon termination of the lending arrangement. Cash collateral is usually invested in pre-designated high quality investments. The sum of cash and non-cash collateral is typically greater than the market value of the related securities loaned. Refer to note 46.3 Assets accepted and note 46.4 Assets pledged for an analysis of collateral accepted and pledged in relation to securities lending and repurchase agreements.

46.2 Transferred financial assets that are derecognized in their entirety, but where Aegon has continuing involvement

Aegon has no transferred financial assets with continuing involvement that are derecognized in their entirety as per year-end 2019 and 2018.

46.3 Assets accepted

Aegon receives collateral related to securities lending, reverse repurchase activities and derivative transactions. Non-cash collateral is not recognized in the statement of financial position. To the extent that cash is paid for reverse repurchase agreements, a receivable is recognized for the corresponding amount.

The following tables present the fair value of the assets received in relation to securities lending and reverse repurchase activities:

Securities lending	2019	2018
Carrying amount of transferred financial assets	2,734	3,718
Fair value of cash collateral received	2,146	2,480
Fair value of non-cash collateral received	780	1,356
Net exposure	(192)	(117)
Non-cash collateral that can be sold or repledged in the absence of default	618	1,171
Non-cash collateral that has been sold or transferred	-	-

Reverse repurchase agreements	2019	2018
Cash paid for reverse repurchase agreements	4,980	2,195
Fair value of non-cash collateral received	5,003	2,224
Net exposure	(23)	(29)
Non-cash collateral that can be sold or repledged in the absence of default	4,640	1,740
Non-cash collateral that has been sold or transferred	-	-

The above items are conducted under terms that are usual and customary to standard securities lending activities, as well as requirements determined by exchanges where the bank acts as intermediary.

In addition, Aegon can receive collateral related to derivative transactions that it enters into. The credit support agreement will normally dictate the threshold over which collateral needs to be pledged by Aegon or its counterparty. Transactions requiring Aegon or its counterparty to post collateral are typically the result of over-the-counter derivative trades, comprised mostly of interest rate swaps, currency swaps and credit swaps. Refer to the credit risk section in note 4 Financial risks for details on collateral received for derivative transactions.

46.4 Assets pledged

Aegon pledges assets that are on its statement of financial position in securities borrowing transactions, in repurchase transactions, in derivative transactions and against long-term borrowings. In addition, in order to trade derivatives on the various exchanges, Aegon posts margin as collateral.

These transactions are conducted under terms that are usual and customary to standard long-term borrowing, derivative and securities borrowing activities, as well as requirements determined by exchanges where the bank acts as intermediary.

Non-cash financial assets that are borrowed or purchased under agreement to resell are not recognized in the statement of financial position.

To the extent that cash collateral is paid, a receivable is recognized for the corresponding amount. If other non-cash financial assets are given as collateral, these are not derecognized.

The following tables present the carrying amount of collateral pledged and the corresponding amounts.

Assets pledged for general account and contingent liabilities	2019	2018
General account (contingent) liabilities	2,664	4,844
Collateral pledged	3,726	6,694
Net exposure	(1,061)	(1,849)
Non-cash collateral that can be sold or repledged by the counterparty	-	-

Assets pledged for repurchase agreements	2019	2018
Cash received on repurchase agreements	719	322
Collateral pledged (transferred financial assets)	718	325
Net exposure	-	(3)

As part of Aegon's mortgage loan funding program in the Netherlands, EUR 5.5 billion (2018: EUR 6 billion) has been pledged as security for notes issued (refer to note 37 Borrowings). In addition, in order to trade derivatives on the various exchanges, Aegon posts margin as collateral. The amount of collateral pledged for derivative transactions was EUR 2.4 billion (2018: EUR 1.4 billion).

47 Offsetting, enforceable master netting arrangements and similar agreements

The following table only includes financial positions for which there is a recognized corresponding position that could be offset under a legally enforceable master netting arrangement or similar agreement. Aegon also enters into collateralized (reverse) repo or security lending and borrowing transaction, for which the collateral is not recognized on the balance sheet. For further information on the financial positions resulting from such transactions please refer to note 46. The table provides details relating to the effect, or potential effect, of netting arrangements, including rights to set-off, associated with the entity's recognized financial assets and recognized financial liabilities.

Financial assets subject to offsetting, enforceable master netting arrangements and similar agreements	Gross amounts of recognized financial assets	Gross amounts of recognized financial liabilities set off in the statement of financial position	Net amounts of financial assets presented in the statement of financial position	Related amounts not set off in the statements of financial position		
				Financial instruments	Cash collateral received (excluding surplus collateral)	Net amount
2019						
Derivatives	11,220	-	11,220	8,261	2,837	122
At December 31	11,220	-	11,220	8,261	2,837	122
2018						
Derivatives	7,650	-	7,650	4,840	2,689	120
At December 31	7,650	-	7,650	4,840	2,689	120

Financial liabilities subject to offsetting, enforceable master netting arrangements and similar agreements	Gross amounts of recognized financial liabilities	Gross amounts of recognized financial assets set off in the statement of financial position	Net amounts of financial liabilities presented in the statement of financial position	Related amounts not set off in the statements of financial position		
				Financial instruments	Cash collateral pledged (excluding surplus collateral)	Net amount
2019						
Derivatives	8,556	-	8,556	8,433	43	80
At December 31	8,556	-	8,556	8,433	43	80
2018						
Derivatives	4,734	-	4,734	4,705	7	22
At December 31	4,734	-	4,734	4,705	7	22

Financial assets and liabilities are offset in the statement of financial position when the Group has a legally enforceable right to offset and has the intention to settle the asset and liability on a net basis, or to realize the asset and settle the liability simultaneously. As shown in the second column there are no financial assets and liabilities offset in 2019 and 2018.

The line Derivatives includes derivatives for general account and for account of policyholder.

Aegon mitigates credit risk in derivative contracts by entering into collateral agreements, where practical, and in ISDA master netting agreements for each of the Aegon's legal entities to facilitate Aegon's right to offset credit risk exposure. The credit support agreement will normally dictate the threshold over which collateral needs to be pledged by Aegon or its counterparty. Transactions requiring Aegon or its counterparty to post collateral are typically the result of over-the-counter derivative trades, comprised mostly of interest rate swaps, currency swaps and credit swaps. These transactions are conducted under terms that are usual and customary to standard long-term borrowing, derivative, securities lending and securities borrowing activities, as well as requirements determined by exchanges where the bank acts as intermediary.

48 Business combinations

Acquisitions

2019

There were no significant acquisitions in 2019.

2018

On July 1, 2018, the legal transfer of the BlackRock Life Limited's Defined Contribution and investment platform business to Scottish Equitable plc., a subsidiary of Aegon NV, was completed following the approval of the High Court on June 21, 2018, in accordance with Part VII of the Financial Services and Markets Act 2000.

On July 3, 2018, Aegon agreed to expand its joint venture arrangement with Banco Santander in Spain and will pay an upfront consideration of EUR 215 million and an additional amount of up to EUR 75 million to be paid after 5 years, depending on the performance of the partnership. The consideration will be funded from Holding excess cash. The final terms (including closing and date of payment) of the transaction are subject to due diligence, regulatory approval, several other conditions and to the process of terminating the existing alliances of Banco Popular.

On September 10, 2018, Aegon completed the acquisition of Robidus, a leading income protection service provider in the Netherlands. Under the terms of the agreement, Aegon acquired 94.4% and voting interests of the company with the remainder to be retained by Robidus' management team. The total consideration of the acquisition amounted to EUR 103 million. Based on the purchase price allocation the fair value of the net assets amounted to EUR 18 million, resulting in a goodwill of EUR 85 million.

2017

On January 1, 2017, Aegon completed the acquisition of Cofunds Ltd., following regulatory approval. The purchase of the Cofunds Ltd. business was done through a sale and purchase agreement to acquire all the shares and platform assets. The total consideration of the acquisition amounted to GBP 147 million (EUR 171 million). The fair value of the net assets amounted to GBP 99 million (EUR 116 million), of which GBP 25 million (EUR 29 million) related to "customer intangibles", resulting in goodwill of GBP 48 million (EUR 56 million). The value of the transferred customer investments under management as per January 1, 2017 amounted to approximately GBP 82 billion (EUR 96 billion) and is not recognized on Aegon's statement of financial position.

On August 2, 2017, Aegon Poland has received approval by the Polish Financial Supervision Authority to take over the management of the Nordea second-pillar pension fund. The value of the transferred net assets of Nordea to Aegon Poland as per June 30, 2017 amounted to approximately PLN 8.1 billion (EUR 1.9 billion).

Divestments/Disposals

2019

On January 29, 2020, Aegon completed the sale of its 50% stake in the variable annuity joint ventures in Japan. The sale was announced on May 17, 2019. The total cash proceeds are EUR 153 million (JPY 18.75 billion). The divestment will not have a material impact on Aegon's capital position and is expected to lead to an IFRS gain of EUR 51 million. This divestment has no material impact on underlying earnings before tax going forward.

On January 8, 2019, Aegon completed the sale of its businesses in Czech Republic and Slovakia. The businesses consisted mainly of unit linked life insurance coverage, term life products and pension reserves. The proceeds of the sale amount to EUR 155 million and the book gain amounts to approximately EUR 70 million, which were reflected in other income. As a consequence of the transaction, annual income before tax and underlying earnings before tax have decreased. In 2018, the underlying earnings before tax of the combined operations amounted to EUR 17 million.

2018

On April 3, 2018, Aegon completed the sale of Aegon Ireland plc to Athora Holding Ltd. agreed to on August 9, 2017. The net proceeds of the transaction amounted to GBP 177 million (EUR 202 million). The divestment led to a book loss of GBP 81 million (EUR 93 million), reported in note 17 Other charges. This divestment had no material impact on underlying earnings before tax going forward. Upon disposal, an amount of GBP 31 million (EUR 36 million) related to the foreign currency translation and net foreign investment hedging reserve has been reclassified from Other Comprehensive Income into the income statement.

On August 7, 2018, Aegon agreed to divest the last substantial block of its US life reinsurance business to SCOR Global Life. Under the terms of the agreement, Aegon's Transamerica life subsidiaries reinsured approximately USD 700 million of liabilities through SCOR. The transaction covered the block of life reinsurance business that Transamerica retained after it divested the vast majority of its life reinsurance business to SCOR in 2011 and 2017. The transaction had a one-time benefit of USD 50 million on Transamerica's capital position.

On August 15, 2018, Aegon has agreed to sell its business in Czech Republic and Slovakia for EUR 155 million to NN Group. The business consists mainly of unit linked life insurance coverage, term life products and pension services. Based on the book value as of December 31, 2018, the book gain is expected to amount to approximately EUR 80 million and will be reported in Other income upon completion. As a consequence of this transaction, annual income before tax and underlying earnings before tax will decrease. In 2018, the underlying earnings before tax of the combined operations amounted to EUR 17 million. The transaction has closed early 2019.

Aegon entered into a series of agreements under which it disposed of its Hungarian mortgage business, captured in a separate legal entity. The sale was completed on October 2018, and the result on the sale was not material. This divestment has no material impact on underlying earnings before tax going forward.

2017

On June 28, 2017, Aegon completed its transaction to divest its two largest run-off businesses in the Americas, the payout annuity business and Bank Owned Life Insurance/ Corporate Owned Life Insurance business (BOLI/COLI). Under the terms of the agreement, Aegon's Transamerica life subsidiaries has reinsured USD 14 billion of liabilities. The transaction resulted in a book gain of USD 250 million (EUR 231 million), reported in the line other income in the condensed consolidated income statement. The book gain consisted of a loss on the reinsurance transaction which is more than offset by the reclassification of gains from Other Comprehensive Income following the disposal of assets to fund the transaction.

The loss on the reinsurance transaction amounted to USD 1,813 million (EUR 1,675 million) being the difference of the reinsurance premium paid and the reinsurance asset received related to the insurance liabilities. Upon disposal an amount of USD 979 million (EUR 905 million) and USD 1,018 million (EUR 941 million) respectively related to revaluation reserves and cash flow hedging reserves has been reclassified from Other Comprehensive Income into the income statement. Gains on sale of certain assets carried at amortized cost backing the insurance liabilities amount to USD 94 million (EUR 87 million). Other expenses related to the transaction, including cost of sale, amounted to USD 28 million (EUR 26 million).

On June 30, 2017, following court approval on the Part VII transfer, the sale of the annuity portfolio to Rothesay Life has been completed. On September 22, 2017, following court approval on the Part VII transfer, the sale of the annuity portfolio to Legal & General has been completed.

On November 1, 2017, Aegon completed the sale of Unirobe Meeüs Groep (UMG), an independent financial advisory group, for a total consideration of EUR 295 million. The divestment led to a book gain of EUR 208 million, which was reported in Other income in the fourth quarter. As a consequence of this transaction annual income before tax and underlying earnings before tax will decrease by approximately EUR 20 million going forward from the 2017 level.

On December 28, 2017, Aegon agreed to divest a block of life reinsurance business and to dissolve a related captive insurance company. Under the terms of the agreement, Aegon's Transamerica life subsidiaries reinsured approximately USD 750 million of liabilities. The transaction covers approximately half of the life reinsurance business that Transamerica retained after it divested the vast majority of its life reinsurance business to SCOR in 2011.

49 Group companies

Subsidiaries

The principal subsidiaries of the parent company Aegon N.V. are listed by geographical segment. All are wholly owned, directly or indirectly, unless stated otherwise, and are involved in insurance or reinsurance business, pensions, asset management or services related to these activities. The voting power in these subsidiaries held by Aegon is equal to the shareholdings.

Americas

- Transamerica Corporation, Wilmington, Delaware (United States);
- Transamerica Casualty Insurance Company, Columbus, Ohio (United States);
- Transamerica Financial Life Insurance Company, Harrison, New York (United States);
- Transamerica Life Insurance Company, Cedar Rapids, Iowa (United States);
- Transamerica Premier Life Insurance Company, Cedar Rapids, Iowa (United States).

Europe

The Netherlands

- Aegon Bank N.V., The Hague;
- Aegon Hypotheken B.V., The Hague;
- Aegon Levensverzekering N.V., The Hague;
- Aegon Schadeverzekering N.V., The Hague;
- Aegon Spaarkas N.V., The Hague;
- Aegon Cappital B.V., Groningen
- Salus Holding B.V., Zaandam;
- TKP Pensioen B.V., Groningen;
- Nedasco B.V., Amersfoort;

United Kingdom

- Aegon Investment Solutions Ltd., Edinburgh;
- Aegon Investments Ltd., London;
- Scottish Equitable plc, Edinburgh;
- Cofunds Limited, London.

Southern and Eastern Europe

- Aegon Magyarország Általános Biztosító Zártkörűen Működő Részvénytársaság, Budapest (Aegon Hungary Composite Insurance Co.);
- Aegon Towarzystwo Ubezpieczeń na Życie Spółka Akcyjna, Warsaw (Aegon Poland Life);
- Aegon Powszechnie Towarzystwo Emerytacyjne Spółka Akcyjna, Warsaw (Aegon Poland Pension Fund Management Co.);
- Aegon Emeklilik ve Hayat A.Ş., Istanbul (Aegon Turkey);
- Aegon Pensii Societate de Administrare a Fondurilor de Pensii Private S.A., Cluj (Aegon Romania Pension Administrator Co.);
- Aegon España S.A.U. de Seguros y Reaseguros, Madrid (Spain);
- Aegon Administracion y Servicios A.I.E., Madrid (Spain);
- Aegon Activos A.V., S.A., Madrid (Spain);
- Aegon Mediacion, S.L.U, Madrid (Spain).

Asia

- Transamerica Life (Bermuda) Ltd., Hamilton (Bermuda).

Asset Management

- Aegon Asset Management Holding B.V., The Hague (The Netherlands);
- Aegon Custody B.V., The Hague (The Netherlands);
- Aegon Asset Management Pan-Europe B.V., The Hague (The Netherlands);
- Kames Capital plc, Edinburgh (United Kingdom);
- Aegon USA Investment Management, LLC, Cedar Rapids (United States);
- Aegon USA Realty Advisors, LLC, Des Moines (United States);
- Aegon Magyarország Befektetési Alapkezelő Zártkörűen Működő Részvénytársaság (Aegon Hungary Asset Management Company ZrtA), Budapest (Hungary);
- Aegon Investment Management B.V, The Hague (The Netherlands);

The legally required list of participations as set forth in articles 379 and 414 of Book 2 of the Dutch Civil Code has been registered with the Trade Register in The Hague. Aegon N.V. has issued a statement of liability as meant in article 403 of Book 2 of the Dutch Civil Code for its subsidiary company Aegon Derivatives N.V.

Joint ventures

The principal joint ventures are listed by geographical segment. The voting power in these joint ventures is equal to the shareholdings.

Americas

- Akaan-Aegon, S.A.P.I. de C.V., Mexico City (Mexico) (50%).

Europe

The Netherlands

- AMVEST Vastgoed B.V., Utrecht (50%).

Southern and Eastern Europe

- Santander Generales Seguros y Reaseguros, S.A., Madrid (Spain) (51%);
- Santander Vida Seguros y Reaseguros, S.A., Madrid (Spain) (51%);
- Liberbank Vida y Pensiones, Seguros y Reaseguros, S.A., Oviedo (Spain) (50%);
- Aegon Santander Portugal Não Vida – Companhia de Seguros S.A., Lisbon (Portugal) (51%);
- Aegon Santander Portugal Vida – Companhia de Seguros de Vida S.A., Lisbon (Portugal) (51%).

Asia

- Aegon Sony Life Insurance Co., Tokyo (Japan) (50%); (Sold as of January 29, 2020)
- Aegon THTF Life Insurance Co., Ltd., Shanghai (China) (50%);
- SA Reinsurance Ltd, Hamilton (Bermuda) (50%);
- Aegon Life Insurance Co. Ltd (India) (49%).

Asset Management

- Aegon Industrial Fund Management Co., Ltd, Shanghai (China) (49%).

Refer to note 25 Investments in joint ventures and associates for further details on these investments.

Investments in associates

The principal investments in associates are listed by geographical segment. The voting power in these associates is equal to the shareholdings.

Americas

- Mongeral Aegon, Seguros e Previdência S.A., Rio de Janeiro (Brazil) (50%).

Asset Management

- La Banque Postale Asset Management, Paris (France) (25%).

Refer to note 25 Investments in joint ventures and associates for further details on these investments.

50 Related party transactions

In the normal course of business, Aegon enters into various transactions with related parties. Parties are considered to be related if one party has the ability to control or exercise significant influence over the other party in making financial or operating decisions. Related parties of Aegon include, amongst others, its associates, joint ventures, key management personnel and the defined benefit and contribution plans. Transactions between related parties have taken place on an arm's length basis. Transactions between Aegon and its subsidiaries that are deemed related parties have been eliminated in the consolidation and are not disclosed in the notes.

Related party transactions include, among others, transactions between Aegon N.V. and Vereniging Aegon.

On December 23, 2019 Aegon N.V. repurchased 13,227,120 common shares B from Vereniging Aegon for the amount of EUR 1,384,046 based on 1/40th of the Value Weight Average Price of the common shares on the five trading days preceding this

transaction. The repurchase of common shares B was executed to align the shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6%.

On May 17, 2019, Vereniging Aegon exercised its options rights to purchase 1,773,680 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by the issuance of shares on May 17, 2019, in connection with the Long Term Incentive Plans for senior management.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase 1,489,200 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by the issuance of shares on May 18, 2018, in connection with the Long Term Incentive Plans for senior management.

On December 19, 2017 Aegon N.V. repurchased 13,042,592 common shares B from Vereniging Aegon for the amount of EUR 1,725,169 based on 1/40th of the Value Weight Average Price of the common shares of the five trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6% following the completion of the Share Buy Back Program, initiated by Aegon N.V. in October 2017 to neutralize the dilutive effect of the distribution of final dividend 2016 in stock and interim dividend 2017 in stock.

On June 23, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 13,042,612 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by Aegon's issuance of shares on June 23, 2017, being the final dividend 2016 in the form of stock dividend.

On May 19, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 1,979,260 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 19, 2017, in connection with the Long Term Incentive Plans for senior management.

Remuneration of members of the Supervisory Board, Executive Board and Key Management

The following table includes the expenses for remuneration, with amounts reflective of time spent on the Board.

Remuneration expenses

	2019	2018	2017
Supervisory Board	1.0	1.0	1.1
Executive Board	5.8	6.3	5.3
Key Management	26.4	21.5	19.4
In fixed compensation	14.5	9.4	8.5
In cash based variable compensation	3.6	3.6	3.1
In share based variable compensation	3.2	3.3	3.1
In pension contributions	3.9	4.3	3.7
In other benefits	1.2	0.9	0.9

In 2019 the fixed compensation amount of the Key Management included EUR 717 thousand in severance payments. The Key Management consists of all members of the Supervisory Board, Executive Board and Management Board (see the chapter Composition of the Boards for more details).

Additional information on the remuneration and share-based compensation of members of the Executive Board and the remuneration of the Supervisory Board is disclosed in the Remuneration report.

Interests in Aegon N.V. held by active members of the Executive Board

Shares held in Aegon at December 31, 2019 by Mr. Wynaendts amount to 544,914 (2018: 494,779) and by Mr. Rider to 42,972 (2018: 20,462). The shares held in Aegon mentioned above do not exceed 1% of total outstanding share capital at the reporting date. At the reporting date no loans with Aegon or outstanding balances such as guarantees or advanced payments exist for either Mr. Wynaendts or Mr. Rider.

Common shares held by Supervisory Board members

Shares held in Aegon at December 31	2019	2018
Robert W. Dineen (up to October 11, 2019)	-	10,000
Ben J. Noteboom	23,500	23,500
Ben van der Veer	1,450	1,450
Dona D. Young	13,260	13,260
Total	38,210	48,210

Shares held by Supervisory Board members are only disclosed for the period for which they have been part of the Supervisory Board. At the reporting date no loans with Aegon or outstanding balances such as guarantees or advanced payments exist for the members of the Supervisory Board.

51 Events after the reporting period

On January 29, 2020, Aegon announced the completion of the sale of its 50% stake in the Japanese variable annuity joint ventures, Aegon Sony Life Insurance Co. and SA Reinsurance Ltd., to partner Sony Life. The proceeds of the sale amounted to EUR 153 million and the book gain amounted to EUR 51 million.

On February 3, 2020, Aegon's subsidiary in the Americas, Transamerica accepted an offer to sell the Transamerica Pyramid property in San Francisco for a consideration of EUR 635 million (USD 711 million). The sale is expected to close in the second quarter of 2020.

Since January 2020, the Coronavirus disease (COVID-19) outbreak is causing significant disruption to society, impacting Aegon, its employees, suppliers and customers worldwide.

Financial markets have been severely impacted by significant decreases in interest rates, equity markets and commodity prices, and by credit spreads widening. Governments and central banks worldwide are responding to this crisis with aid packages and further quantitative easing. At the date of this report the depth and length of this crisis is unknown.

The Company is continuously monitoring the market and economic turbulence that has arisen as a consequence of the COVID-19 outbreak, and its impact on Aegon. The most significant risks Aegon faces are related to financial markets (particularly credit, equity and interest rates), and underwriting risks (particularly related to mortality, morbidity and policyholder behavior). The notes to Aegon's financial statements include elaborate descriptions and related financial market sensitivities. Aegon continues to monitor claim activity, including mortality and morbidity claims, and policyholder behavior. At the date of this report it is too early to tell what the impact of the COVID-19 crisis is on Aegon's underwritings results and Aegon's long term underwriting and economic assumptions, if any.

Because of the far-reaching measures governments around the world are taking to control the impact of this pandemic, we expect the sale of new business to be impacted by these measures. At the date of this report it remains too early to tell what the impact of these measures will be on Aegon's sales. Lower interest rates are also likely to impact the profitability of Aegon's sales depending on the market response. Aegon has invoked its business continuity plans to help ensure the safety and well-being of its staff, as well as its capability to support its customers and maintain its business operations, while maintaining our financial and operational resilience.

The Hague, the Netherlands, March 18, 2020**Supervisory Board**

William L. Connelly
Mark A. Ellman
Ben J. Noteboom
Ben van der Veer
Corien M. Wortmann-Kool
Dona D. Young

Executive Board

Alexander R. Wynaendts
Matthew J. Rider

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Income statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	Note	2019	2018
Income			
Investment Income	3	47	77
Total revenues		47	77
Results from financial transactions	4	(15)	(1)
Total income		32	76
Charges			
Commissions and expenses	5	74	82
Interest charges and related fees	6	139	118
Total charges		213	200
Income before tax		(181)	(124)
Income Tax	7	40	2
Income after tax		(141)	(122)
Net income/(loss) group companies	8	1,668	865
Net income / (loss)		1,528	744

Statement of financial position of Aegon N.V.

As at December 31

Before profit appropriation, amounts in EUR million	Note	2019	2018 ¹⁾
Non-current assets			
Financial fixed assets			
Shares in group companies	8	25,652	22,461
Loans to group companies	9	1,337	2,487
		26,989	24,948
Current assets			
Receivables			
Receivables from group companies	10	112	35
Other receivables	10	175	137
Other current assets	11	124	137
Accrued interest and rent		13	16
		424	325
Cash and cash equivalents			
Cash and cash equivalents		1,032	1,231
Total assets		28,445	26,504
Shareholders' equity			
Share capital	12	323	322
Paid-in surplus	13	7,213	7,486
Revaluation account	13	6,116	3,540
Legal reserves – foreign currency translation reserve	13	426	130
Legal reserves in respect of group companies	13	1,703	1,326
Retained earnings, including treasury shares	13	7,545	7,820
Remeasurement of defined benefit plans of group companies	13	(2,397)	(1,850)
Net income / (loss)	13	1,528	744
		22,457	19,518
Other equity instruments	14	2,571	3,320
Total equity		25,028	22,838
Provisions			
Deferred tax liability		-	10
		-	10
Non-current liabilities			
Subordinated borrowings	15	1,403	1,389
Long-term borrowings	16	1,257	1,292
		2,660	2,681
Current liabilities	17		
Short term deposits		-	82
Loans from group companies		6	9
Payables to group companies		484	582
Other current liabilities		236	271
Accruals and deferred income		31	31
		757	975
Total liabilities		3,417	3,666
Total equity and liabilities		28,445	26,504

¹⁾ Amounts have been restated to reflect voluntary changes in accounting policies related to liability adequacy testing that was adopted by Aegon effective January 1, 2019. Refer to note 2.1.2 Voluntary changes in accounting policies in the consolidated notes for details about this change.

Notes to the financial statements

1 General information

Aegon N.V., incorporated and domiciled in the Netherlands, is a public limited liability company organized under Dutch law and recorded in the Commercial Register of The Hague registered under number 27076669 and with its registered address at Aegonplein 50, 2591 TV, The Hague, the Netherlands. Aegon N.V. serves as the holding company for the Aegon Group and has listings of its common shares in Amsterdam and New York.

Aegon N.V. (or 'the Company') and its subsidiaries ('Aegon' or 'the Group') have life insurance and pensions operations in more than 20 countries in the Americas, Europe and Asia and are also active in savings and asset management operations, accident and health insurance, general insurance and to a limited extent banking operations. Headquarters are located in The Hague, the Netherlands. The Group employs over 23,000 people worldwide (2018: over 26,000).

2 Significant accounting policies

The financial statements have been prepared in accordance with accounting principles in the Netherlands as embodied in Part 9 of Book 2 of the Netherlands Civil Code. In accordance with 2:362.8 of the Dutch Civil Code, the Company's financial statements are prepared based on the accounting principles of recognition, measurement and determination of profit, as applied in the consolidated financial statements. These principles also include the classification and presentation of financial instruments, being equity instruments or financial liabilities.

The group companies are stated at their net asset value, determined on the basis of the consolidated accounting policies as applied in the consolidated financial statements of the Group. For details on the accounting policies applied for the group companies refer to the consolidated financial statements.

Revaluation account includes unrealized gains and losses on available-for-sales assets and the positive changes in value that have been recognized in net income/(loss) relating to investments (including real estate) and which do not have a frequent market listing.

Legal reserves in respect of group companies include net increases in net asset value of subsidiaries and associates since their first inclusion, less any amounts that can be distributed without legal restrictions.

A reference is made to Note 2 Significant accounting policies of the consolidated financial statements for the description of the accounting policies applied.

3 Investment income

	2019	2018
Interest income from intercompany loans	51	66
Interest income from derivatives	(4)	11
Total Investment Income	47	77

4 Results from financial transactions

	2019	2018
Results from financial transactions comprise:		
Net fair value change of derivatives	(22)	(8)
Net foreign currency gains and (losses)	3	3
Net fair value change on borrowings and other financial liabilities	4	4
Total	(15)	(1)

Net fair value change of derivatives mostly comprises of Fair value changes on derivatives that are designated as economic hedges for which no hedge accounting is applied.

5 Commissions and expenses

	2019	2018
Employee expenses	88	83
Administration expenses	77	79
Cost sharing to group companies	(91)	(80)
Total	74	82

6 Interest charges and related fees

	2019	2018
Subordinated borrowings	80	63
Borrowings	57	55
Other	2	-
Total	139	118

7 Income tax

	2019	2018
Current Tax		
Current Tax	40	2
Income tax for the period (income) / charge	40	2
Reconciliation between standard and effective tax		
Income before tax	(181)	(124)
Tax on income on Dutch corporate income tax rate	45	31
Differences due to the effect of:		
Non deductible expenses	(6)	(5)
Adjustments prior year	-	(24)
Total	40	2

8 Shares in group companies

	2019	2018
At January 1	22,461	23,402
Restated opening balance ¹⁾	(44)	(22)
At January 1 (restated)	22,417	23,380
Capital contributions and acquisitions	231	97
Divestments and capital repayments	(6)	(23)
Dividend received	(872)	(702)
Net income / (loss) for the financial year	1,668	865
Revaluations	2,214	(1,157)
At December 31	25,652	22,461

¹⁾ See in consolidated financial statements note 2.1.1 for details about the impact of adopting IFRS 16 on Leases and note 2.1.2 for details about the impact of voluntary change in accounting policy on Liability Adequacy Testing

For a list of names and locations of the most important group companies, refer to note 49 Group companies of the consolidated financial statements of the Group. The legally required list of participations as set forth in article 379 of Book 2 of the Netherlands Civil Code has been registered with the Commercial Register of The Hague.

9 Loans to group companies

	2019	2018
At January 1	2,487	2,690
Additions / (repayments)	(1,194)	(333)
Other changes	45	131
At December 31	1,337	2,487
Current	957	2,427
Non-current	380	60

The other changes in Loans to group companies mainly relate to currency exchange rate fluctuations.

10 Receivables

Receivables from group companies and other receivables have a maturity of less than one year.

Other receivables include an income tax receivable of EUR 134 million (2018: EUR 88 million). Aegon N.V., together with certain of its subsidiaries, is part of a tax grouping for Dutch corporate income tax purposes. The members of the fiscal unit are jointly and severally liable for any taxes receivable or payable by the Dutch tax grouping.

11 Other current assets

Other current assets include derivatives with positive fair values of EUR 120 million (2018: EUR 134 million).

12 Share capital

Issued and outstanding capital	2019	2018
Common shares	253	251
Common shares B	70	70
Total share capital	323	322

Common shares	2019	2018
Authorized share capital	720	720
Number of authorized shares (in million)	6,000	6,000
Par value in cents per share	12	12

Common shares B	2019	2018
Authorized share capital	360	360
Number of authorized shares (in million)	3,000	3,000
Par value in cents per share	12	12

All issued common shares and common shares B each have a nominal value of EUR 0.12 and are fully paid up. Repayment of capital can only be initiated by the Executive Board, is subject to approval of the Supervisory Board and must be resolved by the General Meeting of Shareholders. Moreover, repayment on common shares B needs approval of the related shareholders. Refer to Other information for further information on dividend rights.

Vereniging Aegon, based in The Hague, the Netherlands, holds all of the issued and outstanding common shares B.

On December 23, 2019 Aegon N.V. repurchased 13,227,120 common shares B from Vereniging Aegon for the amount of EUR 1,384,046 based on 1/40th of the Value Weight Average Price of the common shares on the five trading days preceding this transaction. The repurchase of common shares B was executed to align the shareholding of Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6%.

On May 17, 2019, Vereniging Aegon exercised its options rights to purchase 1,773,680 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by the issuance of shares on May 17, 2019, in connection with the Long Term Incentive Plans for senior management.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase 1,489,200 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 18, 2018, in connection with the Long Term Incentive Plans for senior management.

The following table shows the movement during the year in the number of common shares and common shares B:

	Common shares		Common shares B	
	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount
At January 1, 2018	2,095,648	251	585,022	70
Dividend	-	-	-	-
At December 31, 2018	2,095,648	251	585,022	70
Dividend	9,491	1	-	-
At December 31, 2019	2,105,139	253	585,022	70

The following table shows the weighted average number of common shares and common shares B:

	Weighted average number of common shares (thousands)	Weighted average number of common shares B (thousands)
2018	2,095,648	585,022
2019	2,098,326	585,022

The shares repurchased by Aegon N.V. during the share-buy-back programs to undo the dilution caused by the distribution of dividend in stock, although included in the issued and outstanding number of shares, are excluded from the calculation of the weighted average number of shares.

Long-term incentive plans

For detailed information on the Long Term Incentive Plans refer to note 14 Commissions and expenses to the consolidated financial statements of the Group.

Board remuneration

Detailed information on remuneration of active and retired members of the Executive Board including their share plans, remuneration of active and retired members of the Supervisory Board along with information about shares held in Aegon by the members of the Boards is included in note 50 Related party transactions to the consolidated financial statements of the Group and in the remuneration report on page 54.

13 Shareholders' equity

	Share capital	Paid-in surplus	Revaluation account	Legal reserves FCTR	Legal reserves group companies	Retained earnings	Remeasurement of defined benefit plans of group companies	Treasury shares	Net income/ (loss)	Total
At January 1, 2019¹⁾	322	7,486	3,540	130	1,326	8,157	(1,850)	(337)	744	19,518
Mandatory change in accounting policy	-	-	-	-	-	(44)	-	-	-	(44)
At January 1, 2019 (restated)	322	7,486	3,540	130	1,326	8,113	(1,850)	(337)	744	19,474
Net income 2018 retained	-	-	-	-	-	744	-	-	(744)	-
Net income 2019	-	-	-	-	-	-	-	-	1,528	1,528
Total net income / (loss)	-	-	-	-	-	744	-	-	784	1,528
Foreign currency translation differences and movement in foreign investment hedging reserves	-	-	-	296	-	-	(25)	-	-	271
Changes in revaluation subsidiaries	-	-	2,460	-	-	-	-	-	-	2,460
Changes in revaluation reserve real estate held for own use	-	-	(28)	-	-	25	-	-	-	(3)
Remeasurement of defined benefit plans of group companies	-	-	-	-	-	-	(522)	-	-	(522)
Changes and transfer to legal reserve	-	-	143	-	377	(509)	-	-	-	11
Other	-	-	-	-	-	15	-	-	-	15
Other comprehensive income / (loss)	-	-	2,576	296	377	(469)	(547)	-	-	2,234
Shares issued	1	-	-	-	-	-	-	-	-	1
Dividends paid on common shares	-	(273)	-	-	-	(309)	-	-	-	(583)
Issuance and purchase of treasury shares	-	-	-	-	-	(86)	-	56	-	(30)
Issuance and redemption of other equity instruments	-	-	-	-	-	(81)	-	-	-	(81)
Coupons on perpetual securities	-	-	-	-	-	(88)	-	-	-	(88)
Incentive plans	-	-	-	-	-	2	-	-	-	2
At December 31, 2019	323	7,213	6,116	426	1,703	7,826	(2,397)	(281)	1,528	22,457

¹ See in consolidated financial statements note 2.1.1 for details about the impact of adopting IFRS 16 on Leases and note 2.1.2 for details about the impact of voluntary change in accounting policy on Liability Adequacy Testing

	Share capital	Paid-in surplus	Revaluation account	Legal reserves FCTR	Legal reserves group companies	Retained earnings	Remeasurement of defined benefit plans of group companies	Treasury shares	Net income/(loss)	Total
At January 1, 2018	322	7,731	5,017	(401)	1,122	6,415	(1,669)	(325)	2,361	20,573
Changes in accounting policies related to liability adequacy testing	-	-	(22)	-	-	-	-	-	-	(22)
At January 1, 2018 (restated)¹⁾	322	7,731	4,995	(401)	1,122	6,415	(1,669)	(325)	2,361	20,550
Net income 2017 retained	-	-	-	-	-	2,361	-	-	(2,361)	-
Net income 2018	-	-	-	-	-	-	-	-	744	744
Total net income / (loss)	-	-	-	-	-	2,361	-	-	(1,617)	744
Foreign currency translation differences and movement in foreign investment hedging reserves	-	-	-	531	-	-	(32)	-	-	499
Changes in revaluation subsidiaries	-	-	(1,462)	-	-	-	-	-	-	(1,462)
Remeasurement of defined benefit plans of group companies	-	-	-	-	-	-	(150)	-	-	(150)
Changes and transfer to legal reserve	-	-	7	-	204	(202)	-	-	-	9
Other	-	-	-	-	-	(3)	-	-	-	(3)
Other comprehensive income / (loss)	-	-	(1,455)	531	204	(205)	(182)	-	-	(1,108)
Dividend common shares	-	(244)	-	-	-	(329)	-	-	-	(573)
Dividend withholding tax reduction	-	-	-	-	-	1	-	-	-	1
Treasury shares	-	-	-	-	-	26	-	(12)	-	14
Coupons and premium on convertible core capital securities and coupon on perpetual securities, net of tax	-	-	-	-	-	(113)	-	-	-	(113)
At December 31, 2018	322	7,486	3,540	130	1,326	8,157	(1,850)	(337)	744	19,518

¹⁾ See in consolidated financial statements note 2.1.2 for details about the impact of voluntary change in accounting policy on Liability Adequacy Testing

The balance of the revaluation account, which includes revaluation reserves for real estate and investments that do not have a frequent market listing, consisted of EUR 6,438 million (2018: EUR 4,434 million) of items with positive revaluation and of EUR 323 million (2018: EUR 895 million) of items with negative revaluation.

The legal reserves in respect of the foreign currency translation reserve (FCTR), group companies and the revaluation reserves, cannot be freely distributed. In case of negative balances for individual reserves legally to be retained, no distributions can be made out of retained earnings to the level of these negative amounts.

Certain of Aegon's subsidiaries, principally insurance companies, are subject to restrictions on the amounts of funds they may transfer in the form of cash dividends or otherwise to their parent companies. There can be no assurance that these restrictions will not limit or restrict Aegon in its ability to pay dividends in the future.

On the reporting date, Aegon N.V., and its subsidiaries held 66,583,671 of its own common shares (2018: 62,562,070) with a par value of EUR 0.12 each. Most of the shares have been purchased to neutralize the dilution effect of issued share dividend and to hedge share based payment plans for executives and employees. Aegon N.V. held 25,309,920 of its own common shares B (2018:13,856,480) with a par value of EUR 0.12 each.

Movements in the number of treasury common shares held by Aegon N.V. were as follows:

	2019		2018	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
At January 1	61,418	326	64,488	314
Transactions in 2019:				
Sale: transactions, average price EUR 5.10	(3,657)	(19)		
Sale: 1 transaction, average price EUR 5.25	(32,874)	(173)		
Purchase: 1 transaction, average price EUR 4.52	32,874	149		
Sale: 1 transaction, average price EUR 5.16	(35,370)	(183)		
Purchase: 1 transaction, average price EUR 3.89	43,150	168		
Transactions in 2018:				
Sale: transactions, average price EUR 3.76			(3,070)	(12)
Sale: 1 transaction, average price EUR 4.62			(21,954)	(101)
Purchase: 1 transaction, average price EUR 5.34			21,954	117
Sale: 1 transaction, average price EUR 5.09			(24,134)	(123)
Purchase: 1 transaction, average price EUR 5.43			24,134	131
At December 31	65,540	269	61,418	326

Movements in the number of treasury common shares B held by Aegon N.V. were as follows:

	2019		2018	
	Number of shares (thousands)	Amount	Number of shares (thousands)	Amount
At January 1	13,856	2	15,346	2
Transactions in 2019:				
Sale: 1 transaction, average price EUR 0.12	(1,774)	-		
Buy: 1 transaction, average price EUR 0.10	13,227	1		
Transactions in 2018:				
Sale: 1 transaction, average price EUR 0.11			(1,489)	-
At December 31	25,310	3	13,856	2

As part of their insurance and investment operations, subsidiaries within the Group also hold Aegon N.V. common shares, both for their own account and for account of policyholders. These shares have been treated as treasury shares and are included at their consideration paid or received.

	2019		2018	
	Number of shares (thousands)	Total amount	Number of shares (thousands)	Total amount
Common shares				
Held by Aegon N.V.	65,540	269	61,418	326
Held by subsidiaries	1,043	9	1,144	9
Common shares B				
Held by Aegon N.V.	25,310	3	13,856	2
At December 31	91,893	281	76,419	337

The consideration for the related shares is deducted from or added to the retained earnings.

14 Other equity instruments

	Perpetual contingent convertible securities	Junior perpetual capital securities	Perpetual cumulative subordinated bonds	Non-cumulative subordinated notes	Long Term Incentive Plans ¹⁾	Total
At January 1, 2019	-	2,808	454	-	58	3,320
Shares granted	-	-	-	-	21	21
Shares vested	-	-	-	-	(26)	(26)
Securities issued	500	-	-	-	-	500
Securities redeemed	-	(1,244)	-	-	-	(1,244)
At December 31, 2019	500	1,564	454	-	53	2,571
At January 1, 2018	-	3,008	454	271	61	3,794
Shares granted	-	-	-	-	16	16
Shares vested	-	-	-	-	(19)	(19)
Securities redeemed	-	(200)	-	(271)	-	(471)
At December 31, 2018	-	2,808	454	-	58	3,320

¹⁾ Long Term Incentive Plans include the shares granted to personnel which are not yet vested.

Perpetual contingent convertible securities	Coupon rate	Coupon date	Year of next call	2019	2018
EUR 500 million	5.625%	Semi-annually, April 15	2029	500	-
At December 31				500	-

The perpetual contingent convertible securities of EUR 500 million issued on April 4, 2019 have a fixed coupon of 5.625% until the first call date and reset thereafter to 5 year mid swap plus a margin of 5.207%.

The securities have been issued at par and have subordination provisions, rank junior to all other liabilities and senior to shareholders' equity only. The conditions of the securities contain certain provisions for optional and required coupon payment cancellation. Although the securities have no stated maturity, Aegon has the right to call the securities for redemption at par for the first time between April 15, 2029 and October 15, 2029 and every reset date (October 15, with five year intervals) thereafter. Upon breach of certain regulatory capital requirement levels, the securities convert into common shares.

Junior perpetual capital securities	Coupon rate	Coupon date, as of	Year of next call	2019	2018
USD 500 million	6.50%	Quarterly, December 15	Called in 2019	-	424
USD 250 million	floating LIBOR rate ¹⁾	Quarterly, December 15	2020	212	212
USD 500 million	floating CMS rate ²⁾	Quarterly, July 15	2020	402	402
USD 1 billion	6.375%	Quarterly, June 15	Called in 2019	-	821
EUR 950 million	floating DSL rate ³⁾	Quarterly, July 15	2020	950	950
At December 31				1,564	2,808

¹⁾ The coupon of the USD 250 million junior perpetual capital securities is reset each quarter based on the then prevailing three-month LIBOR yield plus a spread of 87.5 basis points, with a minimum of 4%.

²⁾ The coupon of the USD 500 million junior perpetual capital securities is reset each quarter based on the then prevailing ten-year US dollar interest rate swap yield plus a spread of ten basis points, with a maximum of 8.5%.

³⁾ The coupon of the EUR 950 million junior perpetual capital securities is reset each quarter based on the then prevailing ten-year Dutch government bond yield plus a spread of ten basis points, with a maximum of 8%.

The interest rate exposure on some of these securities has been swapped to a three-month LIBOR and/or EURIBOR based yield.

With effect on June 15, 2019, Aegon has exercised its right to redeem USD 500 million 6.5% perpetual capital securities issued in 2005. The securities had no stated maturity, however Aegon had the right to call the securities for redemption and exercised this right with effect on June 15, 2019.

With effect on December 15, 2019, Aegon has exercised its right to redeem USD 1 billion 6.375% perpetual capital securities issued in 2005. The securities had no stated maturity, however Aegon had the right to call the securities for redemption and exercised this right with effect on December 15, 2019.

The securities have been issued at par. The securities have subordination provisions, rank junior to all other liabilities and senior to shareholders' equity only. The conditions of the securities contain certain provisions for optional and required coupon payment deferral and, in situations under Aegon's control, mandatory coupon payment events. Although the securities have no stated maturity, Aegon has the right to call the securities for redemption at par for the first time on the coupon date in the years as specified, or on any coupon payment date thereafter.

Perpetual cumulative subordinated bonds	Coupon rate	Coupon date	Year of next call	2019	2018
EUR 203 million	4.260% ^{1), 4)}	Annually, March 4	2021	203	203
EUR 114 million	1.506% ^{2), 4)}	Annually, June 8	2025	114	114
EUR 136 million	1.425% ^{3), 4)}	Annually, October 14	2028	136	136
At December 31				454	454

¹ The coupon of the EUR 203 million bonds was originally set at 7.125% until March 4, 2011. Subsequently, the coupon has been reset at 4.26% until March 4, 2021.

² The coupon of the EUR 114 million bonds was originally set at 8% until June 8, 2005. Subsequently, the coupon has been reset at 4.156% until June 8, 2015 and 1.506% until June 8, 2025.

³ The coupon of the EUR 136 million bonds was originally set at 7.25% until October 14, 2008. Subsequently, the coupon has been reset at 5.185% until October 14, 2018 and 1.425% until October 14, 2028.

⁴ If the bonds are not called on the respective call dates and after consecutive period of ten years, the coupons will be reset at the then prevailing effective yield of ten-year Dutch government securities plus a spread of 85 basis points.

The bonds have the same subordination provisions as dated subordinated debt. In addition, the conditions of the bonds contain provisions for interest deferral.

Although the bonds have no stated maturity, Aegon has the right to call the bonds for redemption at par for the first time on the coupon date in the year of next call.

15 Subordinated borrowings

	Coupon rate	Coupon date	Year of next call	2019	2018
Fixed to floating subordinated notes					
EUR 700 million	4%	Annually, April 25	2024	697	696
USD 800 million	5.5%	Semi-annually, April 11	2028	707	693
At December 31				1,403	1,389

The subordinated debt securities of USD 800 million issued on April 11, 2018 have a fixed coupon of 5.5% until the first call date and floating thereafter with a margin including a 100 basis points step-up. The securities are first callable on April 11, 2028 and maturing on April 11, 2048.

These securities are subordinated and rank senior to the junior perpetual capital securities, equally with the perpetual cumulative subordinated bonds and junior to all other liabilities. The conditions of the securities contain certain provisions for optional and required deferral of interest payments. There have been no defaults or breaches of conditions during the period.

The fair value of these loans amounted to EUR 1,560 million (2018: EUR 1,355 million).

16 Long-term borrowings

	2019	2018
Remaining terms less than 1 year	-	78
Remaining terms 1 - 5 years	497	496
Remaining terms 5 - 10 years	-	-
Remaining terms over 10 years	760	717
At December 31	1,257	1,292

The repayment periods of borrowings vary from 4 years up to 19 years. The interest rates vary from 1.000% to 6.625% per annum. The market value of the long-term borrowings amounted to EUR 1,728 million (2018: EUR 1,649 million).

17 Current liabilities

Loans from and payables to group companies have a maturity of less than one year. Other current liabilities includes derivatives with negative fair values of EUR 165 million (2018: EUR 164 million).

18 Commitments and contingencies

Aegon N.V. has guaranteed and is severally liable for the following:

- Due and punctual payment of payables due under letter of credit agreements applied for by Aegon N.V. as co-applicant with its captive insurance companies that are subsidiaries of Transamerica Corporation and Commonwealth General Corporation. At December 31, 2019, the letter of credit arrangements utilized by captives to provide collateral to affiliates amounted to EUR 2,249 million (2018: EUR 3,469 million); as of that date no amounts had been drawn, or were due under these facilities. Other letter of credit arrangements for subsidiaries amounted to EUR 10 million (2018: EUR 60 million); as of that date no amounts had been drawn, or were due under these facilities;
- Due and punctual payment of payables due under letter of credit agreements or guarantees provided for subsidiaries of Transamerica Corporation at December 31, 2019 amounted to EUR 1,666 million (2018: EUR 3,164 million) as of that date no amounts had been drawn, or were due under letter of credit facilities;
- Due and punctual payment of payables by the consolidated group companies Transamerica Corporation, Aegon Funding Company LLC and Commonwealth General Corporation with respect to fixed subordinated notes, bonds, capital trust pass-through securities and notes issued under commercial paper programs amounted to EUR 1,449 million (2018: EUR 614 million); and
- Due and punctual payment of any amounts owed to third parties by the consolidated group company Aegon Derivatives N.V. in connection with derivative transactions. Aegon Derivatives N.V. only enters into derivative transactions with counterparties with which ISDA master netting agreements including collateral support annex agreements have been agreed; net (credit) exposure on derivative transactions with these counterparties was therefore limited as of December 31, 2019.

19 Number of employees

There were no employees employed by Aegon N.V. in 2019 (2018: nil).

20 Auditor's remuneration

	Total remuneration of the group		Of which PricewaterhouseCoopers Accountants N.V. (NL)	
	2019	2018	2019	2018
Audit fees	32	37	9	12
Audit-related fees	6	2	1	-
Total	38	39	11	12

21 Events after the reporting period

On January 29, 2020, Aegon announced the completion of the sale of its 50% stake in the Japanese variable annuity joint ventures, Aegon Sony Life Insurance Co. and SA Reinsurance Ltd., to partner Sony Life. The proceeds of the sale amount to EUR 153 million and the book gain amounts to EUR 51 million.

On February 3, 2020, Aegon's subsidiary in the Americas, Transamerica accepted an offer to sell the Transamerica Pyramid property in San Francisco for a consideration of EUR 635 million (USD 711 million). The sale is expected to close in the second quarter of 2020.

Since January 2020, the Coronavirus disease (COVID-19) outbreak is causing significant disruption to society, impacting Aegon, its employees, suppliers and customers worldwide.

Financial markets have been severely impacted by significant decreases in interest rates, equity markets and commodity prices and credit spreads widening. Governments and central banks worldwide are responding to this crisis with aid packages and further quantitative easing. At the date of this report the depth and length of this crisis is unknown.

The Company is continuously monitoring the market and economic turbulence that has arisen as a consequence of the COVID-19 outbreak, and its impact on Aegon. The most significant risks Aegon N.V. is facing, directly or indirectly through its subsidiaries are related to financial markets (particularly credit, equity and interest rates), and underwriting risks (particularly related to mortality, morbidity and policyholder behavior). The notes to Aegon's consolidated financial statements include elaborate descriptions and related financial market sensitivities. Aegon N.V.'s subsidiaries continue to monitor claim activity, including mortality and morbidity claims, and policyholder behavior. At the date of this report it is too early to tell what the impact of the COVID-19 crisis is on Aegon N.V.'s subsidiaries' underwritings results and Aegon N.V.'s subsidiaries' long term underwriting and economic assumptions, if any, affecting the value of Aegon N.V..

Because of the far-reaching measures governments around the world are taking to control the impact of this pandemic we expect the sale of new business to be impacted by these measures. At the date of this report it is too early to tell what the impact of these measures will be on Aegon's subsidiaries' sales. Lower interest rates are also likely to impact the profitability of Aegon's subsidiaries' sales depending on the market response. Aegon has invoked its business continuity plans to help ensure the safety and well-being of its staff, as well as its capability to support its customers and maintain its business operations, while maintaining our financial and operational resilience.

22 Proposal for profit appropriation

At the Annual General Meeting of Shareholders currently scheduled for May 15, 2020, the Executive Board will, in line with its earlier announcement and absent a further significant deterioration of market circumstances, propose a final dividend for 2019 of EUR 0.16 per common share and EUR 0.004 per common share B. The final dividend will be paid in cash or stock at the election of the shareholder. The value of the stock dividend will be approximately equal to the cash dividend.

If the proposed dividend is approved by shareholders, Aegon shares will be quoted ex-dividend on May 19, 2020, for the shares listed on the New York Stock Exchange and on May 19, 2020, for shares listed on Euronext. The record date for the dividend will be May 20, 2020. Shareholders can elect to receive a dividend in cash or in shares during the dividend election period, which will run from May 26, 2020 up to and including June 12, 2020. The dividend will be payable as of June 19, 2020.

In order to reflect the prevailing market price of Aegon N.V. common shares fully within the indication provided, the number of dividend coupons that give entitlement to a new common share of EUR 0.12 (nominal value) will be determined on June 12, 2020 after 5.30 p.m. (CET), based on the average share price on Euronext Amsterdam in the five trading days from June 8, 2020 up to and including June 12, 2020.

	2019	2018
Final dividend on common shares	329	307
Earnings to be retained	1,199	437
Net income attributable to owners of Aegon N.V.	1,528	744

The Hague, the Netherlands, March 18, 2020

Supervisory Board

William L. Connelly
Mark A. Ellman
Ben J. Noteboom
Ben van der Veer
Corien M. Wortmann-Kool
Dona D. Young

Executive Board

Alexander R. Wynaendts
Matthew J. Rider

Independent auditor's report

To: the Annual General Meeting of Shareholders and the Supervisory Board of Aegon N.V.

Report on the financial statements 2019

Our opinion

In our opinion:

- The consolidated financial statements of Aegon N.V. together with its subsidiaries ('the Group') give a true and fair view of the financial position of the Group as at December 31, 2019, and of its result and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the European Union (IFRS-EU) and with Part 9 of Book 2 of the Dutch Civil Code;
- The company financial statements of Aegon N.V. ('the Company') give a true and fair view of the financial position of the Company as at December 31, 2019, and of its result for the year then ended in accordance with Part 9 of Book 2 of the Dutch Civil Code.

What we have audited

We have audited the accompanying financial statements 2019 of Aegon N.V., The Hague. The financial statements include the consolidated financial statements of the Group and the company financial statements.

The consolidated financial statements comprise:

- the consolidated statement of financial position as at December 31, 2019;
- the following statements for 2019: the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement; and
- the notes to the consolidated financial statements, comprising the significant accounting policies and other explanatory information.

The company financial statements comprise:

- the company statement of financial position as at December 31, 2019;
- the company income statement for 2019; and
- the notes to the financial statements, comprising the accounting policies applied and other explanatory information.

The financial reporting framework applied in the preparation of the financial statements is EU-IFRS and the relevant provisions of Part 9 of Book 2 of the Dutch Civil Code for the consolidated financial statements and Part 9 of Book 2 of the Dutch Civil Code for the company financial statements.

The basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. We have further described our responsibilities under those standards in the section 'Our responsibilities for the audit of the financial statements' of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of Aegon N.V. in accordance with the European Union Regulation on specific requirements regarding statutory audit of public-interest entities, the 'Wet toezicht accountantsorganisaties' (Wta, Audit firms supervision act), the 'Verordening inzake de onafhankelijkheid van accountants bij assuranceopdrachten' (ViO, Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence requirements in the Netherlands. Furthermore, we have complied with the 'Verordening gedrags- en beroepsregels accountants' (VGBA, Dutch Code of Ethics for Professional Accountants, a regulation with respect to rules of professional conduct).

Our audit approach

Overview and context

Aegon N.V. is a provider of mainly life insurance, pension and asset management services. The Group is comprised of several components. Aegon's main operating units are separate legal entities and operate under the laws of their respective countries. Aegon has the following reportable segments: Americas, which covers business units in the United States, Brazil, Mexico and Canada; Europe, which covers the operating segments the Netherlands, United Kingdom and Southern and Eastern Europe, which in turn covers business units Central & Eastern Europe and Spain & Portugal; Asia; Asset Management and Holding. Aegon has significant operations in Americas, the Netherlands and United Kingdom. To be able to obtain sufficient and appropriate audit evidence over the consolidated financial statements, we considered our group audit scope and approach as set out in the section 'The scope of our group audit'. We paid specific attention to the areas of focus driven by the operations of the Group, as set out below.

As part of designing our audit, we determined materiality and assessed the risks of material misstatement in the financial statements. Volatility in the year over year results of the Group affected the way in which we determined our group materiality, as set out in the section 'Materiality'. In particular, we considered where management made important judgments, for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain.

In Note 3 'Critical accounting estimates and judgment in applying accounting policies', the Group describes the areas of judgment in applying accounting policies and the key sources of estimation uncertainty. Given the significant estimation uncertainty and the related higher inherent risks of material misstatement in the valuation of certain assets and liabilities arising from insurance contracts and the valuation of certain Level 3 investments, we considered these matters as key audit matters as set out in the section 'Key audit matters' of this report. Furthermore, we identified uncertainties in policyholder claims and litigation as key audit matter.

Given the importance of information technology (IT) for the Group and hence for our audit of the financial statements, we have, to the extent relevant to our audit, paid specific attention to the IT dependencies and IT general controls, which comprise the policies and procedures to ensure reliable automated processing of information used for financial reporting purposes, and relevant application controls.

We ensured that the audit teams at both group (consolidation) and component level included the appropriate skills and competences which are needed for the audit of a complex financial conglomerate, such as Aegon N.V. This includes industry expertise in life and non-life insurance, banking and asset management. We included experts and specialists in the areas of risk assurance (IT), tax services, actuarial services, global human resource services and valuation services for certain types of assets (e.g. complex financial instruments and real estate) in our team.

The outline of our audit approach was as follows:



Materiality

The scope of our audit is influenced by the application of materiality, which is further explained in the section 'Our responsibilities for the audit of the financial statements'.

Based on our professional judgment we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the nature, timing and extent of our audit procedures on the individual financial statement line items and disclosures and to evaluate the effect of identified misstatements, both individually and in aggregate, on the financial statements as a whole and on our opinion.

Overall group materiality	EUR 83 million (2018: EUR 78 million).
Basis for determining materiality	We used our professional judgment to determine overall materiality. Consistent with prior years, we used 5% of a three-year average of income before tax.
Rationale for benchmark applied	<p>We believe that income before tax is a generally accepted auditing practice, based on our analysis of the common information needs of users of the financial statements of listed entities. We believe that income before tax is an important metric for the group's financial performance.</p> <p>We evaluated the income before tax amounts for 2019 and prior years noting significant fluctuations from year to year. As a result, we used the average of 2019, 2018 and 2017 income before tax for purposes of determining our group materiality, consistent with prior years. Using an average helps to maintain an appropriate and consistent materiality level giving more considerations to the users' view of the scale of the financial position and operations rather than volatile circumstances.</p>
Component materiality	To each component in our audit scope, we, based on our judgment, allocate materiality that is less than our overall group materiality. The range of materiality allocated across components was between EUR 30 million and EUR 82 million.

We also take misstatements and/or possible misstatements into account that, in our judgment, are material for qualitative reasons.

We agreed with the Supervisory Board that we would report to them misstatements identified during our audit above EUR 4 million (2018: EUR 4 million) as well as misstatements below that amount that, in our view, warranted reporting for qualitative reasons.

The scope of our group audit

Aegon N.V. is the parent company of a group of entities. The Group is structured predominately along geographical lines referred to as 'regional units', as described in Note 5, 'Segment information' in the financial statements. The financial information of this group is included in the consolidated financial statements of Aegon N.V.

We tailored the scope of our audit to ensure that we, in aggregate, provide sufficient coverage of the financial statements for us to be able to give an opinion on the financial statements as a whole, taking into account the management structure of the Group, the nature of operations of its components, the accounting processes and controls, and the markets in which the components of the Group operate. In establishing the overall group audit strategy and plan, we determined the type of work required to be performed at the component level by the Group engagement team and by each component auditor.

The group audit primarily focused on the significant components: Americas, the Netherlands and United Kingdom. We subjected these components to audits of their complete financial information, as these components are individually financially significant to the Group. Additionally, we selected Southern & Eastern Europe, Asia, Asset Management and Holding for audit procedures to achieve appropriate coverage on financial line items in the consolidated financial statements. Note that the procedures for Holding were performed by the Group engagement team. For areas that were not in scope of the Group audit, we performed analytical procedures at group level.

In total, in performing these procedures and excluding our group analytical procedures, we achieved the following coverage on the financial line items:

Revenue	93%
Total assets	96%
Profit before tax	93%

None of the remaining components represented more than 1% of total Group revenue or total Group assets. For those remaining components we performed, among other things, analytical procedures to corroborate our assessment that there were no significant risks of material misstatements within those components.

Where component auditors performed the work, we determined the level of involvement we needed to have in their audit work to be able to conclude whether we had obtained sufficient and appropriate audit evidence as a basis for our opinion on the consolidated financial statements as a whole.

We issued instructions to the component audit teams in our audit scope. These instructions included amongst others our risk analysis, materiality and scope of the work. We explained to the component audit teams the structure of the Group, the main developments that are relevant for the component auditors, the risks identified (including the risk of fraud), the materiality levels to be applied and our global audit approach. We had individual calls with each of the in-scope component audit teams during the year and upon conclusion of their work. During these calls, we discussed the significant accounting and audit issues identified by the component auditors, their reports, the findings of their procedures and other matters, which could be of relevance for the audit of the consolidated financial statements. In addition, we developed an oversight strategy for each component based on its significance and/or risk characteristics to the Group. This strategy included procedures such as regular meetings and discussions with component auditors to challenge and review significant audit matters and judgments within the component team audit files including the review of selected working papers. We analyzed the extensive reports received from the component auditors and performed regular site visits to attend closing meetings and/or meet local management. The group engagement team visited the United States for Americas, the Netherlands for segments the Netherlands and Asset Management, the United Kingdom for segment United Kingdom and Hungary for segment Southern & Eastern Europe.

The group engagement team performed the audit work on the group consolidation and financial statement disclosures.

By performing the procedures above at component level, combined with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence on the Group's financial information, as a whole, to provide a basis for our opinion on the financial statements.

Our focus on the risk of fraud and non-compliance with laws and regulations

Our objectives

The objectives of our audit are:

In respect to fraud:

- to identify and assess the risks of material misstatement of the financial statements due to fraud;
- to obtain sufficient appropriate audit evidence regarding the assessed risks of material misstatement due to fraud, through designing and implementing appropriate audit responses; and
- to respond appropriately to fraud or suspected fraud identified during the audit.

In respect to non-compliance with laws and regulations:

- to identify and assess the risk of material misstatement of the financial statements due to non-compliance with laws and regulations; and
- to obtain reasonable assurance that the financial statements, taken as a whole, are free from material misstatement, whether due to fraud or error when considering the applicable legal and regulatory framework.

The primary responsibility for the prevention and detection of fraud and non-compliance with laws and regulations lies with the Executive Board with the oversight of the Supervisory Board. We refer to the sections 'Aegon's business environment', 'Non-financial policies, procedures and outcomes' and 'Risk management' (the last two as part of section 'Safeguarding value creation') of the annual report where the Executive Board included their perspectives on the risk of fraud and section 'Report of the Supervisory Board' as part of section 'Safeguarding value creation' of the annual report where the Supervisory Board reflects on this assessment.

Risk of fraud

As part of our process of identifying fraud risks, we evaluated fraud risk factors with respect to financial reporting fraud, misappropriation of assets and bribery and corruption. We together with our forensic specialists, evaluated the fraud risk factors to consider whether those factors indicated a risk of material misstatement due to fraud.

As in all of our audits, we addressed the risk of management override of internal controls, including evaluating whether there was evidence of bias by management that may represent a risk of material misstatement due to fraud. We evaluated the design and the implementation and, where considered appropriate, tested the operating effectiveness of internal controls that mitigate fraud risks, tested high-risk manual journal entries and evaluated key estimates and judgments for bias by management, and finally we incorporated elements of unpredictability in our audit. We refer to the key audit matters on valuation of insurance contracts and certain investments, that are examples of our approach related to areas of higher risk due to accounting estimates where management makes significant judgments.

We have performed an assessment of matters reported on the (Group's) whistleblowing procedures with the entity and results of management's investigation of such matters.

Risk of non-compliance with laws and regulations

There is an industry risk that emerging compliance or litigation areas have not been identified and or addressed by management for financial statement purposes. This includes the consideration whether there is a need for the recognition of a provision or a contingent liability disclosure on the future outcome of legal or regulatory processes.

In line with Standard 250 we made in our audit approach a distinction between those laws and regulations which:

- Have a direct effect on the determination of material amounts and disclosures in the financial statements. For this category, in line with the requirements as included in Standard 250, we obtained sufficient audit evidence regarding compliance with the provision of those laws and regulations; and
- Do not have a direct effect on the determination of material amounts and disclosures in the financial statements, but where compliance may be fundamental to the operating aspect of the business, to the Group's ability to continue its business or to avoid material penalties. For this category, we performed specific procedures to identify non-compliance with those laws and regulations that may have a material effect on the financial statements.

We identified that the risk of non-compliance with laws and regulations relates mainly to the laws and regulations which have an indirect impact on the financial statements, such as anti-money laundering and anti-terrorist financing regulations, regulations linked to the operating licenses for the group's activities (insurance, asset management, banking) including Solvency II in Europe and Risk-Based Capital (RBC) in the US.

Key audit matters

Key audit matters are those matters that, in our professional judgment, were of most significance in the audit of the financial statements. We have communicated the key audit matters to the Supervisory Board. The key audit matters are not a comprehensive reflection of all matters identified by our audit and that we discussed. In this section, we described the key audit matters and included a summary of the audit procedures we performed on those matters.

We addressed the key audit matters in the context of our audit of the financial statements as a whole, and in forming our opinion thereon. We do not provide separate opinions on these matters or on specific elements of the financial statements. Any comment or observation we made on the results of our procedures should be read in this context.

Compared to 2018, the outsourcing strategy was a key audit matter impacting 2018 significantly, however, it does not affect 2019 in a similar manner and is therefore no longer a key audit matter in 2019. The remaining key audit matters are related to the nature of the Company and are therefore expected to occur year over year.

Key audit matter	Our audit work and observations
<p>Valuation of certain assets and liabilities arising from insurance contracts. Refer to Note 2 'Significant accounting policies', Note 2.6 'Intangible assets', Note 2.13 'Deferred expenses', Note 2.19 'Insurance contracts', Note 3 'Critical accounting estimates and judgment in applying accounting policies', Note 27 'Deferred expenses', Note 29 'Intangible assets', Note 34 'Insurance contracts' and Note 44 'Fair value'.</p> <p>The Group had deferred policy acquisition costs (DPAC) of EUR 10.0 billion included in the deferred expenses line item, value of business acquired (VOBA) of EUR 1.0 billion included in the intangible assets line item, insurance contracts of EUR 123.5 billion and embedded derivatives in insurance contracts of EUR 3.1 billion included in the derivatives liability line item as of December 31, 2019 (collectively, 'certain assets and liabilities arising from insurance contracts'). The areas above involve the use of complex valuation models and significant judgment over uncertain future outcomes, including the timing and ultimate full settlement of long-term policyholder liabilities and as a result, are more subject to material misstatement. Therefore, we considered these areas a key matter for our audit.</p> <p>To assess the adequacy of the liabilities for insurance contracts and the recoverability of DPAC and VOBA, at each reporting date, Aegon performs liability adequacy testing. This test is done to verify that the valuation of these assets and liabilities are adequate as compared to the expected future contractual cash flows. Consistent with the insurance industry, Aegon uses valuation models to support the calculations of the insurance contract liabilities. The complexity of the models may give rise to errors as a result of inadequate/incomplete data or design or application of the models. Models considered more complex and/or requiring significant judgment in the setting of assumptions are those in respect of the guarantees associated with universal life and annuities along with long-term care in the Americas and the corporate pension guarantees in the Netherlands.</p> <p>The main assumptions used in measuring the liabilities for insurance contracts and the DPAC and VOBA relate to mortality, morbidity, investment return, future expenses, surrender, lapse, incidence rates and, for embedded derivatives, own credit spread. In addition, Aegon the Netherlands adjusts the outcome of the liability adequacy test (LAT) for the difference between the fair value and the book value of mortgage loans, which are valued using significant assumptions, including prepayment and lapse assumptions. Significant judgment is applied in setting these assumptions. Given the magnitude of the insurance contract liabilities and the sensitivities as explained in Note 34 'Insurance contracts', a change in assumptions (especially mortality and morbidity) could have a significant effect on net income and shareholders' equity.</p> <p>During 2019, Aegon continued a multi-year review of their actuarial models with focus on those considered medium and high risk. Model updates in combination with the Group's actuarial and economic assumptions update resulted in a EUR 196 million (2018: EUR 121 million) pre-tax charge for the year as explained in Note 5 'Segment information'.</p>	<p>Our audit focused on the application of complex valuation models and the judgments applied in the assumption setting process. We assessed the design and tested the operating effectiveness of internal controls over the actuarial process that were relevant for the purpose of our audit, including management's process for setting economic and actuarial assumptions, controls over management's actuarial analyses including estimated versus actual results and experience studies, controls over data integrity and change management for internally operated valuation models (including Aegon's model validation process) and controls over the valuation of mortgage loans. Our procedures did not identify significant deficiencies.</p> <p>We performed audit procedures over the complex valuation models and the model updates to determine the appropriateness of those. We tested the impact of model updates against supporting evidence. For the models used, we tested the completeness and accuracy of key data underlying the development of the aforementioned significant assumptions, as well as actuarial judgments applied, which may vary depending on the product and/or the specifications of the product, and the compliance of the models with the applicable accounting standards. We evaluated the reasonableness of management's significant assumptions.</p> <p>In respect of DPAC and VOBA, we tested the capitalisation during the period and evaluated the appropriateness of the main assumptions used in determining the estimated gross profit patterns which are the basis for the periodic amortization.</p> <p>Our work on the liability adequacy test included assessing the reasonableness of the projected cash flows and challenging the main assumptions adopted in the context of both the Group's and industry experience and specific product features, as well as reconciliations to supporting audit information. The quality of previous years' assumptions is assessed by the analyses of the actual versus expected developments. Based on our procedures performed, we found that the assumptions set by management were supported by available audit information and are within a range we consider acceptable based on the Group's and market experience. These procedures also included our evaluation of the reasonableness of management's estimate of the valuation of mortgage loans by developing an independent range of prices and comparing management's estimate to the independently developed ranges. Developing the independent estimate involved utilizing a range of available market inputs and assumptions and testing the completeness and accuracy of data provided by management.</p> <p>We also evaluated whether the disclosures in the consolidated financial statements are adequate and in accordance with IFRS-EU. We found the disclosures to be appropriate in this context.</p>

Key audit matter**Valuation of certain level 3 investments.**

Refer to Note 2 'Significant accounting policies', Note 2.7 'Investments', Note 3 'Critical accounting estimates and judgment in applying accounting policies', Note 22 'Investments' and Note 44 'Fair value'.

The Group had investments of EUR 146.8 billion (2018: EUR 139.0 billion) as of December 31, 2019, of which EUR 4 billion were categorized as Level 3 debt securities and investments in real estate in the valuation hierarchy.

Management's estimation of the valuation of Level 3 debt securities and investments in real estate is developed using quotes from third-party brokers, internal cash flow modelling techniques and external appraisals that use significant unobservable inputs, including discount and capitalization rates, default rate and liquidity assumptions, issue specific credit adjustments and indicative quotes from market makers. These investments involve significant judgment by management and have a higher potential risk to be affected by error or management bias. Therefore, these areas are considered a key audit matter.

Our focus considered both the positions that are presented at fair value on the balance sheet and those positions carried at amortized cost on the balance sheet but for which fair value is required to be disclosed. The risk is considered higher for investments traded in the absence of an active market as the fair value of those instruments is estimated by using other market observable data, such as corroborated external quotes and present value or other valuation techniques using unobservable data.

Uncertainties in policyholder claims and litigation.

Refer to Note 45 'Commitments and contingencies'.

The insurance industry continues to face consumer activism and regulatory scrutiny over product design and selling practices. The Group has encountered claims and litigations in this respect. Depending on the actual legal position and expectations from management, claims, including litigation related, are either provided for as a liability or reflected as contingent liabilities in the notes to the financial statements based on the criteria as outlined in IAS 37. The Group uses internal and external legal experts where applicable to evaluate its legal positions. Given the uncertainty and judgment in this area in terms of valuation and presentation and disclosure, this area is subject to the risk of understatement of recorded liabilities and incomplete disclosure of contingent liabilities. Therefore, we determined this as a key audit matter.

Our audit work and observations

We assessed the design and tested the operating effectiveness of internal controls related to the valuation of Level 3 debt securities and investments in real estate, including controls over the development of the model and significant unobservable inputs, as well as management's determination and approval of assumptions and methodologies used in model-based calculations and real estate appraisals, controls over data integrity and change management for internally operated valuation models and management's review of valuations provided by external experts or data vendors. Based on this work we found that we, to the extent relevant for our audit, could rely on these controls.

We performed retrospective testing to assess the quality of previous estimates and assumptions. We performed substantive audit procedures to supplement procedures over internal control testing. These procedures included, among others, developing an independent estimate of the value for a sample of investments by obtaining independent pricing from third party vendors, if available. Also, on a sample basis for certain Level 3 investments, we evaluated the reasonableness of management's estimate by developing an independent range of prices utilizing a range of prices and comparing management's estimate to the independently developed ranges. Developing the independent estimate involved utilizing a range of available market inputs and assumptions and testing the completeness and accuracy of data provided by management.

We assessed pricing models and the underlying methodologies against industry practice and valuation guidelines. Real estate valuation experts are used to assess the fair value of properties as determined by management based on available market information. Based on our procedures we considered that the valuation of these investments was within the bandwidth that we consider as acceptable.

We also evaluated whether the disclosures in the consolidated financial statements are adequate and in accordance with IFRS-EU. We found the disclosures to be appropriate in this context.

We gained an understanding of the policyholders' claims and litigations through discussions with management including general legal counsel. We have tested the effectiveness of controls relating to management's evaluation of policyholder claims and litigation contingencies, including controls over determining whether a loss is probable and whether the amount of the loss can be reasonably estimated. These procedures also included, among others, obtaining and evaluating lawyers' letters to the extent considered necessary for our audit. For all (potential) material claims, we tested the underlying facts and circumstances considered and assessed the best estimate of outflows as determined by the Group.

We tested that the Group has properly reflected the claims and litigations in either the provisions or the contingent liabilities by assessing these against the criteria in IAS 37. In this respect we assessed whether the Group has a present obligation (legal or constructive) as a result of a past event, if it is probable (i.e. more likely than not) that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

We also evaluated whether the disclosures in the consolidated financial statements are adequate and in accordance with IFRS-EU. We found the disclosures to be appropriate in this context.

Report on the other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the integrated annual report contains other information that consists of:

- the directors' report, consisting of '2019 at a glance', 'Aegon, a global provider of financial solutions', 'Value creation', 'Aegon's business environment', 'Aegon's strategy', 'Performance in 2019' consisting of 'Responsible business', 'Responsible investment', 'Aegon: A partner to the world', 'Safeguarding value creation' (which includes the remuneration report) and 'Financial information';
- Other information;
- Other financial information;
- Additional information; and
- Other non-financial information

Based on the procedures performed as set out below, we conclude that this other information:

- is consistent with the financial statements and does not contain material misstatements; and
- contains the information that is required by Part 9 of Book 2 and the Sections 2:135b and 2:145 subsection 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained in our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements.

By performing our procedures, we comply with the requirements of Part 9 of Book 2 and Section 2:135b subsection 7 of the Dutch Civil Code and the Dutch Standard 720. The scope of such procedures was substantially less than the scope of those performed in our audit of the financial statements.

The Executive Board is responsible for the preparation of the other information, including the directors' report and the other information in accordance with Part 9 of Book 2 of the Dutch Civil Code and the remuneration report in accordance with the Sections 2:135b and 2:145 subsection 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Our appointment

We were initially appointed as auditors of Aegon N.V. by the Supervisory Board following the passing of a resolution by the shareholders at the annual meeting held on 15 May 2013. We are the independent auditor for a total period of 6 years.

No prohibited non-audit services

To the best of our knowledge and belief, we have not provided prohibited non-audit services as referred to in Article 5(1) of the European Regulation on specific requirements regarding statutory audit of public-interest entities.

Services rendered

The services, in addition to the audit, that we have provided to the Company and its controlled entities, for the period to which our consolidated audit relates, are disclosed in the additional information (principal accountant fees and services) section of the integrated annual report.

Responsibilities for the financial statements and the audit

Responsibilities of management and the Supervisory Board for the financial statements

The Executive Board is responsible for:

- the preparation and fair presentation of the financial statements in accordance with EU-IFRS and with Part 9 of Book 2 of the Dutch Civil Code; and for
- such internal control as Executive Board determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, the Executive Board is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, the Executive Board should prepare the financial statements using the going-concern basis of accounting unless the Executive Board either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. The Executive Board should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our responsibility is to plan and perform an audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence to provide a basis for our opinion. Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error and to issue an auditor's report that includes our opinion. Reasonable assurance is a high but not absolute level of assurance, which makes it possible that we may not detect all material misstatements. Misstatements may arise due to fraud or error. They are considered to be material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

A more detailed description of our responsibilities is set out in the appendix to our report.

Amsterdam, March 18, 2020

PricewaterhouseCoopers Accountants N.V.

Original has been signed by G.J. Heuvelink RA

Appendix to our auditor's report on the financial statements 2019 of Aegon N.V.

In addition to what is included in our auditor's report, we have further set out in this appendix our responsibilities for the audit of the financial statements and explained what an audit involves.

The auditor's responsibilities for the audit of the financial statements

We have exercised professional judgment and have maintained professional scepticism throughout the audit in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit consisted, among other things of the following:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the intentional override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going-concern basis of accounting, and based on the audit evidence obtained, concluding whether a material uncertainty exists related to events and/or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report and are made in the context of our opinion on the financial statements as a whole. However, future events or conditions may cause the Company to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures, and evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Considering our ultimate responsibility for the opinion on the consolidated financial statements, we are responsible for the direction, supervision and performance of the group audit. In this context, we have determined the nature and extent of the audit procedures for components of the Group to ensure that we performed enough work to be able to give an opinion on the financial statements as a whole. Determining factors are the geographic structure of the Group, the significance and/or risk profile of group entities or activities, the accounting processes and controls, and the industry in which the Group operates. On this basis, we selected group entities for which an audit or review of financial information or specific balances was considered necessary.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit. In this respect, we also issue an additional report to the audit committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Other information

Profit appropriation

Appropriation of profit will be determined in accordance with the articles 31 and 32 of the Articles of Association of Aegon N.V. The relevant provisions are as follows:

1. The General Meeting of Shareholders will adopt the Annual Accounts;
2. If the adopted profit and loss account shows a profit, the Supervisory Board may decide, upon the proposal of the Executive Board, to set aside part of the profit to augment and/or form reserves;
3. The profits remaining after application of 2 above shall be put at the disposal of the General Meeting of Shareholders. The Executive Board, subject to the approval of the Supervisory Board, shall make a proposal for that purpose. A proposal to pay a dividend shall be dealt with as a separate agenda item at the General Meeting of Shareholders;
4. The Executive Board may, subject to the approval of the Supervisory Board, make one or more interim distributions to the holders of common shares and common shares B;
5. Distributions are made in accordance with the principle set forth in article 4 of the Articles of Association of Aegon N.V. that the financial rights of a common share B are one fortieth (1/40th) of the financial rights of a common share;
6. The Executive Board may, subject to the approval of the Supervisory Board, decide that a distribution on common shares and common shares B shall not take place as a cash payment but as a payment in common shares. Alternatively, it may decide that holders of common shares and common shares B shall have the option to receive a distribution as a cash payment and/or as a payment in common shares, out of the profit and/or at the expense of reserves, provided that the Executive Board is designated by the General Meeting to issue shares. Subject to the approval of the Supervisory Board, the Executive Board shall also determine the conditions applicable to the aforementioned choices; and
7. The Company's policy on reserves and dividends shall be determined and can be amended by the Supervisory Board, upon the proposal of the Executive Board. The adoption and each amendment of the policy on reserves and dividends thereafter, shall be discussed and accounted for at the General Meeting of Shareholders under a separate agenda item.

Major shareholders

General

As of December 31, 2019, Aegon's total authorized share capital consisted of 6,000,000,000 common shares with a par value of EUR 0.12 per share and 3,000,000,000 common shares B with a par value of EUR 0.12 per share. At the same date, there were 2,105,138,885 common shares and 585,022,160 common shares B issued. Of the issued common shares, 65,540,444 common shares and 25,309,920 common shares B were held by Aegon as treasury shares and 1,043,227 treasury shares were held by its subsidiaries

All of Aegon's common shares and common shares B are fully paid and not subject to calls for additional payments of any kind. All of Aegon's common shares are registered shares. Holders of shares of New York registry hold their common shares in the registered form issued by Aegon's New York transfer agent on Aegon's behalf. Shares of New York registry and shares of Netherlands registry are exchangeable on a one-to-one basis and are entitled to the same rights, except that cash dividends are paid in US dollars on shares of New York registry.

As of December 31, 2019, 254 million common shares were held in the form of New York Registry shares. As of December 31, 2019, there were approximately 13,693 record holders of Aegon's New York Registry shares resident in the United States.

Vereniging Aegon

Vereniging Aegon is the continuation of the former mutual insurer AGO. In 1978, AGO demutualized and Vereniging AGO became the only shareholder of AGO Holding N.V., which was the holding company for its insurance operations. In 1983, AGO Holding N.V. and Ennia N.V. merged into Aegon N.V. Vereniging AGO initially received approximately 49% of the common shares (reduced gradually to less than 40%) and all of the preferred shares in Aegon N.V., giving it voting majority in Aegon N.V. At that time, Vereniging AGO changed its name to Vereniging Aegon.

The purpose of the Association is a balanced representation of the direct and indirect interests of Aegon N.V. and of companies with which Aegon N.V. forms a group, of insured parties, employees, shareholders and other related parties of these companies. Influences that threaten the continuity, independence or identity of Aegon N.V., in conflict with the aforementioned interests will be resisted as much as possible.

In accordance with the 1983 Amended Merger Agreement, Vereniging Aegon had certain option rights on preferred shares to prevent dilution of voting power as a result of share issuances by Aegon N.V. This enabled Vereniging Aegon to maintain voting control at the General Meeting of Shareholders of Aegon N.V. In September 2002, Aegon N.V. effected a capital restructuring whereby Vereniging Aegon, among others, sold 206,400,000 common shares to Aegon N.V. for the amount of EUR 2,064,000,000; Vereniging Aegon contributed these as additional paid-in capital on the then existing Aegon N.V. preferred shares. As a result of this capital restructuring, Vereniging Aegon's beneficial ownership interest in Aegon N.V.'s common shares decreased from approximately 37% to approximately 12% and its beneficial ownership interest in Aegon N.V.'s voting shares decreased from approximately 52% to approximately 33%.

On May 9, 2003, Aegon's shareholders approved certain changes to Aegon's corporate governance structure. Preferred shares with a nominal value of EUR 0.12 were converted into 211,680,000 new class A preferred shares with a nominal value of EUR 0.25, and class B preferred shares were created with a nominal value of EUR 0.25 each. No class B preferred shares were issued at that time. The voting rights pertaining to the preferred shares were adjusted accordingly to 25/12 vote per preferred share. However, in May 2003, Aegon N.V. and Vereniging Aegon entered into a Preferred Shares Voting Agreement, pursuant to which Vereniging Aegon agreed to exercise one vote only per preferred share, except in the event of a 'Special Cause', as defined below.

In May 2003, Aegon N.V. and Vereniging Aegon amended the option arrangements under the 1983 Amended Merger Agreement so that, in the event of an issuance of shares by Aegon N.V., Vereniging Aegon could purchase as many class B preferred shares as would enable Vereniging Aegon to prevent or correct dilution to below its actual percentage of voting shares, to a maximum of 33%.

On February 15, 2013, Aegon N.V. and Vereniging Aegon entered into an agreement to simplify the capital structure of Aegon and to cancel all of Aegon's preferred shares, of which Vereniging Aegon was the sole owner. The execution of this agreement was subject to the approval of the General Meeting of Shareholders of Aegon N.V. This approval was granted at the Annual General Meeting of Shareholders on May 15, 2013.

The simplified capital structure entailed, but was not limited to, the amendment of the Articles of Association of Aegon N.V., including the conversion of all outstanding 329,773,000 preferred shares A and B, with a nominal value of EUR 0.25 each, into 120,713,389

common shares and 566,313,695 common shares B, with a nominal value of EUR 0.12 each. The financial rights attached to a common share B were determined at 1/40th of the financial rights attached to a common share.

The simplified capital structure also entailed the amendment of the Voting Rights Agreement between Aegon N.V. and Vereniging Aegon, known as the Preferred Shares Voting Agreement before May 2013. As a matter of Dutch corporate law, the shares of both classes offer equal full voting rights, as they have equal nominal values (EUR 0.12). The amended Voting Rights Agreement ensures that under normal circumstances, i.e. except in the event of a Special Cause, Vereniging Aegon will no longer be able to exercise more votes than is proportionate to the financial rights represented by its shares. This means that in the absence of a Special Cause Vereniging Aegon may cast one vote for every common share it holds and one vote only for every 40 common shares B it holds. As Special Cause qualifies the acquisition of a 15% interest in Aegon N.V., a tender offer for Aegon N.V. shares or a proposed business combination by any person or group of persons, whether individually or as a group, other than in a transaction approved by the Executive Board and the Supervisory Board. If, in its sole discretion, Vereniging Aegon determines that a Special Cause has occurred, Vereniging Aegon will notify the General Meeting of Shareholders and retain its right to exercise the full voting power of one vote per common share B for a limited period of six months.

The simplified capital structure also included an amendment to the 1983 Amended Merger Agreement between Aegon N.V. and Vereniging Aegon. Following this 2013 amendment, Vereniging Aegon's call option relates to common shares B. Vereniging Aegon may exercise its call option to keep or restore its total stake at 32.6%, irrespective of the circumstances which cause the total shareholding to be or become lower than 32.6%.

In the years 2003 through 2012, 118,093,000 class B preferred shares were issued under these option rights and in the years 2013 through 2016 Vereniging Aegon purchased in aggregate 18,708,465 common shares B under its call option right. During this period Aegon N.V. repurchased 13,450,835 Common Shares and 17,324,960 Common Shares B from Vereniging Aegon.

On May 19, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 1,979,260 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 19, 2017, in connection with the Long Term Incentive Plans for senior management.

On June 23, 2017, Vereniging Aegon exercised its options rights to purchase in aggregate 13,042,612 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused by Aegon's issuance of shares on June 23, 2017, being the final dividend 2016 in the form of stock dividend.

On December 19, 2017, Aegon N.V. repurchased 13,042,592 Common Shares B from Vereniging Aegon for the amount of EUR 1,725,169 based on 1/40th of the Value Weight Average Price of the common shares of the five trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate holding of voting shares by Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6% following the completion of the Share Buy Back Program, initiated by Aegon N.V. in October 2017 to neutralize the dilutive effect of the distribution of final dividend 2016 in stock and interim dividend 2017 in stock.

On May 18, 2018, Vereniging Aegon exercised its options rights to purchase in aggregate 1,489,200 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 18, 2018, in connection with the Long Term Incentive Plans for senior management.

On May 17, 2019, Vereniging Aegon exercised its options rights to purchase in aggregate 1,773,680 common shares B at fair value of a common share B (being 1/40th of the market value of a common share in the capital of the Company at the time of issuance) to mitigate dilution caused the issuance of shares on May 17, 2019, in connection with the Long Term Incentive Plans for senior management.

On December 23, 2019, Aegon N.V. repurchased 13,227,120 common shares B from Vereniging Aegon for the amount of EUR 1,384,046 based on 1/40th of the Value Weight Average Price of the common shares of the five trading days preceding this transaction. The repurchase of common shares B was executed to align the aggregate holding of voting shares by Vereniging Aegon in Aegon N.V. with its special cause voting rights of 32.6% following the completion of the Share Buy Back Program, initiated by Aegon N.V. in October 2019 to neutralize the dilutive effect of the distribution of interim dividend 2019 in stock.

Development of shareholding in Aegon N.V.

Number of shares held by Vereniging Aegon	Common	Common B
At January 1, 2019	279,236,609	571,165,680
Exercise option right common shares B - May 2019	-	1,773,680
Share dividend on common shares - September 2019	9,466,160	-
Sale of common shares B - December 2019	-	(13,227,120)
At December 31, 2019	288,702,769	559,712,240

Accordingly, at December 31, 2019, the voting power of Vereniging Aegon under normal circumstances amounted to approximately 14.75%, based on the number of outstanding and voting shares (excluding issued common shares held in treasury by Aegon N.V.). In the event of a Special Cause, Vereniging Aegon's voting rights will increase, currently to 32.6%, for up to six months.

At December 31, 2019, the General Meeting of Members of Vereniging Aegon consisted of eighteen members. The majority of the voting rights is with the sixteen members who are not employees or former employees of Aegon N.V. or one of the Aegon Group companies, nor current or former members of the Supervisory Board or the Executive Board of Aegon N.V. The other two members are from the Executive Board of Aegon N.V..

Vereniging Aegon has an Executive Committee consisting of seven members, five of whom are not, nor have ever been, related to Aegon, including the Chairman and the Vice-Chairman. The other two members are also member of the Executive Board of Aegon N.V. Resolutions of the Executive Committee, other than regarding the amendment of the Articles of Association of Vereniging Aegon, are made with an absolute majority of the votes. When a vote in the Executive Committee results in a tie, the General Meeting of Members has the deciding vote. Regarding the amendment of the Articles of Association of Vereniging Aegon, a special procedure requires a unanimous proposal from the Executive Committee, thereby including the consent of the representatives of Aegon N.V. at the Executive Committee. This requirement does not apply in the event of a hostile change of control at the General Meeting of Shareholders of Aegon N.V., in which event Vereniging Aegon may amend its Articles of Association without the cooperation of Aegon N.V. Furthermore, the two members of the Executive Board of Aegon N.V., who are also members of the Executive Committee, have no voting rights on several decisions that relate to Aegon N.V., as set out in the Articles of Association of Vereniging Aegon.

Other major shareholders

In this section below where reference is made to any filings with the Dutch Autoriteit Financiële Markten or the SEC the terms 'capital issued' and 'votes' are used as defined in the Wet op het Financieel Toezicht.

To Aegon's knowledge based on the filings made with the Dutch Autoriteit Financiële Markten, Dodge & Cox International Stock Fund, BlackRock, Inc. and Franklin Resources, Inc. hold a capital or voting interest in Aegon of 3% or more.

Based on its last filing with the Dutch Autoriteit Financiële Markten as at June 20, 2018, Dodge & Cox International Stock Fund stated to hold 131,792,024 common shares, which represent 4.9% of the issued capital and votes as at December 31, 2019.

On February 13, 2020, Dodge & Cox's filing with the US Securities and Exchange Commission (SEC) shows that Dodge & Cox holds 235,569,910 common shares, representing 9.1% of the issued and outstanding capital as at December 31, 2019, and has voting rights for 230,578,490 shares, representing 8.9% of the votes as at December 31, 2019.

Based on its filing with the Dutch Autoriteit Financiële Markten as at November 14, 2019, BlackRock, Inc. stated to hold 116,325,180 shares, representing 4.3% of the issued capital as at December 31, 2019 and 136,885,389 voting rights, representing 5.1% of the issued capital as at December 31, 2019.

On February 5, 2020, BlackRock, Inc.'s filing with the US Securities and Exchange Commission (SEC) shows that BlackRock holds 149,073,955 common shares, representing 5.7% of the issued and outstanding capital as at December 31, 2019, and has voting rights for 129,834,767 shares, representing 5.0% of the votes as at December 31, 2019.

Based on its filing with the Dutch Autoriteit Financiële Markten as at June 10, 2015, Franklin Resources, Inc. (FRI), a US based investment management firm, stated to hold 81,510,408 shares, representing 3.0% of the issued capital as at December 31, 2019.

Other financial information

Schedules to the financial statements

Index to schedules

- Schedule I—Summary of Investments other than Investments in Related Parties as at December 31, 2019
- Schedule II—Condensed Financial Information of Registrant (Parent Company Only)
 - Schedule II—Statement of Financial Position as of December 31, 2019 and 2018
 - Schedule II—Income Statement (Loss) for the years ended December 31, 2019, 2018 and 2017
 - Schedule II—Condensed Cash Flow Statement for the years ended December 31, 2019, 2018 and 2017
 - Schedule II—Dividends from and Capital Contributions to Business Units for the years ended December 31, 2019, 2018 and 2017
- Schedule III—Supplementary Insurance Information for the years ended December 31, 2019, 2018 and 2017
- Schedule IV—Reinsurance for the years ended December 31, 2019, 2018 and 2017
- Schedule V—Valuation and Qualifying Accounts for the years ended December 31, 2019, 2018 and 2017

Schedule I

Summary of investments other than investments in related parties

As at December 31, 2019

Amounts in million EUR	Cost ¹⁾	Fair value	Book value
Shares:			
Available-for-sale	377	409	409
Fair value through profit or loss	1,661	1,813	1,813
Bonds:			
Available-for-sale and held-to-maturity:			
US government	7,443	8,812	8,812
Dutch government	4,869	6,316	6,316
Other government	8,901	11,872	11,872
Mortgage backed	6,366	6,811	6,811
Asset backed	3,776	3,869	3,869
Corporate	40,552	45,238	45,238
Money market investments	5,169	5,169	5,169
Other	976	908	908
Subtotal	78,052	88,995	88,995
Bonds:			
Fair value through profit or loss	3,892	3,934	3,934
Other investments at fair value through profit or loss	2,849	3,333	3,333
Mortgages	38,524	42,567	38,524
Private loans	4,487	5,159	4,487
Deposits with financial institutions	141	141	141
Policy loans	2,024	2,024	2,024
Other	188	188	188
Subtotal	45,365	50,079	45,365
Real estate:			
Investments in real estate	-	2,901	2,901
Total	132,195	151,464	146,750

¹⁾ Cost is defined as original cost for available-for-sale shares and amortized cost for available-for-sale and held-to-maturity bonds

Schedule II

Condensed financial information of registrant

Statement of financial position of Aegon N.V.

As at December 31

Before profit appropriation, amounts in EUR million	2019	2018
Non-current assets		
Financial fixed assets		
Shares in group companies	25,652	22,461
Loans to group companies	1,337	2,487
	26,989	24,948
Current assets		
Receivables		
Receivables from group companies	112	35
Other receivables	175	137
Other current assets	124	137
Accrued interest and rent	13	16
	424	325
Cash and cash equivalents		
Cash and cash equivalents	1,032	1,231
Total assets	28,445	26,504
Shareholders' equity		
Share capital	323	322
Paid-in surplus	7,213	7,486
Revaluation account	6,116	3,540
Legal reserves – foreign currency translation reserve	426	130
Legal reserves in respect of group companies	1,703	1,326
Retained earnings, including treasury shares	7,545	7,820
Remeasurement of defined benefit plans of group companies	(2,397)	(1,850)
Net income / (loss)	1,528	744
	22,457	19,518
Other equity instruments	2,571	3,320
Total equity	25,028	22,838
Provisions		
Deferred tax liability	-	10
	-	10
Non-current liabilities		
Subordinated borrowings	1,403	1,389
Long-term borrowings	1,257	1,292
	2,660	2,681
Current liabilities		
Short term deposits	-	82
Loans from group companies	6	9
Payables to group companies	484	582
Other current liabilities	236	271
Accruals and deferred income	31	31
	757	975
Total liabilities	3,417	3,666
Total equity and liabilities	28,445	26,504

Condensed income statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	2019	2018	2017
Net income / (loss) group companies	1,668	865	2,403
Other income / (loss)	(141)	(122)	(42)
Net income / (loss)	1,528	744	2,361

Condensed cash flow statement of Aegon N.V.

For the year ended December 31

Amounts in EUR million	2019	2018	2017
Income / (loss) before tax	1,488	742	2,360
Adjustments	(1,818)	(325)	(3,568)
Net cash flows from operating activities	(330)	418	(1,208)
Dividends and capital repayments of subsidiaries, associates and joint ventures	647	824	700
Other	(1)	(1)	(1)
Net cash flows from investing activities	646	822	700
Issuance of perpetuals	496	-	-
Issuance of treasury shares	1	-	2
Purchase of treasury shares	(318)	(248)	(266)
Issuance and repurchase of borrowings	1,074	294	1,429
Repayment of perpetuals	(1,343)	(200)	-
Repayment of non-cumulative subordinated note	-	(443)	-
Dividends paid	(309)	(328)	(294)
Coupons on perpetual securities	(112)	(136)	(138)
Coupons on non-cumulative subordinated notes	-	(14)	(37)
Net cash flows from financing activities	(512)	(1,076)	696
Net increase / (decrease) in cash and cash equivalents	(196)	165	188

Five-year schedule of maturities of debt

As at December 31

Amounts in million EUR	2019		2018	
	Subordinated borrowings	Long-term Borrowings	Subordinated borrowings	Long-term Borrowings
Remaining terms less than 1 year	-	-	-	78
Remaining terms 1 - 2 years	-	-	-	-
Remaining terms 2 - 3 years	-	-	-	-
Remaining terms 3 - 4 years	-	497	-	-
Remaining terms 4 - 5 years	-	-	-	496
Remaining terms longer than 5 years	1,403	760	1,389	717
At December 31	1,403	1,257	1,389	1,292

Dividends from and capital contributions to business units

Aegon received EUR 1.2 billion of dividends from its business units during 2019 from the Americas, United Kingdom, asset management, Southern & Eastern Europe and Asia. Aegon spent EUR 0.4 billion on capital contributions, mainly on Spain and the Netherlands.

Aegon received EUR 1.4 billion of dividends from its business units during 2018, mainly from Americas, the Netherlands, United Kingdom, Asset Management and Southern & Eastern Europe. Aegon spent EUR 0.1 billion on capital contributions.

Aegon received EUR 1.8 billion of dividends from its business units during 2017, mainly from Americas, United Kingdom, Asset Management and Southern & Eastern Europe. Capital contributions of EUR 1.1 billion were paid to Aegon's businesses, mainly to the Netherlands.

Schedule III

Supplementary insurance information

Column A	Column B	Column C	Column D	Column E	Column F
Segment					
Amounts in million EUR	Deferred policy acquisition costs	Future policy benefits	Unearned premiums	Other policy claims and benefits	Premium revenue
2019					
Americas	8,592	180,522	5,770	2,117	8,515
The Netherlands	360	67,382	56	944	2,123
United Kingdom	878	94,570	18	5	6,309
Southern & Eastern Europe	45	2,271	35	104	728
Asia	487	7,770	121	18	460
Holding and other activities	-	16	1	-	3
Eliminations ¹⁾	-	(1,655)	-	-	-
Total	10,362	350,876	6,002	3,188	18,138
2018					
Americas	8,816	166,644	5,125	2,100	8,403
The Netherlands	66	60,046	62	934	1,987
United Kingdom	859	76,255	16	5	7,539
Southern & Eastern Europe	74	2,483	31	102	785
Asia	665	7,709	106	16	600
Holding and other activities	-	12	2	-	2
Eliminations ¹⁾	-	(1,648)	-	-	-
Total	10,480	311,501	5,341	3,158	19,316
2017					
Americas	8,188	171,122	5,241	1,982	9,383
The Netherlands	76	62,476	61	932	2,208
United Kingdom	903	65,053	14	6	9,635
Southern & Eastern Europe	71	2,707	23	101	783
Asia	490	6,582	100	15	816
Holding and other activities	-	16	8	-	1
Eliminations ¹⁾	-	(1,615)	-	-	-
Total	9,729	306,341	5,447	3,036	22,826

¹⁾ Comparative figures have been reclassified. The intercompany eliminations have been removed from the individual reporting units and included in a separate line as 'Eliminations'. This reclassification is not considered material as there is no effect on consolidated group figures.

The numbers included in Schedule III are based on IFRS-EU and excludes the proportionate share in Aegon's joint ventures and Aegon's associates.

Deferred policy acquisition costs also include deferred costs of reinsurance.

	Column G	Column H	Column I	Column J	Column K
Amounts in million EUR	Net investment income	Benefits, claims and losses	Amortization of deferred policy acquisition costs	Other operating expenses	Premiums written
2019					
Americas	3,166	8,484	582	3,181	6,360
The Netherlands	2,224	3,416	3	880	2,090
United Kingdom	1,830	7,722	100	607	6,120
Southern & Eastern Europe	71	497	34	288	710
Asia	254	337	36	88	413
Asset Management	-	-	-	388	-
Holding and other activities	-	5	-	153	12
Eliminations ¹⁾	(15)	(3)	-	(187)	-
Total	7,531	20,459	754	5,399	15,704
2018					
Americas	3,121	7,767	720	3,219	6,069
The Netherlands	2,265	3,547	20	792	1,960
United Kingdom	1,346	9,221	101	604	7,299
Southern & Eastern Europe	77	562	49	314	765
Asia	225	233	24	91	550
Asset Management	-	-	-	371	-
Holding and other activities	6	6	-	127	10
Eliminations ¹⁾	(4)	(5)	-	(206)	-
Total	7,035	21,331	914	5,311	16,653
2017					
Americas	3,362	8,585	552	2,953	6,387
The Netherlands	2,172	4,430	19	911	2,192
United Kingdom	1,517	11,798	111	646	9,266
Southern & Eastern Europe	80	569	54	301	764
Asia	203	155	33	96	778
Asset Management	-	-	-	394	-
Holding and other activities	8	5	-	76	8
Eliminations ¹⁾	(4)	(4)	-	(221)	-
Total	7,338	25,537	770	5,155	19,395

¹⁾ Comparative figures have been reclassified. The intercompany eliminations have been removed from the individual reporting units and included in a separate line as 'Eliminations'. This reclassification is not considered material as there is no effect on consolidated group figures.

Schedule IV

Reinsurance

Amounts in million EUR	Gross amount	Ceded to other companies	Assumed from other companies	Net amount	% of amount assumed to net
For the year ended December 31, 2019					
Life insurance in force	955,451	699,005	480,723	737,170	65%
Premiums					
Life insurance	14,524	2,276	1,402	13,650	10%
Non-life insurance	2,199	158	13	2,055	1%
Total premiums	16,723	2,434	1,415	15,704	9%
For the year ended December 31, 2018					
Life insurance in force	874,423	708,242	512,735	678,915	76%
Premiums					
Life insurance	15,526	2,500	1,443	14,470	10%
Non-life insurance	2,330	163	16	2,183	1%
Total premiums	17,856	2,663	1,459	16,653	9%
For the year ended December 31, 2017					
Life insurance in force	863,686	709,326	525,201	679,561	77%
Premiums					
Life insurance	18,324	3,214	1,628	16,738	10%
Non-life insurance	2,849	217	25	2,657	1%
Total premiums	21,174	3,431	1,653	19,395	9%

Schedule V

Valuation and qualifying accounts

Amounts in million EUR	2019	2018	2017
Balance at January 1	179	213	215
Addition charged to earnings	72	35	40
Amounts written off and other changes	(53)	(70)	(37)
Currency translation	-	1	(5)
Balance at December 31	199	179	213
The provisions can be analyzed as follows:			
Mortgages	6	19	48
Other loans	159	118	116
Receivables	34	41	48
Total	199	179	213

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Overview of Americas

Aegon Americas operates primarily under the Transamerica brand in the United States, and has operations in Brazil and Mexico and a small operation in Canada.

Aegon in the US

Transamerica is one of the leading life insurance companies in the United States, and the largest of Aegon's operating units worldwide. Transamerica employs approximately 7,900 people and its businesses in the United States serve customers in all fifty states and the District of Columbia. Most Aegon companies in the United States operate under the Transamerica brand, which stands for the pursuit of financial and physical well-being: Wealth + Health. Its primary offices are in Cedar Rapids, Iowa; Denver, Colorado and Baltimore, Maryland. There are additional offices located throughout the United States.

Through its subsidiaries and affiliated companies, Transamerica provides a wide range of life insurance, long-term care insurance and voluntary benefits (including supplemental health insurance), retirement plans, recordkeeping and advisory services, annuities, mutual funds and other long-term savings and investment products.

Aegon employs a variety of distribution models to help customers access its products and services. These include working through third party financial professionals, retail producers and agents, and Transamerica registered investment advisors.

Aegon in Brazil

Aegon has a 50% interest in Mongeral Aegon Seguros e Previdência S.A. (Mongeral Aegon), Brazil's third largest independent (i.e. non-bank affiliated) life insurer¹. To further capture growth prospects in Brazil, Mongeral Aegon and Bancoob (Banco Cooperativo do Brasil) established Sicoob Seguradora de Vida e Previdência, a company dedicated to providing life insurance and pension products within the Sicoob system, Brazil's largest cooperative financial system² with over 4.6 million associates and over 3,000 points of sale. As of December 2019, Aegon Brazil had 651 employees.

Aegon in Mexico

Aegon has a joint venture in Mexico with Administradora Akaan S.A. de C.V., called Akaan-Aegon S.A.P.I. de C.V. The Mexico City-based operating company, Akaan Transamerica, launched a series of mutual funds and investment solutions in October 2017, supporting family offices, high-net-worth individuals, and institutions. In 2019, Transamerica made the strategic decision to wind down this joint venture, as the business had not performed according to expectations. The wind down of the joint venture is expected to be completed in 2020.

Organizational structure

Aegon USA

Transamerica Corporation is the holding company for US operations, and all US business is conducted through its various subsidiaries. The use of the term 'Aegon USA' throughout this business overview refers to the operating subsidiaries and joint venture(s) in the United States and Latin America, collectively or individually, through which Aegon conducts business. Aegon USA entities collectively have operating licenses in every US state, in addition to the District of Columbia, Puerto Rico, the US Virgin Islands, and Guam.

Aegon USA's primary insurance subsidiaries are:

- Transamerica Life Insurance Company;
- Transamerica Financial Life Insurance Company; and
- Transamerica Premier Life Insurance Company.

Aegon USA aims to meet customers' needs and to create a consistent, positive experience for customers, business partners and employees. Aegon USA is structured in such a way as to provide relevant customer solutions that are easy to understand and that address the full range of customers' financial protection and savings needs at every stage of life. Moreover, Aegon USA's structure enables it to leverage Transamerica's brand strength, expertise and capabilities in order to fulfill Aegon's purpose of helping people achieve a lifetime of financial security.

¹ SUSEP, <http://www2.susep.gov.br/menuestatistica/SES/principal.aspx>. Webpage visited October 4, 2019.

² SICOOB, <https://www.sicoob.com.br/web/sicoob/o-sicoob>. Webpage visited January 3, 2020.

In 2019, Aegon USA realigned into two core business lines, Workplace Solutions and Individual Solutions, that operate through one or more of Aegon USA's life insurance companies. Retirement plans, employee benefits (including supplemental health insurance), and stable value solutions are offered through Workplace Solutions. Annuities, mutual funds, supplemental health insurance, and life and long term care (LTC) insurance are offered through Individual Solutions. Aegon USA offers these product lines, described in greater detail below, through a number of distribution and sales channels and methodologies.

On January 11, 2018, Transamerica entered into an agreement with Tata Consultancy Services (TCS) to administer the company's US insurance and annuity business lines. Complimented by the transfer of over 2,000 Transamerica employees to TCS, TCS supports the administration of Transamerica's life insurance, annuity, and employee benefits products (both for inforce and new business based on a transition timeline), taking on the administration of over 10 million policies.

On March 21, 2019, Transamerica announced that it entered into an agreement with LTCG to transfer the administration and claims management of the company's LTC insurance business. This strategic relationship enables Transamerica to enhance and modernize its claims and administrative systems and processes in order to better serve its long-term care customers. LTCG is a leading provider of administrative solutions to the long-term care insurance industry, serving more than 100 carriers nationwide. LTCG's advanced data analytics, actuarial and risk management capabilities, and general long-term care industry expertise are aligned with our focus on providing an excellent customer experience. LTCG will support the administration of Transamerica's LTC insurance business with the transfer of over 200 Transamerica employees, which was completed in August 2019.

Overview of sales and distribution channels

Aegon USA's distribution channels are organized in order to meet customer needs and offer solutions through affiliated and non-affiliated distributors that provide guidance to Aegon USA customers. Workplace Solutions supports customers primarily through their employers, and Individual Solutions supports individual customers and investors.

Workplace solutions

Through Workplace Solutions, Aegon USA provides employer-sponsored retirement plans, group life insurance (universal life, whole life, and term life), supplemental group health products (critical illness, cancer, hospital indemnity, supplemental medical expense, short-term disability, vision, and dental policies), group accident products, and institutional stable value solutions to US organizations of all sizes. Workplace Solutions accesses these employers through financial advisors, benefits consultants and agents. Through the Transamerica Advice Center (TAC), which includes a team of experienced registered representatives, investment advisor representatives, and licensed insurance agents, Workplace Solutions offers rollover individual retirement accounts (IRAs), advisory services, annuities and access to other insurance products and resources to eligible retirement plan participants.

Individual solutions

Wholesale distribution

Through its Individual Solutions business line, Aegon USA offers annuities, investments (mutual funds and exchange traded funds (ETFs)), life insurance and long-term care insurance products through agreements with independent broker-dealers, banks, wirehouses, independent financial planners, and independent insurance producers. Annuity and investment products are also offered through institutions, including large broker-dealer research and advisory platforms, and registered investment advisers.

Additionally, Aegon USA offers protection products (life insurance, supplemental health insurance and LTC insurance products) through third-party distribution outlets known as 'Brokerage General Agents' or 'Independent Marketing Organizations'. These are predominantly non-registered products sold through independent insurance producers. This channel offers life insurance (term life, universal life, index universal life, and whole life insurance), LTC insurance and supplemental health products and services (Medicare Supplement, accident, and cancer insurance) through approximately 51,000 independent brokerage distributors and financial institutions that operate in the affluent, emerging affluent and middle markets. Effective December 2019, accident and cancer insurance products are no longer sold in the Individual line.

Retail distribution

Aegon USA's retail affiliate distribution group, 'Transamerica Financial Network' (TFN), provides advice and guidance to individuals to meet their protection and investment needs. TFN consists of World Financial Group Insurance Agency ('WFGIA'), Transamerica Agency Network (TAN) and Transamerica Financial Advisors, Inc. (TFA). TFN, through licensed agents and registered representatives/investment advisor representatives, offers insurance, annuities, mutual funds, retirement plans and advisory account solutions. There are approximately 43,000 independent insurance agents associated with WFGIA in the United States and its affiliated insurance agency operating in Canada. There are approximately 1,700 insurance agents associated with TAN. TAN provides the same life and health products as the brokerage channel, with a focus on middle and emerging affluent markets. The TAN agent field is comprised

of both employees and independent producers. Approximately 3,400 WFGIA and TAN agents are associated with TFA as registered representatives, of which approximately 1,700 are registered as investment advisor representatives.

Overview of product lines

Life

Aegon USA offers a comprehensive portfolio of protection solutions to customers in a broad range of market segments. Life products include term life (TL), universal life (UL), variable universal life (VUL), index universal life (IUL) and whole life insurance (WL).

Term life insurance

TL insurance provides protection for a stated period of time. Benefits are paid to policy beneficiaries in the event of the death of the insured during a specified period. Living benefit riders that provide accelerated benefits for critical illnesses or chronic conditions are available on term insurance.

Universal life insurance

UL insurance is flexible permanent life insurance that offers death benefit protection together with the potential for cash value accumulation. After the first few years, there is usually no set premium. The policyholder can adjust the frequency and amount of premium payments, as long as sufficient premiums are accumulated in the policy's account value to cover charges in the month that follows, which are called 'monthly deductions'. Any changes in the monthly deduction rate reflect Aegon USA's current expectations with respect to future policy performance. At any time, the policy owner is able to see the maximum monthly deduction rate that can be charged. Some versions of this product have 'secondary guarantees.' These maintain life insurance coverage when cash value is insufficient, as long as the customer pays a specified minimum premium.

Variable universal life insurance

VUL insurance is permanent life insurance that offers both a death benefit and cash value accumulation potential with financial market participation. The premium amount for VUL insurance is flexible and may be changed by the policyholder within contract limits. Coverage amount may change as well. The investment feature usually includes 'sub-accounts,' which provide exposure to investments, such as stocks and bonds. This exposure increases cash value return potential, but also the risk of additional premium requirements or lower coverage amounts in comparison with a traditional, non-variable life insurance policy. Aegon USA does not actively market VUL insurance.

Index universal life insurance

IUL insurance provides permanent death benefit protection and cash value accumulation with flexible premium payments. What distinguishes it from other types of permanent life insurance is the way in which interest earnings are credited. Net premiums may be allocated to either a fixed account or indexed accounts. Indexed accounts credit interest based in part on the performance of one or more market indices. The credited interest is based on the index, but with a floor and a cap. IUL offers both market-paced growth potential in the indexed accounts and downside protection. It is an alternative to traditional UL - for which interest is credited at a fixed rate - and VUL, in which the cash value is directly exposed to ups and downs of the market. Long-term care riders and other living benefit riders are available on IUL.

Whole life insurance

WL insurance provides permanent death benefit protection, provided that the required premiums are paid, while accumulating cash values based on statutory requirements. Premiums are generally fixed and usually payable over the life of the policy.

Accident & health

Aegon USA offers supplemental health insurance and long-term care insurance.

Supplemental health insurance

Supplemental health insurance products include accidental death and dismemberment, accidental injury, cancer, critical illness, disability, hospital indemnity, Medicare Supplement, retiree medical, and supplemental medical expense indemnity.

A number of these products provide policyholders with lump sums or specified payments if these policyholders are hospitalized, injured, or diagnosed with a critical illness. Others pay benefits for specific medical expenses and treatments, or cover deductibles, co-payments and co-insurance amounts not covered by other health insurance.

Long-term care insurance

LTC insurance products are a category of health insurance, and provide benefits to policyholders that require qualified LTC services when they are unable to perform two or more specified activities of daily living or develop a severe cognitive impairment. LTC insurance helps protect against the high cost of LTC services, and it may also help families better manage the financial, health and safety issues associated with LTC. Transamerica's LTC product is offered as a standalone product or as a rider to certain life insurance products.

Mutual funds and ETFs

Mutual funds are professionally managed investment vehicles comprised of pooled money invested by numerous individuals or institutions. Such funds are invested in various underlying security types such as stocks, bonds, money market instruments, and other securities. Transamerica offers mutual funds that are focused on several different asset classes, including US equity, global/international equity, fixed income, money markets and alternative investments, as well as asset allocation and target date funds with combined equity and fixed income strategies. Transamerica mutual funds utilize the portfolio management expertise of asset managers across the industry in a sub-advised platform, using managers both affiliated with and not affiliated with Aegon. These managers are subject to a rigorous selection and monitoring due diligence process conducted by Transamerica Asset Management.

ETFs are a pooled investment vehicle for individual and institutional investors that combine some of the features of a mutual fund with the flexibility of allowing investors to trade throughout the day on an exchange. Transamerica offers a suite of managed risk passive exchange-traded funds that seek to track the S&P Managed Risk 2.0 Indices marketed under the name DeltaShares. This Managed Risk strategy is applied to US Large Cap, Mid Cap, Small Cap, International Developed Equity and Emerging Market Equity Indices.

Variable annuities

Variable annuities (VAs) allow the policyholder to accumulate assets for retirement on a tax-deferred basis and to participate in equity or bond market performance. Additional insurance guarantees, which are offered through riders, can be added to variable annuities, including guaranteed minimum death benefits (GMDBs) and guaranteed living benefits (GLBs). GMDBs provide a guaranteed benefit in the event of death. GLBs are intended to provide a measure of protection against market risk while the annuitant is alive. Different forms of GLBs are offered, such as guaranteeing an income stream for life and/or guaranteeing principal protection.

Fixed annuities

Fixed annuities allow the policyholder to accumulate assets for retirement on a tax-deferred basis through periodic interest crediting and principal protection. Aegon USA has de-emphasized traditional fixed deferred annuities, and is only marketing new sales through the TAC. The traditional fixed deferred annuity book is, according to plan, continuing to reduce over time. Aegon USA actively offers a fixed-index annuity that may credit interest based, in part, on the percentage change in the value of the selected index account option(s) at the start and end of the crediting period. A fixed account option is also available. Additional guarantees, which are offered through riders, can be added to fixed-index annuities, including GLBs.

Retirement plans and IRAs

Comprehensive and customized retirement plan services are offered to employers across the entire range of defined benefit, defined contribution, non-qualified deferred compensation, and multiple employer plans (MEPs). Services are also offered to individuals rolling over funds from other qualified retirement funds or IRAs.

Retirement plan services, including administration, recordkeeping and related services are offered to employers of all sizes and to plans across all market segments. Aegon USA also works closely with plan advisors and third-party administrators to serve their customers. Transamerica Retirement Solutions is a top-ten¹ defined contribution record-keeper in the United States based on plan participants.

Plan sponsors have access to a wide array of investment options. Depending on the product chosen by the plan sponsor, unrestricted access to all publicly available investments can be offered. Certain smaller plans have access to hundreds of investment choices from more than 40 investment advisory companies.

Tools are provided to help plan participants monitor their retirement accounts and engage in behavior to stay on track towards a funded retirement. Managed Advice® is a managed account option that plan sponsors can make available to participants that provides investment advice to participants using the plan's slate of funds.

For individual plan participants in transition due to a job loss or change or planned retirement, services and products include IRAs, advisory services, and annuities as well as access to other financial insurance products and resources.

¹ PLANSPONSOR, July 18, 2019, <https://www.plansponsor.com/research/2019-recordkeeping-survey/8/>. Webpage visited October 9, 2019.

Stable Value Solutions

Stable Value Solutions are Synthetic Guaranteed Investment Contracts (GICs) which are offered primarily to tax-qualified institutional entities such as 401(k) plans and other retirement plans. A synthetic GIC 'wrapper' is offered around fixed-income invested assets, which are owned by the plan and managed by the plan or a third-party money manager hired by the plan. A synthetic GIC is typically issued with an evergreen maturity and may be terminated under certain conditions. Such a contract helps to reduce fluctuations in the value of the wrapped assets and provides book value withdrawals for plan participants, while ensuring that investment fund conditions are met.

Latin America

Aegon's business in Latin America includes a 50% interest in Mongeral Aegon Seguros e Previdência S.A., a Brazilian independent life insurer. Mongeral Aegon's activities include a life insurance and pension company, an asset management company, a multi sponsored pension fund, a liabilities management company for pension funds, and a longevity institute. To further capture growth prospects in Brazil, Mongeral Aegon and Bancoob (Banco Cooperativo do Brasil) established Sicoob Seguradora de Vida e Previdência, a life insurance and pensions company dedicated to providing life insurance and pension products via the Sicoob system. The joint venture began operations on March 1, 2017, and distributes products through Sicoob. Bancoob is a private commercial bank owned by the credit cooperative entities affiliated with the Sicoob system. This agreement represents a key expansion of distribution for Mongeral Aegon, which already serves over 3.8 million customers nationwide through over 4,000 brokers.

Run-off businesses

Latin America

Beginning in 2017, Akaan Transamerica, Aegon's joint venture in Mexico with Administradora Akaan S.A. de C.V., offered a wide variety of mutual funds and investment solutions. In 2019, Transamerica made the strategic decision to wind down this joint venture as the business had not performed according to expectations. The wind down of the joint venture is expected to be completed in 2020.

Institutional spread-based business

The institutional spread-based business, primarily comprised of small blocks of non-synthetic GICs, funding agreements and funding agreement-backed medium-term notes (MTNs), was put into run-off mode in 2009.

Life reinsurance

In August 2011, Aegon USA completed the effective divestment of its life reinsurance business to SCOR Global Life (SCOR) through the reinsurance and sale of its reinsurance entity based in Ireland. In 2017 and 2018, Aegon USA further divested a life reinsurance block that had been previously ceded to a captive structure to SCOR. As of 2019, Aegon USA has divested substantially all of its life reinsurance operations through retrocessions to SCOR. Life reinsurance business was comprised primarily of the reinsurance of term insurance products.

In June 2017, Aegon USA completed the divestment of its two largest US run-off businesses, the payout annuity business and the bank owned life insurance / corporate owned life insurance (BOLI/COLI) through reinsurance to Wilton Re. The payout annuity block was placed in run-off in 2003 and the BOLI/COLI products were discontinued in 2010.

Competition

The US marketplace is highly competitive. Aegon USA's competitors include other large insurance carriers, in addition to certain banks, securities brokerage firms, investment advisors, and other financial intermediaries marketing insurance products, annuities and mutual funds.

In individual life insurance, leading competitors include Pacific Life, Lincoln National, Prudential Financial, John Hancock, National Life, Nationwide, and AIG. Mutual of Omaha is the primary competitor for sales of individual long-term care insurance through the brokerage channel. Competitors for supplemental health include a wide range of companies and company types based on the nature of the coverage including Aflac, MetLife, Colonial Life, Allstate, Unum, and Guardian Life.

Aegon USA's primary competitors in the variable annuity market are Jackson National, Prudential Financial, Lincoln National, AIG, Nationwide, and AXA Equitable.

The largest competitors in the mutual fund market include Vanguard, Fidelity, American Funds, T. Rowe Price, J.P. Morgan and BlackRock.

In the defined contribution plan administration market, Aegon USA's largest competitors are Fidelity, Empower, TIAA, Principal Financial, Voya, Vanguard, Alight, and Bank of America Merrill Lynch. Aegon USA's largest competitors in the defined benefit segment are Alight, Willis Towers Watson, Conduent, Fidelity, Aon, Mercer, and Milliman.

In the market for synthetic GICs, Transamerica's Stable Value Solutions business, the largest competitors are Prudential Financial, MetLife, Voya, and AIG.

Regulation and supervision

Aegon USA's insurance companies and the business they conduct in the United States are regulated primarily at the state level, as carried out by various state insurance regulators. Some activities, products and services are also subject to federal regulation.

State Insurance Regulation

The Aegon USA insurance companies are licensed as insurers and are regulated in each US state and jurisdiction in which they conduct insurance business. The extent of such regulation varies, but has a shared purpose in terms of the protection of policy and contract holders. The insurance regulators in each state carry out their mission by providing oversight in the broad areas of market conduct and financial solvency regulation.

Aegon USA's largest insurance companies are domiciled in the State of Iowa, and the Iowa Insurance Division exercises principal regulatory jurisdiction over those companies¹. This regulation includes implementation and enforcement of standards of solvency, adequacy of reserves and capital, and reinsurance.

In the areas of licensing and market conduct, states grant or revoke licenses to transact insurance business, regulate trade, advertising and marketing practices, approve policy forms and certain premium rates, review and approve products and certain rates prior to sale, address consumer complaints, and perform market conduct examinations on both a regular and targeted basis.

In the area of financial regulation, state regulators implement and supervise statutory reserve and capital requirements, including minimum risk-based capital solvency standards. Insurance companies are also subject to extensive reporting, investment limitations, and required approval of significant transactions. State regulators, by law, conduct extensive financial examinations every three to five years.

State regulators have the authority to impose a variety of punitive measures, including revoking licenses, for failure to comply with applicable regulations. All state insurance regulators are members of the National Association of Insurance Commissioners (NAIC), a non-regulatory association that works to achieve uniformity and efficiency of insurance regulation across the United States and US territories.

Recent regulatory enhancements in recent years include increased reporting of holding company activities, increased transparency and uniformity for certain captive reinsurance transactions, and requirements for companies to conduct an Own Risk and Solvency Assessment (ORSA). Aegon USA is subject to NAIC Actuarial Guidelines 48 and 49, which became fully effective in 2015 and 2016 respectively, and is also subject to principle-based reserving requirements for life insurance, which was implemented on January 1, 2020.

Emerging state issues that may impact Aegon USA include a project by the NAIC to develop a group capital calculation that could impact an NAIC group capital ratio and NAIC projects to update capital charges for asset default risk and longevity risk that could impact required capital. LTC is currently regulated by states as health insurance, although both state regulators and federal agencies are examining the current environment for the LTC industry, which may lead to a more predictable regulatory regime for premium adjustments, and facilitate the development of new and innovative products.

In 2017, the NAIC approved amendments to the Life and Health Insurance Guaranty Association Model Act. Among other things, the amendments will bring health maintenance organizations (HMO) into the life and health guaranty association system and adjust guaranty fund assessments for future long-term care-related insolvencies so that 50% of such assessments will come from life/annuity accounts, with the other 50% from the combined health/HMO accounts. These amendments must be adopted into law in each state before becoming effective in each such state. To date, approximately 12 states have adopted the amended model.

¹ Aegon USA's life insurance company in New York, Transamerica Financial Life Insurance Company, is regulated by the New York Department of Financial Services.

Federal Regulation of Financial Services and Health Insurance

Although the insurance business is primarily regulated at the state level, many federal laws and initiatives impact the insurance sector in such areas as the regulation of financial services, derivatives, retirement plans, securities products, health care, taxes, information security and privacy. Regulation of financial services has increased as a result of the Dodd Frank Act, which also created the Federal Insurance Office (FIO) and the Office of Financial Research (OFR). The FIO is authorized to review the insurance market in the United States and report to Congress, and the OFR conducts research in financial services, including insurance, in support of such oversight. In addition, the FIO is authorized to establish US insurance policy in international matters.

The Federal Reserve Board also has authority to establish capital standards for systemically significant insurers, and insurers that own a federally insured bank or thrift, and to participate in the establishment of international insurance capital standards for Internationally Active Insurance Groups (IAIGs) and globally systemically significant insurers (G-SIIs).

Information Security and Privacy Regulation

Transamerica's businesses are regulated with respect to information security, data breach response, privacy and data use at both the federal and state levels. At the federal level various Transamerica companies are subject to the Gramm-Leach-Bliley Act (GLBA), the Fair Credit Reporting Act (FCRA), and the Health Insurance Portability and Accountability Act (HIPAA), among other laws. At the state level, Departments of Insurance and Financial Services typically administer a series of privacy and information security laws and regulations that impact a number of Transamerica businesses. Following a series of high profile data breaches and data exploitation events at various companies that attracted substantial media attention, numerous US regulators and legislators are currently proposing or have already passed additional legal requirements with respect to information security and privacy. These include but are not limited to the California Consumer Protection Act and the New York Department of Financial Services Cybersecurity Rule. Additional laws and regulations with respect to these topics are also anticipated to be promulgated and to go into effect in the coming years.

Securities Regulation

A number of Aegon USA subsidiaries are subject to regulation under the federal securities laws administered by the US Securities and Exchange Commission (SEC) and aspects of states' securities and other laws. Variable insurance policies, certain annuity contracts and registered investment management companies (mutual funds) offered by Aegon USA are subject to regulation under the federal securities laws administered by the SEC and aspects of states' securities laws. Certain separate accounts of Aegon USA insurers that offer variable life insurance and certain annuities, and interests under these annuity and insurance policies are registered and subject to SEC regulation. The distribution and sale of variable products, mutual funds, and other securities by affiliate and non-affiliate broker-dealers are regulated by the SEC and the Financial Industry Regulatory Authority (FINRA). A number of Aegon USA companies are also registered as investment advisors and subject to SEC regulation or operate under registrations or exemptions from registration as commodity pool operators or Commodities Trading Advisers, regulated by the Commodities Futures Trading Commission and the National Futures Association.

Aegon USA also owns or manages other investment vehicles that are exempt from registration, but may be subject to other requirements of those laws, such as anti-fraud provisions and the terms of applicable exemptions.

On June 5, 2019, the SEC adopted Regulation Best Interest (Regulation BI), a new rule imposing a 'best interest' standard of conduct on broker-dealers making recommendations to retail clients. Among other things, Regulation BI requires broker-dealers and investment advisers to provide retail clients with information about the nature of their relationship.

In addition, since the Department of Labor Fiduciary Rule was vacated, several states have moved forward with developing standard of conduct rules and proposals. New York and Nevada have enacted best interest rules, and other states, including Massachusetts and New Jersey, have proposed their own fiduciary regulation. The state standard of conduct landscape continues to evolve.

The financial services industry continues to operate under heightened scrutiny and increased regulation in various jurisdictions. Aegon USA, like other businesses in the financial services industry, is routinely examined and receives requests for information from the SEC, FINRA, state regulators and others in connection with examinations and investigations of its own companies and third-party or unaffiliated insurers, broker-dealers, investment advisers, investment companies and service providers relating to certain historical and current practices with respect to these and other matters. Some of those inquiries have led to investigations, which remain open, or have resulted in fines, corrective actions or restitution. Aegon USA continues to cooperate with these regulatory agencies. In certain instances, Aegon USA modified business practices in response to those inquiries or findings.

Regulation of Retirement Plans and IRAs

Aegon USA administers and provides recordkeeping, investment and insurance services and products used to fund defined contribution plans, such as 401(k), 403(b), multiple employer and 457 plans, in addition to defined benefit plans, IRAs, 529 plans and other savings vehicles. Aegon USA also administers pension benefits distributed upon termination of defined benefit plans. These products and services are generally subject to the Employee Retirement Income Security Act (ERISA) (certain government and church plans are exempt from ERISA) and the federal Internal Revenue Code of 1986, as amended (the 'Code') for which the US Department of Labor (DOL) and the US Department of the Treasury ('Treasury') have regulatory jurisdiction, respectively.

The Setting Every Community Up for Retirement Enhancement Act of 2019, better known as the SECURE Act, was signed into law on December 20, 2019. The legislation facilitates the use of multiple employer plans (MEPs), of which Aegon USA is a leading provider, as well as expands the safe harbor for automatic enrollment in plans, and reduces the burden of offering annuities either as an in-plan investment option or as the form of distribution from a plan. The SECURE Act also expands retirement coverage to long-time, part-time workers and "gig economy" workers may not otherwise have access to tax-deferred retirement savings, as well as increases the age for "required minimum distributions" from tax deferred accounts from 70 ½ to 72. The Act would also accelerate distributions from inherited IRAs (i.e. stretch IRAs) to offset the cost of the other provisions. Separately, many states have also sought to open their plans to non government workers who do not have access to an employer retirement savings plan.

Federal Tax Treatment of Insurance Companies and their Products and Plans

Although the insurance business is regulated at state level, the US federal tax treatment of life insurers, life insurance, pension and annuity products is governed by the US federal tax code. Provisions that increase the taxation of life insurers, as well as remove or decrease the value of tax incentives for life insurance, pensions and annuity products – considered alone and relative to other investment vehicles – have been proposed in prior Administrations federal budgets and by the US Congress. These initiatives also contemplate international tax reform, including proposals that would limit the ability of companies to deduct interest expense on financing provided by a non-US affiliate. Executive Administration budget proposals, legislative proposals and discussion drafts must be enacted by Congress and signed by the President before they become law. The risk of tax law changes is heightened when additional revenue is sought to reduce the federal deficit or to pay for other tax law changes, such as lower tax rates. In addition, tax reform initiatives of the type contemplated by discussion drafts of comprehensive federal tax reform legislation further increase the risk of both increased taxation of life insurers and of decreased tax incentives for short- and long-term savings products. These changes, if enacted, would have a direct impact on the cost and competitiveness of life insurance, annuity and pension products sold to ensure Americans' financial and retirement security.

Overview of the Netherlands

Aegon has operated for 175 years in the Netherlands, where it is a leading provider of life insurance and pensions, and employs approximately 3,100 people. Aegon's Dutch business, Aegon the Netherlands, is headquartered in The Hague, and its other main offices are in Amsterdam, Leeuwarden and Groningen.

Organizational structure

Aegon the Netherlands operates through a number of brands, including Knab, TKP Pensioen, Optas and Robidus, and is itself one of the most widely recognized brands in the Dutch financial services sector.

Aegon the Netherlands' primary subsidiaries are:

- Aegon Bank N.V.;
- Aegon Hypotheken B.V.;
- Aegon Levensverzekering N.V.;
- Aegon Cappital B.V.;
- Aegon Schadeverzekering N.V.;
- Aegon Spaarkas N.V.;
- TKP Pensioen B.V.;
- Nedasco B.V.;
- Salus Holding B.V.

Aegon the Netherlands' joint venture is:

- AMVEST Vastgoed B.V.

Within the organization structure, Aegon is aiming for less complexity with two mergers in 2019. Aegon PPI B.V. merged into CAPPITAL Premiepensioeninstelling B.V. as per January 1, 2019 (subsequently changed its name into Aegon Cappital B.V.) and OPTAS Pensioen N.V. has been legally merged into Aegon Levensverzekering N.V. as per April 1, 2019. In addition, Robijn Participaties B.V. was acquired through Salus Holding B.V., a private limited liability company incorporated by Aegon Nederland N.V. in 2018. Robijn Participaties B.V. has been merged into Salus Holding B.V. as per January 2, 2019, which owns the Robidus brand.

Aegon the Netherlands has four lines of business:

- Life;
- Non-life;
- Banking; and
- Service Business.

Overview of sales and distribution channels

Aegon the Netherlands uses a variety of distribution channels to help customers assess the products and services appropriate for their needs. In general, all business lines use the intermediary channel, which focuses on independent brokers in different market segments in the Netherlands.

In recent years, Aegon the Netherlands has invested heavily in its direct online channel to achieve an enhanced digital self-service experience. Distribution channels such as online and the contact centers generate leads for Aegon Advies B.V..

Aegon Bank N.V. sells the majority of its Aegon label banking products via the intermediary sales. For the Knab label it solely uses the direct and online channels to help its customers to make smart decisions by giving them a clear overview of their finances, and helps them pro-actively with products and services that can help them achieve their financial goals. In 2020, all Aegon Bank products and customers will be migrated to the Knab label. The distribution via intermediaries will remain, but via the Knab label.

For wholesale clients, Aegon has an integrated sales organization for pension and income products servicing corporate clients and advisors.

Overview of business lines

Life

Pensions

Interest rates have been low for an extended period of time and have decreased even further in 2019. This drives a shift from Defined Benefit (DB) pension plans to Defined Contribution (DC) pensions plans where, in the latter, all investment risk and longevity risk is borne by the policyholder. Aegon offers its defined contribution plans in a separate legal entity and these are therefore not managed on the Aegon Leven balance sheet. This means that Aegon Leven now primarily manages premium paying DB products, annuities (as explained below), and existing DB and DC books, while most of the new business flows to other Aegon entities.

Regarding premium paying DB products Aegon offers two variations: a subscription product and a contract. Both are straight forward DB products without profit sharing and with guaranteed benefit payments. All investment risk and longevity risk is borne by Aegon and customers need to contribute additional funds for indexations.

The DB subscription product is a simple and cost-efficient product targeting small and medium-sized companies. It reduces complexity and enables Aegon to adapt the tariffs, cost loadings and risk premiums annually. In addition, customers have the opportunity to decide on an annual basis as to whether they wish to continue with their subscription or not.

The DB contract targets medium-sized and larger customers and is by default a 5-year contract. The DB contract offers more flexibility than the subscription product, for example with regard to the pension accrual rate and has fixed tariffs over a longer period.

All other products are not being sold anymore and include:

- Separate account group contracts with individually-determined asset investment strategies, profit sharing and guarantees.
- DB contracts with profit sharing based on a pre-determined interest rate.
- Traditional variable unit-linked products.

Premiums are still being paid for non-selling products. These products are managed on a value basis, with Aegon trying to optimize the return on capital while the products are running off.

Endowment insurance

Endowment insurance includes several products that accumulate a cash value. Premiums are paid at inception or over the term of the contract. These products pay benefits on the policy maturity date, subject to survival of the insured. Most policies also pay death benefits should the insured pass away during the term of the contract. Death benefits may be stipulated in the policy or depend on the gross premiums paid to date. Premiums and amounts insured are established at inception of the contract. The amount insured can be increased as a result of profit sharing, if provided for under the terms and conditions of the product.

Minimum interest guarantees exist for all generations of accumulation products written, except for universal life products, for which premiums are invested solely in equity funds. Older generation products contained a 4% guarantee when sold. In 1999, the guarantee for new products decreased to 3%. In 2013, the guarantee on new products was reduced to 0% and in 2019 the guarantee has been ended.

Various profit-sharing mechanisms exist. Bonuses are either paid in cash (usually for a pension, as described below) or used to increase the sum insured. A common form of profit sharing is to set bonus levels by reference to external indexes based on pre-defined portfolios of Dutch government bonds. The bonds included in the portfolios have different remaining maturities and interest rates. Together they are considered an approximation of the long-term rate of return on high-quality Dutch financial investments.

Term and whole life insurance

Term life insurance pays out death benefits should the insured pass away during the term of the contract. Whole life insurance pays out death benefits in the event of death, regardless of when this occurs. Premiums and amounts insured are established at inception of the contract and are guaranteed. The amount insured may be adjusted at the request of the policyholder. Term life insurance policies do not include profit-sharing mechanisms. Part of the whole life insurance portfolio has profit-sharing features, which are based on external indexes or the return of related assets.

Annuity insurance

Annuity insurance are products with both an accumulation and payout phase, The most active products in this category are simple payout annuities and variable annuities. These products are clearly linked to defined contribution schemes in which participants build up their capital, and purchase an annuity at the pension date. Participants can choose between a guaranteed annuity, where all risks

are borne by Aegon, or a variable annuity without investment guarantees, where all risks are borne by the participant. Given that a significant shift has been observed towards defined contribution schemes, these annuities are a natural driver of growth as they provide a solution for the payout phase. Annuity insurance includes older products with guaranteed interest rates and profit sharing for which no new business is written.

Non-life

Accident and Health

Aegon the Netherlands offers disability and sick leave products to employers that cover disability and sick leave payments for employees not covered by social security and for which employers bear the risk. In addition, for some forms of disability, employers can choose to use the social security system with related premiums or opt out and seek private insurance. Private insurance may lead to lower premiums and Aegon offers solutions for this.

For individuals, Aegon the Netherlands offers a disability product mainly targeted at the growing self-employed market. Product options were extended during 2019.

Property and Casualty

Aegon the Netherlands has focused exclusively on retail lines in general insurance since 2017, offering products in the segments of property, motor, travel, legal assistance, pet insurance, injury and private liability claims. The ambition for the P&C retail segment is to provide the best digital servicing in the Dutch market by 2022, while building long-lasting relationships with customers.

Through the service concepts, Aegon provides (non-financial) incentives for intermediaries to help their customers in the optimal way, while also protecting the health of the supply chain by stimulating performance at sustainable levels for customers, intermediaries and insurer. In addition to the intermediary market, Aegon the Netherlands develops digital and online capabilities, as distribution is slowly shifting towards the direct market. This market includes sales via Aegon's own website and affiliates, and via aggregator websites.

Banking

In 2019, Aegon Bank N.V. announced to integrate the Aegon Bank and Knab operations under the Knab brand. By integrating both operations and rationalizing product offerings costs will be reduced, operations will be more efficient and governance unified and simplified. The coming period will be used to migrate the Aegon bank label products and customers towards the Knab label. Aegon Bank N.V. will continue to reinforce the Aegon Netherlands wide pension offering with its banking (savings, bank savings and investments) products, but under the Knab brand. Aegon Bank and Knab offer banking solutions to 650,000 Dutch customers, being consumers and small-scale enterprises.

Knab is a fully online digital bank that went live in 2012. Knab aims to be the most customer-oriented financial platform in the Netherlands, by informing customers about their personal financial situation and enabling them to achieve their financial goals. It's therefore Knab's mission to help people manage their money matters now and in the future. This reflects the core of Aegon's purpose, as an online bank, Knab offers payment accounts, savings and a basic investment product. The Aegon Bank label focuses on customers whose income and wealth is in the middle-market, in line with Aegon the Netherlands' target group. Aegon Bank offers simple and high-quality products. These include both savings products focused on security, and investment products focused on a suitable risk/return profile that fits the customer's need and risk appetite. With these products Aegon Bank reinforces the Aegon Netherlands wide pension offering. Aegon Bank's activities among others focus on 'Banksparen' products'. 'Banksparen' is a tax-deferred savings product in which amounts are deposited in a 'locked' bank account. The amount saved is available after a certain period of time for specific purposes such as for a supplementary pension or paying off a mortgage. This product is predominantly sold via independent financial advisors who remain a very important distribution channel.

Knab Advies & Bemiddeling N.V.

With the integration of the Aegon Bank and Knab, the strategic choice was made to phase out the non-bank (i.e. adviser and broker) activities in Knab Advies en Bemiddeling N.V. (KAB), and therewith stop the online advice and comparison of car-insurance and home-related insurances, as well as the mortgage broker business, effective from October 1, 2019. The KAB entity will be liquidated as soon as the remaining activities are sold to third parties or transferred to other Aegon entities.

Investment contracts

Investment contracts are investment products that offer returns and generate fee income from the performance of the investments.

Services Business

Mortgage loans

In 2019, Aegon the Netherlands mostly offered 'annuity mortgages'. Before 2013, Aegon the Netherlands also offered interest-only, unit-linked and savings mortgage loans, and is continuing to do so for existing mortgage loans that are being renegotiated. Mortgage loans are partly funded externally. Besides residential mortgage-backed securities in Saecure — Aegon's Dutch residential mortgage-backed securities program and private placements — the Aegon Mortgage fund is the main source of external funding. For this business, Aegon originates the mortgage loans fully for account of third parties and remains the service provider.

Aegon Cappital

As of January 1, 2019, regulated pension premium institutions (PPIs) Aegon PPI and CAPPITAL merged to become Aegon Cappital. Aegon Cappital is a low-cost provider of defined contribution pension schemes offered through intermediary advisors. It is the largest pension premium institution in the Netherlands and benefits considerably from economies of scale. The low interest rate environment is expected to result in a continued shift in customer preference for defined contribution schemes.

PPIs cannot bear any investment or insurance risks on their offerings due to regulatory requirements. The schemes include disability or life insurance which are offered by partners Aegon Levensverzekering N.V., Aegon Schadeverzekering N.V. and Elips Life AG, and an optional guaranteed interest rate during the accumulation phase offered by partner Aegon Levensverzekering N.V.. Apart from operational and regulatory risk, Aegon Cappital runs no risk.

Aegon Cappital offers defined contribution pension schemes in a standardized subscription based model to small and medium enterprises and customized contracts for medium to large corporations. The model enables employers to choose from a variety of contribution tables and social security offsets, while remaining flexible for regulatory changes, such as changes in pension age or fiscal contribution limits. Savings premiums are invested in life cycle funds by Aegon Investment Asset Management B.V..

TKP, Stap, Robidus and Nedasco

TKP Pensioen specializes in pension administration for company and industry pension funds, and also provides administration services for defined contribution plans to corporate and institutional clients.

Stap is a pension pooling vehicle that enables separate financial administration for multiple pension plans from multiple employers. This vehicle enables smaller pension schemes to benefit from economies of scale and to comply with complex pension regulations, meaning that a greater percentage of the employees' pension premium is invested, and that employers and participants receive the same high quality of service as a traditional pension plan. The fiduciary investments for Stap are carried out by Aegon Investment Asset Management B.V. as per January 1, 2019.

Aegon acquired Robidus from the investment company Avedon Capital Partners on September 11, 2018. Robidus advises corporations on the risks and associated costs under Dutch social security legislation, and provides corporations and insurance companies with claims management and outsourcing solutions as to how to manage these issues, including outsourcing services. It operates as an independent organization within Aegon, and the acquisition gives Robidus both more room to invest and access to the broad expertise within Aegon.

Subsidiary Nedasco is a fast-growing intermediary service provider that is mainly active in non-life business domains.

Competition

Aegon the Netherlands has strong competition in all markets from insurers, banks, investment companies and pension funds. Its main competitors are Achmea, ASR, NN Group and Vivat¹.

The company has been a key player in the total life market for many years, and was ranked third in 2018 based on gross premium income. The life insurance market in the Netherlands comprises pensions and life insurance. The top five life insurance companies in the Netherlands by gross premium income accounted for almost 85% of total premium (Individual Life and Pension) income in 2018. Aegon the Netherlands is the second largest insurance company in the pensions market. Aegon the Netherlands is one of many insurers in the non-life market, where in 2018, ten companies accounted for 80% of the total premium income. In terms of premium income, Aegon the Netherlands' non-life market share is around 2%, making it the ninth largest company in the market.

¹ Vivat was sold to NN Group (non-life) and Athora (life) in 2019, subject to Regulatory approval.

In the mortgage loans market, Aegon the Netherlands held a market share of approximately 8% based on new sales in 2018, making it the fourth largest mortgage loan provider in the market. Rabobank, ING Bank and ABN AMRO are the largest mortgage loan providers in the market, and competition is increasing from foreign competitors and capital from pension funds.

Aegon the Netherlands' share is growing in the market for Dutch household savings. In 2018, its market share was approximately 3%, which is relatively small in comparison to banks such as Rabobank, ING and ABN AMRO.

Various legal and regulatory changes have had an impact on demand for insurance products in the Dutch market. This is especially true in the life insurance market, where the tax deductibility of certain products has been reduced, leading to a shift to bank-saving products. Moreover, volatility in economic and financial markets has meant that customers are more reluctant to commit themselves to long-term contracts. These changes have resulted in more competition, greater focus on competitive prices, improved customer service and retention, and product innovation.

In the pensions market, pension funds have faced pressure on their coverage ratios, in addition to increased regulatory and administrative requirements. In response, they have sought to reduce risks by insuring all or parts of their business. This represents an opportunity for pension insurers and providers of new style pension solutions and Aegon is one of the leading providers of these solutions.

The defined contribution (PPI) market is set to grow significantly due to the shift from defined benefit plans to defined contribution plans and the demand for transparent and cost-effective pension products. As a result, significant growth of scale remains necessary to effectively serve this market, and the number of providers is expected to shrink further within a few years. Aegon the Netherlands has identified this market as an opportunity for growth and intends to maintain its leadership position with Aegon Capital.

Regulation and supervision

General

Regulation of the financial sector in the Netherlands is included in the Financial Supervision Act (Wet op het financieel toezicht or Wft). The Wft embeds the cross-sectorial functional approach within the Dutch supervisory system. The supervision of financial institutions pursuant to the Wft rests with the De Nederlandsche Bank DNB and the Dutch Authority for the Financial Markets (AFM).

The DNB is responsible for prudential supervision, while the AFM supervises the conduct of business of financial institutions, and the conduct of business on financial markets. The aim of the DNB's prudential supervision is to ensure the solidity of financial institutions and contribute to the stability of the financial sector. With regard to banks, the DNB undertakes its supervisory role, in particular with respect to prudential supervision, together with the European Central Bank (ECB).

The AFM's conduct of business supervision focuses on ensuring orderly and transparent financial market processes, integrity in relations between market parties, and due care in the provision of services to customers.

The Dutch supervisory authorities have a number of formal tools to exercise their supervisory tasks. These tools include the authority to request information, if this is necessary for the purpose of prudential supervision, and the power to issue formal instructions to financial institutions, to impose fines, or to publish sanctions. The DNB, as prudential supervisory authority, can, under certain circumstances, require a recovery plan, a short-term financing plan, appoint a trustee, draw up a transfer plan or (ultimately) withdraw the license of a financial institution.

Financial supervision of insurance companies

The Solvency II framework consists of an EU Directive and has consequently been transposed into the Dutch Financial Supervision Act.

The following insurance entities of Aegon the Netherlands are subject to prudential supervision of the DNB:

- Aegon Levensverzekering N.V.;
- Aegon Schadeverzekering N.V.;
- Aegon Spaarkas N.V..

An insurance company is neither permitted to conduct both life insurance and non-life insurance business within a single legal entity (with the exception of reinsurance), nor to carry out both insurance and banking activities within the same legal entity. Within Aegon the Netherlands, Aegon Levensverzekering N.V. and Aegon Spaarkas N.V. conduct life insurance activities. Aegon Schadeverzekering N.V. conducts non-life insurance activities. Prudential supervision is exercised by the home state supervisory authority (DNB in the Netherlands).

Solvency II

Aegon the Netherlands uses a partial internal model (PIM) to calculate the solvency position of its insurance activities under Solvency II. The calculation includes the use of the volatility adjustment (VA), but does not include the use of any transitional measures. The initial internal model of Aegon the Netherlands was approved on November 26, 2015, by the supervisor, the DNB, as part of the Internal Model Application Process.

Dutch Act on Recovery & Resolution for Insurers

On January 1, 2019, the Dutch Act on Recovery & Resolution for Insurers (R&R Act) came into force in the Netherlands, replacing the previously applicable intervention regime for insurance companies in the Netherlands faced with financial difficulties.

The R&R Act has introduced a revised regulatory framework for recovery and resolution of Dutch insurance and reinsurance companies and provides for a range of measures to be taken by these companies and the Dutch Central Bank ex ante, in order for these insurance and reinsurance companies to be prepared for recovery in circumstances where it no longer meets the required solvency requirements and for orderly resolution, in circumstances where it is failing or is likely to fail.

Financial supervision of credit institutions

Aegon Bank N.V. is subject to indirect supervision by the ECB under the Single Supervisory Mechanism (SSM), being one of the elements of the Banking Union. As a consequence thereof, the ECB may give instructions to the DNB in respect of Aegon Bank N.V. or even assume direct supervision over the prudential aspects of the Aegon Bank N.V.'s business. Pursuant to the banking supervision by the DNB, Aegon Bank N.V. is (among others) required to file monthly regulatory reports and an audited Annual Report. Aegon Bank N.V. is subject to Basel III requirements in the CRR and the CRD IV, as implemented in the Netherlands in the Wft. CRD IV and CRR include requirements with respect to the quality and quantity of capital, and introduce requirements with respect to increased capital against derivative positions, the introduction of two supplementary buffers (a capital conservation buffer and a counter-cyclical buffer), a new liquidity framework (liquidity coverage ratio and net stable funding ratio) and a leverage ratio. The leverage ratio is defined as Tier-1 capital divided by a measure of non-risk weighted assets. The leverage ratio requirement will be phased in gradually. Pursuant to the EU Banking Reforms (as described below), a binding leverage ratio of 3% will become applicable to banks. According to the EU Banking Reforms, competent authorities remain responsible for monitoring leverage policies and processes of individual institutions and may impose additional measures to address risk of excessive leverage, if warranted.

Capital of the highest quality, Common Equity Tier 1, forms a substantial part of the capital of a credit institution. Additional Tier 1 capital forms the rest of the Tier 1 capital. In addition, the capital of a credit institution may be composed of Tier 2 capital, which is of a lesser quality than Tier 1 capital.

The Banking Recovery and Resolution Directive, as implemented in the Netherlands in the Wft, and the SRM Regulation form the European framework for recovery and resolution for (among others) ailing banks, certain investment firms and their holding companies. The Banking Recovery and Resolution Directive provides for early intervention measures that may be imposed by the DNB in respect of Aegon Bank N.V. in the event that its financial condition is deteriorating. It also allows the DNB under certain circumstances to write down or convert relevant capital instruments, including Common Equity Tier 1, Additional Tier 1 and Tier 2 instruments, in a specific order. Were Aegon Bank N.V. to fail or be likely to fail and the other resolution conditions were also met, the DNB would be able to place Aegon Bank N.V. under resolution. As part of the resolution scheme to be adopted by the DNB it may decide to apply certain resolution tools and exercise its powers pursuant to the implemented BRRD in order to give effect to such resolution tools.

Pursuant to the SRM Regulation and the Banking Recovery and Resolution Directive, Aegon Bank N.V. is at all times required to meet a minimum amount of own funds and eligible liabilities (MREL), expressed as a percentage of the total liabilities and own funds. The DNB will set a level of minimum MREL on a bank-by-bank basis based on assessment criteria due to be set out in technical regulatory standards.

On June 7, 2019, a comprehensive package of banking reforms to CRD IV, the BRRD and the SRM Regulation (the 'EU Banking Reforms'), including measures to increase the resilience of EU institutions and enhance financial stability entered into force, with most rules starting to apply in mid-2021. The EU Banking Reforms are wide-ranging and cover multiple areas.

On December 7, 2017, the Basel Committee published the finalized Basel III reforms as improvements to the global regulatory framework (the 'Basel III Reforms') (informally referred to as Basel IV), with a proposed implementation from January 2022 onwards. The Basel III Reforms includes stricter rules for internal models, a capital floor and revisions to the standardized approaches for credit risk, operational risk and the credit valuation adjustment specified at a counterparty level ('CVA').

Overview of United Kingdom

Aegon in the United Kingdom (hereafter referred to as Aegon UK) is the market-leading investment platform in the UK, providing a broad range of investment, retirement solutions and protection products to individuals, advisers and employers.

Aegon UK accesses customers through wealth advisers and the workplace and has a market-leading position in each with 3.9 million customers and GBP 179 billion assets under administration (AUA) underpinned by a growing investment solutions capability.

The business has deep relationships with in excess of 5,000 adviser firms (around 50% of the market) and 10,000 employers, and continues to show strong market growth growing assets under administration by 13%.

It employs over 2,000 people and its main offices are in Edinburgh, London, Peterborough and Witham.

Organizational structure

Aegon UK plc is Aegon's holding company in the United Kingdom. It was registered as a public limited company at the beginning of December 1998. The leading operating subsidiaries, which all operate under the Aegon brand, are:

- Aegon Investment Solutions Ltd.;
- Scottish Equitable plc;
- Cofunds Ltd.; and
- Aegon Investment Ltd.

Overview of business Lines

Aegon UK organizes around two core business lines, the 'Digital Solutions' business and the 'Existing Business'. This supports the transformation of Aegon UK from a traditional 'insurer,' competing with the likes of Prudential and Royal London to a modern fee-based investment management platform competing with businesses such as Transact and Willis Towers Watson.

Over the last five years the UK business has focused on transforming and scaling the Digital Solutions Business. Aegon UK has done so through organic growth and the acquisition of Cofunds retail savings platform, and BlackRock's large employer workplace pension business, and by disposing of non-core business lines, such as the Annuity portfolio, whilst progressing the outsourcing of service and administration for Existing Business. This phase of transformation is largely complete.

The Digital Solutions business is responsible for Aegon UK's new platform propositions sold through Financial Adviser and workplace channels, together with protection products and an institutional trading platform business. The financial adviser and workplace channels are supported by an investment solutions capability which allows customers to invest in Aegon funds. This capability is well established within the workplace channel with plans to significantly grow within the financial adviser channel.

It is positioned for growth, given the participation in the workplace pensions and financial advice market, which are forecast to grow at 9.2% and 13.5% over the next 5 years respectively.

The Existing Business is managed for value and is responsible for older products that are no longer actively marketed to new customers. However, new assets are accumulated as customers pay into existing policies, or as new employees join older workplace schemes. In July 2019, Aegon UK completed the outsourcing of service and operations tasks to Atos with a 15-year contract to service and administer the Existing Business, thereby improving the profitability of this business line. This builds on the existing relationship, which has seen Atos successfully administer over 400,000 Digital Solutions protection policies since 2016.

Overview of sales and distribution

Aegon UK has two principle distribution channels: financial advisers and workplace supported by a modern technology platform which provides services both to the adviser/employer and their underlying customers.

Aegon UK works with those advisers and employers to deliver an online experience for customers. The platform is designed to work for customers throughout their life as needs evolve providing a comprehensive range of products and funds, moving with them each time they change employer and allowing them to link in with different advisers.

This gives Aegon UK the ability to support customers throughout their life journey unlike the majority of its competitors.

In addition, Aegon UK also participates in the protection and institutional trading platform markets.

Financial Adviser channel

The Financial Adviser channel provides financial advisers and other institutions access to long-term savings and retirement products, through an open architecture investment platform. Given the strong demand for advice, especially within the growing affluent population nearing and in retirement.

Aegon UK offers a comprehensive proposition allowing advisers to manage their client's long-term investment through a wide range of tax wrappers (Self Invested Personal Pension, Individual Savings Account (ISA), General Investment Account (GIA)) investing in a choice of over 4,500 funds and equity trading. Aegon also offers its own investment solutions to advisers.

Aegon UK provides a technology platform that supports the adviser and their customers in managing their finances, and integrates into the back office of the adviser. The aim is create a primary platform relationship, which positions Aegon to receive the majority of new business flows from the adviser partner. An example being the partnership agreed with leading wealth/workplace advisory firm LEBC in 2019 that is expected to deliver additional flow in 2020.

Aegon UK partners with in excess of 5,000 advisers across a wide range of business models. These range from the world's largest building society, Nationwide, to leading wealth management firms such as Chase De Vere, financial services networks such as Quilter and Execution-Only Brokers.

An important dimension of the Nationwide partnership is the inclusion of Aegon Investment Limited funds. This model will be extended in 2020 with the launch of an equivalent range of funds for financial advisers as Aegon UK builds out its investment solutions capability.

Workplace channel

The Workplace channel provides UK-based employers with workplace pensions and savings schemes. It allows Aegon UK to participate in the strong growing auto-enrolment market, cost effectively acquiring individual customer relationships.

Aegon UK now has a market-leading position covering all major workplace savings products and participates in both the small and medium-sized (SME) and large employer segments. A key driver of growth is in the mastertrust product, the fastest growing sector of the UK DC market, Aegon UK has an established and market leading offering.

Aegon UK works with leading employee benefits consultants and corporate advisers to provide a workplace savings platform to employers such as WH Smith, EasyJet and Skanska. This combines its core pension capabilities with ISA and GIA, allowing employees to maximize their savings whilst employed and then take the product with them when they leave or if they should choose to take regulated advice in the future.

At the heart of this is Aegon UK's employee digital portal, which provides tools to enable them to make better informed decisions. It also links into the wider engagement activities such as seminars in the workplace, and online innovations such as the launch of digital personalized summaries that seek to encourage customers to consolidate monies held elsewhere and increase their savings.

Aegon UK's proposition extends to include a range of tools to assist employers with their governance responsibilities: auto enrolment functionality and member insights tool to enable them to effectively manage their pension schemes.

Individual customer channel

Aegon UK has a large and growing individual customer base, which is not attached to an adviser or employer. This base is over 1 million individuals, and is forecast to continue to grow. These individuals are provided with tools that enable them to manage their finances and with customer service support to help with guidance and referrals available to Aegon UK's in-house financial adviser business, Origen, where appropriate

Protection channel

Aegon UK offers a range of products for individual customers, including life cover, critical illness and income protection available through financial advisers. The target market is wealthier customers over the age of 40, where Aegon UK's underwriting expertise helps it to provide a customer-centric proposition.

This also provides a strong overlap with the target customers for Aegon UK's financial adviser and workplace platform and the advisers who help them, giving the opportunity to leverage opportunities to cross-sell.

In addition, Aegon UK offers a range of protection products for small to medium-sized companies that wish to insure key personnel, complementing the core workplace channel.

Institutional channel

Aegon UK also participates in the institutional market in two distinct areas where capability is provided to other parties who provide policy administration to the end-client:

- An institutional trading platform which powers 28 of the UK's leading end-customer platforms (e.g. Brooks MacDonald, AJ Bell) and manages a total of GBP 52 billion assets; and
- An investment-only proposition for pension schemes, which provides access to insured funds for approximately 160 clients who represent GBP 7 billion assets under administration.

Competition

Aegon UK is well positioned for growth, possessing a market leading position in markets with strong growth potential. There are a diverse range of competitors in the markets in which Aegon UK operates, and market dynamics are continuing to evolve.

Aegon UK encounters different competition in each of its core markets but is unique in the way it supports intermediaries wishing to operate across channels providing an end-to-end customer experience.

In the financial adviser market, Aegon UK competes with the likes of Fidelity, Transact and Quilter with the objective being to become 'primary platform' for the intermediary.

In the workplace market, Aegon UK competes with the likes of Aviva and Willis Towers Watson to provide employee benefits, engagement and scheme governance.

Regulation and supervision

All relevant Aegon UK companies based in the United Kingdom are regulated by the Prudential Regulation Authority (PRA) and/or the Financial Conduct Authority (FCA).

The PRA is responsible for the prudential regulation of deposit takers, insurers and major investment firms. The FCA is responsible for regulating firms' conduct in retail and wholesale markets. It is also responsible for the prudential regulation of those firms that do not come under the PRA's remit.

The Aegon Master Trust is subject to regulatory oversight by the Pensions Regulator following industry changes to authorize Master Trusts and implement revised regulatory powers.

The UK vote on June 23, 2016 to leave the European Union (EU) has implications for financial services companies in the UK. Much financial regulation currently applicable in the UK derives from EU legislation. But this regulation will remain in force until any changes are made, which will be a matter for the UK government and the UK Parliament. Aegon UK must, therefore, continue to comply with UK law, including those that derive from EU law and continue with implementation plans for legislation that is anticipated to come into effect. The FCA has acknowledged that the longer term impacts of the decision to leave the EU on the overall regulatory framework for the UK will depend, in part, on the relationship that the UK seeks with the EU in the future.

Financial supervision of insurance companies

The European Union Insurance Directives referred to collectively as Solvency II are incorporated into UK law. The Solvency II directives came into effect on January 1, 2016. The directives are based on the 'home country control' principle, i.e. an insurance company with a license issued by the regulatory authorities in its home country is allowed to conduct business in any country of the European Union, either directly or through a branch. Separate licenses are required for each branch of the insurance company where it conducts business. The regulatory body that issued the license (the PRA in the UK) is responsible for monitoring the solvency of the insurer.

Scottish Equitable PLC is authorized by the PRA and is subject to prudential regulation by the PRA and conduct regulation by the FCA. Every life insurance company licensed by and/or falling under the supervision of the PRA must file audited regulatory reports on at least an annual basis. These reports, primarily designed to enable the PRA to monitor the solvency of the insurance company, include a (consolidated) balance sheet, a (consolidated) income statement, a breakdown of the Solvency Capital Requirements, extensive

actuarial information, and detailed information regarding the investments of the insurance company. The PRA's regulatory reporting is based on a single entity focus, and is designed to highlight risk assessment and risk management.

Solvency II

Under Solvency II, life insurance companies are required to maintain certain levels of shareholder equity in accordance with EU directives, and have to hold the level of capital required to withstand a 1-in-200 shock on a 1-year value at risk basis.

Since the introduction of Solvency II on January 1, 2016, Aegon has been using a Partial Internal Model (PIM) to calculate the solvency position of its insurance activities in the United Kingdom. The internal model was approved in December 2015, by the PRA as part of the Internal Model Application Process, with an additional Major Model Change approved in July 2017, which added Currency Risk and Operational Risk into the Internal Model.

In addition, Aegon UK uses the Matching Adjustment in the calculation of the technical provisions for its annuities, and uses the Volatility Adjustment in the calculation of the technical provisions for the With-Profits business with investment guarantees. Following the sale of the majority of its annuity business in 2016, Aegon UK no longer uses the transitional measures on technical provisions.

CRD IV

The Capital Requirements (Country by Country Reporting) Regulations 2013 ('CRD IV') came into force on January 1, 2014. These require credit institutions and investment firms, as defined within the directive, which are regulated under CRD IV, to "disclose annually, specifying by Member State and by third country in which it has an establishment, the following information on a consolidated basis for the financial year":

- Name, nature of activities and geographical location;
- Turnover;
- Number of employees on a full time equivalent basis;
- Profit or loss before tax, and tax on profit or loss;
- Public subsidies received.

Cofunds Ltd and Aegon Investment Solutions Ltd are regulated by the FCA and maintain a capital framework in line with CRD IV. The information required by the legislation is published on Aegon's websites.

Aegon Investments Limited is a BIPRU firm, is regulated by the FCA and must maintain a capital framework in line with the FCA Handbook requirements.

In conjunction with the FCA, the investment related companies within the Aegon UK group will in future be subject to consolidated reporting under CRD IV. This applies the same principles and rules under CRD IV to the consolidated group of entities.

Overview of Southern and Eastern Europe

At the start of 2019, Aegon had operations in the Southern and Eastern European (SEE) countries of the Czech Republic, Hungary, Poland, Portugal, Romania, Slovakia, Spain and Turkey.

Aegon first entered the Spanish insurance market in 1980. This was followed in 1992 by the purchase of a majority stake in Hungary's former state-owned insurance company, Állami Biztosító. To strengthen its presence, Aegon further expanded in Central & Eastern Europe in the early 2000s.

Aegon's activities in Spain have developed largely through distribution partnerships with Spanish banks. Aegon Spain Holding B.V. (hereafter referred to as Aegon Spain) operates in Spain through Aegon España S.A.U. de Seguros y Reaseguros. In 2013, Aegon Spain entered into a long-term partnership with Banco Santander S.A., offering both life and general insurance products through the bank's branch network, both in Spain and Portugal. Similarly, Aegon Spain also entered into a long-term partnership with Liberbank, S.A., offering life and pension products in Spain.

In line with its strategic objective to optimize its portfolio and capital allocation across its businesses, Aegon sold its subsidiaries in the Czech Republic and Slovakia on January 8, 2019. It also expanded its partnership with Banco Santander in Spain and Portugal on the back of the acquisition of Banco Popular by Banco Santander.

Organizational structure

Aegon's main subsidiaries and affiliates in Southern and Eastern Europe are:

- Aegon España S.A.U. de Seguros y Reaseguros (Aegon España Insurance and Reinsurance);
- Santander Generales Seguros y Reaseguros S.A. (Santander General Insurance and Reinsurance) (51%);
- Santander Vida Seguros y Reaseguros S.A. (Santander Life Insurance and Reinsurance) (51%);
- Liberbank Vida y Pensiones, Seguros y Reaseguros, S.A. (Liberbank Life and Pensions, Insurance and Reinsurance) (50%);
- Aegon Santander Portugal Não Vida-Companhia de Seguros S.A. (Aegon Santander Portugal Non-Life Insurance Co.) (51%);
- Aegon Santander Portugal Vida-Companhia de Seguros de Vida S.A. (Aegon Santander Portugal Life Insurance Co.) (51%);
- Aegon Magyarország Általános Biztosító Zártkörűen Működő Részvénytársaság (Aegon Hungary Composite Insurance Co.);
- Aegon Towarzystwo Ubezpieczeń na Życie Spółka Akcyjna (Aegon Poland Life);
- Aegon Powszechnie Towarzystwo Emerytalne Spółka Akcyjna (Aegon Poland Pension Fund Management Co.);
- Aegon Emeklilik ve Hayat A.Ş. (Aegon Turkey); and
- Aegon Pensii Societate de Administrare a Fondurilor de Pensii Private S.A (Aegon Romania Pension Administrator Co.).

Overview of sales and distribution channels

In Spain & Portugal, the Aegon affiliates distribute their products mainly through partner branches (bancassurance). In addition, Aegon also has its own sales network, comprising of brokers, agents and the direct channel.

In Central & Eastern Europe, the most important sales channels comprise tied agents and brokers, in addition to bancassurance.

Aegon Spain and Banco Santander

Since June 4, 2013, Aegon Spain and Banco Santander S.A., the largest financial institution in Spain, have partnered to distribute certain types of insurance products in Spain, through Banco Santander's network of branches. This was followed on December 31, 2014 by Aegon Spain entering into a similar partnership with Banco Santander and Santander Totta Seguros, S.A., a Portuguese insurance company, part of the Santander International group.

In Spain, the life insurance (mainly pure risk and health) products are sold by Santander Life Insurance and Reinsurance, whereas the non-life insurance (mainly accident, home, commercial multi-risk insurance, critical illness and funeral) products are sold by Santander General Insurance and Reinsurance Company. Both entities are joint venture insurance entities, owned 51% by Aegon España, being the subsidiary of Aegon Spain, and 49% by Santander Seguros y Reaseguros, Compañía Aseguradora, S.A. respectively.

In Portugal, the life insurance (mainly pure risk) products are sold by Aegon Santander Portugal Life, whereas the non-life insurance (mainly accident, home and commercial multi-risk) products are sold by Aegon Santander Portugal Non-Life Insurance Company. Both entities are joint venture insurance entities, owned 51% by Aegon Spain and 49% by Santander Totta Seguros, S.A. respectively.

Aegon Spain and Liberbank

Liberbank, S.A. has a nationwide presence in Spain, with a special focus on retail markets in a number of regions (Asturias, Cantabria, Castilla La Mancha and Extremadura). Liberbank Life and Pensions distributes its products through nearly 400 Liberbank, S.A. branches. Liberbank Life and Pensions is a joint venture life insurance and pension fund management company, with Aegon España and Liberbank S.A. both holding 50% ownership stakes.

Aegon Spain own network and direct channel

Aegon Spain's own network and direct channel offers life and health insurance and pension products of the fully owned Aegon subsidiary. The own network comprises the network of brokers and agents, accounting for approximately 80% of the total sales. The remaining 20% of the total sales is accounted for by the direct channel.

Central and Eastern Europe

Aegon Hungary Insurance is a composite insurance entity and owns several subsidiaries that also operate in the financial services sector. The Hungarian group's products are therefore marketed via a broad range of channels, the most important of which are tied agents and insurance brokers, in addition to bank partners, call centers, key account managers and its online channel.

In Poland, unit-linked and different types of traditional life insurance products are distributed by tied agents and broker partners.

In Romania, unit-linked and different types of traditional life insurance products are distributed mainly by bank partners.

In Turkey, the most important sales channels are insurance brokers and tied agents, in addition to bank partners, which distribute savings and term life insurance products.

Overview of business lines

Aegon Southern and Eastern Europe focuses primarily on retail customers. It offers mainly individual life, different types of general insurance, accident and health products.

Life insurance, Savings & Protection

Spain & Portugal's life insurance business comprises savings as well as individual and group protection products, with individual products forming the larger part of the business.

Customers' saving needs are serviced by Aegon Spain through its Spanish insurance affiliates by means of its targeted offering of universal life and unit-linked products. Protection business, pursued both in Spain and Portugal, includes primarily life, accident and disability cover, and the products can be complemented with critical illness, income protection and other riders.

In Hungary, Aegon offers a wide range of life insurance products, including term life, whole life, accidental life and group life insurance. Group life contracts are renewable each year any carry optional accident and health cover. Aegon Hungary also offers traditional saving type products that consist of index-life products that are not unit-linked, but have guaranteed interest rates. Additionally, in Hungary Aegon also offers unit-linked policies, which are frequently accompanied with riders. These riders provide customers — in addition to the main coverage — with additional financial support in the event of, for instance, having an accident, becoming disabled, or being hospitalized.

In Poland, Aegon focuses on unit-linked as well as traditional life products.

In Romania, Aegon undertakes life insurance business via a branch of Aegon Poland Life Insurance Company. The Romanian branch sells unit-linked, term life and endowment insurance policies.

In Turkey, Aegon focuses on traditional life insurance products, the most important of which are pure term life with several riders, term life with premium refund on maturity, and saving-type endowment products.

Also up until the end of September 2018, Aegon Hungary Home Savings and Loan Association, being the subsidiary of Aegon Hungary Insurance Company, provided a saving product combined with a preferential loan option, subsidized by the state during the saving period. In accordance with Aegon's strategy on October 1, 2018, Aegon Hungary Home Savings and Loan Association suspended its sales activities. The sale of the portfolio started in 2019 and is expected to be completed in 2020.

Health

In Spain, health insurance is offered by Aegon Spain through its affiliated entities through its own network of brokers and agents, its direct channels, and through Santander's network of branches. Medical expense coverage for doctor visits, diagnoses, hospitalization, dental and other health covers are offered through a broad network of medical partners across the country.

Pension

In Spain, customers' pension saving needs are serviced by Liberbank Life and Pensions as well as by Aegon España through their managed pension funds.

Aegon's pension business in Central & Eastern Europe was impacted by reforms to the pension system in several countries in the region during the past years. In 2019, Aegon was active in the (formerly mandatory) private pension market in Poland and Romania. In the voluntary pension market, Aegon was active in Hungary, Turkey and Romania.

As of December 31, 2019, Aegon managed the savings of approximately 3.0 million pension fund members in Southern and Eastern Europe.

General insurance

Aegon Spain has been offering general insurance products since 2013 through its joint ventures with Banco Santander. The offering focuses mainly on household protection and funeral insurance products.

Aegon Hungary also offers non-life cover (mainly household and car insurance, in addition to some wealth and liability industrial risk and travel insurance). In recent years, margins on non-life insurance in Hungary have been attractive. Moreover, household insurance provides considerable opportunities for the cross-selling of life insurance.

Aegon Hungary has operated branch offices selling household insurance policies in Slovakia since 2010 and in Poland since 2011. So as to optimize its portfolio, Aegon Hungary sold the portfolio of its Slovak branch on September 6, 2019 to Union poisťovňa, a.s..

Competition

The Spanish insurance market is highly competitive. For Aegon Spain's traditional life, unit-linked variable life and pension products, the major competitors are retail bank-owned insurance companies. For Aegon Spain's health and general insurance products, the main competitors are both foreign and local companies. Aegon Spain is the exclusive provider of protection products to Santander. The exclusive partnership also holds for Portugal.

In Hungary, in 2018, Aegon was the third largest life insurance provider, based on annual standardized premium income, and the third largest provider in the non-life insurance market. In the same year Aegon was the leading insurance company in the Hungarian household market¹. In Turkey, Aegon was ranked ninth in the life insurance market based on written premium in December 2019². In Romania, Aegon was ranked number eighth, based on the gross written premium, in September 2019. Aegon is a less significant life insurance market participant in Poland.

In the voluntary pension fund market Aegon was ranked third in terms of both the number of participants and managed assets in 2018 in Hungary³. Based on February 2019 data, Aegon was ranked fourth in terms of both the number of participants and managed assets in Poland⁴. In September 2019, Aegon was the fourth largest provider in the Romanian mandatory private pension market, both in terms of net assets under management and number of participants⁵. Aegon is a less significant participant on the voluntary pension market in Romania, Turkey and Spain.

Regulation and supervision

In the European Union, a single insurance company may only be licensed for and conduct either a life insurance business or a non-life insurance business; not both. In Hungary, however, insurance companies established before 1995 are exempt from this rule. This exemption therefore applies to Aegon Hungary, which is a composite insurance company.

¹ Source: MABISZ, <https://mabisz.hu/kiadvanyok/>. Website visited January 10, 2020.

² Source: Insurance Association of Turkey, <https://www.tsb.org.tr/official-statistics.aspx?pageID=1003>. Website visited January 10, 2020.

³ Source: MNB, <https://www.mnb.hu/felugyelet/idosorok/v-aranykonyv>. Website visited January 10, 2020.

⁴ Source: KNF, https://www.knf.gov.pl/en/REPORTS_AND_ANALYSIS/Pension_system/Monthly_data_pension_funds_market. Website visited January 10, 2020.

⁵ Source: APAPR, <https://apapr.ro/utile/statistici/>. Website visited January 10, 2020

State supervision and oversight of the insurance industry is conducted by the following bodies and institutions:

- General Directorate of Insurance and Pension Funds (DGSFP) (Spain);
- The Insurance and Pension Funds Supervisory Authority (ASF) (Portugal);
- The Central Bank of Hungary (MNB) (Hungary);
- Financial Supervisory Authority (KNF) (Poland);
- Authority for Financial Supervision (ASF) (Romania); and
- Undersecretariat of Treasury (Turkey).

The authorities mentioned above promote consumer protection and have the right to investigate prudential activities and conduct, financial position and solvency, and compliance with all relevant laws.

In the European Union, a single insurance company may only be licensed for and conduct either a life insurance business or a non-life insurance business; not both. In Hungary, however, insurance companies established before 1995 are exempt from this rule. This exemption therefore applies to Aegon Hungary, which is a composite insurance company.

The foundation and operations of voluntary pension funds are regulated in Hungary by the country's Voluntary Mutual Pension Funds Act (XCVI. 1993). Activity in this area is also supervised by the MNB. The Credit Institutions and Financial Enterprises Act (2013) stipulates the foundation, operation and reporting obligations of the country's financial institutions. Just like Aegon Hungary Composite Insurance Company, Aegon Hungary Home Savings and Loan Association is under the supervision of MNB. In Romania, the private and voluntary pension system is regulated and supervised by the Authority for Financial Supervision (ASF). The mandatory pension system is subject to the Privately Administered Pension Funds Act (411/2004) and the voluntary pension system is subject to the Voluntary Pension Law (204/2006), both complemented by individual regulations (as secondary legislation). In Poland, this activity is supervised by the KNF and governed by the Organization and Operation of Pension Funds Act. In Turkey, the voluntary pension funds are under the supervision of the Undersecretariat of Treasury and the companies are subject to Individual Retirement Saving and Investment System Law No. 4632. In Spain the pension system is supervised by DGSFP.

In Hungary, the Credit Institutions and Financial Enterprises Act (2013) stipulates the foundation, operation and reporting obligations of the country's financial institutions. Just like Aegon Hungary Composite Insurance Company, Aegon Hungary Home Savings and Loan Association is also under the supervision of MNB.

Solvency II

The Solvency II insurance solvency regime became effective in European Economic Area (EEA) countries on January 1, 2016. Aegon's EU-domiciled entities in Southern and Eastern Europe use the Standard Formula to calculate the solvency position of their insurance activities. As mentioned on page 284, Aegon Spain no longer applies the matching adjustment or transitional arrangements. The insurance activities in Turkey have been included through Deduction & Aggregation on a Solvency II Standard Formula basis.

Overview of Asia

Aegon Asia operates through two major joint ventures in India and the People's Republic of China (hereafter referred to as 'China'), in addition to several wholly-owned subsidiaries, including Aegon's businesses in Hong Kong and Singapore that serve the high-net-worth segment.

Organizational structure

Aegon's main operating companies in Asia (including Aegon's ownership percentages) are:

- Aegon THTF Life Insurance Co., Ltd. (50%);
- Aegon Life Insurance Company Limited (49%);
- Transamerica Life (Bermuda) Ltd. (100%).

Joint ventures

Aegon operates in China through a joint venture with Tsinghua Tongfang Co. Ltd. (THTF) called Aegon THTF Life Insurance Co., Ltd. (Aegon THTF). Aegon THTF is licensed to sell both life insurance and accident and health products in China. Since 2003, the company has expanded its network of offices and business in China. Having established thirteen branches, its geographic presence has access to a potential market of over 650 million people, primarily in the coastal provinces of eastern China.

Aegon operates in India through its joint venture life insurance company, Aegon Life Insurance Company Limited (Aegon Life), since 2008, and its current joint venture partner is Bennett, Coleman & Co. Ltd. (BCCL). The joint venture follows a digitally focused direct-to-consumer strategy.

Since 2009, Aegon had been operating in Japan through a joint venture with Sony Life, one of Japan's leading insurance companies, named Aegon Sony Life Insurance Co., Ltd. (Aegon Sony Life). The primary focus of Aegon Sony Life was variable annuity sales in Japan. Aegon and Sony Life also jointly established a reinsurance company, SA Reinsurance Ltd. (SARe), to provide Aegon Sony Life with greater flexibility in the pricing and design of its annuity products.

On May 17, 2019 Aegon announced an agreement to sell its 50% stake in the variable annuity joint ventures in Japan. The cash proceeds amounted to EUR 153 million. The transaction agreements were signed on June 28, 2019. The divestment was completed early 2020.

Wholly-owned subsidiaries

Transamerica Life (Bermuda) Ltd. (TLB) was established in 2005 and its full-service branches opened in Hong Kong and Singapore in 2006.

Aegon Insights is a marketing, distribution and administration services business operating in the Asia-Pacific region with new business discontinued since 2017 due to change in consumer preferences. The Aegon Insights business, currently maintains operations in Australia, Hong Kong, Indonesia and Japan to serve existing customers.

Overview of sales and distribution

In China, Aegon THTF follows a multi-channel distribution strategy. Current distribution channels include agency, brokerage, banks, direct marketing, group and digital.

In India, Aegon Life distributes its products predominantly via its e-sales, direct and group channels, utilizing its own website, digital partners, as well as its own direct sales force.

TLB distributes its products to high-net-worth consumers through targeted distribution relationships with select local and international brokers, as well as through bancassurance channels.

Overview of business lines

High-net-worth businesses

TLB's main products consist of USD denominated Universal Life and USD denominated Term Life Insurance solutions for the high-net-worth market segment. Universal Life products are TLB's key products to meet the needs of high-net-worth individuals, supporting

estate planning by providing life protection, while also helping to preserve and accumulate wealth. In addition to the Universal Life products, Term Life products are also offered with financial protection at a guaranteed level rate for up to thirty years.

Aegon Insights

Aegon Insights primarily worked with local insurers to develop marketing, distribution and administration solutions tailored to the needs of specific markets and customers. Revenue is primarily generated through reinsurance arrangements and fee income from marketing services, product distribution and administration. With changes in consumer preferences, Aegon made the strategic decision in 2017 to discontinue Aegon Insights' new business while continuing to provide services to existing customers.

Strategic partnerships

In China and India, Aegon provides a broad range of life insurance products including unit-linked, universal life, and traditional life products.

In China, Aegon THTF's agency, broker, and direct marketing channels primarily offer its flagship whole-life critical illness products. Other products, such as participating annuity and endowment (via agency), whole life insurance products (via brokers) and protection with return of premium (via direct marketing) are, however, also offered. Regular premium critical illness, whole-life insurance, traditional or participating annuity and single premium annuity are the key products offered in the bancassurance channel, while the digital channel is currently focused on offering protection products. Aegon THTF also offers non-life products (primarily consisting of short-term accident and short-term health products) through group, direct marketing and agency channels.

In India, Aegon Life offers individual term plans, traditional participating and non-participating savings products, and unit-linked life insurance plans through the direct sales force, e-sales channels and e-commerce partners.

Aegon also makes investments in digital distribution platforms in the Asia region to expand distribution capabilities.

Competition

China: Aegon THTF

As of November 30, 2018, there were 91 life insurance companies in the market, including 63 domestic life companies and 28 foreign life insurers. Based on total premium income, Aegon THTF ranked fifty-fifth among life insurance companies and fifteenth among foreign life companies in China. Aegon THTF's market share among foreign-invested companies was 1.64% in terms of total premium.

India: Aegon Life

There were 24 licensed life insurers in India at the end of December 2018. While the state-owned Life Insurance Corporation of India continues to maintain a dominant share of new business premiums (April 2018 to December 2018), private sector companies have shown double-digit growth to obtain more than 58% of the individual recurring new business premiums written. Aegon Life India ranked twenty-third according to individual recurring premiums (April 2017 to December 2018).

Hong Kong and Singapore: TLB

TLB's main competitors in Hong Kong and Singapore have mainly been other global life insurance providers such as HSBC Life, Manulife Bermuda, and Sun Life Bermuda. The local subsidiaries of both Sun Life and Manulife, in addition to domestic insurers such as AIA, Great Eastern Life, Singapore Life, Generali, AXA, and FWD, are however increasingly developing competitive offerings for this market segment.

Regulation and supervision

Aegon Insights keeps abreast of all relevant changes or proposed changes to regulations in all of its markets.

China: Aegon THTF

The insurance industry in China is regulated by the China Banking and Insurance Regulatory Commission (CBIRC). During 2019, the CBIRC's main focus was on strengthening weak links, tightening supervision, deepening reforms, accelerating opening-up of the sector and joint supervision. Consequently, The CBIRC increased supervision on liquidity risks, solvency risks, product risks, sales practices and anti-money laundering. It also reformed regulations around foreign investment and selling insurance online.

India: Aegon Life

Indian life insurance companies are regulated by the Insurance Regulatory and Development Authority of India (IRDAI). The IRDAI regulates, promotes and encourages the orderly growth of insurance and reinsurance businesses in India. Established by the government of India, it safeguards the interests of the country's insurance policyholders.

The IRDAI is active in introducing new regulations that focus on protecting policyholders' interests and exploring avenues to support growth in the industry. Steps initiated by the IRDAI during 2019 included the issuance of guidelines with regards to registration of insurance marketing firms and product pricing. IRDAI has also issued 'circulars' that provide additional guidance on information to the insurance policyholders/claimants about various insurance policy services, grievance redressal mechanisms, group life insurance products, benefits illustration and market conduct. Aegon Life would discontinue products that no longer meet the regulations pertaining to product pricing in the month of November 2019 and launch / re-launch products in compliance with regulations.

Hong Kong, Singapore and Bermuda: TLB

TLB is incorporated in Bermuda and regulated by the Bermuda Monetary Authority, the regulator of the financial services sector in Bermuda. TLB has branches which are registered and licensed in Hong Kong and Singapore. The insurance industry is regulated by the Hong Kong Insurance Authority (HKIA) in Hong Kong and the Monetary Authority of Singapore (MAS) in Singapore. The MAS is an integrated regulator that supervises all financial institutions including banks, insurers, capital market intermediaries and financial advisors in Singapore.

Asia: Aegon Insights

A broad range of regulations apply to Aegon Insights' activities. Depending on the precise nature of the activities undertaken and the form of business entity used in the jurisdictions in which Aegon Insights operates, relevant regulations include: marketing/consultancy business licensing rules, insurance laws, and personal data protection laws. In addition, various regulators also keep oversight of activities undertaken by entities licensed by Aegon Insights. These regulators include the FSA in Japan, the Australian Securities and Investments Commission in Australia, and the Insurance Authority in Hong Kong.

Solvency II

Solvency II requirements became effective for Aegon Group as of January 1, 2016. Aegon's Asian insurance activities are included in the Aegon Group Solvency II ratio through Deduction & Aggregation. For TLB, Deduction & Aggregation is applied using available and required capital as per the local capital regime. The regulatory regime of Bermuda and Japan were granted full provisional equivalence on December 7, 2015.

Overview of Aegon Asset Management

Aegon Asset Management is an active investment manager that uses its investment management expertise to help people achieve a lifetime of financial security.

Organizational structure

Aegon Asset Management is a provider of investment management expertise to institutional and private investors around the world. It has offices in the United States, the Netherlands, the United Kingdom, Hong Kong, Japan, Germany, Hungary and Spain. It operated under three main brands in 2019:

- Aegon Asset Management specializes in a range of high-quality investment solutions across asset classes, including fixed income, equities, real estate, absolute return, liability-driven, and multi-asset and balance sheet solutions. A long and successful history of partnership with Aegon's insurance businesses has enabled Aegon Asset Management to establish experienced investment teams, a solid asset base and proven long-term track records;
- Kames Capital is a UK-based asset management company that provides fixed income, equities, real estate and multi-asset solutions to both UK and international clients; and
- TKPI is a Netherlands-based fiduciary manager that is recognized for its manager selection and tailored advice on balance sheet solutions for the pension market.

In December 2019, it was decided to retire the Kames Capital and TKP Investments brand and move to the globally recognized Aegon Asset Management brand.

In addition, Aegon Asset Management operates two key strategic partnerships:

- In China, Aegon Asset Management owns 49% of Aegon Industrial Fund Management Company (AIFMC), a Shanghai-based asset manager that offers mutual funds, segregated accounts and advisory services; and
- In France, Aegon Asset Management owns 25% of La Banque Postale Asset Management. La Banque Postale Asset Management offers a comprehensive range of investment strategies to French institutional clients, and to private investors through La Banque Postale group's retail banking network.

Aegon Asset Management's main operating entities are Aegon USA Investment Management LLC, Aegon USA Realty Advisors LLC, Aegon Investment Management B.V., Kames Capital plc and Aegon Hungary Asset Management Company Zrt. The operating entities Aegon Investment Management B.V. and TKP Investments B.V. have been merged as per January 1, 2019.

In December 2019, it was decided to establish a globally integrated structure, with a simplification of the operating model which featured regional executive committees and to create a global operational management board (Global Board). Strategic direction and global oversight of business performance is executed by the Global Board of Aegon Asset Management, which has both global and local roles and responsibilities. This board is supported by a number of sub committees. Members of the Global Board are appointed by Aegon N.V.. The Risk Advisory Committee and Remuneration Committee support Aegon's oversight of Aegon Asset Management.

Overview of sales and distribution channels

Aegon Asset Management uses a variety of sales and distribution channels in the Americas, Europe and Asia. These include: affiliated companies, direct to institutional clients, independent investment advisors, investment consultants, joint ventures and third-party investment platforms.

Overview of business lines

Aegon Asset Management has three distinct business lines.

The general account business consists of funds held on the balance sheet of Aegon insurance companies to meet policyholder liabilities typically when the insurer has given the policyholder a guarantee. These assets are managed to match the insurers' liabilities. As a rule, general account assets are managed in a closed architecture structure, and the main asset classes are fixed income and mortgage loans. Furthermore, Aegon Asset Management manages the general account derivatives book of Aegon the Netherlands.

Third-party business sourced through affiliates for the majority consists of funds sold by Aegon insurers through which the policyholder's return is determined by the investment return of the fund. These funds have various legal structures, and are usually managed against a benchmark or peer group target. The main asset classes include fixed income, equities, real estate, mortgage

loans and alternatives. In the United States and the United Kingdom, a significant element of Affiliate Sales is conducted on an open architecture basis.

For third-party business sourced externally, Aegon Asset Management distributes its investment strategies directly to its clients. The wholesale businesses typically sell collective investment vehicles (mutual funds) to customers through wholesale distributors and independent intermediaries. The main asset classes are fixed income and equities, and the funds are usually managed against a benchmark or peer group target. The institutional businesses typically sell tailored services to large corporations or pension funds. Aegon Asset Management employs a full range of asset classes, and manages the funds against objectives, targets and risk profiles agreed with clients. Aegon Asset Management offers both absolute and relative return products.

Competition

Aegon Asset Management competes with other asset management companies to acquire business from open-architecture Aegon insurance units and third parties.

In the United States, Aegon Asset Management focuses on offering investors fixed income, balance sheet solutions and real estate-related strategies. It works directly with pension funds, endowments and foundations as well as investment consultants within the institutional market. In the wholesale market, Aegon Asset Management works as a sub-advisor with its insurance company affiliates and other partners in order to offer competitive and relevant strategies for its client base. It also works with consultants and other partners to offer products to third-party institutions. Primary competitors in the United States include AllianceBernstein, BlackRock, Invesco, JP Morgan, Legg Mason, Principal, PIMCO and Prudential.

In the Netherlands, Aegon Asset Management provides a wide range of investment strategies and solutions to institutional and wholesale clients, and through its affiliated insurance company to retail clients. In the third-party institutional market, it competes with domestic and global asset managers as well as with fiduciary and balance sheet managers. Competition continues to be strong in the institutional market due to both the ongoing consolidation of pension funds and the growing service requirements of pension fund clients. Primary competitors in the Netherlands include BlackRock, JP Morgan, Nationale Nederlanden Investment Partners, Robeco and Kempen.

In the United Kingdom, Aegon Asset Management focuses on offering investors fixed income, equities, real estate, multi-asset, absolute return and ethical investments. It serves institutional clients and their advisors, and is active in the wholesale market. Primary competitors in the UK include Ashmore, BlackRock, Henderson Global Investors and Standard Life Aberdeen.

In mainland China, Aegon Industrial Fund Management Company focuses on Chinese equity, fixed income, and money market strategies. It competes against a wide range of local based asset managers including Alibaba's Yuebao fund, China Universal Asset Management, E Fund Management, Fullgoal Fund Management, and Yinhuo Fund Management.

In France, La Banque Postale Asset Management competes for private investors through La Banque Postale's retail banking network, with a focus on new multi-asset strategies. In the institutional market, it also offers strategies from Aegon Asset Management businesses in order to compete with large local asset managers and specialized international competitors. In France, primary competitors include Amundi Asset Management, AXA Investment Management, BNP Paribas Investment Partners and Natixis Global Asset Management.

Regulation and supervision

Regulation of asset management companies in general differs to that of insurers. Aegon Asset Management's global holding company, Aegon Asset Management Holding B.V., is authorized to hold substantial holdings in several EU investment firms and as such is a regulated holding company. Local operating entities are regulated by their local regulators, most notably the Dutch Authority for the Financial Markets (AFM) (conduct of business supervision) and the DNB (prudential supervision) for Dutch-based entities, the Financial Conduct Authority (FCA) for Kames Capital, and the Securities & Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) for the US-based entities. Kames Capital is also regulated by the SEC for its activities in the US market. From a regulatory perspective, the asset management activities of the US-based entities of Aegon Asset Management in the United States do not fall under the responsibility of Aegon Asset Management Holding B.V., as these entities are subsidiaries of Transamerica Corporation.

MiFID II

MiFID II requirements became effective for Aegon Asset Management as of January 3, 2018, and the Company adheres to the regulation. In line with most of its peers, the European Aegon Asset Management entities (Aegon Investment Management B.V. and Kames Capital plc) decided in principle to pay external research costs by their own means.

Risk factors Aegon N.V.

Aegon faces numerous risks, some of which may arise from internal factors, such as inadequate compliance systems and operational change management. Others may arise from external factors, such as developments in financial markets, the business and/or political environment, economic trends, politics and regulations. These risks, whether internal or external, may materially and adversely affect the Company's operations, its earnings, the value of its investments, the sale of certain products and services or its ability to fulfill its obligations in respect of securities issued or guaranteed by it. The market price of Aegon securities could decline due to any of the risks described in this section and investors could lose some or all of the value of their investments. Additional risks of which Aegon is not presently aware could also materially and adversely affect its operations and share price. The business of an international financial services group such as Aegon is inherently exposed to risks that may only become apparent with the benefit of hindsight.

The next sections group the risk factors into different categories based on the origin of the risk, while recognizing that the identified risk factor can have broader consequences, e.g. developments on financial markets (included under financial risks) can impact policyholder behavior (included under underwriting risk). The categories used are: 1) financial risks, 2) underwriting risks, 3) operational risks, 4) political, regulatory and supervisory risks, and 5) legal and compliance risks. Where possible the risk factors are presented in order of relevance. For instance financial risks and underwriting risks are of more significance than operational risks (in terms of required capital) and, within the category financial risks, fixed income risks and interest rate risks are of more significance than equity risk (due to composition of the general account of Aegon) and currency risk. However, the order should not be seen as more than indicative as the likelihood of occurrence or the potential magnitude of the consequences of the materialization of risks often cannot be determined by a degree of certainty. Furthermore, risks with a low likelihood can have a large impact should they materialize.

The described risk factors relate to Aegon's businesses and to Aegon's securities, including its common shares, of which Aegon is aware and that it considers material. Furthermore, described risk factors may affect Aegon's businesses and operations in normal market circumstances, as well as in periods of significant economic uncertainty.

Additional risks to which Aegon is subject include, but are not limited to, the factors mentioned under 'Forward-looking statements', and the risks of Aegon's businesses described elsewhere in this Annual Report.

Financial risks

General economic uncertainty and financial crisis

Disruptions in the global financial markets and general economic conditions may affect, and could have materially adverse effects on Aegon's businesses, results of operations, cash flows and financial condition.

Aegon's results of operations and financial condition may be materially affected from time to time by uncertainty, fluctuations or negative trends in general economic conditions, such as economic growth, levels of unemployment, consumer confidence, inflation and interest rate levels in the countries in which Aegon operates. The global financial crisis has shown that financial markets can experience extreme volatility and disruption.

Any disruptions or downturns in the global financial markets or general economic conditions may result in reduced demand for Aegon's products as well as impairments and reductions in the value of the assets in Aegon's general account, separate account, and company pension schemes, among other assets. Aegon may also experience a higher incidence of claims and unexpected policyholder behavior such as unfavorable changes in lapse rates. Aegon's policyholders may choose to defer or stop paying insurance premiums, which may impact Aegon's businesses, results of operations, cash flows and financial condition, and Aegon cannot predict with any certainty if or when such actions may occur.

Governmental action in the United States, the Netherlands, the United Kingdom, the European Union and elsewhere to address any of the above may impact Aegon's businesses. Aegon cannot predict the effect that these or other government actions as well as actions by the European Central Bank (ECB) or the Federal Reserve may have on the financial markets or on Aegon's businesses, results of operations, cash flows and financial condition.

Illiquidity of certain investment assets may prevent Aegon from selling investments at fair prices in a timely manner.

Aegon must maintain sufficient liquidity to meet short term cash demand under normal circumstances, as well as in crisis situations. Liquidity risk is inherent in much of Aegon's businesses. Each asset purchased and liability sold has unique liquidity characteristics. Some liabilities can be surrendered, while some assets, such as privately placed loans, mortgage loans, real estate and limited

partnership interests, are to some degree illiquid. In depressed markets, Aegon may be unable to sell or buy significant volumes of assets at quoted prices.

Any security Aegon issues in significant volume may be issued at higher financing costs if funding conditions are impaired. The necessity to issue securities can be driven by a variety of factors, for instance Aegon may need liquidity for operating expenses, debt servicing and the maintenance of capital levels of insurance subsidiaries. Although Aegon manages its liquidity position for extreme events, including greatly reduced liquidity in capital markets, if these conditions were to persist for an extended period of time, Aegon may need to sell assets substantially below prices at which they are currently recorded to meet its insurance obligations.

Aegon makes use of (bilateral and syndicated) credit facilities to support repayment of amounts outstanding under Aegon's commercial paper programs and to serve as additional sources of liquidity. An inability to access these credit facilities, for example due to non-compliance with conditions for borrowing or the default of a facility provider under stressed market circumstances, could have an adverse effect on Aegon's ability to meet liquidity needs and to comply with contractual and other requirements.

Many of Aegon's derivatives transactions require Aegon to grant collateral against declines in the fair value of these contracts. Volatile financial markets may significantly increase requirements to grant collateral and adversely affect its liquidity position. Further, a downgrade of Aegon's credit ratings may also result in additional collateral requirements.

Interest rate risk

Interest rate volatility or sustained low interest rate levels may adversely affect Aegon's profitability and shareholders' equity.

Aegon is exposed to interest rate risk as both its assets and liabilities are sensitive to movements in long- and short-term interest rates as well as to changes in the volatility of interest rates.

During periods of decreasing interest rates or sustained low interest rates, as experienced in recent years, Aegon may not be able to preserve margins due to the existence of minimum interest rate guarantees and minimum guaranteed crediting rates provided in policies. Also, investment earnings may be lower because the interest earnings on new fixed-income investments are likely to have declined with the market interest rates. A prolonged low interest rate environment may also result in a lengthening of maturities of the policyholder liabilities from initial estimates, due to lower policy lapses and longer duration of annuities.

In-force life insurance and annuity policies may be relatively more attractive to consumers due to built-in minimum interest rate guarantees, resulting in increased premium payments on products with flexible premium features and a higher percentage of insurance policies remaining in force year-to-year. The majority of assets backing the insurance liabilities are invested in fixed-income securities.

Aegon manages its investments and derivative portfolio, considering a variety of factors, including the relationship between the expected duration of its assets and liabilities. However, if interest rates remain low, the yield earned upon reinvesting interest payments from current investments, or from their sale or maturation, may decline. Reinvestment at lower yields may reduce the spread between interest earned on investments and interest credited to some of Aegon's products and accordingly net income may decline. In addition, borrowers may prepay or redeem fixed maturity investments or mortgage loans in Aegon's investment portfolio in order to borrow at lower rates. Aegon can lower crediting rates on certain products to offset the decrease in spread. However, its ability to lower these rates may be limited by contractually guaranteed minimum rates or competition.

Depending on economic developments, interest rates for securities with shorter maturities may remain at low or even negative levels for a prolonged period. In such an environment, an anchored expectation of low inflation or deflation could further push down the longer end of the interest rate curve which could have significant implications for Aegon's operations and financial results.

The profitability of Aegon's spread-based businesses depends in large part upon the ability to manage interest rate risk, credit spread risk and other risks inherent in the investment portfolio. Aegon may not be able to successfully manage interest rate risk, credit spread risk and other risks in the investment portfolio or the potential negative impact of those risks.

The sensitivity of Aegon's net income and shareholders' equity to a change in interest rates is provided in the notes to the consolidated statements, note 4 Financial risks, section 'Interest rate risk' of Aegon's Annual Report 2019.

Rapidly rising interest rates may adversely affect Aegon's profitability and available liquidity.

In periods of rapidly increasing interest rates, policy loans, surrenders and withdrawals may and usually do increase. Premiums in flexible premium policies may decrease as policyholders seek investments with higher perceived returns. This activity may result in cash payments by Aegon requiring the sale of invested assets at a time when the prices of those assets are affected adversely by the increase in market interest rates. This may result in realized investment losses.

These cash payments to policyholders also result in a decrease in total invested assets and net income. Early withdrawals may also require accelerated amortization of DPAC, which in turn reduces net income. Hedging against interest rate movements may change these effects significantly.

In general, if interest rates rise, there will be unrealized losses on assets carried at fair value that will be recorded in other comprehensive income (available-for-sale investments) or as negative income (investments at fair value through profit or loss) under IFRS-EU. This is inconsistent with the IFRS-EU accounting on much of Aegon's liabilities, where corresponding economic gains from higher interest rates do not affect shareholders' equity or income in the shorter term. Over time, the short-term reduction in shareholders' equity and income due to rising interest rates would be offset in later years, all else being equal.

Increased withdrawals and the need to post margin in relation to interest rate swaps when rates rise rapidly will put a strain on Aegon's available liquidity. Aegon takes this risk into account in its liquidity risk strategy and stress test.

Credit and default risk

Declines in value and defaults in Aegon's debt securities, private placements and mortgage loan portfolios held in Aegon's general and separate accounts, or the failure of certain counterparties, may adversely affect Aegon's profitability and shareholders' equity.

Credit risk is the risk of loss resulting from the default by, or failure to meet contractual obligations of, issuers and counterparties. Aegon also considers credit risk to include spread risk, that is, the value of a bond declines due to a general widening of credit spreads. For general account products, Aegon typically bears the risk for investment performance equaling the return of principal and interest. Aegon is exposed to credit risk on its general account fixed-income portfolio (debt securities, mortgages, small and medium sized entities (SME) & consumer loans and private placements), over-the-counter (OTC) derivatives and reinsurance contracts. In addition, financial institutions acting as a counterparty on derivatives may not fulfill their obligations. Default by issuers and counterparties on their financial obligations may be due to, among other things, bankruptcy, lack of liquidity, market downturns or operational failures, and the collateral or security they provide may prove inadequate to cover their obligations at the time of the default. Losses in excess of predicted losses due to any such default or series of defaults by issuers or counterparties may have a material adverse effect on Aegon's results of operations and financial position.

Additionally, Aegon is indirectly exposed to credit risk on the investment portfolios underlying separate account liabilities. Changes to credit risk can result in separate account losses, which increase the probability of future loss events. In the United States and the Netherlands separate account products can include guarantees which protect policyholders against some or all of the downside risks in their separate account portfolio. Reduced separate account values also decrease fee income and may accelerate deferred policy acquisition costs (DPAC) amortization. Reconsideration of assumptions might also affect the DPAC amortization schedule. These factors may have a material adverse effect on Aegon's results of operations and financial position.

Aegon's investment portfolio contains, among other investments, Dutch government bonds, US Treasury, agency and state bonds, other government issued securities and corporate bonds. Especially in a weak economic environment Aegon may incur significant investment impairments due to defaults and overall declines in the capital markets. Further, excessive defaults or other reductions in the value of these securities and loans may have a materially adverse effect on Aegon's businesses, results of operations, cash flows and financial condition.

A downturn in the real estate market may adversely impact valuations and cash flows.

Aegon's investment portfolio has a large exposure to the residential real estate market in the Netherlands through the residential mortgages sourced by Aegon and the AMVEST funds. Non market impacts assumed by Aegon the Netherlands include lower illiquid returns and lower margin forfeited due to higher prepayment in the mortgage portfolio in the event of lower interest rates, where higher prepayments results in market value losses and lower reinvestment yields. Furthermore, a general downturn in the real-estate

market can not only lead to lower valuation of assets and increased payment defaults, but also detrimentally affect the cash-flows of the company's illiquid strategy including AMVEST, which is exposed to the Dutch residential rental market.

The default of a major market participant may disrupt the markets and may affect Aegon's business, financial condition, liquidity, operations and prospects.

The failure of a sufficiently large and influential financial institution, or other market participant including a government issuer, may disrupt securities markets or clearing and settlement systems in Aegon's markets. This may cause market declines or volatility. Such a failure may lead to a chain of defaults that may adversely affect Aegon and Aegon's contract counterparties. In addition, such a failure may impact future product sales as a potential result of reduced confidence in the insurance industry. The default of one or more large international financial institutions, which may result in disruption or termination of their cash, custodial and/or administrative services, may also have a material adverse impact on Aegon's ability to run effective treasury and asset management operations.

Even the perceived lack of creditworthiness of a government or financial institution (or a default by any such entity) may lead to market-wide liquidity problems and losses or defaults by Aegon or by other institutions. This risk is sometimes referred to as 'systemic risk' and may adversely affect financial intermediaries, such as clearing members or futures commissions merchants, clearing houses, banks, securities firms and exchanges with which Aegon interacts on a daily basis and financial instruments of governments which Aegon invests in. Systemic risk could have a material adverse effect on Aegon's ability to raise new funding and on its business, financial condition, results of operations, liquidity and/or prospects. In addition, such distress or failure could impact future product sales as a potential result of reduced confidence in the financial services industry.

Reinsurers to which Aegon has ceded risk may fail to meet their obligations.

Aegon's insurance subsidiaries cede premiums to other insurers under various agreements that cover individual risks, group risks or defined blocks of business, on a co-insurance, yearly renewable term, excess or catastrophe excess basis. The purpose of these reinsurance agreements is to spread the risk and minimize the effect of losses. The amount of each risk retained depends on an evaluation of the specific risk, which is subject, in certain circumstances, to maximum limits based on the characteristics of coverage. Under the terms of the reinsurance agreements, the reinsurer agrees to reimburse for the ceded amount in the event a covered claim is paid. However, Aegon's insurance subsidiaries remain liable to their policyholders for ceded insurance if any reinsurer fails to meet the obligations assumed by it. A bankruptcy or insolvency or inability of any of Aegon's reinsurance counterparties to satisfy its obligations may have a materially adverse effect on Aegon's financial position and results of operations. Refer to Schedule IV of Aegon's Annual Report 2019 for a table showing life insurance in force amounts and premiums on a direct, assumed and ceded basis.

A downgrade in Aegon's ratings may increase policy surrenders and withdrawals, adversely affect relationships with distributors, and negatively affect Aegon's results.

Claims-paying ability and financial strength ratings are factors in establishing the competitive position of insurers. A rating downgrade (or a change in outlook indicating the potential for such a downgrade) of Aegon or any of its rated insurance subsidiaries may, among other things, materially increase the number of policy surrenders and withdrawals by policyholders of cash values from their policies.

These withdrawals may require the sale of invested assets, including illiquid assets, at a price that may result in realized investment losses. These cash payments to policyholders would result in a decrease in total invested assets and a decrease in net income. Among other things, early withdrawals may also cause Aegon to accelerate amortization of deferred policy acquisition costs (DPAC), reducing net income.

Aegon has experienced downgrades and negative changes to its outlook in the past, and may experience rating and outlook changes in the future. A downgrade or potential downgrade, including changes in outlook, may result in higher funding costs and/or affect the availability of funding in the capital markets. In addition, a downgrade may adversely affect relationships with broker-dealers, banks, agents, wholesalers and other distributors of Aegon's products and services, which may negatively impact new sales and adversely affect Aegon's ability to compete. A downgrade of Aegon's credit ratings will have an effect of increased fees on credit facilities and may result in higher funding costs on future long-term debt funding transactions and may affect its ability to obtain reinsurance contracts at reasonable prices or at all.

Aegon cannot predict what actions rating agencies may take, or what actions Aegon may take in response to the actions of rating agencies. As with other companies in the financial services industry, Aegon's ratings may be downgraded at any time and without notice by any rating agency.

Equity risk

A decline in equity markets may adversely affect Aegon's profitability and shareholders' equity, sales of savings and investment products, and the amount of assets under management.

Aegon and its customers run the risk that the market value of its equity investments declines. Exposure to equity markets exists in both assets and liabilities. Asset exposure exists through direct equity investment where Aegon bears all or most of the volatility in returns and investment performance risk. Equity market exposure is also present in policyholders' accounts for insurance and investment contracts (such as variable annuities, unit-linked products and mutual funds) where funds are invested in equities. Although most of the risk remains with the policyholder, guarantees within certain products may transfer some or all of this risk to Aegon. Lower investment returns also reduce the asset management fee that Aegon earns on the asset balance in these products and prolonged investment under-performance may cause existing customers to withdraw funds and potential customers not to grant investment mandates.

Some of Aegon's insurance and investment contract businesses have minimum return or accumulation guarantees, which require Aegon to establish reserves to fund these future guaranteed benefits when equity market returns do not meet or exceed these guarantee levels. Aegon's reported results under International Financial Reporting Standards as adopted by the European Union (IFRS-EU), are also at risk if returns are not sufficient to allow amortization of DPAC, which may impact the reported net income as well as shareholders' equity. Volatile or poor market conditions may also significantly reduce the demand for some of Aegon's savings and investment products, which may lead to lower sales and net income.

Currency risk

Fluctuations in currency exchange rates may affect Aegon's reported results of operations.

As an international group, Aegon is subject to foreign currency translation risk. Foreign currency exposure also exists when policies are denominated in currencies other than Aegon's functional currency. Currency risk in the investment portfolios backing insurance and investment liabilities are managed using asset liability matching principles. Assets allocated to equity are kept in local currencies to the extent shareholders' equity is required to satisfy regulatory and Aegon's self-imposed capital requirements. Therefore, currency exchange rate fluctuations may affect the level of Aegon's consolidated shareholders' equity as a result of translation of the equity of Aegon's subsidiaries into euro, Aegon's reporting currency. Aegon holds the remainder of its capital base (capital securities, subordinated and senior debt) in various currencies in amounts that are targeted to correspond to the book value of Aegon's business units. This balancing is intended to mitigate currency translation impacts on equity and leverage ratios. Aegon may also hedge the foreign exchange component of expected dividends from its principal business units that maintain their equity in currencies other than the euro.

To the extent the foreign exchange component of expected dividends is not hedged or actual dividends vary from expected, Aegon's net income and shareholders' equity may fluctuate. As Aegon has significant business segments in the Americas and in the United Kingdom, the principal sources of exposure from currency fluctuations are from the differences between the US dollar and the euro and between the UK pound and the euro. Aegon may experience significant changes in net income and shareholders' equity because of these fluctuations.

The sensitivity of Aegon's net income and shareholders' equity to foreign exchange translation risk is provided in the notes to the financial statements, note 4 Financial risks, section 'Currency exchange risks' of Aegon's Annual Report 2019.

Hedging risk

Aegon may be unable to manage Aegon's risks successfully through derivatives.

Aegon is exposed to changes in the fair value of its investments, the impact of interest rate, equity markets and credit spread changes, currency fluctuations and changes in mortality and longevity. Aegon uses common financial derivative instruments, such as swaps, options, futures and forward contracts to hedge some of the exposures related to both investments backing insurance products and Company borrowings. Aegon may not be able to manage the risks associated with these activities successfully through the use of derivatives. In addition, a counterparty may fail to honor the terms of its derivatives contracts with Aegon. Clearing members and clearing houses may terminate their derivatives contracts with Aegon. Aegon's inability to manage risks successfully through

derivatives, a counterparty's failure to honor Aegon's obligations or the systemic risk that failure is transmitted from counterparty to counterparty may each have a material adverse effect on Aegon's businesses, results of operations and financial condition.

Aegon uses the London Clearing House (LCH) as a central counterparty to clear most of its derivatives transactions. In December 2018, the European Commission declared the system of supervision in the United Kingdom to be equivalent to that of the European Union for 12 months following Brexit. If following this period LCH has not been granted recognition as a third country central counterparty by the European Securities Market Authority (ESMA), new and existing derivatives cleared through LCH and executed by EU27 entities, may not comply with EMIR regulations. If this situation materializes then it is possible that existing trades will have to be terminated and replaced by new trades to be cleared by an authorized clearing house located in the EU27. This could lead to additional costs and may impair the effectiveness of Aegon's hedging programs.

Risks relating to Aegon's common shares

Aegon's share price could be volatile and could drop unexpectedly, and investors may not be able to resell Aegon's common shares at or above the price paid.

The price at which Aegon's common shares trade is influenced by many factors, some of which are specific to Aegon and Aegon's operations, and some of which are related to the insurance industry and equity markets in general. As a result of these factors, investors may not be able to resell their common shares at or above the price paid for them. In particular, the following factors, in addition to other risk factors described in this section, may have a material impact on the market price of Aegon's common shares:

- Investor perception of Aegon as a company;
- Actual or anticipated fluctuations in Aegon's revenues or operating results;
- Announcements of intended acquisitions, disposals or financings, or speculation about such acquisitions, disposals or financings;
- Changes in Aegon's dividend policy, which may result from changes in Aegon's cash flow and capital position;
- Sales of blocks of Aegon's shares by significant shareholders, including Vereniging Aegon;
- A downgrade or rumored downgrade of Aegon's credit or financial strength ratings, including placement on credit watch;
- Potential litigation or regulatory actions involving Aegon or the insurance industry in general;
- Changes in financial estimates and recommendations by securities research analysts;
- Fluctuations in capital markets, including foreign exchange rates, interest rates and equity markets;
- The performance of other companies in the insurance sector;
- Regulatory developments in the United States, the Netherlands, the United Kingdom, and other countries in which Aegon operates;
- International political and economic conditions, including the effects of terrorist attacks, military operations and other developments stemming from such events, and the uncertainty related to these developments;
- News or analyst reports related to markets or industries in which Aegon operates; and
- General insurance market conditions.

Aegon and its significant shareholders may offer additional common shares in the future, and these and other sales may adversely affect the market price of the outstanding common shares.

Aegon may decide to offer additional common shares in the future, for example, to strengthen Aegon's capital position in response to regulatory changes or to support an acquisition.

An additional offering of common shares by Aegon, the restructuring of Aegon's share capital, the sales of common shares by significant shareholders, or the public perception that an offering or such sales may occur, may have an adverse effect on the market price of Aegon's common shares.

Vereniging Aegon, Aegon's major shareholder, holds a large percentage of the voting shares and therefore has significant influence over Aegon's corporate actions.

Vereniging Aegon holds 32.6% of the voting shares. For details on the shareholding of Vereniging Aegon its developments, the Amended 1983 Merger Agreement and the Voting Rights Agreement – please see the section Major shareholders on pages 338-340.

Following the 1983 Amended Merger Agreement between Aegon N.V. and Vereniging Aegon Vereniging Aegon has a call option on common shares B. which Vereniging Aegon may exercise to keep or restore its total stake at 32.6%, irrespective of the circumstances which cause the total shareholding to be or become lower than 32.6%.

As a matter of Dutch corporate law, common shares and common shares B offer equal full voting rights, as they have equal nominal values (EUR 0.12). The financial rights attached to a common share B are 1/40th of the financial rights attached to a common share. The Voting Rights Agreement between Aegon N.V. and Vereniging Aegon ensures that under normal circumstances, i.e. except in the event of a Special Cause, Vereniging Aegon will no longer be able to exercise more votes than is proportionate to the financial rights represented by its shares. This means that in the absence of a Special Cause Vereniging Aegon will cast one vote for every common share it holds and one vote only for every 40 common shares B. It is at the sole discretion of Vereniging Aegon if a Special Cause has occurred. A Special Cause includes the acquisition of a 15% interest in Aegon N.V., a tender offer for Aegon N.V. shares or a proposed business combination by any person or group or persons, whether individually or as a group, other than in a transaction approved by the Executive Board and the Supervisory Board. In the event of a Special Cause, Vereniging Aegon's voting rights will increase to 32.6% for up to six months. Consequently, Vereniging Aegon may have substantial influence on the outcome of corporate actions requiring shareholder approval.

Currency fluctuations may adversely affect the trading prices of Aegon's common shares and the value of any cash distributions made.

Since Aegon's common shares listed on Euronext Amsterdam are quoted in euros and Aegon's common shares listed on NYSE New York are quoted in US dollars, fluctuations in exchange rates between the euro and the US dollar may affect the value of Aegon's common shares. In addition, Aegon declares cash dividends in euros, but pays cash dividends, if any, on Aegon's shares of New York registry in US dollars based on an exchange rate set the business day following the shareholder meeting approving the dividend. As a result, fluctuations in exchange rates may affect the US dollar value of any cash dividends paid.

Perpetual Contingent Convertible Securities (or other securities that permit or require Aegon to satisfy its obligations by issuing common shares) that Aegon may issue could influence the market price for Aegon's common shares.

In April 2019 Aegon issued EUR 500 million Perpetual Contingent Convertible Securities ("PCCS"). Upon the occurrence of a conversion trigger event the PCCS will be converted into common shares of the Company at the prevailing conversion price. A conversion trigger event shall occur if at any time: (i) the amount of eligible own funds items eligible to cover the Solvency Capital Requirement is equal to or less than 75 per cent. of the Solvency Capital Requirement; (ii) the amount of own fund items eligible to cover the Minimum capital requirement is equal to or less than the Minimum Capital Requirement; or (iii) in case the Minimum Capital Requirement is an event, such event occurs; or (iv) a breach of the Solvency Capital Requirement has occurred and such breach has not been remedied within a period of three months from the date on which the breach was first observed. The conversion price was set at EUR 2.994 per common share and will be adjusted upon occurrence of dilutive events like stock splits, extra ordinary dividend or stock dividend, rights issues and others. A reduction of the conversion price will result in an increase in the number of common shares to be issued.

The PCCS and other convertible securities may influence the market for Aegon's common shares. For example, the price of Aegon's common shares may become more volatile and may be depressed by the issue of common shares upon conversion of the PCCS and/or any convertible securities or by the acceleration by investors of any convertible securities (or other such securities) that Aegon may have issued. Negative price developments may also result from hedging or arbitrage trading activity by holders of such convertible securities that may develop involving such convertible securities (or other such securities) and Aegon's common shares. Any such developments may negatively affect the value of Aegon's common shares.

Underwriting risks

Pricing risk

Underwriting risk relates to the products sold by Aegon insurance entities. The underwriting process requires, among others, the setting of assumptions. Aegon's reported results of operations and financial condition may be affected by differences between actual claims experience and underwriting and reserve assumptions both due to incurred gains/losses and from potential changes in best estimate assumptions that are used to value insurance liabilities.

There is a risk that the pricing of Aegon's products turns out to be inadequate if the assumptions used for pricing do not materialize. Aegon's earnings depend significantly upon the extent to which actual claims experience is consistent with the assumptions used in setting the prices for Aegon's products and the extent to which the established technical provisions for insurance liabilities, both IFRS and Solvency II reporting, prove to be sufficient. If actual claims experience is less favorable than the underlying assumptions used in establishing such liabilities, Aegon's income would be reduced. Furthermore, if less favorable claims experience became sustained, Aegon may be required to change its best estimate assumptions with respect to future experience, potentially increasing the technical provisions for insurance liabilities, which may reduce Aegon's income and solvency ratio. In addition, certain acquisition costs related to the sale of new policies and the purchase of policies already in force have been recorded as assets on the balance sheet and are

being amortized into income over time. If the assumptions relating to the future profitability of these policies (such as future claims, investment income and expenses) are not realized, the amortization of these costs may be accelerated and may require write-offs should there be an expectation that the costs are not fully recoverable. This may have a materially adverse effect on Aegon's results of operations and financial condition.

Sources of underwriting risk include policyholder behavior (such as lapses or surrender of policies), policy claims (such as mortality and morbidity) and expenses. For some product lines, Aegon is at risk if policy lapses increase, as sometimes Aegon is unable to fully recover up-front sales expenses despite the presence of commission recoveries or surrender charges and fees. In addition, some policies have embedded options which at times are more valuable to the client if they stay (lower lapses) or leave (higher lapses), which may result in losses to Aegon's businesses. Aegon sells certain types of policies that are at risk if mortality or morbidity increases, such as term life insurance and accident insurance. Aegon also sells certain other types of policies, such as annuity products, that are at risk if mortality decreases (longevity risk). For example, certain current annuity products, as well as products sold in previous years, have seen their profitability deteriorate as longevity assumptions have been revised upward. If the trend toward increased longevity persists, Aegon's annuity products may continue to experience adverse effects due to longer expected benefit payment periods. Aegon is also at risk if expenses are higher than assumed.

The sensitivity of Aegon's net income and shareholders' equity to changes in various underwriting risks is provided in the notes to the consolidated financial statements, note 34 'Insurance contracts' of Aegon's Annual Report 2019.

Valuation of Aegon's investments, allowances and impairments is subjective, and discrepant valuations may adversely affect Aegon's results of operations and financial condition.

The valuation of many of Aegon's financial instruments is based on methodologies, estimations and assumptions that are subject to different interpretations. Changes to investment valuations may have a materially adverse effect on Aegon's results of operations and financial condition. In addition, the determination of the amount of allowances and impairments taken on certain investments and other assets is subjective and based on assumptions, estimations and judgments that may not reflect or correspond to Aegon's actual experience any of which may materially impact Aegon's results of operations or financial position.

Among other things, changes in assumptions, estimations, judgments or in actual experience may require Aegon to accelerate the amortization of DPAC and value of business acquired, establish a valuation allowance against deferred income tax assets, or to recognize impairment of other assets, any of which may materially adversely affect Aegon's results and financial condition.

Certain of Aegon's products have guarantees that may adversely affect its results, financial condition or liquidity.

Certain products, particularly Aegon's variable annuity products and defined benefit pension business in the Netherlands, include death benefit guarantees, guarantees of minimum surrender values or income streams for stated periods or for life, which may be in excess of account values. These guarantees are designed, among other things, to protect policyholders against downturns in equity markets and interest rates. As a result, a drop in the value of underlying assets or more volatile markets could result in an increase in the valuation of Aegon's liabilities associated with these products. An increase in these liabilities may decrease its net income. Aegon uses a variety of hedging and risk management strategies to mitigate these risks. However, these strategies may not be fully effective.

Restrictions on underwriting criteria and the use of data may affect Aegon's ability to do business, its financial position or financial results.

Some countries impose restrictions on particular underwriting criteria, such as gender, or use of genetic test results, for determination of premiums and benefits of insurance products. To date, Aegon has not observed negative financial or business impact due to these restrictions. However, future restrictions could adversely impact Aegon's operations or financial results. Further developments in underwriting, such as automation and use of additional data, may also be affected by future regulatory developments regarding privacy and use of personal data.

Product development risk

Aegon regularly develops new financial products to remain competitive in its markets and to meet the expectations of its customers. If customers do not achieve expected returns on those products, Aegon may be confronted with litigation and negative publicity.

Aegon may face law suits from customers and experience negative publicity if Aegon's products result in losses or fail to result in expected gains, regardless of the suitability of products for customers or the adequacy of the disclosure provided to customers by Aegon and by the intermediaries who distribute Aegon's products. New products that are less well understood and that have less of a historical performance track record may be more likely to be the subject of such litigations. Any such litigations may have a materially adverse effect on Aegon's results of operations, corporate reputation and financial condition.

Reinsurance risk

Reinsurance may not be available, affordable or adequate to protect Aegon against losses.

As part of Aegon's overall risk and capital management strategy, Aegon purchases reinsurance for certain risks underwritten by Aegon's various business segments. Market conditions beyond Aegon's control determine the availability and cost of the reinsurance protection Aegon purchases. In addition, interpretations of terms and conditions may differ over time from anticipated coverage as contracts extend for decades, which may lead to denials of coverage and potentially protracted litigation, the eventual outcome of which may be uncertain.

Catastrophe risk

Catastrophic events, which are unpredictable by nature, may result in material losses and abruptly and significantly interrupt Aegon's business activities.

Aegon's operating results and financial position may be adversely affected by volatile natural and man-made disasters such as hurricanes, windstorms, earthquakes, terrorism, riots, fires and explosions, and other catastrophes. Over the past several years, changing weather patterns and climatic conditions have added to the unpredictability and frequency of natural disasters in certain parts of the world and created additional uncertainty as to future trends and exposure. Aegon is also exposed to the risk of a pandemic (such as Asian Flu, SARs or COVID-19) occurring in one of the countries in which Aegon operates or globally. Generally, Aegon seeks to reduce its exposure to these events through individual risk selection, monitoring risk accumulation, and purchasing reinsurance, as well as strong health and safety practices to protect employees. However, such events may lead to considerable financial losses to Aegon's businesses. These catastrophic events may also lead to adverse market movements which increase the adverse impacts on Aegon's financial position. Furthermore, natural disasters, pandemics, terrorism, civil unrest, military actions and fires may disrupt Aegon's operations and result in significant loss of property, key personnel and information about Aegon and its clients. If its business continuity plans have not included effective and sufficient contingencies for such events, Aegon may experience business disruption and damage to corporate reputation and financial condition for a substantial period of time.

Operational risks

Business risk

Competitive factors may adversely affect Aegon's market share.

Competition in Aegon's business segments is based on service, product features, price, commission structure, financial strength, claims paying ability, ratings and name recognition. Aegon faces intense competition from a large number of other insurers, as well as non-insurance financial services companies such as banks, broker-dealers and asset managers, for individual customers, employers, other group customers, agents and other distributors of insurance and investment products. Consolidation in the global financial services industry can enhance the competitive position of some of Aegon's competitors by broadening the range of their products and services, and increasing their distribution channels and their access to capital. In addition, development of alternative distribution channels for certain types of insurance and securities products, including using digital technologies and platforms, may result in increasing competition as well as pressure on margins for certain types of products. Traditional distribution channels are also challenged by the ban on sales-based commissions in some countries. These competitive pressures may result in increased pricing pressures on a number of products and services, particularly as competitors seek to win market share. This may harm Aegon's ability to maintain or increase profitability.

Adverse market and economic conditions can be expected to result in changes in the competitive landscape. Financial distress experienced by financial services industry participants as a result of weak economic conditions and newly imposed regulation may lead to acquisition opportunities. Aegon's ability or that of Aegon's competitors to pursue such opportunities may be limited due to lower

earnings, reserve increases, capital requirements or a lack of access to debt capital markets and other sources of financing. Such conditions may also lead to changes by Aegon or Aegon's competitors in product offerings and product pricing that may affect Aegon and Aegon's relative sales volumes, market shares and profitability. Additionally, the competitive landscape in which Aegon operates may be affected by government-sponsored programs or actions taken in response to, for instance, dislocations in financial markets.

Aegon may have difficulty managing its expanding operations, and Aegon may not be successful in acquiring new businesses or divesting existing operations.

In recent years, Aegon has made a number of acquisitions and divestitures around the world and it is possible that Aegon may make further acquisitions and divestitures in the future. Growth by acquisition involves risks that may adversely affect Aegon's operating results and financial condition. These include: the potential diversion of financial and management resources from existing operations; difficulties in assimilating the operations, technologies, products and personnel of the acquired company; significant delays in completing the integration of acquired companies; the potential loss of key employees or customers of the acquired company; potential losses from unanticipated litigation and tax and accounting issues. In addition, expansion into new and emerging markets may involve heightened political, legal and regulatory risks, such as discriminatory regulation, nationalization or expropriation of assets, price controls and exchange controls.

Aegon's acquisitions may result in additional indebtedness, costs, contingent liabilities and impairment expenses related to goodwill and other intangible assets. Divestitures of existing operations may result in Aegon assuming or retaining certain contingent liabilities. Aegon may not be able to divest assets within the time or at the price planned. All of these factors may adversely affect Aegon's businesses, results of operations and financial condition. Future acquisitions may also have a dilutive effect on the ownership and voting percentages of existing shareholders. There can be no assurance that Aegon will successfully identify suitable acquisition candidates or that Aegon will properly value acquisitions made. Aegon is unable to predict whether or when any prospective acquisition candidate will become available, or the likelihood that any acquisition will be completed once negotiations have commenced.

Aegon may experience difficulties in distributing and marketing products through its current and future distribution channels.

Although Aegon distributes its products through a wide variety of distribution channels, Aegon's ability to market its products could be affected if key relationships are interrupted. Distributors may elect to reduce or terminate their distribution relationship with Aegon due to adverse developments in its business. Further, key distribution partners may also merge, change their business models in ways that affect how Aegon's products are sold, or new distribution channels could emerge and adversely impact the effectiveness of its current distribution efforts.

When Aegon's products are distributed through unaffiliated firms, Aegon may not always be able to monitor or control the manner of their distribution despite its significant training and compliance programs. If Aegon's products would be distributed by such firms in an inappropriate manner, or to customers for whom they are unsuitable, Aegon may suffer reputational and other harm to its business.

Aegon may be unable to adapt to and apply new technologies.

New technologies are transforming the insurance industry. New technologies include, but are not limited to, communication channels, automation, artificial intelligence, data analytics and blockchain. These technologies are changing the way insurance is distributed and sold. They are also changing the way insurers manage their businesses and the skills they need in their workforces. Furthermore, the new technologies are influencing customer and consumer demands. Technology makes it easier to move into new markets. This increases competition, not just among peers, but also from new competitors and disruptors. Inability to adapt quickly enough to and apply these new technologies may impact Aegon's competitive position, and its ability to maintain profitability, and may adversely affect Aegon's future financial condition and results of operations.

Aegon may not be successful in managing its exposure to climate risk and adequately adapting investment portfolios for the transition to a low-carbon economy.

Climate change is a long-term risk associated with high uncertainty regarding timing, scope and severity of potential impacts. Climate risks can be grouped into physical risks and transition risks. Physical risks relate to losses from overall climate changes (i.e. changing weather patterns and sea level rise) and acute climate events (i.e. extreme weather and natural disasters). These physical risks impact property & casualty (P&C) insurance, but also life insurance, for instance through higher than expected mortality rates. Losses can also follow from credit risk and collateral linked to the mortgage portfolio. Aegon is exposed to mortality risk and mortgage underwriting

risks and has limited exposure to P&C risk, including catastrophic risk. Beyond insured losses, climate change may have disrupting and cascading effects on the wider economy. Transition risks are those arising from the shift to a low-carbon economy. These risks are a function of policy and regulatory uncertainty, including political, social and market dynamics and technological innovations. Transition risks can affect the value of assets and investments portfolios. Furthermore, it cannot be ruled out that Aegon itself is unable to adjust to environmental and sustainability goals. Linked to both the physical and the transition risks, there could also be litigation and reputational risks following from not fully considering or responding to the impacts of climate change, or not providing appropriate disclosure of current and future risks. The risks can relate both to Aegon and the companies in which it invests.

Given the significant uncertainties related to climate change impacts and the long-term nature of the issue, it cannot be ruled out that climate change may lead to losses to Aegon's businesses, the investment portfolios it manages and to its corporate reputation. More details on Aegon's responsible investment and climate change activities can be found in the strategy and TCFD sections of this annual report.

Aegon's risk management policies and processes may leave the Company exposed to unidentified or unanticipated risk events, adversely affecting its businesses, results and financial condition.

Aegon has devoted significant resources to the implementation and maintenance of a comprehensive enterprise risk management framework in all aspects of the business. Nevertheless, its risk measurements make use of historic and public data that may be inaccurate or may not predict future exposures. Further, operational and legal risks involve high volumes of transactions and are affected by frequent changes in Aegon's businesses and their environments, and the risk management framework may not evolve at the same pace. As a result, there is a chance that risks present in its business strategies and initiatives may not be fully identified, monitored and managed.

Information technology risk

Failure of Aegon's information technology or communications systems may result in a material adverse effect on Aegon's results of operations and corporate reputation.

Any failure of or gap in the systems and processes necessary to support complex transactions and avoid systems failure, fraud, information security failures, processing errors, cyber intrusion, loss of data and breaches of regulation may lead to a materially adverse effect on Aegon's results of operations and corporate reputation. In addition, Aegon must commit significant resources to maintain and enhance its existing systems in order to keep pace with applicable regulatory requirements, industry standards and customer preferences. If Aegon fails to maintain secure and well-functioning information systems, Aegon may not be able to rely on information for product pricing, compliance obligations, risk management and underwriting decisions. In addition, Aegon cannot assure investors or consumers that interruptions, failures or breaches in security of these processes and systems will not occur, or if they do occur, that they can be timely detected and remediated. The occurrence of any of these events may have a materially adverse effect on Aegon's businesses, results of operations and financial condition.

A computer system failure or security breach may disrupt Aegon's business, damage Aegon's reputation and adversely affect Aegon's results of operations, financial condition and cash flows.

Aegon relies heavily on computer and information systems and internet and network connectivity to conduct a large portion of its business operations. This includes the need to securely store, process, transmit and dispose of confidential information, including personal information, through a number of complex systems. In many cases this also includes transmission and processing to or through commercial customers, business partners and third-party service providers. The introduction of new technologies, computer system failures, cyber-crime attacks or security or data privacy breaches may materially disrupt Aegon's business operations, damage Aegon's reputation, result in regulatory and litigation exposure, investigation and remediation costs, and materially and adversely affect Aegon's results of operations, financial condition and cash flows.

The information security risk that Aegon faces includes the risk of malicious outside forces using public networks and other methods, including social engineering and the exploitation of targeted offline processes, to attack Aegon's systems and information. It also includes inside threats, both malicious and accidental. For example, human error, unauthorized user activity and lack of sufficiently automated processing can result in improper information exposure or use. Aegon also faces risk in this area due to its reliance in many cases on third-party systems, all of which may face cyber and information security risks of their own. Third-party administrators or distribution partners used by Aegon or its subsidiaries may not adequately secure their own information systems and networks, or may not adequately keep pace with the dynamic changes in this area. Potential bad actors that target Aegon and its applicable third parties may include, but are not limited to, criminal organizations, foreign government bodies, political factions, and others.

In recent years information security risk has increased sharply due to a number of developments in how information systems are used by companies such as Aegon, but also by society in general. Threats have increased as criminals and other bad actors become more organized and employ more sophisticated techniques. At the same time companies increasingly make information systems and data available through the internet, mobile devices or other network connections to customers, employees and business partners, thereby expanding the attack surface that bad actors can exploit.

Large, global financial institutions such as Aegon have been, and will continue to be subject to information security attacks for the foreseeable future. The nature of these attacks will also continue to be unpredictable, and in many cases may arise from circumstances that are beyond Aegon's control. If Aegon fails to adequately invest in defensive infrastructure, timely response capabilities, technology and processes or to effectively execute against its information security strategy, it may suffer material adverse consequences.

To date the highest impact information security incidents that Aegon has experienced are believed to have been the result of e-mail phishing attacks targeted at Aegon's business partners and commercial customers. This in turn led to unauthorized use of valid Aegon website credentials to engage in fraudulent transactions and improper data exfiltration. Additionally, Aegon has also faced other types of attacks, including but not limited to other types of phishing attacks and distributed denial of service (DDoS) attacks, as well as certain limited cases of unauthorized internal user activity, including activity between different Aegon country units. Although to Aegon's knowledge these events have thus far not been material in nature, Aegon management recognizes the need to establish and maintain adequate information security systems that are capable of addressing the possibility of these types of attacks, as well as for the possibility of more significant and sophisticated information security attacks, in the future. There is no guarantee that the measures that Aegon takes will be sufficient to stop all types of attacks or mitigate all types of information security or data privacy risks.

Aegon maintains cyber liability insurance to help decrease the impact of cyber-attacks and information security events, subject to the terms and conditions of the policy, however such insurance may not be sufficient to cover all applicable losses that Aegon may suffer.

Modelling risk

Inaccuracies in econometric, financial or actuarial models, or differing interpretations of underlying methodologies, assumptions and estimates, could have a significant adverse effect on Aegon's business, results of operations and financial condition.

Aegon uses econometric, financial and actuarial models to measure and manage multiple types of risk, to price products and to establish and assess key valuations and report financial results. All these functions are critical to Aegon's operations. Aegon has a model risk management framework in place to manage modelling risk. If, despite this framework, models, their underlying methodologies, assumptions and estimates, or their implementation and monitoring prove to be inaccurate, this could have an adverse effect on Aegon's business, financial condition and results.

Many of Aegon's business units offer investment products that utilize quantitative models, algorithms or calculations that could experience errors or prove to be incorrect, incomplete or unsuccessful resulting in losses for clients who have invested in such products and possible regulatory actions and/or litigation against Aegon and/or its affiliates.

Aegon's business units may utilize quantitative models, algorithms or calculations (whether proprietary or supplied by third parties) (Models) or information or data supplied by third parties (Data) for the management of, or to assist in the management of, investment products offered to clients. Examples of such investment products include volatility controlled funds, mutual funds, separately managed accounts, and other types of advisory accounts. Models and Data are used to construct sets of transactions and investments, to provide risk management insights, and may be used to assist in hedging investments. If Models and Data prove to be incorrect or incomplete, any decisions made, in whole or part, in reliance thereon expose the investment product to additional risks. For example, by utilizing Models or Data, certain investments may be bought at prices that are too high, certain other investments may be sold at prices that are too low, or favorable opportunities may be missed altogether. Similarly, any hedging based on faulty Models and Data may prove to be unsuccessful. The applicable investment product bears the risk that Models or Data used will not be successful and the product may not achieve its investment objective.

Models can be predictive in nature. The use of predictive Models has inherent risks. For example, such Models may incorrectly forecast future behavior, leading to potential losses on a cash flow and/or a mark-to-market basis. In addition, in unforeseen or certain low-probability scenarios (often involving a market disruption of some kind), such Models may produce unexpected results, which can result in losses for an investment product. Furthermore, the success of relying on or otherwise using Models depends on a

number of factors, including the validity, accuracy and completeness of the Model's development, implementation and maintenance, the Model's assumptions, factors, algorithms and methodologies, and the accuracy and reliability of the supplied historical or other Data.

Models rely on, among other things, correct and complete Data inputs. If incorrect Data is entered into even a well-founded Model, the resulting information will be incorrect. However, even if Data is input correctly, Model prices may differ substantially from market prices, especially for securities with complex characteristics. Investments selected with the use of Models may perform differently than expected as a result of the design of the Model, inputs into the Model or other factors. There can be no assurance that the use of Models will result in effective investment decisions for an investment product. Additionally, if investment products offered by Aegon's affiliates experience Model errors or use erroneous Data, this could result in regulatory actions and/or litigation brought against Aegon and/or its affiliates.

Third Party risk

Issues with third party providers (outsourcing partners and suppliers), including events such as bankruptcy, disruption of services, standards of service level agreements not upheld may adversely impact Aegon's operational effectiveness and financial condition

As Aegon continues to focus on reducing expenses necessary to support its business, a key part of its operating strategy has been to outsource certain services that are important to its business. Aegon outsources certain information technology, finance and actuarial services, investment management services and policy administration operations to third-party providers and may do so increasingly in the future. If Aegon fails to maintain an effective outsourcing strategy or if third-party providers do not provide the core administrative, operational, financial, and actuarial services Aegon requires and anticipates, or perform as contracted, such as compliance with applicable laws and regulations, or suffer an information security or data privacy breach, Aegon may not realize the productivity improvements or cost efficiencies or customers might experience lower service levels. In addition, Aegon may not be able to find an adequate alternate provider, and instead experience financial loss, reputational harm, operational difficulties, increased costs, a loss of business and other negative consequences, all of which could have a material adverse effect on Aegon's results of operations. In addition, Aegon's reliance on third-party providers does not relieve Aegon of its responsibilities and requirements. Any failure or negligence by such third-party providers in carrying out their contractual duties may result in Aegon being subjected to liability and litigation. Any litigation relating to such matters could be costly, time-consuming, and the outcome would be uncertain. Moreover, any adverse publicity arising from such litigation, even if the litigation is not successful, could adversely affect Aegon's reputation and distribution of its products. Finally, Aegon's ability to receive services from third-party providers based in different countries might be impacted by political instability, cultural differences, regulatory requirements or policies inside or outside of the countries within which Aegon has operations. As a result, Aegon's ability to conduct its business might be adversely affected.

Data privacy risk

A breach of data privacy or security obligations may disrupt Aegon's business, damage Aegon's reputation and adversely affect financial conditions and results of operations.

Pursuant to applicable laws, various government agencies and independent administrative bodies have established numerous rules protecting the privacy and security of personal information and other confidential information held by Aegon. For example, certain of our businesses are subject to laws and regulations enacted by US federal and state governments, the EU or other non-US jurisdictions and/or enacted by various regulatory organizations relating to the privacy and/or information security of the information of customers, employees or others. Effective May 25, 2018, the General Data Protection Regulation (GDPR) took effect in the EU. Compared to the previous directive, the GDPR, among other things, increased compliance obligations, impacted our businesses' collection, processing and retention of personal data, reporting of data breaches, and provides for significantly increased penalties for non-compliance. The New York Department of Finance Services (NYDFS), pursuant to its cybersecurity regulation, requires financial institutions regulated by the NYDFS, including certain Aegon subsidiaries, to, among other things, satisfy an extensive set of minimum information security requirements, including but not limited to governance, management, reporting, policy, technology and control requirements. Numerous other US laws also impose various information security and privacy related obligations with respect to various Aegon subsidiaries operating in the US, including but not limited to the Gramm-Leach-Bliley Act and related state laws (GLBA), the California Consumer Privacy Act (CCPA) and the Health Insurance Portability and Accountability Act (HIPAA), among many others. Other legislators and regulators with jurisdiction over our businesses are considering or have already enacted enhanced information security risk management and privacy rules and regulations. A number of Aegon's subsidiaries are also subject to contractual restrictions with respect to the information of our clients and business partners. Aegon, and numerous of its systems, employees and business partners have access to, and routinely process, the personal information of consumers and employees. Aegon relies on various processes and controls to protect the confidentiality, integrity and availability of personal information and

other confidential information that is accessible to, or in the possession of, Aegon, its systems, employees and business partners. It is possible that an Aegon employee, business partner or system could, intentionally or unintentionally, inappropriately disclose or misuse personal or confidential information. Aegon's data or data in its possession could also be the subject of an unauthorized information security attack. If Aegon fails to maintain adequate processes and controls or if Aegon or its business partners fail to comply with relevant laws and regulations, policies and procedures, misappropriation or intentional or unintentional inappropriate disclosure or misuse of personal information or other confidential information could occur. Such control inadequacies or non-compliance could cause disrupted operations and misstated or unreliable financial data, materially damage Aegon's reputation or lead to increased regulatory scrutiny or civil or criminal penalties or litigation, which, in turn, could have a material adverse effect on Aegon's business, financial condition and results of operations. In addition, Aegon analyses personal information and customer data to better manage its business, subject to applicable laws and regulations and other restrictions. It is possible that additional regulatory or other restrictions regarding the use of such techniques may be imposed. Additional privacy and information security obligations have been imposed by various governments with jurisdiction over Aegon or its subsidiaries in recent years, and more such obligations are likely to be imposed in the near future across Aegon's operations. Such restrictions and obligations could have material impacts on Aegon's business, financial conditions and/or results of operations.

People risk

Aegon may be unable to retain personnel who are key to the business.

As a global financial services enterprise, Aegon relies, to a considerable extent, on the quality of local management and personnel in the various countries in which Aegon operates. The success of Aegon's operations is dependent, among other things, on Aegon's ability to attract and retain highly qualified professional personnel. Competition for key personnel in most countries in which Aegon operates is intense. Aegon's ability to attract and retain key personnel, in particular senior officers, experienced portfolio managers, mutual fund managers and sales executives, is very much dependent on the competitiveness of the compensation package for employees in the market in which it competes. As a part of the governmental response in Europe and, to a certain extent, the United States to the financial crisis in 2008, there have been various legislative initiatives that have sought to give guidance or regulate the structure of remuneration for personnel, in particular senior management, with a focus on performance-related remuneration and limiting severance payments. With differences in interpretation of these regulations by local regulators on how the guidelines need to be applied, as well as to the question of whether they apply to insurance industries at all, these restrictions create an uncertain playing field and may adversely affect Aegon's ability to compete for qualified employees, as well as Aegon's ability to transfer employees between regions.

Political, Regulatory and Supervisory

Aegon may be required to increase its technical provisions and/or hold higher amounts of regulatory capital as a result of changes in the regulatory environment or changes in rating agency analysis, which may impact Aegon's financial position and/or decrease Aegon's returns on its products.

Prudential regulatory requirements such as with respect to the calculation of technical provisions, capital requirements, the eligibility of own funds as such and the regulatory treatment of investments may change, which could require Aegon to increase technical provisions, hold higher amounts of regulatory capital and subject it to more stringent requirements with respect to investments and/or own funds. Important examples include changes to applicable capital requirements by the European Union and/or EIOPA, the National Association of Insurance Commissioners (NAIC) in the US or US state regulators or local regulators in other jurisdictions in which Aegon's subsidiaries operate. Aegon cannot predict specific proposals that might be adopted, or what impact, if any, such proposals or, if enacted, such laws, may have on its businesses, results of operations, or financial condition.

Prudential regulatory requirements may not only apply to the individual entities in the Aegon Group but may additionally apply at Group level or apply to part of the Group. Consequently, those requirements may have different, and more or less meaningful, impact depending on their scope. Important examples of such requirements are Solvency II group supervision and consolidated requirements resulting from the Capital Requirements Directive (CRD) and the Capital Requirements Regulation (CRR), as applied to groups containing bank and/or asset management activities.

The way such requirements are applied to groups like Aegon has an impact on the Group's capital position, as well as on the availability of capital at a Group level. Changes to prudential regulatory requirements may have an impact on Aegon's competitive position versus companies that are not subject to these or similar requirements at Group level. As an example, as part of the Solvency II group calculation, Aegon applies a specific methodology for its US insurance and reinsurance subsidiaries at Group level, in addition to the requirements to which these subsidiaries are subject under their local prudential regime. This methodology is approved by Aegon's group supervisor, De Nederlandsche Bank N.V. (DNB), but remains subject to annual review. Changes to this methodology

might have an impact on Aegon's capital position, as calculated under Solvency II group requirements and/or the manner in which DNB otherwise exercises group supervision on Aegon, for example through more stringent requirements with respect to intra-group transactions, risk concentrations and reporting.

There are several important regulatory standards with respect to capital adequacy that apply to Aegon and are subject to change, which changes could impact Aegon's financial position and results:

- Capital adequacy requirements resulting from the further development of the Insurance Capital Standards (ICS), as part of the Common Framework for the Supervision of Internationally Active Insurance Groups (ComFrame), which may lead to regulations that could increase capital needs for Internationally Active Insurance Groups such as Aegon, and other requirements that would not be applicable to all (re)insurance companies and as a result distort a level playing field;
- A further review of the Solvency II framework, referred to as the Solvency II 2020 review that has recently commenced. EIOPA has recently published an extensive draft technical advice on a broad range of topics within the Solvency II framework, for consultation among stakeholders. The impact on Aegon's financial position and results depends on the final technical advice to the European Commission, and the extent to which the EIOPA advice will be taken over by the European Commission and the European co-legislators;
- The NAIC's requirements with respect to risk-based capital, the NAIC continues to review the risk-based capital (RBC) charges for invested assets. Additionally, the NAIC has an ongoing project to review longevity risk. These initiatives or other regulatory changes to capital factors may lead to higher risk-based charges. In addition, the NAIC formed the Group Capital Calculation (E) Working Group charged with constructing a US group capital calculation (GCC) using an RBC aggregation approach that would be used by regulators as a monitoring tool. The results of the GCC could impact the translation of RBC in the Group capital ratio for the United States; and
- US state insurance regulators' perspectives on the use and value of captive insurance companies. Aegon utilizes affiliated captive insurance companies to manage risks of various insurance policies issued before the adoption of principle-based reserves, including universal life with secondary guarantees and level term life insurance. These structures have been utilized to finance certain regulatory reserves at a lower cost. To the extent that state insurance regulations restrict or require insurers to restate the valuation of the assets used to finance these structures, this could increase costs or reduce capital.

In addition to requirements imposed by regulatory and/or supervisory authorities, rating agencies may incorporate higher capital thresholds into their quantitative analyses, thus requiring additional capital for Aegon's regulated subsidiaries for Aegon Group and/or its regulated subsidiaries to maintain their desired credit ratings.

The application of these capital standards and changes thereto could adversely affect Aegon's ability to compete with other insurers that are not subject to those capital requirements. These requirements may also lead Aegon to engage in transactions that affect capital and constrain Aegon's ability to pay dividends or repurchase its own shares. Furthermore, such requirements may constrain Aegon's ability to provide guarantees and may increase the cost to Aegon of offering certain products, resulting in price increases, discontinuance of offering of certain products or reducing the amount of risk Aegon takes on. Aegon may consider structural and other business alternatives in light of requirements or standards applicable with respect to systemic entities or activities, of which the impact on shareholders cannot be predicted. For further detail on developments in these areas, we refer to the section "Regulation and supervision" of Aegon's Integrated Annual Report 2019.

Changes in accounting standards may affect Aegon's reported results, shareholders' equity and dividend.

Aegon's financial statements are prepared and presented in accordance with IFRS-EU. Any future changes in these accounting standards may have a significant impact on Aegon's reported results, financial condition, shareholders' equity and dividend. This includes the level and volatility of reported results and shareholders' equity. New accounting standards that are likely to have a significant impact on Aegon's reported results, financial condition and shareholders' equity include, but are not limited to, IFRS 9 – Financial Instruments and IFRS 17 – Insurance Contracts.

The IASB issued the complete version of IFRS 9 Financial Instruments in July 2014, which was endorsed by the European Union in November 2016. The IASB issued IFRS 17 Insurance Contracts in May 2017. The Standard will replace IFRS 4, which was intended as an interim solution and allowed insurers to continue to use accounting principles that they had applied prior to the initial adoption of IFRS. In November 2018, the IASB agreed to start the process to amend IFRS 17 to defer the mandatory effective date of IFRS 17 by one year (original effective date was January 1, 2021). Subject to IASB due process, entities will be required to apply IFRS 17 for annual periods beginning on or after January 1, 2022. As a consequence of the IFRS 17 deferral, the IASB also agreed to revise the fixed expiry date of the temporary exemption from IFRS 9 in IFRS 4 to allow entities to continue applying the temporary exemption from IFRS 9 until January 1, 2022. As this decision is still subject to IASB due process, this could lead to another year of deferral.

An implementation project was started soon after the publication of the new Standard. Currently no choices have been made as to the accounting policy options provided in IFRS 17, however, it is expected that the impact of the initial application on Aegon's financial statements is significant.

Further details are provided in the notes to the consolidated financial statements, note 2 'Summary of significant accounting policies'.

Local statutes and regulators may limit the amount of dividends paid by Aegon's subsidiaries to Aegon N.V., thereby limiting Aegon's ability to make payments on debt obligations.

Aegon's ability to make payments on debt obligations and pay operating expenses is dependent upon the receipt of dividends from subsidiaries. Some of these subsidiaries are subject to regulatory restrictions that can limit the payment of dividends. In addition, local regulators, may decide to impose further restrictions to dividend payments, which may affect Aegon's ability to satisfy its debt obligations or pay its operating expenses.

Risks of application of intervention measures may adversely affect Aegon's business, results of operations and financial position.

The Dutch Act on Recovery & Resolution for Insurers ('R&R Act') allows DNB to intervene in situations where a Dutch insurer or reinsurer is faced with financial difficulties. The powers under the R&R Act may also extend to the level of the Group and to entities, other than insurance or reinsurance entities in the Netherlands, which are part of the Group, such as Aegon N.V.

In addition, the R&R Act allows DNB to require a Dutch insurance or reinsurance company or a group to remove, ex ante, material impediments to effective resolution of a Dutch insurance or reinsurance undertaking (such as the revision of financing arrangements, the reduction of exposures, the transfer of assets, the termination or limitation of business activities, or the prohibition to start certain business activities, change the legal or operational structure of the Group, or securing certain critical business lines). The use of this tool may adversely affect Aegon's business, results of operations and financial position.

Furthermore, to parts of the Aegon Group, in particular Aegon Bank N.V., the framework of the EU Directive on the recovery and resolution of credit institutions and investments firms (the 'Bank Recovery and Resolution Directive') is applicable. The Bank Recovery and Resolution Directive contains provisions that, in certain specific circumstances, where both Aegon Bank N.V. and Aegon N.V. fail or are likely to fail, could be applied to mixed financial holding companies such as Aegon N.V., including the right of bail-in of creditors.

Lastly, when the stability of the financial system is threatened by the situation of a financial institution the Dutch Minister of Finance may intervene immediately, in which case legal or statutory provisions, applicable to the financial institution, might be surpassed. The intervention measures available to the Minister of Finance include, in particular, the right to expropriate assets of the financial institution, as well as securities and/or other financial instruments issued by or with the cooperation of the financial instruments. The exercise of this power may significantly impact the rights of the owners or holders of these assets, securities and/or financial instruments.

There is a risk that the possible exercise of powers, or any perceived exercise of powers, by DNB or the Ministry of Finance could have a material adverse effect on the performance by the failing institution, including Aegon, of its obligations (of payment or otherwise) under contracts of any form, including the expropriation, write-off, write-down or conversion of securities such as shares and debt obligations issued by the failing institution. The R&R Act and the regime of the Bank Recovery and Resolution Directive are described in more detail in the section 'Regulation and supervision' of Aegon's Integrated Annual Report 2019.

The United Kingdom (UK) leaving the European Union ('Brexit') may affect Aegon's results and financial condition.

Since January 31, 2020, the United Kingdom is no longer a member of the European Union. It is currently uncertain if the UK and EU will succeed in reaching an agreement on the future trade relationship before December 31, 2020, and if they do, what that relationship would look like. This means that the implications of 'Brexit' remain unclear, with respect to the European integration process, the relationship between the UK and the European Union, and the impact on economies and businesses. Aegon has assessed possible outcomes, the risks and prepared possible contingency measures, including in particular, related to a hard Brexit (no-deal) scenario. Despite these efforts, Aegon could be adversely impacted by unexpected developments and market developments such as increased exchange rate movements of the UK pound versus the euro and higher financial market volatility in general due to increased uncertainty, any of which could reduce the value or results of Aegon's operations. Aegon could also be adversely impacted

should 'Brexit' result in the UK moving away from agreed and implemented EU legislation like, but not limited to, Solvency II regulations and financial services legislation.

Legal and Compliance

Legal and arbitration proceedings and regulatory investigations and actions may adversely affect Aegon's business, results of operations and financial position.

Aegon faces significant risks of litigation as well as regulatory investigations and actions relating to its and its subsidiaries' businesses as well as Aegon's compliance with regulations applicable to it as a corporate entity.

Insurance companies and their affiliated regulated entities are routinely the subject of litigation, investigation and regulatory activity by various governmental and enforcement authorities, individual claimants and policyholder advocate groups in the jurisdictions in which Aegon does business, including the United States, the Netherlands, and the United Kingdom. These actions may involve issues including, but not limited to, employment or distribution relationships; operational and internal controls and processes; investment returns; sales practices; transparency and adequacy of product disclosures including regarding initial costs, ongoing costs, and costs due on policy surrender as well as changes to costs over time; environmental and climate change related matters; competition and antitrust matters; data privacy; information security; intellectual property; and anti-money laundering, anti-bribery and economic sanctions compliance.

Government and regulatory investigations may result in the institution of administrative, injunctive or other proceedings and/or the imposition of monetary fines, penalties and/or disgorgement as well as other remedies, sanctions, damages and restitutionary amounts. Regulators may also seek changes to the way Aegon operates. In some cases, Aegon subsidiaries have modified business practices in response to inquiries.

Customers of certain of Aegon's products bear significant investment risks with respect to those products, which are affected by fluctuations in equity markets as well as interest rate movements. When investment returns disappoint, are volatile, or change due to changes in the market or other relevant conditions, customers may threaten or bring litigation against Aegon.

The existence of potential claims may remain unknown for long periods of time after the events giving rise to such claims. Determining the likelihood of exposure to Aegon and the extent of any such exposure may not be possible for long periods of time after Aegon becomes aware of such potential claims. Litigation exposure as well may develop over long periods of time; once litigation is initiated, it may be protracted and subject to multiple levels of appeal, which can lead to significant costs of defense, distraction, and other constraints.

In some jurisdictions, plaintiffs may seek recovery of very large or indeterminate amounts under claims of bad faith, which can result in tort, punitive and/or statutory damages. Damages alleged may not be quantifiable or supportable or may have no relationship to economic losses or final awards. As a result, Aegon cannot predict the effect of litigation, investigations or other actions on its businesses.

Separate from financial loss, litigation, regulatory action, legislative changes or changes in public opinion may require Aegon to change its business practices, which could have a material adverse impact on Aegon's businesses, results of operations, cash flows and financial position. Disputes and investigations initiated by governmental entities and private parties may lead to orders or settlements, including payments or changes to business practices, even if Aegon believes the underlying claims are without merit.

Several US insurers, including Aegon subsidiaries, have been named in class actions, as well as individual litigation, relating to increases in monthly deduction rates (MDR) on universal life products. Plaintiffs generally allege that the increases were made to recoup past losses rather than to cover the future costs of providing insurance coverage. In one such class action against an Aegon subsidiary pending in the US federal district court for the Central District of California, which arose from increases implemented in 2015-2016, the parties agreed to settle the case. In January 2019, the court approved the settlement. While less than 1% of policyholders opted out of the settlement, they represent approximately 43% of the value of the settlement fund. The individual opt out cases and disputes are on-going. Resolution of this class action ended a number of other related cases, including other related class actions. In addition, Aegon's subsidiary is facing class action and individual lawsuits arising out of MDR increases implemented in 2017-2018. In the only individual case against Aegon's subsidiary to reach trial (in 2017), a jury found that a 2013 increase to a certain group of policies was improper. That case is on appeal.

In addition, insurance companies and their affiliated regulated entities may face lawsuits that threaten their business models. For example, several US-based Aegon subsidiaries are defendants in a class action alleging that the business model improperly characterizes distributors as independent contractors instead of employees. Depending on the outcome, this lawsuit, along with similar claims against other companies, as well as regulatory action, could necessitate a change in the business model and/or could result in a significant settlement or judgment.

In the Netherlands, unit linked products (beleggingsverzekeringen) have been controversial and the target of litigation since 2005. Allegations include excessive cost, unfair terms, inadequate disclosure, and failure to perform as illustrated. Consumer groups have formed to address these issues and initiate mass claims against insurers. Regulators as well as the Dutch Parliament have been involved ever since, with the principal goal of achieving an equitable resolution. Aegon has made improvements across its product lines, including after settlements reached in 2009 with Stichting Woekerpolis and Stichting Verliespolis. Aegon also decided to reduce future policy costs for the large majority of its unit-linked portfolio. Some of the unit linked products are still involved in ongoing litigation. In September 2014, consumer interest group Vereniging Woekerpolis.nl filed a claim against Aegon in court. The claim related to a range of unit linked products that Aegon sold in the past, including Aegon products involved in the earlier litigation. In June 2017, the court issued a verdict which upheld the principle that disclosures must be evaluated according to the standards at the time when the relevant products were placed in-force. Most of the claims of Vereniging Woekerpolis.nl were dismissed under this standard, although the court found that Aegon did not adequately disclose certain charges on a limited set of policies. The district court did not decide on the reasonableness of the cost levels and whether the previous compensation arrangements provide sufficient compensation. This court decision has been appealed by both parties. Aegon expects the claims and litigation, whether collective or on an individual basis and in court or through alternative dispute resolution mechanisms, on unit linked products to continue for the foreseeable future. Developments in similar cases against other Dutch insurers currently before regulators and courts may also affect Aegon.

Lawsuits have also been brought against providers of securities leasing products (aandelenlease producten). Although sales of securities leasing products ended more than a decade ago, litigation relating to these products has resurfaced. In 2016, the Dutch Supreme Court ruled on a case involving a securities leasing product sold by one of Aegon's competitors. It decided that the financial institution was liable if a broker (remisier) that advised on the sale of the institution's products, was not properly licensed. It also upheld the ruling of the Court of Appeals that a higher compensation might be payable in those circumstances, regardless of the financial position of the customer at the time of entering into the securities leasing contract. In July 2016, consumer interest group Stichting Platform Aandelenlease filed a mass claim against Aegon Bank regarding securities leasing product Sprintplan. Allegations include, among other things, a lack of a proper license of the brokers involved. In October 2017, the district court of The Hague ruled in favor of Aegon that the Sprintplan liability had been conclusively determined in earlier proceedings and there were no grounds to hold further collective proceedings. The plaintiff appealed. In February 2020, the Court of Appeal rejected all claims filed by platform Aandelenlease against Aegon Bank. Platform Aandelenlease may appeal in cassation against this ruling.

In the Netherlands Aegon is also involved in claims for compensation and the cancellation or nullification of contracts concerning the Vliegwiël product, a variation on securities leasing products (without a built-in guarantee) of which a total of 63,000 contracts have been offered by an Aegon subsidiary in the Netherlands in the period between 1997 and 2002. All Vliegwiël contracts have expired. Currently, proceedings are pending before the Dutch courts and the Complaint Institute for Financial Services ('Klachteninstituut Financiële Dienstverlening'), with numerous cases having been initiated by Leaseproces B.V., a company that represents a large number of claimants.

There can be no assurances that these matters will not ultimately result in a material adverse effect on Aegon's business, results of operations, competitive position, reputation, and financial position. For additional information on proceedings in which Aegon is involved, refer to the notes to the consolidated financial statements, note 45 'Commitments and contingencies' of Aegon's Integrated Annual Report 2019.

Changes in government regulations in the countries in which Aegon operates may affect profitability.

Aegon's regulated businesses, such as insurance, banking and asset management, are subject to comprehensive regulation and supervision. The primary purpose of such regulation is to protect clients of these operating companies (e.g. policyholders), rather than holders of Aegon shares, capital securities and debt instruments. Changes in existing laws and regulations may affect the way in which Aegon conducts its businesses, the profitability of its businesses and the products it offers. Additionally, the laws or regulations adopted or amended from time to time may impose greater restrictions on Aegon's financial flexibility and operations or may result in higher costs to operate than currently is the case, including but not limited to financial and accounting requirements; information security, data privacy, transfer, storage, and usage requirements; modeling and other actuarial requirements and standards; investments, reserves, and financial management.

Aegon may not be able to comply fully with, or obtain appropriate exemptions from, the wide variety of laws and regulations applicable to its businesses and legal entities. Failure to comply with or to obtain appropriate exemptions under any applicable laws and regulations may result in restrictions on Aegon's ability to do business in one or more of the jurisdictions in which Aegon operates and may result in fines and other sanctions, which may have a materially adverse effect on Aegon's businesses, financial position or results of operations.

Certain key regulatory proposals that could materially impact Aegon's financial condition and results of operations are described below.

Regulatory changes include preventive and corrective supervisory measures that aim to address macro-prudential concerns, referred to in the Holistic Framework for Systemic Risk in the Insurance Sector, as adopted by the IAIS in November 2019. Aegon was designated a Global Systemically Important Insurer (G-SII) by the FSB in 2015. The FSB, in consultation with the IAIS, has decided to suspend G-SII identification as from the beginning of 2020 and in November 2022 will, based on the initial years of implementation of the holistic framework, review the need either to discontinue or re-establish an annual identification of G-SIIs.

In addition, the ComFrame, which was adopted in November 2019 by the IAIS, establishes minimum supervisory standards and guidance on the effective group-wide supervision of Internationally Active Insurance Groups (IAIGs) and builds on the IAIS Insurance Core Principles (a set of principles that is applicable to all insurers). Therefore, IAIGs may be subject to additional standards that other insurers or other insurance groups are not subject to.

The development of ComFrame and the holistic framework may cause Aegon to engage in transactions that affect capital or constrain Aegon's ability to pay dividends or repurchase its own shares. Furthermore, such requirements may constrain Aegon's ability to provide guarantees and increase the cost to Aegon of offering certain products resulting in price increases, discontinuance of offering of certain products or reducing the amount of risk Aegon takes on. Aegon may consider structural and other business alternatives in light of requirements or standards applicable with respect to systemic entities or activities, of which the impact on shareholders cannot be predicted.

In the United States, the Patient Protection and Affordable Care Act (PPACA) adopted in 2010 has been challenged in whole or in part since its adoption. Changes to the PPACA and to other laws and regulations impacting the US health insurance industry could have a material effect on Aegon's financial condition, results of operations, and competitive position. The extent to which employers or individuals may discontinue their purchase of supplemental health insurance products as a result of any such changes may significantly impact Aegon USA's supplemental health insurance products business. The extent of any such changes or the corresponding impact on Aegon USA's supplemental health insurance business cannot be determined at this time.

On June 5, 2019, the SEC adopted Regulation Best Interest (Regulation BI), a new rule requiring broker-dealers and investment advisers to only recommend financial products to their customers that are in their customers best interest, and to clearly identify any potential conflicts of interest and financial incentives the broker-dealer may have in connection with the sale of such products. In addition, since the Department of Labor (DOL) Fiduciary Rule was vacated in July 2018, several states have moved forward with developing their own similar rules and proposals, which in some instances substantially broaden the standard of care traditionally owed by broker-dealers and/or insurance agents to their clients.

The foregoing regulations and proposed regulations, along with any future regulations by the states that impose new, heightened, conflicting or differing standards of care or restrictions on broker-dealers, insurance agents, or advisers, could have a material impact on annuity sales and, as applicable, life insurance sales.

Changes in pension and employee benefit regulation, social security regulation, financial services regulation, taxation and the regulation of securities products and transactions may adversely affect Aegon's ability to sell new policies or claims exposure on existing policies.

The introduction of state-run retirement programs for private-sector employees in the United States could directly compete with private-market retirement plans. More than 30 US states have considered legislation that would establish state-run plans but fewer than 10 states have enacted legislation, and among those, even fewer have actually implemented them. Federal ERISA law raises questions as to whether such plans are pre-empted by ERISA.

In general, changes in laws and regulations may materially increase Aegon's direct and indirect compliance costs and other ongoing business expenses and have a materially adverse effect on Aegon's businesses, results of operations or financial condition.

Tax risks may adversely affect Aegon's businesses and profitability.

Aegon is subject to the substance and interpretation of tax laws in all countries in which Aegon operates or invests. The majority of tax risks relate to both Aegon's products and its businesses, that would materialise due to changes in (i) tax laws, (ii) interpretation of tax laws, (iii) later jurisprudence or case law, or (iv) the introduction of new taxes or tax laws. These tax risks include for example the risk of changes in tax rates, changes in loss carry-over rules and changes in customer taxation rules.

Tax risks also include the risk of consequences arising from failure to comply with procedures required by tax authorities. Failure to manage compliance tax risks potentially leads to inaccurate, incomplete or untimely tax returns. Materialisation of those risks would lead to non-compliance, and potentially increased tax charges, penalties and interest. Failure to manage reporting risks, may lead to tax positions in financial reporting that do not represent a true and fair view.

Most of Aegon's insurance products enjoy certain policy holder tax advantages. This permits, for example, the build-up of earnings on gross premium amounts with deferred taxation, if any, when the accumulated earnings are actually paid to our customers. Legislators have, from time to time, considered possible legislation that may make Aegon's products less attractive to consumers, including legislation that would reduce or eliminate this deferral of taxation. This may have an impact on insurance products and sales.

With regard to the before described compliance and reporting tax risks, controls are in place to mitigate the risk exposure. The risk response depends on the type of risk, likelihood and impact analysis and chance of repetition and reputation damage. Controls are assessed on design and operational effectiveness (Risk Control Self-Assessment).

Overall, tax risks may have a materially adverse effect on Aegon's businesses, profits, capital and financial condition.

Judgments of US courts may not be enforceable against Aegon in Dutch courts.

There is no treaty between the United States and the Netherlands providing for the reciprocal recognition and enforcement of judgments (other than arbitration awards) in civil and commercial matters. Judgments of US courts, including those predicated on the civil liability provisions of the US federal securities laws, may not be enforceable in Dutch courts. Therefore, Aegon's investors that obtain a judgment against Aegon in the United States may not be able to require Aegon to pay the amount of the judgment unless a competent court in the Netherlands gives binding effect to the judgment, or, if possible, the US investor has brought a successful original action in a Dutch court.

Aegon may not manage risks associated with the reform and replacement of benchmark rates effectively.

Aegon recognizes that the reform of IBORs (Interbank Offered Rates) and any transition to replacement rates entail risks for all our businesses across our assets and liabilities. These includes, but are not limited to:

- Legal risks, as Aegon is required to make changes to documentation for new and existing transactions, such as funding instruments issued with an IBOR reference and derivatives held with an IBOR reference;
- Financial risks, arising from any changes in the valuation of financial instruments linked to benchmark rates, such as derivatives and floating rate notes, issued by, or invested in by Aegon;
- Pricing risks, as changes to benchmark indices could impact pricing mechanisms on some funding instruments or investments;
- Operational risks, due to the potential requirement to adapt informational technology systems, trade reporting infrastructure and operational processes; and
- Conduct risks, relating to communication with potential impact on Aegon's customers, and engagement during the transition period.

Various supranational institutions, central banks, regulators, benchmark administrators and industry working groups play a role in the benchmark reform and the preparation for the replacement of IBORs. At this moment there is still a lot of uncertainty around liquidity development, and the timetable and mechanisms for implementation, including application of spread adjustments to the alternative reference rates. Accordingly, it is not currently possible to determine whether, or to what extent, any such changes would affect Aegon. However, the implementation of alternative reference rates may have a material adverse effect on Aegon's business, financial condition, customers and operations.

Aegon may not be able to protect its intellectual property and may be subject to infringement claims.

Aegon relies on a combination of contractual rights with third parties and copyright, trademark, patent and trade secret laws to establish and protect Aegon's intellectual property. Third parties may infringe on or misappropriate Aegon's intellectual property, and it is possible that third parties may claim that Aegon has infringed on or misappropriated their intellectual property rights. Any resulting proceedings in which Aegon would have to enforce and protect its intellectual property or defend itself against a claim of infringement of a third-party's intellectual property, may require significant effort and resources and may not prove successful. As a result of any proceeding in which Aegon would have to enforce and protect its intellectual property, Aegon may lose intellectual property protection, which may have a materially adverse effect on Aegon's businesses, results of operations, financial condition and Aegon's ability to compete. As a result of any proceeding in which Aegon would have to defend itself against a claim of infringement of a third-party's intellectual property, Aegon may be required to pay damages and provide injunctive relief, which may have a materially adverse effect on Aegon's businesses, results of operations and financial condition.

Compliance with regulations

Iran Threat Reduction and Syria Human Rights Act

Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012 requires Aegon to disclose whether Aegon N.V. or any of its affiliates has engaged during the calendar year in certain Iran-related activities, including any transaction or dealing with the Government of Iran that is not conducted pursuant to a specific authorization of the U.S. government. The amounts in this section are reported in EUR 1 or GBP 1.

In the UK and the Netherlands, Aegon maintained a limited number of plans that are reportable under Section 219. The non-US based subsidiaries of Aegon N.V. do operate in compliance with applicable laws and regulations of the jurisdictions where they conduct business.

Aegon UK has six UK resident customers who have one active Individual Pension Plan (IPP) and are UK-based employees of a British registered charity that appears on the Specially Designated Nationals (SDN) List with the identifier Specially Designated Global Terrorist (SDGT); the charity made contributions to the pensions. The customers are not SDNs; the charity does not own, benefit from, or have control over the pensions. All payments have been paid in UK Pounds from a UK bank account. The pensions are managed in line with applicable legislation and regulation in the UK and the charity is not subject to sanctions in the UK or EU. The relationships are under close ongoing review. IPP #1 has a value of GBP 14,268 as at February 5, 2020, and regular monthly contributions of GBP 69.41 are being received into this policy. IPP #2 has a value of GBP 5,948 as at February 5, 2020, and regular monthly contributions of GBP 18.61 are being received. IPP #3 has a value of GBP 244,158 as at February 5, 2020, and regular monthly contributions of GBP 527.91 are being received. IPP #4 has a value of GBP 11,218 as at February 5, 2020, and no further contributions are being received. IPP #5 has a value of GBP 51,746 as at February 5, 2020, and no further contributions are being received. IPP #6 has a current value of GBP 10,580 as at February 5, 2020, and no further contributions are being received. The related annual net profit arising from these contracts, which is difficult to calculate with precision, is estimated to be no greater than GBP 10,130.

In the Netherlands, Aegon Levensverzekering N.V. has one Dutch resident customer who is a party subject to US sanctions for whom two active IPPs and one individual life investment linked insurance policy are held. This person is on the Foreign Sanctions Evaders List ('FSE List') with Regard to Syria and is listed on the SDN and Blocked Persons List. The FSE List includes persons sanctioned pursuant to E.O. 13608 and are identified with the program tags [FSE-IR] and [FSE-SY]. The customer is not subject to sanctions in the Netherlands or EU.

IPP #1 and #2 are lifelong annuity plans which start at the retirement age of 65 (January 2023). The annual pensions benefits as of January 1, 2023 for policy #1 will be EUR 560.64 gross per year and for #2 EUR 34.11 gross per year. The contributions into these policies ended in the 1980's. The related annual net profit arising from these two contracts is negligible.

The individual life investment linked insurance policy has a value of EUR 68,505 as of January 1, 2020, and regular monthly contributions of EUR 198.60 are being received; all contributions have been paid in Euros from a Dutch bank account. The policy is managed in line with applicable legislation and regulation in the Netherlands; the individual is not subject to sanctions in the Netherlands or EU. The end date of this policy is February 1, 2023. The related annual net profit arising from this contract, which is difficult to calculate with precision, is estimated to be EUR 500 per year.

Property, plant and equipment

Aegon owns 10 offices located throughout the United States with a total square footage of 1.2 million. Aegon also leases space for various offices located throughout the United States under long-term leases with a total square footage of 1.3 million. Aegon's principal offices in the United States are located in Denver, CO; Cedar Rapids, IA; Atlanta, GA; Baltimore, MD; Harrison, NY, and Plano, TX.

Other principal offices owned by Aegon are located in The Hague, the Netherlands and Budapest, Hungary. Aegon owns its headquarters and leases other offices in the Netherlands (Amsterdam, Leeuwarden and Groningen), in the United Kingdom and in Spain under long-term leases. Aegon believes that its properties are adequate to meet its current needs.

The offer and listing

The principal market for Aegon's common shares is Euronext Amsterdam, where they are listed under the symbol 'AGN'. Aegon's common shares are also listed on NYSE New York under the symbol 'AEG'. Aegon's common shares B are not listed to trade on any securities market.

On Euronext Amsterdam only Euronext registered shares may be traded, and on NYSE New York only New York Registry Shares may be traded.

Material contracts

There are no material contracts.

Exchange controls

There are no legislative or other legal provisions currently in force in the Netherlands or arising under Aegon's Articles of Association restricting remittances to holders of Aegon's securities that are not resident in the Netherlands. Cash dividends payable in euros on Aegon's common shares may be officially transferred from the Netherlands and converted into any other convertible currency.

Employees and labor relations

At the end of 2019, Aegon had 23,757 employees. Approximately 36% are employed in the Americas, 38% in Europe, 19% in Asia and 6% in Asset Management. Note that employees of the Holding are included in Europe.

All of Aegon's employees in the Netherlands, other than senior management, are covered by the collective labor agreement of Aegon NL. Aegon, the unions and the Dutch Central Works Council are working closely together in the co-creation steering group to come to new agreements. The current collective labor agreement has a duration of two years. Aegon has experienced no significant strike, work stoppage or labor dispute in recent years.

Under Dutch law, members of the Central Works Council responsible for Aegon in the Netherlands are elected by Aegon the Netherlands' employees. The Central Works Council has certain defined powers at the level of the Dutch subsidiary company Aegon Nederland N.V., including the right to make non-binding recommendations for appointments to its Supervisory Board and the right to enter objections against proposals for appointments to that Supervisory Board.

A break-down of the number of employees is provided below:

	2019	2018	2017
Americas	8,570	8,824	10,951
The Netherlands	3,998	3,938	3,460
United Kingdom	2,261	3,135	3,435
Southern and Eastern Europe	2,853	2,837	2,947
Asia	4,540	6,344	6,025
Asset Management	1,535	1,464	1,500
	23,757	26,543	28,318
Of which Aegon's share of employees in joint ventures and associates	5,162	6,854	6,497

See note 14 Commissions and expenses of the Notes to the consolidated financial statements of this Annual Report for a description of employee expenses.

Dividend policy

Under Dutch law and Aegon's articles of association, holders of Aegon's common shares are entitled to dividends paid out of the profits remaining, if any, after the creation of a reserve account. Aegon's Executive Board may determine the dividend payment date and the dividend record date for the common shares, which may vary for the various kinds of registered shares. Aegon's Executive Board, with the approval of Aegon's Supervisory Board, may also determine the currency or currencies in which the dividends will be paid. Aegon may make one or more interim distributions to the holders of common shares.

Aegon aims to pay out a sustainable dividend to allow equity investors to share in Aegon's performance, which can grow over time if Aegon's performance so allows. After investment in new business to generate organic growth, capital generation in Aegon's operating subsidiaries is available for distribution to the holding company, while maintaining a capital and liquidity position in the operating subsidiaries in line with Aegon's capital management and liquidity risk policies.

Aegon uses cash flows from its operating subsidiaries to pay holding expenses, including funding costs. The remaining cash flow is available to execute Aegon's strategy and to fund dividends on its shares, subject to maintaining holding company targeted capital. Depending on circumstances, future prospects and other considerations, Aegon's Executive Board may elect to deviate from this target. Aegon's Executive Board will also take capital position, financial flexibility, leverage ratios and strategic considerations into account when declaring or proposing dividends on common shares.

Under normal circumstances, Aegon would expect to declare an interim dividend when announcing Aegon's first half year results and to propose a final dividend at the Annual General Meeting of Shareholders for approval. Dividends would normally be paid in cash or stock at the election of the shareholder. The relative value of cash and stock dividends may vary. Stock dividends paid may, subject to capital management and other considerations, be repurchased in order to limit dilution.

When determining whether to declare or propose a dividend, Aegon's Executive Board has to balance prudence versus offering an attractive return to shareholders, for example in adverse economic and/or financial market conditions. Also, Aegon's operating subsidiaries are subject to local insurance regulations which could restrict dividends to be paid to the Company. There is no requirement or assurance that Aegon will declare and pay any dividends.

Holders of common shares historically have been permitted to elect to receive dividends, if any, in cash or in common shares. For dividends, which holders may elect to receive in either cash or common shares, the value of the stock alternative may differ slightly from the value of the cash option. Aegon pays cash dividends on shares of New York registry in US dollars through Citibank, N.A., Aegon's NYSE paying agent, based on the foreign exchange reference rate (WM/Reuters closing spot exchange rate fixed at 5.00 pm Central European Summer Time ('CEST')) on the US-ex dividend day.

Memorandum and Articles of Association

Aegon is registered under number 27076669 in the Commercial Register of the Chamber of Commerce and Industries for Haaglanden, The Hague, the Netherlands.

Certain provisions of Aegon's current Articles of Association are discussed below.

Objects and purposes

- The objects of Aegon are to incorporate, acquire and alienate shares and interests in, to finance and grant security for commitments of, to enter into general business relationships with, and to manage and grant services to legal entities and other entities, in particular those involved in the insurance business, and to do all that is connected therewith or which may be conducive thereto, all to be interpreted in the broadest sense; and
- In achieving the aforesaid objects due regard shall be taken, within the scope of sound business operations, to provide fair safeguards for the interests of all the parties directly or indirectly involved in Aegon.

Provisions related to directors

For information with respect to provisions in the Articles of Association relating to members of the Supervisory Board and Executive Board, refer to the Governance section (see pages 36-40).

Description of Aegon's capital stock

Aegon has two types of shares: common shares (par value EUR 0.12) and common shares B (par value EUR 0.12).

Common characteristics of the common shares and common shares B

- All shares are in registered form;
- All shares have dividend rights except for those shares (if any) held by Aegon as treasury stock. Dividends which have not been claimed within five years lapse to Aegon;
- Each currently outstanding share is entitled to one vote except for shares held by Aegon as treasury stock. There are no upward restrictions;
- However, under normal circumstances, i.e. except in the event of a Special Cause, based on the Voting Rights Agreement¹, Vereniging Aegon will no longer be able to exercise more votes than is proportionate to the financial rights represented by its shares. This means that in the absence of a Special Cause, Vereniging Aegon may cast one vote for every common share it holds and one vote only for every 40 common shares B it holds. As Special Cause qualifies the acquisition of a 15% interest in Aegon N.V., a tender offer for Aegon N.V. shares or a proposed business combination by any person or group of persons, whether individually or as a group, other than in a transaction approved by the Executive Board and the Supervisory Board. If, in its sole discretion, Vereniging Aegon determines that a Special Cause has occurred, Vereniging Aegon will notify the General Meeting of Shareholders and retain its right to exercise the full voting power of one vote per common share B for a limited period of six months;
- All shares have the right to participate in Aegon's net profits. Net profits is the amount of profits after contributions, if any, to a reserve account;
- In the event of liquidation, all shares have the right to participate in any remaining balance after settlement of all debts;
- The General Meeting of Shareholders may, at the proposal of the Executive Board, as approved by the Supervisory Board, resolve to reduce the outstanding capital either by (i) repurchasing shares and subsequently canceling them, or (ii) by reducing their nominal share value;
- There are no sinking fund provisions;
- All issued shares are fully paid-up; so there is no liability for further capital calls; and
- There are no provisions discriminating against any existing or prospective holder of shares as a result of such shareholder owning a substantial number of shares.

Differences between common shares and common shares B

- The common shares are listed; the common shares B are not listed;
- The financial rights attaching to a common share B are one-fortieth (1/40th) of the financial rights attaching to a common share; and
- A repayment on common shares B needs approval of the holders of common shares B.
- A transfer of common shares B requires approval of the Supervisory Board of Aegon N.V.

¹ The Voting Rights Agreement is published on Aegon's corporate website.

Actions necessary to change the rights of shareholders

A change to the rights of shareholders would require an amendment to the Articles of Association. The General Meeting of Shareholders (Annual General Meeting or Extraordinary General Meeting) may only pass a resolution to amend the Articles of Association pursuant to a proposal of the Executive Board with the approval of the Supervisory Board. The resolution requires a majority of the votes cast at the meeting in order to pass. The actual changes to the text of the Articles of Association will be executed by a civil law notary.

Furthermore, a resolution of the General Meeting of Shareholders to amend the Articles of Association which has the effect of reducing the rights attributable to holders of a specific class shall be subject to the approval of the meeting of holders of such class.

Conditions under which meetings are held

Annual General Meetings and Extraordinary General Meetings of Shareholders shall be convened by public notice. Notice must be given no later than 42 days prior to the date of the meeting. The notice must contain a summary agenda and indicate the place where the complete agenda together with the documents pertaining to the agenda may be obtained. The agenda is also sent to shareholders registered with the Company Register. New York Registry shareholders or their brokers receive a proxy solicitation notice.

For admittance to and voting at the meeting, shareholders must produce evidence of their shareholding as of the record date. The Dutch law determines that the record date is 28 days prior to the General Meeting of Shareholders. Shareholders must notify Aegon of their intention to attend the meeting.

Limitation on the right to own securities

There are no limitations, either under the laws of the Netherlands or in Aegon's Articles of Association, on the rights of non-residents of the Netherlands to hold or vote Aegon common shares or common shares B.

Provisions that would have the effect of delaying a change of control

A resolution of the General Meeting of Shareholders to suspend or dismiss a member of the Executive Board or a member of the Supervisory Board, other than pursuant to a proposal by the Supervisory Board, shall require at least two-thirds of the votes cast representing more than one-half of the issued capital.

In the event a Special Cause occurs (such as the acquisition of 15% of Aegon's voting shares, a tender offer for Aegon's shares or a proposed business combination by any person or group of persons, whether individually or as a group, other than in a transaction approved by the Executive Board and Supervisory Board), Vereniging Aegon will be entitled to exercise its full voting rights of one vote per each common share B for up to six months per Special Cause, thus increasing its current voting rights to 32.6%.

Threshold above which shareholder ownership must be disclosed

There are no such provisions in the Articles of Association. Dutch law requires public disclosure with the Authority for Financial Markets with respect to the ownership of listed shares when the following thresholds are met: 3%, 5%, 10%, 15%, 20%, 25%, 30%, 40%, 50%, 60%, 75% and 95%.

Material differences between Dutch law and US law with respect to the items above

Reference is made to the paragraph 'Differences between Dutch and US company laws' included in the Corporate Governance section of this Annual Report (see page 40).

Special conditions governing changes in the capital

There are no conditions more stringent than what is required by law.

Taxation

This chapter contains the following two sections:

- i Dutch tax consequences to holders of shares
- ii United States tax consequences to holders of shares

i Dutch tax consequences to holders of shares

The following section outlines certain material Dutch tax consequences of the acquisition, holding, redemption and disposal of Aegon common shares, but does not purport to be a comprehensive description of all Dutch tax considerations that may be relevant. This section is intended as general information only and each prospective investor should consult a professional tax advisor with respect to the tax consequences of an investment in Aegon common shares.

This section is based on tax legislation, published case law, treaties, regulations and published policy, in each case as in force as of the date hereof, and it does not take into account any developments or amendments thereof after that date whether or not such developments or amendments have retroactive effect.

This section does not address the Dutch corporate and individual income tax consequences for:

- i. Investment institutions (*fiscale beleggingsinstellingen*).
- ii. Pension funds, exempt investment institutions (*vrijgestelde beleggingsinstellingen*) or other entities that are exempt from Dutch corporate income tax.
- iii. Corporate holders of Aegon common shares, the shareholding of which qualifies for the participation exemption (*deelnemingsvrijstelling*) of the Dutch Corporate Income Tax Act 1969 (*Wet op de vennootschapsbelasting 1969*) or would qualify for the participation exemption had the corporate holders of the Aegon common shares been resident in the Netherlands. Generally speaking, a shareholding is considered to qualify as a participation for the participation exemption if it represents an interest of 5% or more of the nominal paid-up share capital.
- iv. Holders of Aegon common shares holding a substantial interest (*aanmerkelijk belang*) or deemed substantial interest (*fictief aanmerkelijk belang*) in Aegon and holders of Aegon common shares of whom a certain related person holds a substantial interest in Aegon. Generally speaking, a substantial interest in Aegon arises if a person, alone or, where such person is an individual, together with his or her partner (statutory defined term), directly or indirectly, holds or is deemed to hold (i) an interest of 5% or more of the total of capital issued by Aegon or 5% or more of the issued capital of a certain class of Aegon shares, (ii) rights to acquire, directly or indirectly, such interest or (iii) certain profit-sharing rights in Aegon.
- v. Persons to whom the Aegon common shares and the income from the Aegon common shares are attributed based on the separated private assets (*afgezonderd particulier vermogen*) provisions of the Dutch Income Tax Act 2001 (*Wet inkomstenbelasting 2001*).
- vi. Entities which are resident in Aruba, Curacao or Sint Maarten that have an enterprise which is carried on through a permanent establishment or a permanent representative on Bonaire, Sint Eustatius or Saba, to which permanent establishment or permanent representative the Aegon common shares are attributable.
- vii. Holders of Aegon common shares which are not considered the beneficial owner (*uiteindelijk gerechtigde*) of these shares or of the benefits derived from or realized in respect of the Aegon common shares.
- viii. Individuals to whom Aegon common shares or the income therefrom are attributable to employment activities which are taxed as employment income in the Netherlands.

Where this section refers to the Netherlands, such reference is restricted to the part of the Kingdom of the Netherlands that is situated in Europe and the legislation applicable in that part of the Kingdom.

Dividend withholding tax

Withholding requirement

Aegon is required to withhold 15% Dutch dividend withholding tax in respect of dividends paid on its common shares. Dutch dividend withholding tax will be withheld from the gross dividends paid on the Aegon common shares. In the Dutch Dividend Withholding Tax Act 1965 (*Wet op de dividendbelasting 1965*), dividends are defined as the proceeds from shares, which include:

- i. Direct or indirect distributions of profit, regardless of their name or form.
- ii. Liquidation proceeds, proceeds on redemption of Aegon common shares and, as a rule, the consideration for the repurchase of its own common shares by Aegon in excess of the average paid-in capital recognized for Dutch dividend withholding tax purposes, unless a particular statutory exemption applies.
- iii. The nominal value of new common shares issued to a holder of Aegon common shares or an increase of the nominal value of Aegon common shares, except insofar as the (increase in the) nominal value of Aegon common shares is funded out of its paid-in capital as recognized for Dutch dividend withholding tax purposes.

- iv. Partial repayments of paid-in capital recognized for Dutch dividend withholding tax purposes, if and to the extent there are qualifying profits (*zuivere winst*), unless Aegon's General Meeting of Shareholders has resolved in advance to make such repayment and provided that the nominal value of Aegon common shares concerned has been reduced by an equal amount by way of an amendment of the Articles of Association. The term 'qualifying profits' includes anticipated profits that have yet to be realized.

Residents of the Netherlands

If a holder of Aegon common shares is a resident, or deemed to be a resident of the Netherlands for Dutch corporate or individual income tax purposes, Dutch dividend withholding tax which is withheld with respect to proceeds from Aegon common shares will generally be creditable for Dutch corporate income tax or Dutch income tax purposes.

Non-residents of the Netherlands

If a holder of Aegon common shares is a resident of a country other than the Netherlands and if a treaty for the avoidance of double taxation with respect to taxes on income is in effect between the Netherlands and that country, and such holder is a resident for the purposes of such treaty, such holder may, depending on the specific terms of that particular treaty, qualify for full or partial relief at source or for a refund in whole or in part of the Dutch dividend withholding tax.

A refund of Dutch withholding dividend tax is available to an entity resident in another EU member state, Norway, Iceland, or Liechtenstein if:

- This entity is not subject to corporate income tax there;
- This entity would not be subject to Dutch corporate income tax, if this entity would be tax resident in the Netherlands for corporate income tax purposes; and
- This entity is not comparable to an investment institution (*fiscale beleggingsinstelling*) or exempt investment institution (*vrijgestelde beleggingsinstelling*).

Furthermore, a similar refund of Dutch dividend withholding tax may be available to an entity resident in another country, under the additional conditions that:

- The Aegon common shares are considered portfolio investments for purposes of article 63 (taking into account article 64) of the Treaty on the functioning of the European Union; and
- The Netherlands can exchange information with this other country in line with the international standards for the exchange of information.

A (partial) refund of Dutch dividend withholding tax is available to a holder of Aegon common shares resident in another EU member state, Norway, Iceland or Liechtenstein if:

- This holder of Aegon common shares is not subject to Dutch individual income tax or Dutch corporate income tax with respect to the income from the Aegon common shares;
- Such Dutch dividend withholding tax is higher than the Dutch individual income tax or Dutch corporate income tax would have been had this holder of Aegon common shares been tax resident in the Netherlands, after taking into account a possible refund based on the Dutch Dividend Withholding Tax Act 1965 or a refund based on a treaty for the avoidance of double taxation with respect to taxes on income;
- No credit based on a treaty for the avoidance of double taxation with respect to taxes on income is granted in the state in which the holder of Aegon common shares is tax resident, for the full amount of Dutch dividend withholding tax withheld; and
- This holder of Aegon common shares does not have a similar function as an investment institution (*fiscale beleggingsinstelling*) or exempt investment institution (*vrijgestelde beleggingsinstelling*).

Furthermore, a similar refund of Dutch dividend withholding tax may be available to a holder of Aegon common shares resident in another country, under the additional conditions that:

- The Aegon common shares are considered portfolio investments for purposes of article 63 (taking into account article 64) of the Treaty on the functioning of the European Union; and
- The Netherlands can exchange information with this other country in line with the international standards for the exchange of information.

US-residents

Residents of the United States that qualify for, and comply with the procedures for claiming benefits under the Convention between the Kingdom of the Netherlands and the United States of America for the avoidance of double taxation and the prevention of fiscal evasion with respect to taxes on income 1992 (the US/NL Income Tax Treaty) may, under various specified conditions, be eligible for a reduction of the Dutch dividend withholding tax rate from 15% to 5% if the resident of the United States is a company which

holds directly at least 10% of the voting power in Aegon. The US/NL Income Tax Treaty provides, subject to certain conditions, for a complete exemption from, or refund of, Dutch dividend withholding tax for dividends received by exempt pension trusts and exempt organizations, as defined therein.

Beneficial owner

A recipient of proceeds from Aegon common shares will not be entitled to any exemption, reduction, refund or credit of Dutch dividend withholding tax if such recipient is not considered to be the beneficial owner of such proceeds. The recipient will not be considered the beneficial owner of these proceeds, if, in connection with such proceeds, the recipient has paid a consideration as part of a series of transactions in respect of which it is likely:

- That the proceeds have in whole or in part accumulated, directly or indirectly, to a person or legal entity that would: (i) as opposed to the recipient paying the consideration, not be entitled to an exemption from dividend withholding tax; or (ii) in comparison to the recipient paying the consideration, to a lesser extent be entitled to a reduction or refund of dividend withholding tax; and
- That such person or legal entity has, directly or indirectly, retained or acquired an interest in Aegon common shares or in profit sharing certificates or loans, comparable to the interest it had in similar instruments prior to the series of transactions being initiated.

Dutch dividend withholding tax upon redistribution of foreign dividends

Aegon must pay to the Dutch tax authorities all Netherlands dividend withholding tax it withholds on dividends it distributed with respect to the Aegon common shares. Provided certain conditions are met, Aegon may apply a reduction with respect to the withholding tax that it has to pay to the Dutch tax authorities. This reduction can be applied if Aegon distributes dividends that stem from dividends Aegon itself has received from certain qualifying non-Dutch subsidiaries, provided these dividends received by Aegon are exempt from Dutch corporate income tax and were subject to a withholding tax of at least 5% upon distribution to Aegon. The reduction is applied to the Netherlands dividend withholding tax that Aegon must pay to the Dutch tax authorities and not to the amount of the Dutch dividend withholding tax that Aegon must withhold. The reduction is equal to the lesser of:

- i. 3% of the amount of the dividends distributed by Aegon that are subject to Dutch dividend withholding tax; and
- ii. 3% of the gross amount of the dividends received during a certain period from the qualifying non-Dutch subsidiaries.

The amount of the above mentioned reduction of the withholding tax will be reduced on a pro rata basis to the extent that Aegon distributes dividends to entities that are entitled to a refund of the Dutch dividend withholding tax. This reduction does not apply in respect of dividends paid to entities that own less than 5% of the nominal paid-up capital of Aegon.

Corporate and individual income tax

Residents of the Netherlands

If a holder of Aegon common shares is a resident or deemed to be a resident of the Netherlands for Dutch corporate income tax purposes and is fully subject to Dutch corporate income tax or is only subject to Dutch corporate income tax in respect of an enterprise to which Aegon common shares are attributable, income derived from Aegon common shares and gains realized upon the redemption or disposal of Aegon common shares are generally taxable in the Netherlands (at up to a maximum rate of 25%) under the Dutch Corporate Income Tax Act 1969.

If an individual is a resident or deemed to be a resident of the Netherlands for Dutch individual income tax purposes, income derived from Aegon common shares and gains realized upon the redemption or disposal of Aegon common shares are taxable at progressive rates (at up to a maximum rate of 49.5%) under the Dutch Income Tax Act 2001 if:

- i. The individual is an entrepreneur (*ondernemer*) and has an enterprise to which Aegon common shares are attributable or the individual has, other than as a shareholder, a co-entitlement to the net worth of an enterprise (*medegerechtigde*), to which enterprise Aegon common shares are attributable; or
- ii. Such income or gains qualify as income from miscellaneous activities (*resultaat uit overige werkzaamheden*), which includes but is not limited to activities with respect to Aegon common shares that exceed regular, active portfolio management (*normaal, actief vermogensbeheer*).

If neither condition (i) nor condition (ii) above applies to the holder of the Aegon common shares, taxable income with regard to the Aegon common shares must be determined on the basis of a deemed return on income from savings and investments (*sparen en beleggen*), rather than on the basis of income actually received or gains actually realized. This deemed return on income from savings and investments is fixed at a percentage of the individual's yield basis (*rendementsgrondslag*) at the beginning of the calendar year (1 January), insofar as the individual's yield basis exceeds a certain threshold (*heffingsvrij vermogen*). The individual's yield basis is determined as the fair market value of certain qualifying assets held by the holder of Aegon common shares less the fair market value of certain qualifying liabilities on 1 January. The fair market value of Aegon common shares will be included as an

asset in the individual's yield basis. The deemed return percentage to be applied to the yield basis increases progressively depending on the amount of the yield basis. The deemed return on income from savings and investments is taxed at a rate of 30%.

Non-residents of the Netherlands

If a person is neither a resident nor is deemed to be a resident of the Netherlands for Dutch corporate income tax purposes, such person is not subject to Dutch corporate income tax in respect of income derived from Aegon common shares and gains realized upon the redemption or disposal of Aegon common shares, except if the person is not an individual and:

- 1 has an enterprise that is, in whole or in part, carried on through a permanent establishment or a permanent representative in the Netherlands to which permanent establishment or a permanent representative Aegon common shares are attributable, or
- 2 other than by way of securities, is entitled to a share in the profits of an enterprise or a co-entitlement to the net worth of an enterprise, which is effectively managed in the Netherlands and to which enterprise Aegon common shares are attributable.

This income and these gains are subject to Dutch corporate income tax at up to a maximum rate of 25%.

If a person is neither a resident nor is deemed to be a resident of the Netherlands for Dutch individual income tax purposes, such person is not subject to Dutch individual income tax in respect of income derived from Aegon common shares and gains realized upon the redemption or disposal of Aegon common shares, except if the person is an individual that:

- 1 has an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or a permanent representative in the Netherlands to which permanent establishment or permanent representative Aegon common shares are attributable, or
- 2 realizes income or gains with respect to Aegon common shares that qualify as income from miscellaneous activities (*resultaat uit overige werkzaamheden*) in the Netherlands which include activities with respect to Aegon common shares that exceed regular, active portfolio management (*normaal, actief vermogensbeheer*), or
- 3 is entitled to, other than by way of securities, a share in the profits of an enterprise that is effectively managed in the Netherlands and to which enterprise Aegon common shares are attributable.

Income and gains derived from Aegon common shares as specified under (1) and (2) by an individual are subject to individual income tax at up to a maximum rate of 49.5%. Income derived from a share in the profits of an enterprise as specified under (3) that is not already included under (1) or (2) will be taxed on the basis of a deemed return on income from savings and investments (as described above under 'Residents of the Netherlands'). The fair market value of the share in the profits of the enterprise (which includes Aegon common shares) will be part of the individual's Netherlands yield basis.

Gift and inheritance tax

Residents of the Netherlands

Generally, gift tax (*schenkbelasting*) or inheritance tax (*erfbelasting*) will be due in the Netherlands in respect of the acquisition of Aegon common shares by way of a gift by, or on behalf of, or on the death of, a holder of Aegon common shares that is a resident or deemed to be a resident of the Netherlands for the purposes of the Dutch Gift and Inheritance Tax Act 1956 (*Successiewet 1956*) at the time of the gift or his or her death. A gift made under a condition precedent is for the purposes of the Dutch Gift and Inheritance Tax Act 1956 deemed to be made at the time the condition precedent is fulfilled and is subject to gift tax if the donor is, or is deemed to be, a resident of the Netherlands at that time.

A holder of Dutch nationality is deemed to be a resident of the Netherlands for the purposes of the Dutch Gift and Inheritance Tax Act 1956 if he or she has been resident in the Netherlands and dies or makes a gift within ten years after leaving the Netherlands. A holder of any other nationality is deemed to be a resident of the Netherlands for the purposes of the Dutch Gift and Inheritance Tax Act 1956 if he or she has been resident in the Netherlands and makes a gift within a twelve-month period after leaving the Netherlands. The same twelve-month rule may apply to entities that have transferred their seat of residency out of the Netherlands.

Non-residents of the Netherlands

No gift or inheritance tax will arise in the Netherlands in respect of the acquisition of Aegon common shares by way of a gift by, or as a result of the death of, a holder that is neither a resident nor deemed to be a resident of the Netherlands for the purposes of the Dutch Gift and Inheritance Tax Act 1956. However, inheritance tax will be due in the case of a gift of Aegon common shares by, or on behalf of, a holder who at the date of the gift was neither a resident nor deemed to be a resident of the Netherlands for the purposes of the Dutch Gift and Inheritance Tax Act 1956, but such holder dies within 180 days after the date of the gift, and at the time of his or her death is a resident or deemed to be a resident of the Netherlands for the purposes of the Dutch Gift and Inheritance Tax Act 1956. A gift made under a condition precedent is deemed to be made at the time the condition precedent is fulfilled.

The proposed financial transactions tax

A Financial Transactions Tax (FTT) is currently being considered by participating European Union Member States (Belgium, Germany, Greece, Spain, France, Italy, Austria, Portugal, Slovenia and Slovakia). The FTT would be levied on the acquisition of shares of listed companies which have their head office in a member state of the EU and market capitalization in excess of €1 billion on December 1 of the preceding year. The tax would be levied on the transfer of ownership when shares of listed public limited companies are acquired. Initial public offerings, market making and intraday trading would not be taxable. The tax rate would be no less than 0.2%.

The proposed FTT has a very broad scope and could, if introduced in its current form, apply to certain dealings in Aegon common shares (including secondary market transactions) in certain circumstances. However, the FTT proposal remains subject to negotiation between participating Member States and is subject to legal challenge. It may therefore be altered prior to any implementation, the timing of which remains unclear. Additional EU Member States may decide to participate. Prospective holders of Aegon common shares are advised to seek their own professional advice in relation to the FTT.

Value added tax

In general, no value added tax will arise in respect of payments in consideration for the issue of Aegon common shares or in respect of a cash payment made under Aegon common shares, or in respect of a transfer of Aegon common shares.

Other taxes and duties

No registration tax, customs duty, transfer tax, stamp duty, capital tax or any other similar documentary tax or duty will be payable in the Netherlands by a holder of Aegon common shares in respect of or in connection with the subscription, issue, placement, allotment, delivery or transfer of the Aegon common shares.

ii United States tax consequences to holders of shares

This section describes certain US Federal income tax consequences to beneficial holders of common shares that are held as capital assets. This section does not address all US Federal income tax matters that may be relevant to a particular holder. Each investor should consult their tax advisor with respect to the tax consequences of an investment in the common shares. This section does not address tax considerations for holders of common shares subject to special tax rules including, without limitation, the following:

- Financial institutions;
- Insurance companies;
- Dealers or traders in securities or currencies;
- Tax-exempt entities;
- Regulated investment companies;
- Persons that at any time hold the common shares as part of a 'hedging' or 'conversion' transaction or as a position in a 'straddle' or as part of a 'synthetic security' or other integrated transaction for US Federal income tax purposes;
- US expatriates and former citizens or long-term residents of the United States;
- Persons subject to special tax accounting rules as a result of any item of gross income with respect to the stock being taken into account in an applicable financial statement;
- Holders that own (or are deemed to own for US Federal income tax purposes) 10% or more of the voting shares of Aegon;
- Partnerships, or arrangements treated as partnerships for US tax purposes, or pass-through entities or persons who hold common shares through partnerships or other pass-through entities; and
- Holders that have a 'functional currency' other than the US dollar.

Further, this section does not address alternative minimum tax consequences or the indirect effects on the holders of equity interests in a holder of common shares. This section also does not describe any tax consequences arising under the laws of any taxation jurisdiction other than the Federal income tax laws of the US Federal government.

This section is based on the US Internal Revenue Code of 1986, as amended, US Treasury regulations and judicial and administrative interpretations, in each case as in effect and available on the date of this Annual Report. All of the foregoing is subject to change, which change could apply retroactively and could affect the tax consequences described below.

For the purposes of this section, a 'US holder' is a beneficial owner of common shares that is, for US Federal income tax purposes:

- A citizen or individual resident of the United States;
- A corporation created or organized in or under the laws of the United States or any state of the United States (including the District of Columbia);
- An estate, the income of which is subject to US Federal income taxation regardless of its source;

- A trust, if a court within the United States is able to exercise primary supervision over its administration and one or more US persons have the authority to control all of the substantial decisions of such trust.

A non-US holder is a beneficial owner of common shares that is neither a US holder nor an entity treated as a partnership for US federal income tax purposes.

If an entity treated as a partnership for US Federal income tax purposes holds common shares, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership and certain determinations made at the partner level. Accordingly, partnerships holding common shares and the partners in such partnerships should consult their tax advisors regarding the US Federal income tax consequences to them.

Distributions

The gross amount of any distribution (including any amounts withheld in respect of Dutch withholding tax) actually or constructively received by a US holder with respect to common shares will be taxable to the US holder as a dividend. Such dividends will not qualify for the dividends received deduction otherwise allowable to corporations. The amount of any distribution of property other than cash will be the fair market value of that property on the date of distribution.

Certain 'qualified dividend income' received by certain non-corporate US holders is taxed at a maximum income tax rate of 20% under current law. Only dividends received from US corporations or from a 'qualified foreign corporation' and on shares held by a non-corporate US holder for a minimum holding period (generally, 61 days during the 121-day period beginning 60 days before the ex-dividend date) can qualify for this reduced rate. Aegon is eligible for benefits under the comprehensive income tax treaty between the Netherlands and the US; therefore, Aegon should be considered a 'qualified foreign corporation' for this purpose. Accordingly, dividends paid by Aegon to non-corporate US holders on shares held for the minimum holding period may qualify for a reduced income tax rate. Each US holder should consult their tax advisor regarding the applicable tax rate.

In addition, US holders receiving dividends may be subject to a net investment income tax (NIIT). The NIIT is a 3.8% tax on the lesser of net investment income or the amount of modified adjusted gross income (MAGI) that is over a threshold amount based on filing status (USD 250,000 for married taxpayers filing jointly). Each US holder should consult their tax advisor regarding applicability of the NIIT.

Distributions paid in currency other than US dollars (a 'foreign currency'), including the amount of any withholding tax thereon, must be included in the gross income of a US holder in an amount equal to the US dollar value of the foreign currency calculated by reference to the exchange rate in effect on the date of receipt. This is the case regardless of whether the foreign currency is converted into US dollars. If the foreign currency is converted into US dollars on the date of receipt, a US holder generally should not be required to recognize foreign currency gain or loss in respect of the dividend. If the foreign currency received in the distribution is not converted into US dollars on the date of receipt, a US holder will have a basis in the foreign currency equal to its US dollar value on the date of receipt. Any gain or loss on a subsequent conversion or other disposition of the foreign currency will be treated as ordinary income or loss.

Dividends received by a US holder with respect to common shares will be treated as foreign source income for foreign tax credit limitation purposes. Subject to certain conditions and limitations, any Dutch income tax withheld on dividends may be deducted from taxable income or credited against a US holder's Federal income tax liability. The limitation on foreign taxes eligible for the US foreign tax credit is calculated separately with respect to 'passive category income' and 'general category income'. Dividends distributed by Aegon generally will constitute 'passive category income', or, in the case of certain US holders, 'financial services income', which is treated as general category income. Each US holder should consult their tax advisor regarding the availability of the foreign tax credit under their particular circumstances.

The amount of the qualified dividend income paid by Aegon to a US holder that is subject to the reduced dividend income tax rate and that is taken into account for purposes of calculating the US holder's US foreign tax credit limitation must be reduced by the 'rate differential portion' of such dividend. Each US holder should consult their tax advisor regarding the implications of the rules relating to qualified dividend income on the calculation of US foreign tax credits under their particular circumstances.

In general, upon making a distribution to shareholders, Aegon is required to remit all Dutch dividend withholding taxes to the Dutch tax authorities. The full amount of the taxes so withheld should (subject to certain limitations and conditions) be eligible for the US holder's foreign tax deduction or credit as described above. Investors are urged to consult their tax advisors regarding the general creditability or deductibility of Dutch withholding taxes.

Aegon generally affords shareholders an option to receive dividend distributions in cash or in stock. A distribution of additional common shares to US holders with respect to their common shares that is made pursuant to such an election will generally be taxable in the same manner as a cash dividend under the rules described above.

Sale or other disposition of shares

Upon the sale or exchange of common shares, a US holder will generally recognize gain or loss for US Federal income tax purposes on the difference between the US dollar value of the amount realized from such sale or exchange and the tax basis in those common shares. This gain or loss will be a capital gain or loss and will generally be treated as from sources within the United States. Investors should consult their tax advisors with respect to the treatment of capital gains (which may be taxed at lower rates than ordinary income for taxpayers who are individuals, trusts or estates that have held the common shares for more than one year) and capital losses (the deductibility of which is subject to limitations).

In addition, US holders with capital gains may be subject to a NIIT. The NIIT is a 3.8% tax on the lesser of net investment income or the amount that is over a threshold amount based on filing status (USD 250,000 for married taxpayers filing jointly). Each US holder should consult their tax advisor regarding applicability of the NIIT.

If a US holder receives foreign currency upon a sale or exchange of common shares, gain or loss, if any, recognized on the subsequent sale, conversion or disposition of such foreign currency will be ordinary income or loss, and will generally be income or loss from sources within the United States for foreign tax credit limitation purposes. However, if such foreign currency is converted into US dollars on the date received by the US holder, the US holder generally should not be required to recognize any gain or loss on such conversion.

Passive foreign investment company considerations

Aegon does not believe it is a passive foreign investment company (PFIC) and does not expect that it will become a PFIC in the foreseeable future. The US Treasury Department recently issued proposed regulations (the Proposed Regulations) addressing several PFIC rules whereby a US shareholder in certain non-PFICs may be treated as an indirect shareholder of any PFICs owned by such a non-PFIC. Although the proposed regulations may not be finalized in their current form, a taxpayer is generally permitted to apply these proposed regulations as long as it does so consistently. Aegon does not believe that a US holder would be treated as an indirect shareholder of a PFIC, if any, in which Aegon owns equity. However, this belief would be subject to significant uncertainty if such US holder chose to apply these proposed regulations. Proposed US Treasury regulations in general are subject to substantial review, comment and changes, and it cannot be concluded at this time that the Proposed Regulations will become effective in the form proposed.

Whether Aegon or any entities in which it owns equity is a PFIC is a factual determination that must be made annually after the close of each taxable year. If Aegon or an entity in which Aegon owns equity were treated as a PFIC and if a US holder were treated as an indirect shareholder of such a PFIC in any year during which a US holder owns equity in Aegon, certain adverse tax consequences could apply to such US holder. Investors should consult their tax advisors with respect to any PFIC considerations.

Tax consequences to non-US holders

A non-US holder generally will not be subject to US Federal income tax on dividends received on common shares or on any gain realized on the sale or exchange of common shares unless the gain is connected with a trade or business that the non-US holder conducts in the United States or unless the non-US holder is an individual, such holder was present in the United States for at least 183 days during the year in which such holder disposes of the common shares, and certain other conditions are satisfied. Non-US holders should consult their tax advisors with respect to the US Federal income tax consequences of dividends received on, and any gain realized from the sale or exchange of, the common shares.

US withholding and information reporting

Backup withholding and information reporting requirements may apply to certain payments on the common shares and to proceeds of a sale or redemption of the common shares to US holders made within the United States. Aegon, its agent, a broker, or any paying agent, as the case may be, may be required to withhold tax from any payment that is subject to backup withholding if a US holder fails to furnish the US holder's taxpayer identification number, fails to certify that such US holder is not subject to backup withholding, or fails to otherwise comply with the applicable requirements of the backup withholding rules. Certain US holders are not subject to the backup withholding and information reporting requirements.

US and non-US holders may also be subject to withholding and/or reporting to the US Foreign Account Tax Compliance Act (FATCA) if they do not provide required documentation and certifications to the appropriate reporting agent. When documentation and certifications are required, they will generally be requested by the appropriate reporting agent.

Backup withholding and withholding under FATCA are not additional taxes. Any amounts withheld under the backup withholding rules from a payment to a US holder or a non-US holder generally may be claimed as a credit against such holder's US Federal income tax liability provided that the required information is furnished to the US Internal Revenue Service (IRS). Investors should consult their tax advisors as to their qualification for exemption from backup withholding and withholding under FATCA.

Individual US holders may be required to report to the IRS certain information with respect to their beneficial ownership of certain foreign financial assets, such as the common shares, if the aggregate value of such assets exceeds USD 50,000 and the assets are not held through a US financial institution. US holders who fail to report required information could be subject to substantial penalties. Prospective investors should consult their own tax advisors concerning the application of the information reporting rules to their particular circumstances.

Purchases of equity securities by the issuer and affiliated purchasers

Period	Total number of shares purchased ¹⁾	Average price paid per share in EUR	Total number of shares purchased as part of publicly announced plans or programs	Maximum number of shares that may yet be purchased under the plans or programs at end of month
January 1 - 31, 2019	529	4.38	-	-
February 1 - 28, 2019	568	4.40	-	-
March 1 - 31, 2019	496	4.43	-	-
April 1 - 30, 2019	524	4.46	-	-
May 1 - 31, 2019	604	4.47	-	-
June 1 - 30, 2019	921	4.43	-	32,873,805 ²⁾
July 1 - 31, 2019	29,187,143	4.55	29,186,648	3,687,157
August 1 - 31, 2019	3,687,774	4.34	3,687,157	-
September 1 - 30, 2019	995	3.64	-	43,149,667 ³⁾
October 1 - 31, 2019	35,477,180	3.84	35,476,610	7,673,057
November 1 - 30, 2019	7,673,057	4.14	7,673,057	-
December 1 - 31, 2019	-	-	-	-
Total	76,029,791		76,023,472	

¹⁾ The shares have been purchased as part of a share purchase program, to neutralize the dilution effect of issued stock dividends and agent-related incentive programs. Excluding Aegon shares purchased by index funds controlled by Aegon. Such purchases are made to the extent necessary to maintain a basket of securities within the relevant fund reflecting the underlying index. Please refer to note 20 'Dividend per common share' and to the section 'Major shareholders' in the 'Other information'.

²⁾ Share purchase program announced on June 19, 2019

³⁾ Share purchase program announced on September 18, 2019

Principal accountant fees and services

PricewaterhouseCoopers Accountants N.V. (PwC) has served as Aegon's independent public accountant for each of the years in the three-year period ended December 31, 2019, for which audited financial statements appear in this Annual Report.

The following table presents the aggregate fees for services rendered by PwC in 2019, 2018 and 2017.

Fees independent public accountant

In million EUR	2019	2018	2017
Audit fees	32	37	42
Audit-related fees	6	2	3
	38	39	46

Audit fees consist of fees billed for the annual financial statement audit (including quarterly reviews), subsidiary audits, equity investment audits and other procedures required to be performed by the independent auditor to be able to form an opinion on Aegon's consolidated financial statements. These other procedures include information systems and procedural reviews and testing performed in order to understand and place reliance on the systems of internal control, and consultations relating to the audit or quarterly review. They also include fees billed for other audit services, which are those services that only the external auditor reasonably can provide, and include statutory audits or financial audits for subsidiaries or affiliates of the Company and services associated with SEC registration statements, periodic reports and other documents filed with the SEC or other documents issued in connection with securities offerings.

Audit-related fees consist of fees billed for audit-related services including assurance and related services that are reasonably related to the performance of the audit or review of Aegon's financial statements or that are traditionally performed by the independent auditor. Audit-related services include, among others, assurance services to report on internal controls for third parties, due diligence services pertaining to potential business acquisitions/dispositions; accounting consultations related to accounting, financial reporting or disclosure matters not classified as 'Audit services'; assistance with understanding and implementing new accounting and financial reporting guidance from rulemaking authorities; financial audits of employee benefit plans; agreed-upon or expanded audit procedures related to accounting and/or billing records required to respond to or comply with financial, accounting or regulatory reporting matters; and assistance with internal control reporting requirements.

Audit Committee pre-approval policies and procedures

Aegon's Audit Committee is responsible, among other matters, for the oversight of the external auditor. The Audit Committee has adopted a policy regarding pre-approval of audit and permissible non-audit services provided by Aegon's independent auditors (the Pre-approval Policy).

Under the Pre-approval Policy, proposed services either:

- May be pre-approved by the Audit Committee without consideration of specific case-by-case services (general pre-approval); or
- Require the specific pre-approval of the Audit Committee (specific pre-approval). Appendices to the Pre-approval Policy (that are adopted each year) set out the audit, audit-related, tax and other services that have received general pre-approval of the Audit Committee. All other audit, audit-related, tax and other services must receive specific pre-approval from the Audit Committee.

For the period 2017 to 2019, all services provided to Aegon by its independent public accountant were pre-approved by the Audit Committee in accordance with the Pre-approval Policy.

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Non-financial data

Data on Aegon's environmental, social and governance performance has been grouped according to stakeholder (customers, employees, business partners, investors and wider

community). Some figures may not add due to rounding. Year-on-year changes have been calculated using pre-rounded numbers.

Customers

Indicator	2019	2018	Change 2018 to 2019	2017
Total number of customers ¹⁾	29.9 million	29.3 million	2.1%	28.7 million
Number of new customers	4.3 million	3.8 million	13.4%	NM
Customers with two or more products (% of total customers) ²⁾	19%	18%	1 pp	NM
Digitally connected customers (% of total customers)	29%	27%	2 pp	25%
Net Promoter Score - above peer average (NPS) ³⁾	9%	38%	(29 pp)	44%
1st quartile	2%	1%	1 pp	2%
2nd quartile	7%	36%	(29 pp)	42%
3rd quartile	60%	6%	54 pp	35%
4th quartile	31%	56%	(25 pp)	21%
Net Promoter Score (NPS) coverage ⁴⁾	88%	89%	(1 pp)	91%
Total customer complaints ⁵⁾	91,348	79,509	14.9%	66,496
Total claims, benefits and plan withdrawals	EUR 59.4 billion	EUR 53.6 billion	10.7%	EUR 48.1 billion

NM – not measured
pp - percentage points

¹ 2018 and 2017 numbers have been restated following a recalculation of the number of customers at Aegon UK. The total number of customers for 2018 was originally reported as 28.5 million and for 2017 28.1 million.

² Percentage of total number of customers with two or more products for 2019 and 2018 did not include Aegon's operations in UK.

³ Figures for 2018 and 2017 have been restated; this is to reflect changes in weighting and to exclude results from Hungary (which had been included in previous years). Table shows NPS performance benchmarked against peers for Aegon businesses in the US, Netherlands and UK. Results from Knab, our online bank in the Netherlands, have also been incorporated. Top line shows percentage of businesses ranking in the top half, weighted by customer numbers. Figures below provide the breakdown by quartile.

⁴ This coverage percentage is largely due to the fact that we are not (yet) measuring relation NPS with our customers in our growing joint venture businesses in Brazil, Spain and Portugal.

⁵ Includes all written and verbal complaints.

Employees

Indicator	2019	2018	Change 2018 to 2019	2017
Total number of employees	23,757	26,543	(10.5%)	28,318
New hires	2,974	3,891	(23.6%)	4,689
Turnover	32%	33%	(1 pp)	25%
Voluntary	15%	18%	(3 pp)	17%
Involuntary	17%	15%	2 pp	7%
Absentee rate	1.8%	2.4%	(0.6 pp)	2.4%
Work-related injuries and illnesses	184	163	13.0%	167
% of women in workforce	49%	49%	(1 pp)	53%
% of women in senior management	29%	33%	(4 pp)	28%
Employee engagement score ¹⁾	67	65	2 pp	65
Total employment costs	EUR 2.1 billion	EUR 2.1 billion	4.3%	EUR 2.2 billion
Salaries	EUR 1.3 billion	EUR 1.2 billion	4.1%	EUR 1.5 billion
Ratio of median to CEO salary ²⁾	33:1	42:1	NM	42:1
Spending on training and career development	EUR 16.9 million	EUR 12.5 million	35.4%	EUR 13.8 million

NM - not measured
pp - percentage points

¹ Index developed by Culture Amp. Employee engagement measures the degree of employee motivation and commitment to the Company.

² Figures cover all employment costs relating to both staff and CEO.

Business partners

Indicator	2019	2018	Change 2018 to 2019	2017
Commissions paid to brokers and other intermediaries	EUR 2.4 billion	EUR 2.4 billion	(0.9%)	EUR 2.7 billion
Premiums paid to reinsurers	EUR 2.4 billion	EUR 2.7 billion	(8.6%)	EUR 3.4 billion
Amount spent on goods and services	EUR 1.5 billion	EUR 1.5 billion	4.0%	EUR 1.4 billion
% of goods and services spend covered by a Supplier Sustainability Declaration	41%	25%	16 pp	NM
Incidents/attempts of fraud involving employees, intermediaries and third parties	4,541	3,652	24.3%	551

NA – not applicable
 NM – not measured
 pp - percentage points

Investors

Indicator	2019	2018	Change 2018 to 2019	2017
Returns to investors	EUR 899 million	EUR 861 million	4.4%	EUR 721 million
<i>Dividend payments¹⁾</i>	EUR 611 million	EUR 570 million	7.2%	EUR 439 million
<i>Coupon payments</i>	EUR 288 million	EUR 291 million	(1.1%)	EUR 282 million
Dividend payments due/share	EUR 0.31	EUR 0.29	6.9%	EUR 0.27
Share price (change year-on-year)	0.3%	(23.3%)	NM	1.7%
Total Shareholder Return	8.0%	(19.0%)	NM	7.0%

NM – not measured

¹⁾ Does not include impact of share buy-backs. Aegon's final dividend for 2019 is subject to approval by the Company's Annual General Meeting of Shareholders, due to take place in May 2020. Figures include both interim and final dividends for each year. Calculation reflects IFRS accounting of inventory effects of share repurchases relating dividends paid in stock.

Wider community

Indicator	2019	2018	Change 2018 to 2019	2017
Community investment	EUR 9.0 million	EUR 10.1 million	(10.5%)	EUR 8.9 million
<i>Cash donations</i>	EUR 8.1 million	EUR 9.3 million	(12.9%)	EUR 8.1 million
<i>Volunteering¹⁾</i>	EUR 0.9 million	EUR 0.7 million	20.5%	EUR 0.8 million
<i>Volunteering hours²⁾</i>	19,448	14,082	38.1%	21,156
Community investment as % of net income	0.6%	1.4%	(0.8 pp)	0.4%
Responsible investment solutions ³⁾	EUR 234.6 billion	NM	NA	NM
<i>Exclusions</i>	EUR 220.0 billion	NM	NA	NM
<i>Best-in-class</i>	EUR 2.9 billion	NM	NA	NM
<i>Sustainability-themed</i>	EUR 1.0 billion	NM	NA	NM
<i>Impact investments</i>	EUR 10.7 billion	NM	NA	NM
Taxes borne by Aegon	EUR 615 million	EUR 620 million	NA	EUR 444 million
Corporate income tax ⁴⁾	EUR 42 million	EUR 36 million	NA	(EUR 173 million)
<i>Americas</i>	(EUR 12 million)	(EUR 35 million)	NA	(EUR 293 million)
<i>The Netherlands</i>	EUR 32 million	EUR 3 million	NA	EUR 70 million
<i>UK</i>	(EUR 9 million)	EUR 30 million	NA	EUR 33 million
<i>Others</i>	EUR 31 million	EUR 40 million	NA	EUR 17 million
Taxes collected on behalf of others	EUR 2.45 billion	EUR 2.16 billion	NA	EUR 2.22 billion
Greenhouse gas (GHG) emissions (metric tons CO ₂ e) ⁵⁾				
<i>Total (gross/location)</i>	59,275	65,955	(10.1%)	NM
<i>Total (net/market)</i>	17,831	19,193	(7.1%)	NM
<i>Scope 1</i>	5,189	5,011	3.6%	NM
<i>Scope 2 (gross/location)</i>	42,449	47,142	(10.0%)	NM
<i>Scope 2 (net/market)</i>	1,005	380	164.1%	NM
<i>Scope 3</i>	11,637	13,801	(15.7%)	NM
<i>Total per employee (net/market)</i>	1.0	1.1	(11.4%)	NM
<i>Total per unit revenue (EUR million) (net/market)</i>	0.6	0.6	(7.8%)	NM
Energy consumption (MWh)				
<i>Fuel</i>	25,403	27,239	(6.7%)	NM
<i>Electricity (total)</i>	88,848	93,621	(5.1%)	NM
<i>Electricity (renewable)</i>	86,107	92,873	(7.3%)	NM
<i>Electricity (non-renewable)</i>	2,741	748	266.3%	NM
<i>Total energy</i>	114,251	120,860	(5.5%)	NM
<i>Renewable electricity (% total electricity)</i>	97%	99%	(2 pp)	NM
Renewable energy (% total energy)	75%	77%	(2 pp)	NM
Air travel	89.4 million km	107.5 million km	(16.8%)	NM

NA – not applicable

NM – not measured

pp - percentage points

¹⁾ Figures based on average employee expenses across the Company.²⁾ Number of hours spent by Aegon employees volunteering on local community projects during the year.³⁾ Responsible Investment Solutions (RIS) are investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return. Impact investments can be made in both emerging and developed markets, and target a range of returns from below market to market rate, depending on investors' strategic goals (Global Impact Investing Network (GIIN)). Two key aspects that differentiate impact investing from the rest of RI strategies: intentionality and measurement.⁴⁾ Please note, there is often no direct correlation between tax reported on earnings for any given year and amounts paid or received in tax. Part of the explanation for this is that certain tax-deductible items are not recognized in the Company's profit & loss statement but directly in equity. Amount paid or received may in part relate to prior years. The US corporate income tax refund is related to refundable minimum tax credits generated in prior years. Furthermore, the 2019 US tax liability will be satisfied entirely by tax credits, including low income housing tax credits.⁵⁾ GHG emissions have been calculated based on energy consumption and air travel for the US, the UK and the Netherlands, and extrapolated to cover the headcount of our remaining in-scope business units. Under the market-based calculation methodology prescribed by the Greenhouse Gas Protocol, electricity consumption in the US has been accounted as zero-carbon through the purchase of Renewable Energy Certificates (RECs). A significant proportion of electricity consumed in the UK and the Netherlands is procured on a 'green tariff' basis which has also been accounted as zero-carbon. Aegon's operations in US, UK and the Netherlands have been carbon neutral since August 2016 through offsetting our remaining market-based GHG emissions by supporting projects in Brazil, China and Turkey. These offset projects were selected in cooperation with NGO ClimateCare.

Basis of preparation

Frameworks

Aegon's aim in producing this report is to provide a balanced overview of the Company's operations, strategy and performance, as well as its approach to long-term value creation. This is an integrated report, prepared in accordance with the standards of International Integrated Reporting Council (IIRC). While we support the objectives of the Global Reporting Initiative (GRI) framework, we no longer use it as a basis of reporting. We are also integrating the Task force on Climate-related Financial Disclosures (TCFD) reporting framework herein. The basis of preparation for the financial information can be found in note 2 Significant accounting policies on page 155.

Content and approval

All content is based on extensive reporting from Aegon businesses around the world. Content is reviewed by the Company's Management and Supervisory Boards before publication. Aegon decided not to seek external assurance for the non-financial information in this report. This is to allow further time for improvement in the Company's non-financial reporting and data collection processes.

Scope and reporting boundaries

Non-financial data in this report covers the full-year 2019 (January-December), unless otherwise stated. All necessary notes, explanations and definitions are provided in the text or accompanying tables. The scope of our non-financial reporting is determined by two factors: a) the relative size of our businesses and b) the potential impact on overall Group performance or strategy. Consequently, we focus reporting on our four largest operating segments (Americas, the Netherlands, UK and Asset Management), and include other fully-owned businesses as practicable. We have excluded all divested businesses, as well as all joint ventures and associates in which Aegon does not have a majority shareholding. For a more detailed overview, see page 418. Aegon reports impact on both its business and its immediate stakeholders (customers, employees, business partners and investors). Where possible, the Company also includes secondary impacts on the wider community (local economies, communities, public services etc.).

Materiality principle

Aegon uses materiality to determine the scope and content of its integrated report. For non-financial data, the report contains only material information. This is the information related to topics the Company believes have, or will have, a significant long-term impact on its profitability, operations

or reputation. Materiality applies to both Aegon's own businesses and to the Company's relations with its main stakeholders (see Reporting scope by operating segment, page 418). To determine materiality, Aegon takes into account various factors, which may affect long-term value creation. These include potential risks, impact on earnings, brand, reputation, strategy, customer loyalty and recruitment, as well as Aegon's ability to deliver long-term growth and returns to investors.

Material topics are identified through Aegon's new 'Business Environment Scan' (BES) process. This scan brings together the former emerging risk process and the materiality assessment as described in Aegon's Integrated Annual Report 2018.

The aim is to identify topics, including opportunities and new and developing risks, which could have significant impact on value creation and Aegon's financial strength, competitive position or reputation. The scan is meant to ensure ongoing appropriateness of the risk universe, to ensure completeness of Aegon's risk assessment and to provide input for ongoing strategy development.

The business environment scan will be performed on a two-yearly basis with annual updates for significant changes.

Topic identification, mapping and selection are based on desk research, interviews with experts and management judgment. Outcomes can be used for materiality reporting, as input for Aegon's strategy process and for possible follow-up in terms of further analysis, tracking or as global project. For our 2019 assessment, the following nine topics were rated as most material:

- 1 Evolving regulations
- 2 Changing competitive landscape
- 3 Data protection and information security
- 4 Technological developments
- 5 Data analytics
- 6 Trade wars, de-globalisation and protectionism
- 7 Reputation
- 8 Genomics and underwriting
- 9 People skills

When Business Environment Scan was conducted in the third quarter of 2019, the risk of pandemic was perceived as remote.

For more information on the materiality reporting refer to the section: Aegon's business environment on page 14.

Global non-financial indicators

Our strategy aims to build life-long relationships with customers to provide financial security and well-being to and through retirement. Our strategy helps us address the material topics that are important to our customers, employees, investors and other stakeholders; this strategy will also strengthen our ability to create long-term value. Aegon has selected six global non-financial indicators; these will be used to assess progress against specific aspects of the Company's strategy (see page 19).

Additional non-financial data

In addition to the data in this report, Aegon collects other non-financial data. This includes data on working conditions, use of social media in customer support, consumption of energy and greenhouse gas emissions etc. Further details may be found on the Company's website (www.aegon.com).

Aegon Asset Management also publishes an annual Responsible Investment report, last published in May 2018 and available at www.aegon.com.

Indicators	Aspect	Definition
NPS coverage	Customer centricity	NPS coverage refers to the percentage of customer base where we receive feedback from our customers through relational NPS surveys. Subsequently, we use relational NPS metrics for steering purposes.
Number of customers	Growth, customer centricity	Customers are those with individual, group or corporate policies. We also include those participating in pension plans controlled by trustees or who have white label products serviced by Aegon or Transamerica. There may be some duplications in markets where we operate under more than one brand. Customers of our joint ventures are included on a 100% basis.
Number of new customers	Growth, customer centricity	New customers are those who acquired a product or service during the reporting period (and who were not previously customers of the Company). There may be some duplications in markets where we operate under more than one brand. Customers of our joint ventures are included on a 100% basis.
Number of customers with two or more products (as % of total number of customers)	Life-cycle approach	These are customers who hold two or more products or policies with the Company; examples include life insurance policies, savings accounts, mortgages, deposits in investment funds, or participation in a corporate pension plan etc. (divided by the total number of customers). There may be some duplications in markets where we operate under more than one brand. Customers of our joint ventures are included on a 100% basis.
Number of digitally connected customers (as % of total number of customers)	Digitization, customer centricity	Total number of customers who have registered and created an online account with Aegon, and have logged in to this account at least once (divided by the total number of customers).
Employee engagement score	Customer centricity (increased employee engagement leading to better customer service and higher customer retention)	<p>Based on Aegon's annual employee survey. Engagement is defined as 'the level of connection, motivation and commitment a person feels for the place they work'. Aegon uses four dimensions to determine employee engagement:</p> <ul style="list-style-type: none"> • I see myself still working at this company in two years' time. • I am proud to work for this company. • The company motivates me to go beyond expectations. • I would recommend this company as a great place to work. <p>New hires (less than 3 months employed) do not participate. Joint ventures participate on a voluntary basis. Approximately 25% of employee data is processed in local HR systems and may be subject to a different level of certainty with regard to completeness. Exceptionally contractors as participants were allowed for one business unit (0.3% of all participants).</p>

Reporting scope by operating segment

Indicator	Operating segment							
	Americas	UK	Netherlands	Central & Eastern Europe	Spain & Portugal	Asia	Asset Management	Aegon N.V. (The Hague)
Customers								
Number of customers	●	●	●	●	●	●	●	NA
Number of new customers	●	●	●	●	●	●	●	NA
Number of customers with two or more Aegon products	●	●	●	●	●	●	●	NA
Net Promoter Score	●	●	●					NA
Customer complaints	●	●	●	●	●	●		NA
Claims, benefits and plan withdrawals	●	●	●	●	●	●	●	NA
Employees								
Number of employees	●	●	●	●	●	●	●	●
New hires	●	●	●	●	●	●	●	●
Turnover	●	●	●	●	●	●	●	●
Absentee rate	●	●	●	●	●	●	●	●
Work-related injuries and illnesses	●	●	●	●	●	●	●	●
% of women in workforce /senior management	●	●	●	●	●	●	●	●
Employee engagement score	●	●	●	●	●	●	●	●
Total employment costs	●	●	●	●	●	●	●	●
Ratio of median to CEO salary	●	●	●	●	●	●	●	●
Spending on training and career development	●	●	●	●	●	●	●	●
Business partners								
Commissions paid to brokers and other intermediaries	●	●	●	●	●	●	●	●
Premiums paid to reinsurers	●	●	●	●	●	●	●	●
Amount spent on goods and services	●	●	●	●	●	●	●	●
% of goods and services spend covered by a Supplier Sustainability Declaration	●	●	●				●	●
Incidents/attempts of fraud involving employees, intermediaries and third parties	●	●	●	●	●	●	●	●
Investors								
Returns to investors				NA				●
Dividend payments due/share				NA				●
Share price				NA				●
Total shareholder return				NA				●
Wider community								
Community investment (cash donations and volunteering)	●	●	●	●	●	●	●	●
Responsible Investment Solutions (RIS)	●	●	●	●	●	●	●	●
Greenhouse gas emissions	●	●	●	●	●	●	●	●
Energy consumption	●	●	●				●	●

Reference tables

International Integrated Reporting Council (IIRC) framework

Table below shows Aegon's compliance with the IIRC's IR framework. For more information, see www.integratedreporting.org.

Disclosure	Topic	Page reference ¹ (or details of omission if applicable)
Guiding principles	Strategic focus and future orientation	Value creation (page 13) shows how Aegon's business model creates value across the five material capitals
		Aegon's strategy (page 19)
		Active portfolio management (page 19) explains how Aegon allocates capital to create value in the short, medium and long term
		Responsible business (page 24)
	Connectivity of information	We identify our material topics (page 16) through our biennial Business Environment Scan; these topics are linked directly to risks and opportunities, both for Aegon's strategy (page 19) and its stakeholders (page 30)
	Stakeholder relationships	Aegon: A partner to the world (page 30)
	Materiality	Business Environment Scan (page 16) Basis of preparation – Materiality principle (page 416)
	Conciseness	Pages 4-35 are structured around our material topics, the risks, opportunities, strategy and performance associated with these; we have also applied the materiality principle to content (page 416)
Reliability and completeness		Basis of preparation – Content and approval (page 416)
		Independent auditor's report (page 328)
Consistency and comparability	This Report is prepared in accordance with IFRS standards, as adopted by the European Union, as well as the IIRC framework. We have used the IIRC framework since 2014; this is Aegon's second fully combined Annual Report, but its ninth integrated report. For this Report, while we keep in spirit with the Global Reporting Initiative framework, we are no longer reporting against it. We are making the shift to integrating more material frameworks; like that of the Task force for Climate-related Financial Disclosures (page 421).	
Content elements	Organizational overview and external environment	Aegon: A global provider of financial solutions (page 10)
		Aegon's business environment (page 14)
		Business Environment Scan (page 16)
	Governance	Corporate governance (page 36)
	Business model	Value creation (page 13)
	Risk and opportunities	Aegon's business environment (page 14)
		Business Environment Scan (page 16)
	Strategy and resource allocation	Aegon's strategy (page 19)
		Active portfolio management (page 19)
Performance	Performance in 2019 (page 22)	
Outlook	Performance in 2019 (page 22)	
Basis of preparation and presentation	Basis of preparation (page 416)	
Additional note on IR capitals	Financial	Value creation (page 13)
	Human	Value creation (page 13)
	Intellectual	Value creation (page 13)
	Manufactured	Value creation – Explanatory note (page 13)
	Social & relationship	Value creation (page 13)
	Natural	Value creation – Explanatory note (page 13)

¹ All page numbers in this table refer to Aegon's 2019 Annual Report, unless otherwise stated. Where there are several examples, we have included principal references only.

EU Directive on Non-Financial Information

The table below shows compliance with EU Directive 2014/95/ EU on non-financial reporting. All companies with 500 employees or more are required to publish non-financial information “to the extent necessary for an understanding of the (Company’s)

development, performance, position and impact of its activity relating to, as a minimum, environmental, social and employee matters, respect for human rights, anti-corruption and bribery matters”.

EU Directive requirement	Page reference	Equivalent requirement under Dutch law ¹
Brief description of company's business model	Our Business Model (page 13)	Decree non-financial information (article 3.1.a)
Description of policies relating to environmental, social and employee matters (including due diligence processes implemented)	Non-financial policies, procedures and outcomes (page 86)	Decree non-financial information (article 3.1.b)
Outcome of these policies	Non-financial policies, procedures and outcomes (page 86) Aegon: A partner to the world (page 30) includes an in-depth description of outcomes by stakeholder group. Note: Non-financial data (page 413) also includes information on environmental, social and employee matters.	Decree non-financial information (article 3.1.b)
Principal risks related to environmental, social and employee matters and how these risks are managed	Business Environment Scan (pages 16-18) Risk factors (pages 376-396) Risk management (page 109) Note: Aegon's strategy (page 19) and Responsible business (page 24) describe in detail our approach to managing the risks and opportunities associated with our most important environmental, social and employees matters.	Decree non-financial information (article 3.1.c)
Non-financial key performance indicators	Performance highlights (page 5) Performance in 2019 (page 22) Non-financial policies, procedures and outcomes (page 86) Note: Non-financial data (page 413) also includes information on environmental, social and employee matters.	Decree non-financial information (article 3.1.d)

¹ The EU Directive was transposed into Dutch law through two decrees relating respectively to non-financial information and diversity policy (Bekendmaking niet-financiële informatie /Bekendmaking diversiteitsbeleid).

Task Force on Climate-related Financial Disclosures (TCFD)

Introduction

Climate change represents one of the most significant challenges for society, the economy and financial institutions. Mitigating climate change and reducing greenhouse gas (GHG) emissions is a major global challenge. Aegon believes that governments, companies and investors have a responsibility to mitigate the impacts of a changing climate and facilitate a transition to a climate-resilient economy.

The present disclosure builds on earlier disclosures made for 2018 and 2017 which can be found in the corresponding Responsible Investment reports published by Aegon Asset Management. New for 2019 is the inclusion of this content in the Aegon N.V. integrated annual report.

It is made in respect of Aegon N.V. in its multiple roles as: an asset servicer, an insurance provider, and an asset manager.

It follows the Taskforce on Climate-related Financial Disclosure's (TCFD) four-pillar framework to facilitate disclosure and the business integration of risks and opportunities resulting from climate change. Aegon strives to continuously enhance its reporting and business practices and welcomes feedback from stakeholders on the appropriateness and relevance of this disclosure.

Governance

In 2019, Aegon undertook a review of governance for responsible business and investment at a group level to ensure that the underlying committees were efficient and effective. The review identified a need for enhanced coordination and simplified decision making.

As a result, we created the new Responsible Business and Investment Committee (RBIC). The RBIC unifies the function of previous committees to provide an integrated view of responsible business and investment that reports to the Management Board. It meets quarterly and is chaired by the CEO of Aegon Americas (who is also a member of Aegon's Management Board).

The Climate Change Working Group (CCWG) – formerly called the Climate Working Group – continues to be the primary body responsible for assessing and monitoring climate-related issues within Aegon. The CCWG is a working group of the RBIC tasked with evaluating new climate developments affecting investment, insurance and our other business activities, and recommending further action when necessary.

The CCWG meets at least quarterly. It is chaired by a member of Aegon Asset Management's Responsible Investment team, and comprises representatives from different functional areas across the company including investment portfolio risk management, operational and underwriting risk management, investment

analysis, investor relations and reporting, corporate strategy and sustainability, public affairs and responsible investment.

Climate-related issues assessed as relevant or material by the CCWG are presented to the RBIC through regular reporting as well as potentially to Aegon's Chief Risk Officer and Aegon's Management Board through the quarterly risk management dashboard. The Management Board may then decide on management actions as appropriate.

Strategy

Aegon is committed to a responsible way of doing business, and needs to meet increasing expectations of multiple stakeholders – investors, but also customers, employees, business partners, and the wider community. Our Responsible Business vision is to provide financial security and well-being for individuals, a thoughtful approach to secure retirement and healthy aging in our society, and make a lasting contribution to a healthy environment.

Risks

Aegon undertakes a biennial Business Environment Scan to identify opportunities and risks expected to be of high impact and likelihood to our business.

For 2019 the scan included specific consideration of the (failure of) climate change mitigation and adaptation, which was considered to have a medium to high likelihood with a low to medium impact over the three-year time horizon of the scan. As a result it remains an area of strategic interest. However, climate change more broadly can be considered a driver of other important risk factors identified including but not limited to regulatory reforms, trade wars/protectionism, and reputational risks. See the Business Environment Scan itself for further discussion of our associated risk management process.

For our life insurance business, most of our liabilities are exposed to mortality and morbidity rates, including both the current level of these rates and the uncertainty around how they will develop over the coming decades. An important driver when assessing the value of our liabilities is how past increases in longevity are extrapolated into the future. Climate change will play a role in this, however there are many other factors that are expected to be more immediately impactful, for example: medical advancements, limits to human biology and changes in life style. It should also be noted that the relationship between mortality and morbidity and climate change is complex and the direction of the impact can also vary geographically. Furthermore, it is also expected that climate change will have a relatively lower impact on longevity and health of the insured population compared to the general population as this group is more affluent and expected to be able to better adapt to changing conditions. Taking all this into consideration, Aegon follows widely adopted industry methods where the extrapolation of future longevity is performed solely based on past experiences of mortality and morbidity rates, without separately modelling each of the underlying drivers like climate change.

In contrast, our investments are exposed to both physical and transition risks. While we expect transition risks to be most salient in the near term, the value of our holdings can reasonably be expected to be influenced by both over time. However scenario analysis has shown that our relatively high allocation to fixed income, including government bonds, should limit our overall exposure.

For our property and casualty (P&C) business we expect a more direct impact from climate change through, for example, high claim frequencies arising from an increase in extreme weather events. However, prices for P&C insurance are set in advance for much shorter periods than is the case for life insurance. Prices are determined by closely monitoring past claim frequencies and adjusting the premiums over time while maintaining an adequate level of expected profitability. As a result, it can be reasonably expected that climate change impacts will be gradually considered and reflected in adjusted premiums as the physical consequences of an increase in global temperatures become apparent.

Case study: Physical risk of Dutch mortgages

As one of the largest mortgage providers in the Netherlands, a share of Aegon Netherlands' assets are directly exposed to the physical consequences of a changing climate. In 2018 the Netherlands experienced record-levels of drought, and at least 1 million homes across 83 municipalities are expected to be at ever increasing risk of subsidence. Aegon's Financial Risk Management team used this as a test case to analyze and quantify the potential impact on our mortgage portfolio. The analysis identified a possible increase in loss given default (LGD) and has prompted more detailed, follow-up analysis regarding mortgage valuation, capital requirements and consideration in the annual own risk and solvency assessment (ORSA).

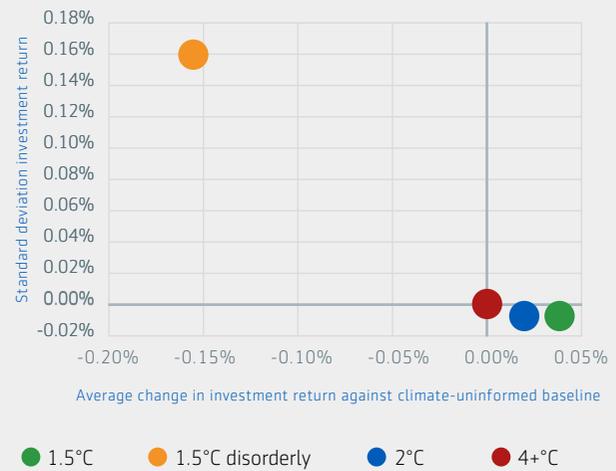
Case study: Scenario analysis of Dutch General Account

Aegon worked with Ortec Finance to perform a systematic climate risk-aware assessment for the general account and insurance-linked assets of Aegon Netherlands.

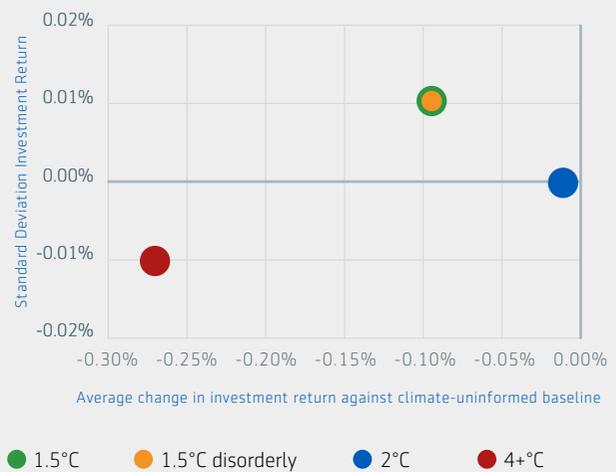
Modelling results indicated that the current asset allocation renders the portfolio rather robust to key systemic climate risk drivers – both transition risks, as well as slow-onset physical risks – across all modelled climate scenarios. This is an important finding as it implies that whichever direction the real world is headed in terms of temperature increases, the Aegon Netherlands portfolio is relatively well positioned to 'weather the storm' and/or take advantage of arising opportunities. This is expected to be a result of the high allocation to fixed income, including government bonds – which is a more robust asset class under a disorderly transition, especially compared to equities or real estate.

It is important to remember that these insights should be viewed within the broader context of climate scenarios and their implications. While the results provide an initial directional signal,

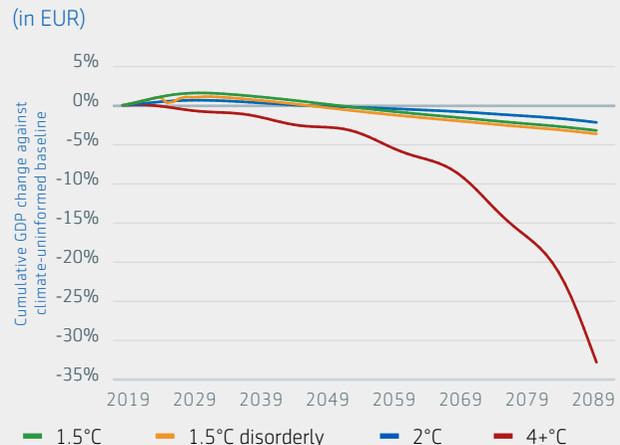
Average change in investment return (2019-2034)



Average change in investment return (2079-2094)



Cumulative GDP growth (in EUR)



climate-related risks are dynamic in nature. Transition risks are expected to dominate in the near to medium term (i.e. to 2030) if society is to achieve the objectives of the Paris Agreement – while physical risks could onset at any time as global temperatures continue to rise. In this case, continuing to monitor developments in climate science, policy, technology and consumer sentiment is critical for understanding and adapting to the future.

Opportunities

As an investor, Aegon has an important role to play in supporting the climate transition. By making climate smart investment choices, Aegon can contribute to a cleaner, healthier environment as well as provide our clients with opportunities to minimize their own climate impacts. Climate change continues to be a focus of Aegon's investment strategy and is guided by our Responsible Investment Policy.

Case study: Kames Global Sustainable Equity fund

The Kames Global Sustainable Equity fund is a concentrated (35 to 45 stocks) global mid-cap growth equity strategy. Detailed sustainability analysis is undertaken as part of the stock picking process which aims to identify and invest in beneficiaries of long-term disruptive sustainability trends. Although the strategy does not employ a thematic approach to investment selection, climate change is naturally an important factor for many of the companies considered; global emissions must peak in the next few years and quickly decline for the world to stay below its Paris Agreement limits which will create risks for some companies but opportunities for others. Current climate-related investments include companies involved in electric vehicle (EV) manufacturing, battery manufacture and testing, sustainable manufacturing technologies, reverse-vending, building insulation and critical emergency mass communication.

Case study: Aegon Asset Management Sustainable Fixed Income strategy

The Aegon Asset Management (AAM) Sustainable Fixed Income strategy was launched in the US to create value by investing in issuers that contribute to a sustainable world and integrate sustainability into their business model. We believe issuers will be rewarded for developing sustainable products and services that help deliver better long term investment performance while improving the sustainability of the global economy and society at large. Organized around 5 themes – climate change, eco solutions, resource efficiency, health and wellbeing, and sustainable growth – green bonds are an innate component of the strategy and decisions are made by a centralized committee who review and discuss potential investments. When reviewing green bonds for potential inclusion in the strategy, we require a high burden of proof from issuers to demonstrate the alignment of proceeds with long term sustainability or climate change objectives.

Case study: Climate change workshop

In July 2019, Aegon's Climate Change Working Group hosted a workshop to provide background on climate change and insight on how a changing climate can be reflected in investments, as well as to discuss our progress and objectives approach as a company. The event took place at the Aegon head office in The Hague and was made available via webcast to staff located in other offices around the world. External speakers presented on climate scenario analysis (Ortec Finance), climate risks and opportunities in fixed income (Moody's), and company-level transition risk (Sustainalytics).

Risk Management

Identification and Management

Climate change is a long-term risk associated with high uncertainty regarding timing, scope and severity of potential impacts. 2019 saw no material change to the overall climate risk identification, assessment and evaluation process described in previous years' disclosures.

Case study: Aegon N.V. and Aegon Netherlands Responsible Investment Policies

Throughout 2019 Aegon N.V. and Aegon Netherlands undertook a review of their responsible investment policies. The updated policies cover all proprietary or general account assets of Aegon N.V. entities, while the Aegon Netherlands policy is also applicable to third-party assets where Aegon Netherlands has duty of care. Based on the principals of good stewardship and active ownership, the policies lay out criteria for consideration when making investment decisions along four steps: ESG integration, engagement and voting, exclusion, and reporting. Attention is called to key responsible business topics of importance to Aegon, including climate change, biodiversity, human and labor rights, good governance, and health and wellbeing. Climate-related criteria for screening and engagement includes: measurement and reporting of climate impacts; consideration of transition and/or physical risks; plans and targets to reduce emissions; other sector- or situation-specific topics (e.g. lobbying). The policies also consolidate our approach to climate change-based exclusions. The Aegon N.V. policy considers companies involved in the extraction or promotion of thermal coal as well as those involved in oil sands production. The Aegon Netherlands policy builds on the group-level criteria to also consider companies operating coal-fired electricity generation.

Active Ownership

Engagement with corporates

As an institutional investor, Aegon expects investee companies to work towards reducing their environmental impact. Aegon engages with the companies it invests in – both individually and collectively through networks to encourage better climate-related risk practices, including emissions disclosure and target setting.

Aegon or its subsidiaries are active members or participants in a number of collaborative initiatives targeting climate action, including but not limited to: UN Principles for Responsible Investment (PRI), the Institutional Investors Group on Climate Change (IIGCC), Climate Action 100+ (CA100+), and the ShareAction Investor Decarbonisation Initiative.

For further details on Aegon's active ownership activities, see Aegon Asset Management's Responsible Investment report.

Case study: Climate-aligned voting

In 2019 Aegon Netherlands and Aegon Asset Management supported nine climate resolutions at four oil and gas company shareholders' meetings (AGMs): BP, Equinor, ExxonMobil, and Chevron. The resolutions called for the companies to disclose their carbon emissions and climate impacts, set goals for the reduction of emissions in line with the objectives of the Paris Agreement, and to develop strategies to align their activities and investments with a low carbon future. Aegon had previously voted in favor of a similar resolution filed with Shell.

Engagement with policymakers

Aegon acknowledges the importance and necessity of government action in addressing climate change. Engagement with policymakers is critical to shaping Aegon's investment environment, and Aegon works independently and in collaboration with industry groups to engage on key climate issues.

In December 2019, Aegon joined a group of 631 institutional investors managing more than US\$37 trillion in signing the Global Investor Statement to Governments on Climate Change. Issued in time for the 25th Conference of Parties (COP) climate negotiations in Madrid, it reiterated previous calls on governments to step up efforts to tackle the global climate crisis and achieve the goals of the Paris Agreement. Aegon also signed a call to action urging the EU to endorse a long-term decarbonization strategy to achieve climate neutrality by 2050 ahead of the May 2019 Future of Europe Summit in Sibiu, Romania.

At the European level, Aegon supports the goals of the European Commission's Action Plan on Financing Sustainable Growth and recognizes the important role that financial actors play in the transition to a low-carbon economy. Both individually and through trade groups, Aegon's Government and Policy Affairs team and climate experts have engaged with officials and contributed to consultations on the corresponding sustainable taxonomy and ESG disclosure regulations, as well as on the incorporation of sustainability risks into the Solvency II regulatory regime. Aegon has also advocated for action to complete the Capital Markets Union to unlock capital from institutional and cross-border investors to fund sustainable transition projects in Europe.

In the Netherlands, Aegon Netherlands and Aegon Asset Management joined other Dutch financial services groups in committing to help finance the transition to more sustainable and less polluting energy alternatives as part of the National Climate Agreement ('Klimaatakkoord'). As an asset owner and insurance company, the agreement commits us to aligning our activities with achieving a 49% reduction in greenhouse gas emissions by 2030 compared to 1990 levels. As an asset manager, the agreement commits us to contribute to meeting the climate goals by supporting our clients in achieving their ambitions and obligations with regard to the climate impact of their investment choices.

Metrics and Targets

Own Operations

Aegon measures and reports annually on its operational carbon footprint. Our main operations (US, Netherlands, UK and Asset Management) have been carbon neutral since 2016 by reducing their facility-level emissions and supporting offset projects in cooperation with the NGO ClimateCare. In 2019, we extended the scope of our offsetting to cover all of our wholly-owned operations. Total emissions can be found on page 415.

Case study: Responsible Business Community

In support of our broad Responsible Business vision, in 2019 Aegon created a Responsible Business Community to put the different global functions and business units in regular contact. Meetings are held throughout the year to share knowledge, best practices, and offer support. In October, Aegon the Netherlands shared their action plan for halving the ecological footprint of the Netherlands-based employees by 2030. It involves five pillars – procurement, building, mobility,

management and behavior – and is supported by the introduction of an internal carbon price. Details of the plan are expected to be communicated in 2020.

Investments and Holdings

In 2018 we began to measure and report on the carbon footprint of our investments, with a focus on our proprietary investment portfolio in the Netherlands. New for 2019 is the first measurement of our Netherlands mortgage holdings.

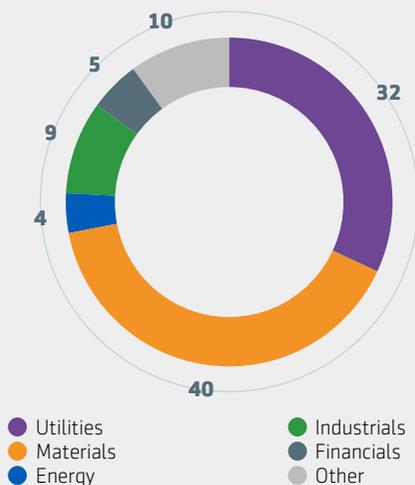
The Netherlands

General Account Fixed Income

		Corporate	Sovereign
Absolute footprint	tCO ₂ e	208,000	5,400,000
Relative intensity	tCO ₂ e/EURm AuM	48	360
Weighted average carbon intensity	tCO ₂ e/EURm revenue	73	228
Carbon Risk / vulnerability	(see notes)	10.7	62.6
Coverage	% AuM	82%	93%

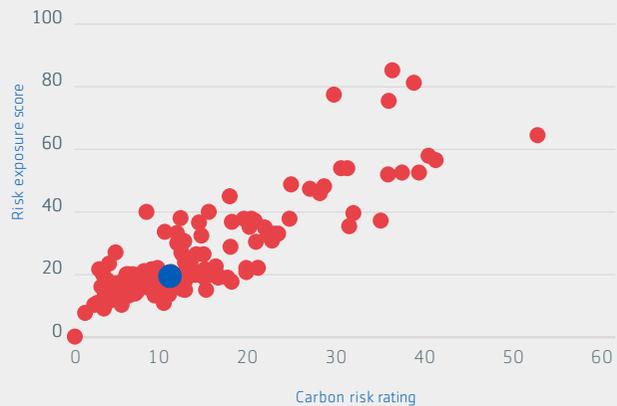
Corporate fixed income

Weighted average carbon intensity by sector (in %)



Corporate fixed income

Carbon risk rating distribution



● Portfolio score

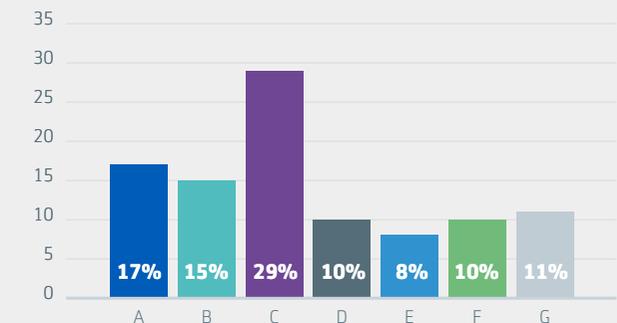
General Account Mortgages

This year Aegon calculated the footprint of its residential mortgage portfolio based on energy labels from Rijksdienst voor Ondernemend Nederland (RVO) and average residential energy consumption. As of the end of December 2019, the total footprint was estimated as 582,000 tCO₂e with an average energy rating of between C and D.

		Residential mortgages
Absolute footprint	tCO ₂ e	582,000
Average energy label	C	C / D
Availability of energy label	% of total	94%

Residential mortgages

Energy label distribution (in %)

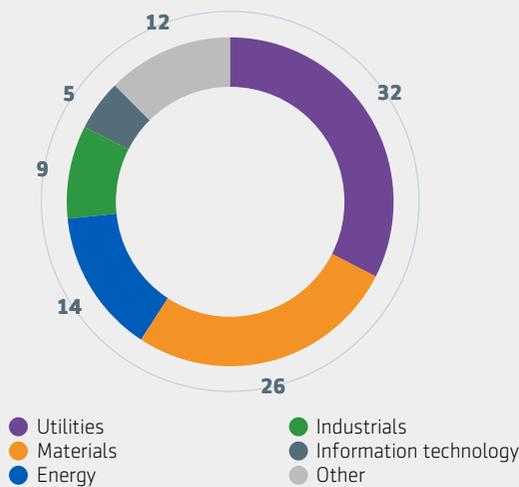


Insurance-Linked Equity

Corporate equity		
Absolute footprint	tCO ₂ e	495,000
Relative intensity	tCO ₂ e/EURm AuM	76
Weighted average carbon intensity	tCO ₂ e/EURm revenue	185
Carbon Risk / vulnerability	(see notes)	8.8
Coverage	% AuM	90%

Corporate equity

Weighted average carbon intensity by sector (in %)



Methodology

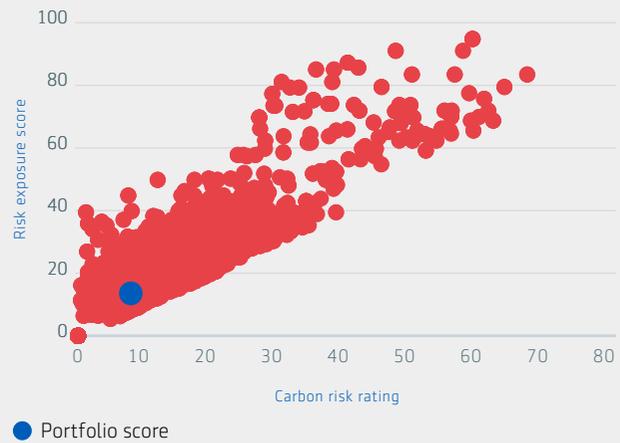
For corporate equity, fixed income and mortgages, metrics were calculated using the methodology outlined by the Platform Carbon Accounting Financials (PCAF). However, due to data availability, calculations for sovereign fixed income were completed using country-level emissions and GDP. Weighted average carbon intensity was calculated following TCFD recommendations. Carbon Risk for corporate issues is measured using Sustainalytics Carbon Risk Rating while climate vulnerability for sovereign issues is measured using the Notre Dame Global Adaptation Initiative (ND-GAIN) Country Index. Further investigation will be required to identify an appropriate methodology and corresponding data sources for asset-backed securities and other asset types currently not included in Aegon's calculations.

Paris Alignment

In 2015, Aegon signed the Paris Pledge for Action, committing to action in support of implementing the Paris Agreement and accelerating the transformative changes needed to meet the climate change challenge.

Corporate fixed income

Carbon risk rating distribution



● Portfolio score

In an early effort to understand the degree of action required, we undertook an internal review of our alignment with a (less than) 2°C future. It revealed the distance between our current position as a globally diversified financial services company and this ambition, helping us to understand what actions are required.

To address this gap we intend to initiate a multi-year program of action across the company that brings together awareness raising and education of climate change with actions and steps our businesses can take to support the low carbon transition.

Next Steps

Aegon will continue to improve its climate change strategy, governance, and approach to risk and opportunity measurement and implementation in the coming years. As the Company's experience with climate issues grows, Aegon will look to increase the breadth of disclosures and further incorporate climate considerations across our business. This is expected to include the extension of climate analysis to non-General Account assets in the Netherlands so as to comply with regulatory requirements and building a deeper understanding of how our General Account investments align with the goals of the Paris Agreement.

UN Principles for Sustainable Insurance (PSI)

As a signatory, Aegon reports each year on actions taken to implement the PSI's four commitments:

Principles	Actions taken (2019)
1. We will embed in our decision-making environmental, social and governance (ESG) issues relevant to the insurance business.	<p>ESG is integrated in how we operate. In 2019 Aegon set up the Responsible Business and Investment Committee, consisting of selected Management Board members, Chief Investment Officers and other senior managers. They discuss ESG matters related to the business and investing on a quarterly basis, and provide advice to Aegon's Management Board.</p> <p>Our public ESG policies and frameworks are available at www.aegon.com. In July 2019, Aegon announced the update of the Inclusion & Diversity statement. Aegon also conducts a biennial Business Environment Scan to identify material ESG topics and issues for our business. This scan brings together the expert driven emerging risk identification process conducted under the requirements of Solvency II and the materiality assessment.</p> <p>Through our products we offer financial solutions for vulnerable groups in, for example, Brazil, Romania and China. From an investment perspective, ESG integration and active ownership are principles we follow across all decisions and portfolios. Aegon Asset Management is a signatory to the Principles for Responsible Investment.</p> <p>For more information, please see: Responsible business at Aegon – page 24; Non-financial policies, procedures and outcomes – page 86; Business Environment Scan – page 16; Responsible investment – page 28; Task Force on Climate-related Financial Disclosures - page 421.</p>
2. We will work together with our clients and business partners to raise awareness of ESG issues, manage risk and develop solutions.	<p>Aegon engages with stakeholders through polls and surveys, conferences, perception studies, workshops and face-to-face meetings so that we can learn about their lives, their aspirations and their unmet needs. These engagements, alongside panels with our customers and employees help us to improve our products and services, to price our offerings appropriately and to reach untapped or underserved customers around the world.</p> <p>Our responsible investment framework encourages engagement with companies in an effort to advocate for positive change, mitigate ESG risk and promote best practices. Through our procurement, we currently have over 650 suppliers who are subject to our minimum supplier standards and who have agreed to our Supplier Sustainability Declaration – a statement of the supplier's sustainability policies and initiatives that our partners attest to either during or after the procurement process.</p> <p>For more information, please see: Responsible business at Aegon – page 24; Aegon: A partner to the world – page 30; Responsible investment – page 28; Non-financial policies, procedures and outcomes - page 86; Task Force on Climate-related Financial Disclosures – page 421.</p>
3. We will work together with governments, regulators and other key stakeholders to promote widespread action across society on ESG issues.	<p>Aegon has a dedicated Global Government & Public Affairs department, whose aim is to support regulators and lawmakers. We advocate worldwide for people to have access to insurance and financial services, for people to be aware of opportunities for flexible employment in old age and for governments to plan and provide for their citizens in an age of increasing longevity. Aegon also encourages financial literacy around the world and engages with individuals and policymakers in service of helping people to achieve wealth and health wherever we can. This includes partnerships with the World Economic Forum, the American Association of Retired Persons, the Milken Institute the Global Coalition on Aging and the Organization for Economic Co-operation and Development</p> <p>For more information, please see: Responsible business at Aegon - page 24.</p>
4. We will demonstrate accountability and transparency in regularly disclosing publicly our progress in implementing the Principles.	<p>Each year, we publish progress against the PSI principles. Our progress report is included as part of our Integrated Annual report, and is available at www.aegon.com.</p>

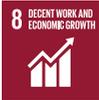
UN Sustainable Development Goals (SDG)

In September 2015, the UN adopted new Sustainable Development Goals (SDGs). These goals cover poverty reduction, education, gender equality, climate change and health. Behind each of these goals is a series of targets and indicators.

For our business, we have identified the following targets as strategic:

- SDG1: No poverty (target 1.2)
- SDG3: Good health and well-being (target 3.4)
- SDG7: Affordable and clean energy (targets 7.2, 7.3 and 7.a)
- SDG8: Decent work and economic growth (target 8.10)
- SDG13: Climate action (target 13.2)

This is where, as a company, we can best support the international sustainable development agenda. The choice of these targets is aligned with how we approach responsible business (see page 30). It takes into consideration the nature of our business (as a provider of financial services) and our geographical footprint (as the majority of our businesses are located in developed economies). The table below shows our positive impact on our strategically more relevant SDGs, while also recognizing the positive impact we have on the other twelve goals (at goal level rather than target level).

Sustainable Development Goal	Aegon contribution to relevant SDG targets
Aegon strategic SDGs	
 <p>No poverty End poverty in all its forms everywhere</p>	<p>Contribution to target 1.2</p> <ul style="list-style-type: none"> Products for low-income customers, including micro-insurance in Brazil and low-cost life insurance in Romania (page 24) Working with customers in financial difficulty – budget coaches in the Netherlands / cooperation with National Foundation for Credit Counseling in the US (page 24) Strengthening financial literacy and empowerment through local initiatives and programs, e.g., Start-up Plus (page 26)
 <p>Good health and well-being Ensure healthy lives and promote well-being for all at all ages</p>	<p>Contribution to target 3.4</p> <ul style="list-style-type: none"> Cover for customers facing chronic illnesses, including diabetes and cancer (page 24, 25) Investment in care homes for the elderly in UK and the Netherlands (page 29) Support for research into chronic illnesses, including cancer, heart diseases and Alzheimer's (page 34) Exclusion of tobacco from investments to help address health concerns over smoking (page 88)
 <p>Affordable and clean energy Ensure access to affordable, reliable, sustainable and modern energy for all</p>	<p>Contribution to target 7.2/7.3/7.a</p> <ul style="list-style-type: none"> Investments in renewable energy (page 26, 29) Investments in green bonds (page 26, 29, 423)
 <p>Decent work and economic growth Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p>	<p>Contribution to target 8.10</p> <ul style="list-style-type: none"> Support for economic growth and job creation through our businesses and investments (page 13) Providing a long-term source of employment for communities in which we operate (page 30, 31) Inclusion of minimum labor standards in Aegon's responsible investment and procurement policies (page 28, 33, 88, 423) Inclusion & Diversity-related commitments and actions (page 4, 18, 32, 33, 34, 87) Equal pay (page 32, 33)
 <p>Climate action Take urgent action to combat climate change and its impacts</p>	<p>Contribution to target 13.2</p> <ul style="list-style-type: none"> Support for Paris Pledge for Action and Dutch National Climate Agreement, working to reduce carbon emissions (page 26, 426) Engagement with investee companies on climate-related topic including encouragement to report following TCFD guidelines (page 26, 28) Exclusion of oil sands extraction and transportation from new investment in the updated Responsible Investment Policy (page 88, 423) Exclusion of thermal coal production from investment, and further limit coal-related new investment (page 7, 26, 88, 423) Aegon's major operation in the Netherlands, UK and US have been carbon neutral since 2016 through a combination of reductions in facility-level emissions and the supporting of offset projects (page 26, 415, 424)

CONTINUED >

Sustainable Development Goal		Aegon contribution to relevant SDG targets
Other SDGs (where Aegon also makes a contribution)		
	Gender equality Achieve gender equality and empower all women and girls	<ul style="list-style-type: none"> • Products to support women suffering from cervical and breast cancer (page 24) • Signatory to Talent to the Top initiative in the Netherlands (page 32) • Local diversity and inclusion initiatives aimed at promoting gender diversity (page 32, 33) • Reporting on gender pay gap in the UK and equal pay study in the Netherlands (page 32, 33)
	Industry, innovation and infrastructure Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation	<ul style="list-style-type: none"> • Investment in new, innovative technology companies through Transamerica Ventures and Aegon Growth Capital (page 17, 20)
	Reduced inequalities Reduce inequality within and among countries	<ul style="list-style-type: none"> • Local diversity and inclusion initiatives (page 4, 32-33) • Products for low-income customers (page 24) • Research into longevity, retirement and healthy aging (page 7, 25).
	Sustainable cities and communities Make cities and human settlements inclusive, safe, resilient and sustainable	<ul style="list-style-type: none"> • Significant investments in social /affordable housing in US and Netherlands (page 29)
	Responsible consumption and production Ensure sustainable consumption and production patterns	<ul style="list-style-type: none"> • Aegon business operations have been climate neutral since 2016 (page 26, 415, 424)
	Life on land Protect, restore and promote sustainable use of terrestrial eco-systems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss	<ul style="list-style-type: none"> • Responsible investment policy contains company position on biodiversity (page 28, 88, 423)
	Peace, justice and strong institutions Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	<ul style="list-style-type: none"> • Exclusion of controversial weapons from investment (page 88) • Internal policies and guidelines covering bribery, corruption and money laundering (page 86)
	Partnerships for the goals Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development	<ul style="list-style-type: none"> • Signatories to UN Principles for both Responsible Investment and Sustainable Insurance (pages 7, 424, 427) • Aegon has partnerships with the World Economic Forum, the American Association of Retired Persons, the Milken Institute, the Global Coalition on Aging and the Organization for Economic Co-operation and Development (page 25, 427)

Note: in our analysis, we excluded four SDGs, where our contributions are not sufficiently material (primarily because of the nature of our business and the location of our operations). These SDGs are 'zero hunger' (SDG2), 'quality education' (SDG4), 'clean water and sanitation' (SDG6), and 'life below water' (SDG14). For more information on the SDGs, see <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

International Responsible Business Conduct Agreement (IRBC Agreement)

In July 2018, Alex Wynaendts signed a statement of intent for Aegon NV to promote and act on the values of the Dutch International Responsible Business Conduct Agreement for the insurance sector (also known as the covenant) in Aegon entities outside of the Netherlands. Aegon Nederland signed up for the covenant. The covenant asks companies to explicitly address non-financial aspects of investments. It is based on the OECD Guidelines for Multinational Enterprises, the UN Guiding Principles on Business and Human Rights and, amongst others, also promotes animal welfare.

In 2019 Aegon continued to support the intentions of the covenant by recognizing the importance of the international guidelines which are fundamental to it. Aegon's updated Responsible Investment Policy draws heavily on, amongst others, the UN Guiding Principles on Business and Human Rights and the OECD Guidelines for Multinational Enterprises. The Policy is instrumental to Aegon's investment practices as are executed by Aegon Asset Management; the group's global asset manager responsible for managing most of Aegon's investments. For further details on Aegon's approach to responsible investment, please see page 28.

Next to the aforementioned Principles and Guidelines, Aegon has committed itself to support the UN Sustainable Development Goals (SDGs) where it can; both as a financial services provider and as an investor. As such, Aegon endeavors to align its investment strategies with the objectives of the SDGs it considers most relevant for its business practices. These being SDG 1 (no poverty), SDG 3 (good health and well-being), SDG 7 (affordable and clean energy), SDG 8 (decent work and economic growth) and SDG 13 (climate action). For further details on Aegon's commitment to the SDGs, please see pages 27 and 428.

Aegon publicly expressed its views on climate change by, amongst others, calling upon policy and law makers to implement zero emissions targets. For further details on Aegon's commitment to mitigating the impacts of climate change, please see our Task Force on Climate-related Financial Disclosures report on page 421.

Glossary

Accounting Consolidation is the default method for calculating the Group solvency position. With this consolidation method, diversification benefits in the calculation of capital requirements are allowed.

Acquisition date is the date on which the acquirer effectively obtains control of the acquiree. In most cases this includes at least the transfer of risks and rewards related to the acquired business or assets/liabilities.

Actuarial funding enables a life insurance company to reduce the size of the unit reserves it holds for unit-linked business to reflect some or all of the unit-linked charges it expects to receive in the future from the units nominally allocated. Actuarial funding is used on those contracts that have surrender penalties and the Company will hold a minimum of the surrender value at all times.

Actuarial gains and losses relate to the accounting for post-employment benefit plans. They comprise the effects of experience adjustments and changes in assumptions used to determine the cost of a plan.

Alt-A mortgages relates to a type of US residential mortgage which are securitized home equity loans. Typical Alt-A borrower has a credit score high enough to obtain an: 'A' standing. Alt-A mortgages are primarily backed by loans with fixed interest rates for the entire term of the loan.

Aggregation is the methodology by which capital requirements are calculated across different risk groupings, allowing for diversification benefit between the groupings.

Amortized cost is the amount at which the financial asset or liability is measured at initial recognition minus principal repayments, plus or minus the cumulative amortization using the effective interest rate method of any difference between that initial amount and the maturity amount and minus any reduction (directly or through the use of an allowance account) for impairment or uncollectability.

Asset-Backed Securities (ABS) are securities whose value and income payments are derived from and collateralized (or 'backed') by a specified pool of underlying assets.

Assets held by long-term employee benefit funds are part of plan assets. These are assets (other than non-transferable financial instruments issued by the reporting entity) that:

- Are held by an entity that is legally separate from the reporting entity and exists solely to pay or fund employee benefits; and
- Are available to be used only to pay or fund employee benefits and are not available to the reporting entity's own creditors.

Authorized Control Level (ACL) is the level US regulators are permitted to seize control of a company.

Bifurcation is the measurement and presentation of embedded derivatives separate from the host contracts, as if they were stand-alone derivative financial instruments.

Business combination is the bringing together of separate entities or operations of entities into one reporting entity. This can be realized through a purchase transaction or by means of a merger. A business combination involving entities (or operations of entities) under common control is a business combination in which all of the combining entities (or operations of entities) ultimately are controlled by the same party or parties both before and after the combination, and that control is not transitory.

Company Action Level (CAL) is the regulatory intervention level at which a company has to submit a plan to its state regulators for the Aegon Americas segment. It is 200% of the Authorized Control Level (ACL) - the level regulators are permitted to seize control of a company. It is a requirement and the most pertinent for measuring risk-based capital (RBC).

Capital funding includes debt securities that are issued for general corporate purposes and for capitalizing our business units. Capital funding is part of the Company's total capitalization that is used for financing our subsidiaries and the cash held at the holding company.

Capitalization is the recognition of a cost as part of the cost of an asset on the statement of financial position.

Cash-generating unit is the smallest identifiable group of assets that generates cash inflows that are largely independent of the cash inflows from other assets or groups of assets.

Cedant is the policyholder under a reinsurance contract.

Claims settlement expenses are costs incurred in settling a claim. These costs include internal administration and payout costs, but also such items as attorney's fees and investigation expenses.

Collateral is an asset pledged by a borrower to secure a loan and is subject to seizure in the case of default.

Collateralized Debt Obligation (CDO) is a type of asset-backed security which provides investors exposure to the credit risk of a pool of fixed income assets.

Commercial Mortgage-Backed Securities (CMBS) is a type of mortgage-backed security that is secured by the loan on a commercial property.

Compound financial instruments are financial instruments that, from the issuer's perspective, contain both a liability and an equity element.

Constructive obligation is an obligation that derives from an entity's actions whereby an established pattern of past practice, published policies or a sufficiently specific current statement, the entity has indicated to other parties that it will accept certain responsibilities, and as a result, the entity has created a valid expectation on the part of those other parties that it will discharge those responsibilities.

Contingent liability is a possible obligation dependent on the occurrence of an uncertain future event or a present obligation for which payment is not probable or the amount cannot be measured reliably.

Credit risk is the risk that one party to a financial instrument will fail to discharge an obligation and cause the other party to incur a financial loss.

Currency exchange rate risk is a market risk, namely the risk that the value of a financial instrument will fluctuate due to changes in foreign exchange rates.

Debt securities are interest-paying bonds, debentures, notes, or money market instruments that are issued by governments or corporations. Debt securities are issued with a promise of repayment on a certain date at a specified rate of interest.

Deduction & Aggregation is the alternate method for calculating group solvency that aggregates an entity without allowing for diversification between the entity that is aggregated using D&A and those that are aggregated using Accounting Consolidation.

Deferred tax assets are amounts of income taxes recoverable in future periods in respect of deductible temporary differences; the carry forward of unused tax losses; and the carry forward of unused tax credits.

Deferred tax liabilities are amounts of income taxes payable in future periods in respect of taxable temporary differences.

Defined benefit obligation relate to the accounting for post-employment benefit plans. It is the present value, without deducting any plan assets, of expected future payments required to settle the obligation resulting from employee service in the current and prior periods.

Defined benefit plans are post-employment benefit plans other than defined contribution plans.

Defined contribution plans are post-employment benefit plans under which an entity pays fixed contributions into a separate entity (a fund) and will have no legal or constructive obligation

to pay further contributions if the fund does not hold sufficient assets to pay all employee benefits relating to employee service in the current and prior periods.

Deferred Policy Acquisition Cost (DPAC) - are the variable costs related to the acquisition or renewal of insurance contracts and investment contracts with discretionary participation features.

Deposit accounting method includes amounts charged and paid to customers directly into the financial liability and not through the income statement as premium income and claims.

Derecognition is the removal of a previously recognized asset or financial liability from an entity's statement of financial position.

Derivatives are financial instruments whose value changes in response to an underlying variable, that often require little or no net initial investment and are settled at a future date.

Discretionary participation feature is a contractual right to receive, as a supplement to guaranteed benefits, additional benefits:

- That are likely to be a significant portion of the total contractual benefits;
- Whose amount or timing is contractually at the discretion of the issuer; and

That are contractually based on:

- The performance of a specified pool of contracts or a specified type of contract;
- Realized and/or unrealized investment returns on a specified pool of assets held by the issuer; or
- The profit or loss of the Company, fund or other entity that issues the contract.

Diversification is the general concept of reducing the total risk of a portfolio of assets and/or liabilities by spreading it across a mix of different risk exposures. Risk reduction occurs due to the less than perfect correlation among the individual risk exposures in the portfolio, meaning risks will not materialize all at the same time.

Effective interest rate method is a method of calculating the amortized cost of a financial asset or liability and of allocating the interest income or expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument or, when appropriate, a shorter period to the net carrying amount of the financial asset or liability.

Embedded derivative is a component of a hybrid instrument that also includes a non-derivative host contract, with the effect that some of the cash flows of the combined instrument vary in a way similar to a derivative.

Equity instruments are financial instruments issued by the Group that are classified as equity if they evidence a residual interest in the assets of the Group after deducting all of its liabilities.

Equity method is a method of accounting whereby the investment is initially recognized at cost and adjusted thereafter for the post-acquisition change in the investor's share of net assets of the investee. The profit or loss of the investor includes the investor's share of the profit or loss of the investee.

Equity volatility is the relative rate at which the price of equity changes.

Excess cash in the holding, which is rather a measure of Holdings liquidity, can be defined as the sum of the Holding company assets, less capital investments, less matched short term assets, less other adjustments. Management of excess cash in the holding is based on a similar approach as the management of the Group and Local Unit capitalization, using a range approach and a ladder of intervention to trigger timely conversations and escalating management actions.

Exchange differences are differences resulting from translating a given number of units of one currency into another currency at different exchange rates.

Fee-based earnings refers to the excess of fees earned over expenses. This is typically associated with pensions business, asset management business, distribution business, variable annuities and unit linked products.

Finance lease is a lease that transfers substantially all the risks and rewards incident to ownership of an asset.

Financial asset is any asset that is:

- Cash;
- An equity instrument of another entity;
- A contractual right to receive cash or another financial asset from another entity or to exchange financial instruments with another party under conditions that are potentially favorable; or
- A contract that will or may be settled in the entity's own equity instruments; and is
- A non-derivative for which the entity is or may be obliged to receive a variable number of the entity's own equity instruments; or
- A derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.

Financial instrument is any contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity.

Financial liability is any liability that is:

- A contractual obligation to deliver cash or another financial asset to another entity or to exchange financial assets or financial liabilities with another entity under conditions that are potentially unfavorable to the entity; or
- A contract that will or may be settled in the entity's own equity instruments; and is
- A non-derivative for which the entity is or may be obliged to deliver a variable number of the entity's own equity instruments; or
- A derivative that will or may be settled other than by the exchange of a fixed amount of cash or another financial asset for a fixed number of the entity's own equity instruments.

Financial risks are risks of a possible future change in one or more of the following variables: a specified interest rate, financial instrument price, commodity price, foreign exchange rate, index or prices or rates, credit rating or credit index or other variable, provided in the case of a non-financial variable, that the variable is not specific to a party to the contract.

Firm commitment is a binding agreement for the exchange of a specified quantity of resources at a specified price on a specified future date or dates.

Fixed charge coverage is a measure of the Aegon's ability to service its financial leverage. It is calculated as the sum of underlying earnings before tax and interest expenses on financial leverage divided by interest payments on financial leverage. The fixed charge coverage includes the impact of interest rate hedging.

Foreign currency is a currency other than the functional currency of an entity within the Group.

Foreign currency translation reserve (FCTR) is part of shareholders' equity, and is the reserve for the exchange differences recognized from the financial statements of the group entities. On the consolidation, the financial statements of group entities with a foreign functional currency are translated to euro, the currency in which the consolidated financial statements are presented. Assets and liabilities are translated at the closing rates on the reporting date. Income, expenses and capital transactions (such as dividends) are translated at average exchange rates or at the prevailing rates on the transaction date, if more appropriate. The resulting exchange differences are recognized in the FCTR.

Foreign operation is an entity that is a subsidiary, associate, joint venture or branch of a reporting entity within the Group, the activities of which are based or conducted in a country or currency other than those of the reporting entity.

Functional currency is the currency of the primary economic environment in which an entity within the Group operates.

Fungibility & Transferability is the ability to up-stream and transfer capital between jurisdictions. This ability differs between jurisdictions as it depends on the legal framework of each jurisdiction.

General account investments are investments of which the financial risks are not borne by the policyholder.

Goodwill is the amount of future economic benefits arising from assets that are not capable of being individually identified and separately recognized as an asset in a business combination.

Government exposures relates to government issued securities including Dutch Government bonds and US Treasury, agency and state bonds.

Guaranteed benefits are payments or other benefits to which a particular policyholder or investor has an unconditional right that is not subject to the contractual discretion of the issuer.

Guaranteed minimum death benefits are benefits that guarantee that the beneficiary, as named in the contract, will receive a death benefit if the annuitant dies. The benefit received differs among contracts and may be greater than the current account value.

Guaranteed minimum income benefits are a type of option that annuitants can purchase for their retirement annuities. When the annuity is annuitized, this specific option guarantees that the annuitant will receive a minimum value's worth of payments, regardless of the current level of the account value.

Guaranteed minimum withdrawal benefits are a type of option that annuitants can purchase for their retirement annuities. This specific option gives annuitants the ability to protect their retirement investments against downside market risk by allowing the annuitant the right to withdraw a percentage of their withdrawal base each year, regardless of how markets have performed

Hedge effectiveness is the degree to which changes in the fair value or cash flows of the hedged item that are attributable to a hedged risk are offset by changes in the fair value or cash flows of the hedging instrument.

Incremental cost is one that would not have been incurred if the entity had not acquired, issued or disposed of a financial instrument.

Insurance asset is an insurer's contractual right under an insurance contract.

Insurance contract is a contract under which one party (the insurer) accepts significant insurance risk from another party

(the policyholder) by agreeing to compensate the policyholder if a specified uncertain future event (the insured event) adversely affects the policyholder.

Insurance liability is an insurer's contractual obligation under an insurance contract.

Insurance risk is a risk, other than financial risk, transferred from the holder of a contract to the issuer.

Interest rate risk is a market risk, namely the risk that the value of a financial instrument will fluctuate due to changes in market interest rates.

Joint control is the contractually agreed sharing of control over an economic activity, which exists when the strategic and operating decisions relating to the activity require the unanimous consent of the parties sharing control.

Liability adequacy testing is an assessment of whether the carrying amount of an insurance liability needs to be increased (or the carrying amount of related deferred policy acquisition costs or related intangible assets decreased) based on a review of future cash flows.

Liquidity risk is the risk that an entity will encounter difficulty in raising funds to meet commitments associated with financial instruments.

Loss absorbing capacity of deferred taxes (LAC-DT) is a loss compensating effect of taxes taken into account in the solvency capital requirement.

Master netting agreement is an agreement providing for an entity that undertakes a number of financial instrument transactions with a single counterparty to make a single net settlement of all financial instruments covered by the agreement in the event of default on, or termination of, any contract.

Matching adjustment will adjust the discount rate applied in the valuation of predictable liabilities which are cash flow matched using fixed income assets. The predictability of the portfolio means that matching assets can be held to maturity and that the insurer is consequently not exposed to price movements, only to the risk of default.

Minimum capital requirement (MCR) is the absolute minimum level of capital an insurance company must hold in excess of its Technical Provisions under Solvency II. This is the threshold of which below local regulators would intervene.

Monetary items are units of currency held and assets and liabilities to be received or paid in a fixed or determinable number of units of currency.

Monoline insurer is an insurance company which issues types of insurance for securities and bonds to cover the interest and principal when an issuer defaults.

Negative amortization mortgages are loans whereby the payment made by the borrower may be less than the accrued interest due and the difference is added to the loan balance. When the accrued balance of the loan reaches the negative amortization limit (typically 110% to 125% of the original loan amount), the loan recalibrates to a fully amortizing level and a new minimum payment amount is determined.

Non-controlling interests are that portion of the profit or loss and net assets of a subsidiary attributable to equity interests that are not owned, directly or indirectly through subsidiaries, by the parent.

Onerous contracts are contracts in which the unavoidable costs of meeting the obligations under the contract exceed the economic benefits expected to be received under it.

Operational funding includes debt securities that are issued for the financing of dedicated pools of assets. These assets are either legally segregated or tracked as separate portfolios.

Operating expenses are all expenses associated with selling and administrative activities (excluding commissions) after reallocation of claim handling expenses to benefits paid.

Partial Internal Model is a combination of a Standard Formula and Internal Model, used to calculate the Solvency II capital requirement.

Past service cost is the increase in the present value of the defined benefit obligation for employee service in prior periods, resulting in the current period from the introduction of, or changes to, post-employment benefits.

Plan assets are assets held by a long-term employee benefit fund and qualifying insurance policies.

Policy acquisition costs are the expenses incurred in soliciting and placing new business as well as renewal of existing business. It includes agent's commissions, underwriting expenses, medical and credit report fees, marketing expenses and all other direct and indirect expenses of the departments involved in such activities.

Policyholder is a party that has a right to compensation under an insurance contract if an insured event occurs.

Presentation currency is the currency in which the financial statements are presented.

Price risk is a market risk, namely the risk that the value of a financial instrument will fluctuate as a result of changes in market prices.

Private loan is a non-derivative financial asset with a fixed interest rate and a maturity date, which is not bought in an active market but negotiated between the two parties involved. Private loans are not embodied in securities. When a private loan takes the form of a private placement of bonds or other investments directly to an institutional investor like an insurance company, it has more the character of a bond loan and such financial instruments are classified as available-for-sale investments rather than as loans and receivables.

Projected unit credit method is an actuarial valuation method that sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation.

Qualifying insurance policies are a component of plan assets. These are insurance policies issued by an insurer that is not a related party of the reporting entity, if the proceeds of the policies:

- Can be used only to pay or fund employee benefits under a defined benefit plan; and
- Are not available to the reporting entity's own creditors.

Real estate investments foreclosed are real estate investments purchased through foreclosure on the mortgage. Such purchases are not accounted for as mortgages, but as real estate investments until they can be sold at a better price than at the foreclosure. Meanwhile they yield a rental income.

Realizable value is the amount of cash or cash equivalents that could currently be obtained by selling an asset in an orderly disposal.

Recognition is the process of incorporating in the statement of financial position or income statement an item that meets the definition of an element and satisfies the following criteria for recognition:

- It is probable that any future economic benefit associated with the item will flow to or from the entity; and
- The item has a cost or value that can be measured with reliability.

Reinsurance assets are a cedant's net contractual rights under a reinsurance contract.

Reinsurance contract is an insurance contract issued by one insurer to compensate another insurer for losses on one or more contracts issued by the cedant.

Renewal of a contract is when a policyholder takes whatever action is required, typically payment of a premium, in order to maintain benefits under the contract.

Repurchase agreement is a sale of securities with an agreement to buy back the securities at a specified time and price.

Residential Mortgage Backed Security (RMBS) is an asset-backed security that is secured by a residential mortgage or collection of residential mortgages.

Return on plan assets is the investment income derived from plan assets, together with realized and unrealized gains and losses on the plan assets less any costs of administering the plan and less any tax payable by the plan itself.

Reverse repurchase agreement is a purchase of securities with the agreement to resell them at a later specified date and price.

Risk Based Capital Company Action Level is designed primarily for US regulators to identify poorly capitalized companies whose continued operations may be hazardous to policyholders. The insurer's RBC solvency ratio is determined as its 'total adjusted capital' divided by 'authorized control level risk based capital. (ACL)'. However, it is industry and rating agency convention to complete and communicate the RBC solvency ratio relative to the 'Company Action Level Risk Based Capital', which is twice the authorized control level.

Security lending involves a loan of a security from one party to another.

Settlement date is the date that a financial asset is delivered to the entity that purchased it.

Solvency II is the supervisory regime introduced per January 1, 2016 and consist of a programme of prudential regulations of European insurance legislation, which vary in severity depending on the riskiness and diversity of an insurer's business. The Solvency II programme is divided into three areas: Pillar 1 lays out quantitative requirements for the amount of capital an insurer should hold; Pillar 2 covers governance and risk management of insurers; and Pillar 3 addresses transparency, reporting and public disclosure.

Solvency capital requirement (SCR) is the amount of funds that insurance and reinsurance companies are required to hold in order to have 99.5% confidence that they could survive the most extreme expected losses over the course of a year under Solvency II. The SCR incorporates risks such as non-life underwriting, life underwriting, health underwriting, market, credit, operational and counterparty risks, and must be recalculated at least once per year.

Spot exchange rate is the exchange rate for immediate delivery.

Spread is the difference between the current bid and the current ask or offered price of a given security.

Spread earnings is the difference between the interest earned on investments and the interest credited to policyholders. This is typically associated with traditional type business.

Standard Formula is a risk-based approach to the calculation of an insurer's solvency capital requirement under the Solvency II supervisory regime, prescribed by the regulator.

Stochastic modeling is a statistical process that uses probability and random variables to predict a range of probable investment performances.

Temporary differences are differences between the carrying amount of an asset or liability in the statement of financial position and its tax base that will reverse over time.

Trade date is the date that an entity commits itself to purchase or sell an asset.

Transaction costs are incremental costs that are directly attributable to the acquisition, issue or disposal of a financial asset or liability.

Transitional measures allow EEA entities to gradually move to a full implementation of Solvency II over a period of time.

Trust Pass-Through securities (TRUPS) are securities through which the holders participate in a trust. The assets of these trusts consist of debentures issued by an Aegon Group company.

Unlocking of DPAC and VOBA refers to the process of updating the DPAC or the VOBA amortization schedule to reflect changes between the past and current expectations of key assumptions used in the projection of future gross profits.

Value of Business Acquired (VOBA) the difference between the fair value and the carrying amount of the insurance liabilities recognized when a portfolio of insurance contracts is acquired (directly from another insurance company or as part of a business combination).

Volatility adjustment (VA) is a volatility adjustment to the discount rates for calculating technical provisions aims at avoiding pro-cyclical investment behavior of insurers when bond prices deteriorate owing to low liquidity of bond markets or exceptional expansion of credit spreads, under the Solvency II supervisory regime. The adjustment has the effect of stabilizing the capital resources of insurers and will be calculated by EIOPA.

Abbreviations

AFM Authority for the Financial Markets	GMWB Guaranteed Minimum Withdrawal Benefits
ALCO Asset & Liability Management Committee	G-SII Global Systematically Important Insurer
ALM Asset Liability Management	HLA Higher Loss Absorbing Capacity
BCR Basic Capital Requirement	IAIS International Association of Insurance Supervisors
DNB Dutch Central Bank	IBOR Interbank Offered rates
DOL Department of Labor	ICS Insurance Capital Standard
EFRAG European Financial Reporting Advisory Group	ORSA Own Risk and Solvency Assessment
ESG Environmental, Social and Governance	PPI Premium Pension Institution
FSB Financial Stability Board	PSI Principles for Sustainable Insurance
GICs Guaranteed Investment Contracts	SDG Sustainable Development Goals
GMDB Guaranteed Minimum Death Benefits	SEC United States Securities and Exchange Commission
GMIB Guaranteed Minimum Income Benefits	SEE Southern & Eastern Europe

- As Aegon's operations support complex transactions and are highly dependent on the proper functioning of information technology, operational risks such as system disruptions or failures, security or data privacy breaches, cyberattacks, human error, failure to safeguard personally identifiable information, changes in operational practices or inadequate controls including with respect to third parties with which we do business may disrupt Aegon's business, damage its reputation and adversely affect its results of operations, financial condition and cash flows;
- The impact of acquisitions and divestitures, restructurings, product withdrawals and other unusual items, including Aegon's ability to integrate acquisitions and to obtain the anticipated results and synergies from acquisitions;
- Aegon's failure to achieve anticipated levels of earnings or operational efficiencies as well as other cost saving and excess cash and leverage ratio management initiatives;
- Changes in the policies of central banks and/or governments;
- Litigation or regulatory action that could require Aegon to pay significant damages or change the way Aegon does business;
- Competitive, legal, regulatory, or tax changes that affect profitability, the distribution cost of or demand for Aegon's products;
- Consequences of an actual or potential break-up of the European monetary union in whole or in part, or the anticipated exit of the United Kingdom from the European Union and potential consequences if other European Union countries leave the European Union;
- Changes in laws and regulations, particularly those affecting Aegon's operations' ability to hire and retain key personnel, taxation of Aegon companies, the products Aegon sells, and the attractiveness of certain products to its consumers;
- Regulatory changes relating to the pensions, investment, and insurance industries in the jurisdictions in which Aegon operates;
- Standard setting initiatives of supranational standard setting bodies such as the Financial Stability Board and the International Association of Insurance Supervisors or changes to such standards that may have an impact on regional (such as EU), national or US federal or state level financial regulation or the application thereof to Aegon, including the designation of Aegon by the Financial Stability Board as a Global Systemically Important Insurer (G-SII); and
- Changes in accounting regulations and policies or a change by Aegon in applying such regulations and policies, voluntarily or otherwise, which may affect Aegon's reported results, shareholders' equity or regulatory capital adequacy levels.

This document contains information that qualifies, or may qualify, as inside information within the meaning of Article 7(1) of the EU Market Abuse Regulation (596/2014). Further details of potential risks and uncertainties affecting Aegon are described in its filings with the Netherlands Authority for the Financial Markets and the US Securities and Exchange Commission, including the Annual Report. These forward-looking statements speak only as of the date of this document. Except as required by any applicable law or regulation, Aegon expressly disclaims any obligation or undertaking to release publicly any updates or revisions to any forward-looking statements contained herein to reflect any change in Aegon's expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

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