

# Alcoa is...



**...focused on customers**

## Financial and Operating Highlights

dollars in millions, except per-share amounts	2004	2003	% change
<b>Sales</b>	<b>\$23,478</b>	<b>\$21,092</b>	<b>11</b>
<b>Income from continuing operations</b>	<b>1,402</b>	<b>1,055</b>	<b>33</b>
<b>Total assets</b>	<b>32,609</b>	<b>31,711</b>	<b>3</b>
<b>Capital expenditures from continuing operations</b>	<b>1,142</b>	<b>863</b>	<b>32</b>
<b>Cash provided from continuing operations</b>	<b>2,198</b>	<b>2,436</b>	<b>(10)</b>
<b>Per common share data:</b>			
<b>Basic:</b>			
<b>Income from continuing operations</b>	<b>1.61</b>	<b>1.23</b>	<b>31</b>
<b>Net income</b>	<b>1.50</b>	<b>1.09</b>	<b>38</b>
<b>Diluted:</b>			
<b>Income from continuing operations</b>	<b>1.60</b>	<b>1.22</b>	<b>31</b>
<b>Net income</b>	<b>1.49</b>	<b>1.08</b>	<b>38</b>
<b>Dividends paid</b>	<b>.60</b>	<b>.60</b>	<b>—</b>
<b>Book value*</b>	<b>15.21</b>	<b>13.84</b>	<b>10</b>
<b>Number of shareholders</b>	<b>295,000</b>	<b>278,400</b>	<b>6</b>
<b>Average common shares outstanding (000)</b>	<b>869,907</b>	<b>853,352</b>	<b>2</b>
<b>Number of employees</b>	<b>119,000<sup>†</sup></b>	<b>120,000</b>	<b>(1)</b>

\* Book value = (Total shareholders' equity minus Preferred stock) divided by Common stock outstanding, end of year

<sup>†</sup> As of February 2005, the Company has 131,000 employees due to the acquisition of two Russian fabricating facilities from RusAL.

## Alcoa at a Glance

Alcoa is the world's leading producer of primary aluminum, fabricated aluminum, and alumina and is active in all major aspects of the industry.

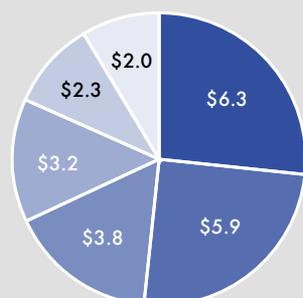
- Alcoa serves the aerospace, automotive, packaging, building and construction, commercial transportation, and industrial markets, bringing design, engineering, production, and other capabilities of Alcoa's businesses as a single solution to customers.
- In addition to aluminum products and components, Alcoa also makes and markets consumer brands including Reynolds Wrap®, Alcoa® wheels, and Baco® household wraps. Among its other businesses are vinyl siding, closures, fastening systems, precision castings, and electrical distribution systems for cars and trucks.
- The Company has 131,000<sup>†</sup> employees in 43 countries. For more information, go to [www.alcoa.com](http://www.alcoa.com)

## 2004 Revenues: \$23.5 Billion

### By Segment

billions

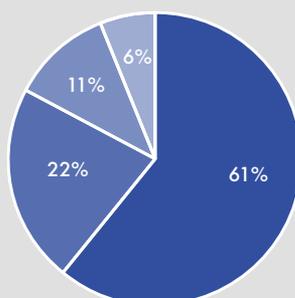
- \$6.3 Engineered Products
- \$5.9 Flat-Rolled Products
- \$3.8 Primary Metals
- \$3.2 Packaging and Consumer
- \$2.3 Other
- \$2.0 Alumina and Chemicals



### By Geographic Area

percent

- 61% United States
- 22% Europe
- 11% Pacific
- 6% Other Americas\*



\*Includes Canada, Caribbean, Mexico and South America

## Contents

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## On the Cover

Alcoans across the world are focused on customers including Airbus (A380), Ferrari (F-430), Pittsburgh Brewing (Iron City aluminum beer bottles), Ford (F-650/750 trucks), DeVos Place in Michigan, USA, and customers of the Pinjarra alumina refinery in Australia, to name just a few.

# Fellow Shareowners:

Alain Belda, Chairman and Chief Executive Officer



Last year I wrote about how Alcoa's Vision of aspiring to be the best company in the world is about delivering sustained financial performance, while building for the future *and* delivering on all of Alcoa's seven Values. This is the goal that all 131,000 Alcoans across the globe are striving for every day.

In 2004 – facing the headwinds of rising costs and currency challenges – Alcoans delivered the highest annual revenue and the second-highest profitability in the Company's history. Strong cash flows allowed us to not only reduce debt by approximately \$2 billion over the last two years, but also to invest in numerous growth projects around the world for the Company's future. And we did all of this while we continued to live the Values that are the core of our Company, achieving, for example, a Lost Workday rate of 0.09 for the first time, while improving our Total Recordable Rate for the 18th year in a row.

## 2004 Financial Results

Our 2004 financial results included:

- Income from continuing operations of \$1.4 billion, a 33% increase vs. 2003, and our second straight year of double-digit earnings growth;
- Revenue of \$23.5 billion, an 11% increase vs. 2003;
- A debt-to-capital ratio decline to 30.0%, the lowest in five years;
- Disciplined use of capital to fuel growth projects. 2004 capital spending was \$1.1 billion, or 95% of depreciation, with approximately one-third used on growth initiatives. In 2005, we expect to invest approximately \$2.5 billion on capital projects, with nearly two-thirds dedicated to growth projects; and
- Improving the Company's return on capital (ROC) to 8.4%, up 140 basis points from last year.

A favorable external business environment contributed to our performance. The global economy grew at its fastest pace (+4.4%) in the last two decades. Aluminum consumption increased by almost 9%, and aluminum prices were up 21%. Several of our key markets – notably aerospace and commercial vehicles – moved to a cyclical upturn after declining trends over the past two to three years.

However, these favorable trends were countered by a weakening U.S. dollar and significant cost issues, notably energy and input costs such as resins, carbon-based materials, and alloy materials. Currency and energy alone in 2004 negatively impacted our earnings by more than \$300 million compared to 2003.

**In 2004 – facing the headwinds of rising costs and currency challenges – Alcoans delivered the highest annual revenue and the second-highest profitability in the Company's history.**

As strong as our 2004 financial results were, we are confident we can do better. The ultimate measure of success is growth in shareholder value during the year and over a period. Our 2004 return was –15.7%, obviously a disappointment. However, the combined 2003/04 return is +44% compared to +31% for the S&P 500.

Stock performance is a mix of past performance, future expectations, and shareholder options. The best answer to improved shareowner returns is consistent, transparent, and improved performance. And this is what our plans are all about. We remain committed to our key financial goals:

- **Profitable Growth** – Continuing the drive to profitably grow revenues as well as to join the first quintile of the S&P Industrials, measured in terms of ROC; and
- **Cost Savings** – Achieving \$1.2 billion in cost savings by 2006. In 2005, this cost-savings initiative – our third three-year program since 1998 – will be used to help offset cost increases across the business and bolster profitability.

On our ROC goal, we again improved this year, but we have more work to do. Our 2004 ROC was 8.4%, which improved from 7.0% a year ago. However, the first quintile entry point is currently 18.5%, so we will continue to work to profitably grow and improve our results.

Our cost-savings program, as previously mentioned, was held back by rising costs in 2004. We expect this to continue to be a challenge in 2005. We project approximately \$600 million in cost increases from energy, labor, raw materials, and currencies. Our cost-savings plans for 2005 indicate we will be able to offset most, if not all, of these increases. But this will require substantial effort in planning, focusing effort, and execution at all levels of the organization and across our global businesses, which is why our structure and culture are so vital.

## Building for the Future

We have taken many steps to position and align your Company to capture growth opportunities and expand – both through new geographies as well as expanding current assets.

In late 2004, we realigned the Company along six global platforms to better serve customers and increase the ability to capture efficiencies. We also centralized purchasing on a global basis to improve our costs and better use our leverage. As we moved to strengthen the global business structures, we also created strong regional leadership to ensure that we maintain optimum relationships.

In addition, we combined functional groups such as ABS (Alcoa Business System), Customer and Marketing Services, EHS, People, and Quality to accelerate the culture changes in order to achieve our Vision and emphasize the ABS philosophy that “people are the linchpin of ABS.”

As you will see in the pages of this report, we are expanding across our markets, using the tenets of ABS, to help our customers grow their businesses. We expect the combination of our global business structure, our functional resources, and our R&D expertise to continue to spur profitable organic growth and share gains across the world.

### Upstream – Restarts and Growth Projects

To take advantage of the strong aluminum market, we are restarting several smelters. When complete, these restarts will add 220,000 metric tons per year (mtpy) of production in 2005, leaving us with idle capacity of 361,000 mtpy. Restart progress has been made at:

1) the Aluminerie de Bécancour, Inc. (ABI) facility in Quebec, following the end of a strike there. This strike resulted in a significant cost to the Company, but was necessary to enable the long-term flexibility we need to operate efficiently; 2) the Wenatchee smelter in Washington, USA, after the successful resolution of an issue regarding health-care cost-sharing. The plant had been idle since 2001, and the resolution of this issue helped save 400 jobs; and 3) the Massena East and West smelters in New York, USA, where we are now running at full capacity.

In addition to restarts, we began steps to expand our upstream operations that will benefit the Company for years, if not decades, to come. For example, we broke ground in Iceland on Alcoa Fjarðaál, the Company’s first greenfield smelter in more than 20 years. This hydropowered smelter, which is scheduled to come on line in 2007, will be among the most environmentally friendly in the world.

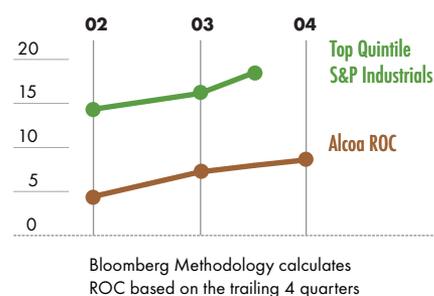
In Norway, we have agreed to build a new anode plant in Mosjøen, together with Elkem ASA, that will supply the Alcoa Fjarðaál smelter in Iceland and the Mosjøen smelter in Norway, which is 50% held by Alcoa and Elkem.

Alcoa Alumínio in Brazil also broke ground on an expansion that will increase its share of the Alumar smelting operations in São Luis by 30%, or 63,000 mtpy, bringing Alcoa Alumínio’s share of smelting capacity there to 262,000 mtpy, and Alcoa’s share of overall output will grow from 54% to 60%. The expansion was facilitated by completion of a new, 20-year hydropower agreement.

We signed a memorandum of understanding (MOU) under which Alcoa and the Government of the Republic of Trinidad and Tobago will build a state-of-the-art, environmentally friendly aluminum smelter and related facilities in Trinidad. The smelter will utilize power produced by Trinidad and Tobago’s vast natural gas fields, which will then be converted into low-cost electricity for the smelter. We are now working with the government to finalize the project plan.

### Return on Capital

percent



In Ghana, we have signed an MOU with the Government of the Republic of Ghana to develop an integrated aluminum industry that would include bauxite mining, alumina refining, aluminum production, and rail transportation infrastructure upgrades. We have begun expedited feasibility studies that are expected to be completed in 2006, at which time both parties will negotiate definitive agreements as well as total investment costs. The MOU calls for the initial restart of 120,000 mtpy at the jointly owned 200,000 mtpy Valco smelter in Tema, Ghana, which is currently idled.

Our alumina refining system is also expanding significantly with an eye toward sustained, long-term growth. In all, we are working on expansions that total more than 4 million mtpy. In Jamaica, for example, following on the heels of a 250,000 mtpy expansion of the Jamalco alumina refinery in

Clarendon, we announced plans to further expand by at least an additional 1.5 million mtpy. This new expansion would more than double the refinery’s total capacity to at least 2.8 million mtpy. In addition, Alcoa World Alumina and Chemicals (AWAC) ownership in the refinery will move from 50% to 70%.

AWAC is also a lead partner in a project exploring the feasibility for developing jointly with the Government of the Republic of Guinea a 1.5 million mtpy alumina refinery there. A detailed feasibility study for the refinery is expected to be completed by mid-2005, with final costs, investment decisions, and construction to begin shortly thereafter.

A 600,000 mtpy efficiency upgrade of the Pinjarra, Australia, alumina refinery continues to be on-track for completion by the end of 2005. And Suralco, owned by AWAC, completed a 250,000 mtpy expansion to its Paranam alumina refinery in Suriname well ahead of schedule. This brings that facility’s total capacity to approximately 2.2 million mtpy.

### Portfolio Realignment and Expanding our Footprint

We continued to review and rebalance our portfolio to better focus on our core businesses, while also making progress on acquisitions that will enhance our competitive position.

In 2005 and for a few years thereafter, one of our chief challenges will be the successful and ongoing integration and investment in two fabricating facilities that we purchased this year in Samara and Belaya Kalitva in the Russian Federation. The addition of the two Russian fabricating facilities – which feature cast house, flat-rolled products, extrusions, tubes, and forgings capabilities – will allow the Company to serve both the growing Russian market and global customers in Europe, Asia, and the Americas, giving us substantial competitive and comparative advantages.

We reached an agreement with Fujikura Ltd. that paves the way for Alcoa to obtain full ownership of the Alcoa Fujikura (AFL) Automotive business. In return, Fujikura will obtain complete ownership of the AFL Telecommunications business. AFL Automotive is a large part of Alcoa’s approximately \$3 billion automotive franchise, and this transaction increases our position in this market.

During the course of 2004, we completed the portfolio restructuring efforts announced in January 2003, including the sale of Packaging Equipment, Huck Automotive Fasteners, Specialty Chemicals, the Russellville (AR) and St. Louis (MO) foil locations, and Itaipava. In addition, we completed the sale of Integris Metals to Ryerson Tull and transferred our interest in the Juruti bauxite reserves that had been acquired through the Reynolds acquisition to AWAC.

In China, we received approval to form our joint venture with the Aluminum Corporation of China, Ltd., (Chalco) at Pingguo and continue to move this project, as well as our Bohai rolling mill initiative, through various government approvals and negotiations. Both of these projects will enhance our position in the fastest-growing markets in the aluminum industry.

Within other businesses of the Company we also continued to expand our footprint, opening facilities in new geographies in order to serve customers effectively and efficiently, including operations in Romania (extrusions), Honduras (wire harnesses), and Egypt (closures).

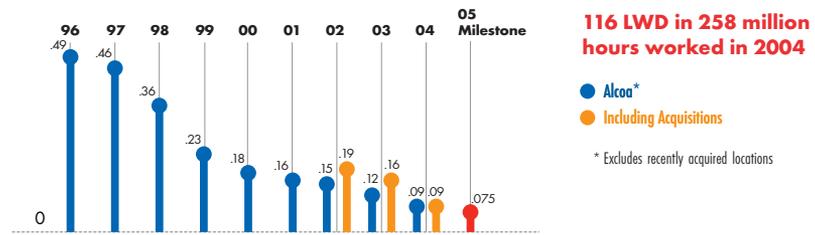
### Living our Values

At Alcoa we live our Values every day. They are the guide to how we operate our business. Our Values require us to think and act not only on the present challenges, but also with the legacy in mind that we leave for those that will come after us... as well as the commitments made by those that came before us. We think of it in terms of a relay race, where each one of us adds value today and long term for all shareowners, Alcoans, and the communities in which we operate.

**Environment, Health and Safety** – Our lost workday rate of 0.09 (injuries per 200,000 work hours) for 2004 was the best in our history. During the year, we had 258 million hours worked with 116 incidents, and more than four out of five Alcoa locations did not have a single lost workday. Despite that significant progress, we suffered three fatalities: two Alcoans and a contractor working on our site. We continue to investigate these incidents to root cause, as well as other incidents with significant fatality risk, to eliminate or control them in our

### Lost Workday (LWD) Incident Rate

injuries per 200,000 work hours



workplace. We can do better, and we owe it to ourselves and our families to move more rapidly toward creating a zero-incident workplace. In 2005, we will place further focus on this vital area.

This year we maintained Alcoa's leadership position on climate change by meeting and holding the goal of reducing greenhouse gas emissions by 25% from 1990 levels. We helped develop a global sustainability model with the International Aluminium Institute. Under the most likely scenario in that model, the industry will become "greenhouse gas neutral" by 2017 – the first and perhaps only industry that will be able to make that claim. A presentation on the model received "Best Paper" honors at The Minerals, Metals & Materials Society (TMS) conference in Washington, D.C.

**SOX and Internal Audit** – Regulatory requirements associated with Sarbanes-Oxley (SOX) represented one of the most significant challenges faced in 2004. Responding to these, we developed and implemented a comprehensive set of controls through the use of self-assessment documentation and testing. In addition, we conducted over 140 Finance and IT SOX reviews, as well as 300 scheduled process/location audits. As of year-end, Alcoa was able to clearly demonstrate an effective internal control system. To ensure compliance throughout the organization, we spent nearly \$10 million this year auditing and testing our controls. The result is an even stronger control environment, with less rework and waste.

**Alcoa Foundation, Community Framework, and Sustainability** – Alcoa Foundation increased its 2004 payout by 14%, with grants totaling \$17 million in 34 countries, up from nearly \$15 million in 2003. Alcoa's employee engagement activities reached new heights in 2004. Our programs, designed to encourage and reward active participation in communities, saw a 39% increase in 2004,

resulting in more than \$2 million being contributed on behalf of Alcoans.

We also made great strides in increasing the understanding of both external and internal audiences of our sustainability activities across the globe, including the online publication of five regional reports to augment our corporate report on our social, economic, and environmental impacts. Our overall sustainability efforts have been recognized as among the best in the world by Innovest and Corporate Knights at a ceremony held at the World Economic Forum in Davos, Switzerland.

### Delivering Both Short- and Long-Term

As we look into 2005, market conditions remain strong. Both the alumina and primary aluminum markets continue to be in a deficit where demand exceeds supply, and key downstream markets are recovering.

While we will continue to experience cost and currency pressures, we are applying rigor toward sustained cost-savings programs to help offset external market conditions. Your Company is actively pursuing growth opportunities – both in operations and through helping our customers succeed in the marketplace. And our focus is on delivering both short-term and long-term results.

I am confident that Alcoa will achieve its goals. I can express this confidence knowing how Alcoans deliver when we focus on the task at hand, using the tools at our disposal, and with total commitment. Our personal and professional pride drives our talented people across the globe as we strive to become the best company in the world.

Alain J. P. Belda  
Chairman and Chief Executive Officer  
February 18, 2005

# Alcoa is...



*Airbus officially introduced its A380, the world's largest commercial aircraft, in January 2005. Innovative Alcoa products, developed to meet unique technical challenges, are used throughout the airliner.*



*Alcoa Fastening Systems delivers new fasteners and fluid-fitting designs for the high-performance F-35 Joint Strike Fighter (JSF) that are stronger, lighter, and quicker to install, joining other Alcoa businesses that supply forgings, castings, plate, and airfoils to the JSF program.*



*Under a long-term agreement, Alcoa Howmet Castings supplies Rolls-Royce with precision castings components for nine of the company's civil and defense aerospace engines, including the Rolls-Royce Trent 500.*



*The ARJ21, China's advanced regional jet, is a robust, low-cost aircraft designed for decades of service. New Alcoa alloys play an important part in meeting fuel and weight-saving objectives.*



*Pratt & Whitney awarded Alcoa Fastening Systems a life-of-program contract to supply its Weld-Stud Fastening System for the F119 engine nozzle assembly.*

# ...Aerospace



*Xian Aircraft Company awarded Alcoa a multiyear contract for extrusions for the Boeing 737 tail assembly. Xian is a long-time customer for Alcoa's aluminum sheet, plate, and aerospace fasteners.*



*As part of the U.S. Air Force Advanced Aerostructures Initiative, Boeing and Alcoa businesses introduced an improved, lower-cost crew emergency escape door for the Boeing C-17 aircraft.*



*Eclipse Aviation plans to enter the new Very Light Jet market with its Eclipse 500 aircraft, employing revolutionary manufacturing techniques and high-volume production. Alcoa Mill Products worked with the company during the design and certification process.*



*Alcoa signed an agreement with Babcock & Brown Aircraft Management for the conversion and sale of the initial prototypes of Alcoa's 14Plus Boeing 757 passenger-to-cargo conversion. Long a reliable, cost-effective passenger aircraft, a converted B757-200 will offer operational savings over many older freight carriers, as well as other benefits.*



*Alcoa Fastening Systems' XPL Lockbolts touch the Airbus A380 in one million places. Each of the new airliners features one million of the new fasteners to tie composite and metallic parts together.*

# Alcoa is...

**The spaceframe on Ferrari's upcoming F430 from Alcoa Advanced Transportation Systems sets new performance standards for automotive aluminum structures.**



**Volkswagen's Golf V was the first car with an integrated cooling fan. AFL Automotive Europe brought its electronics, wire harnesses, and plastic components together to create multiple environmental and cost-savings benefits.**



**The Chrysler 300C is one of four of Chrysler Group's most popular 2005 models to feature components made of a patented Alcoa aluminum alloy with improved strength, formability, and corrosion resistance.**



**Stylish Alcoa cast aluminum wheels are standard equipment on Nissan's 2005 Altima, Frontier, Pathfinder, and Xterra models.**



**Audi A6 buyers enjoy the choice of many individual options – resulting in millions of possible combinations in the car's complex electrical wire harnesses. AFL Automotive plants in Germany, Hungary, and Romania supply some 160,000 vehicle-specific harnesses annually.**

# ...Automotive

**General Motors chose Alcoa's automotive castings business for the front and rear subframes of its 2005 Corvette and Cadillac XLR models.**



**Alcoa is helping General Motors extend its innovative Quick Plastic Forming process for aluminum body and closure panels, enabling the company to offer complex styling features on high-volume cars, such as the lift gate on the Chevrolet Malibu Maxx.**



**Subaru of America uses Alcoa's proprietary alloy 6022-T43 for the hood and liftgate of its 2005 Legacy and Outback models to further enhance its luxury performance brand image.**



**Corvette's reputation for performance is supported by Alcoa's more than 20 years of experience in vehicle electrical system technology and just-in-time supply of customized wire harnesses.**



**Toyota honored Alcoa Engineered Products with a Multi-Year Achievement Award for its work on the automaker's Tundra and Sequoia vehicles.**

# Alcoa is...

Alcoa Dura-Bright wheels continue to give truck fleet owners and operators the closest to a maintenance-free shine. It's the first aluminum wheel you don't polish or scrub – just spray with soap and water – thanks to a patented treatment that penetrates the aluminum. Harvey Zander's working commercial truck with Dura-Bright wheels is featured in the 2005 Overdrive magazine and 2004 SuperRigs calendars.



Honda all-terrain vehicles, like this Rubicon model, are now traveling on aluminum wheels with the help of Alcoa Mill Products.

Truckers value Alcoa Wheel Products' Dura-Flange wheels for their cost-saving performance and their good looks. The aluminum wheels feature a rim treatment that guards against excessive wear and may double their service life.

# ...Commercial Transportation



**Alcoa Wheel and Forged Products supplies wheels to Heil Trailer plants in four countries.**

**Ford's newest medium-duty F650/750 truck models use Alcoa Fastening Systems' Huckbolts to assemble the chassis units. As a Ford ad puts it, "Huckbolts stay tight ten times longer than ordinary nuts and bolts."**



**Sterling Truck, a unit of Freightliner, named AFL Automotive its full-service electrical distribution supplier for right-hand drive models, sold primarily in Australia and New Zealand.**



**Trailer manufacturer Great Dane gave Alcoa Wheel Products its Valued Vendor Award.**

**Sightseeing company Hato Bus chose Alcoa 10-stud aluminum wheels for its new buses, enjoying advanced design while meeting its fuel savings and emission reduction goals.**



**Select 2005 and 2006 gasoline and diesel-powered Fleetwood Class A motor homes rely on AFL Automotive wire harnesses to meet the needs of recreational drivers.**



# Alcoa is...

*A stylish Alcoa aluminum façade makes clothing retailer PRADA's new flagship store in Beverly Hills (CA) a standout amid the more typical gold leaf and granite on Rodeo Drive.*



*The Warsaw headquarters of TPSA, Poland's national standard telephone provider, includes 13,000 square meters of Alcoa Architectural Products' Reynobond aluminum composite material.*



*Businesses, such as Victoria's Secret, that want to catch eyes call on Alcoa Architectural Products' Reynobond aluminum composite material. It provides the strength, flatness, longevity, and precise image consistency corporate brands require.*



*Alcoa Arquitectura in Spain and Alcoa Architectural Products in Merxheim, France met special design needs for the new Forum 2004 building in Barcelona, Spain. The businesses supplied customized Reynobond cladding panels and a new fixing system to integrate the panels into the curtain wall.*



*Specialist contractor SIAC Façades used Kawneer's curtain wall, silicon glazing, and windows for the exterior of the new ground transport interchange at Manchester Airport in the U.K.*



*Alcoa products helped its customer, Metalsigma, meet the challenge of facilitating natural lighting while managing solar impact and thermal and acoustical requirements for a new hospital in Strasbourg, France.*



# ...Building & Construction

*The architect of DeVos Place (MI) used Alcoa's Reynobond aluminum composite material to achieve a curved design not possible with less formable materials.*



*Alcoa Home Exteriors' new DreamColor premium siding and accessories are available in more than 700 colors, letting homeowners customize color combinations to suit their tastes and the style of their houses.*

*Mexican artist Manuel Marin, inspired by the flexibility of Reynobond aluminum composite panels and their bright colors, created Comunicacion Cruzada (Interactive Communication) from the products supplied by Alcoa.*



*Conoco Phillips chooses Alcoa's Reynobond aluminum composite material to enhance its public image, selecting Alcoa Architectural Products as a preferred supplier for 2005. Customers also may choose Reynolux, a heavy-gauge, coil-coated aluminum sheet, and profiled aluminum wall panels.*



*The bold design elements on the Boise (ID) Airport were achieved with Reynobond aluminum composite material from Alcoa in a platinum color.*



# Alcoa is...

**Pittsburgh Brewing Company and Alcoa teamed up to present the first beer in an aluminum bottle to North America – reminiscent of their 1962 partnership on the aluminum pull-top can. The bottles keep beer colder longer than glass, weigh less, and won't break.**

**Wine bottles closed with natural corks are subject to "cork taint," a contamination that affects the taste of the wine. Alcoa Closure Systems International's new Vino-Lok, a glass stopper and aluminum overcap system, eliminates the problem. Vino-Lok already is being used on premium wines and has won several awards for innovation.**

**Since 1995, Alcoa's Southern Graphic Systems' separation technology has helped Santa smile on Coca-Cola holiday cans throughout North America. Alcoa also is the leading supplier of sheet to the aluminum can market.**



**Alcoa Closure Systems International's new facility outside of Cairo, Egypt, can produce 800 million closures annually to supply beverage customers in North Africa.**

**Reynolds Food Packaging met retailer Marks & Spencer's challenge in the U.K. to develop a tamper-resistant package for salads and sandwiches to keep food fresh and safe. Alcoa's solution won the bid and an industry award.**

**Alcoa Consumer Products, through its Presto Products business, supplies its thermoformed FRESH-LOCK containers to ConAgra Foods for its Healthy Choice line of thin-sliced deli meats.**

# ...Packaging and Consumer

**Pharmaceutical maker Novartis supplies safer, more convenient, and more cost-effective physicians' samples of its diabetes medication thanks to an award-winning bottle/closure packaging system labeled in a colorfully printed Alcoa Flexible Packaging shrink sleeve.**

**Reynolds Food Packaging provided catering products and serving utensils for the estimated two million meals necessary to feed athletes and other groups during the August 2004 Summer Olympics and the September Paralympics.**

**Home cooks now can enjoy the benefits of Reynolds Parchment Paper that professionals have known for years. A grease-proof, silicone-coated, vegetable paper product, it is excellent for purposes from baking to covering foods for the microwave.**



**By reducing the size of the core tube in individual Reynolds Wrap aluminum foil packages, Alcoa Consumer Products also could shrink the bulk container – giving shoppers at warehouse clubs the same amount of foil, but making it easier to handle and store.**

**Alcoa Flexible Packaging is the exclusive distributor and seller of Korean manufacturer KSP's spout pouch products in the U.S. and Canada. Spout pouches are especially suitable for single-serve beverages, health and beauty products, and industrial and medical uses.**

# Alcoa is...



*Alcoa broke ground for its new Fjarðaál aluminum smelter in Iceland, its first greenfield smelter in 20 years. The facility will be one of the most efficient, environmentally friendly, and safest smelters in the world.*



*Alcoa Aluminio began an expansion of the Alumar smelting operations in São Luis, Brazil, that will increase its share in those operations by 30%.*

*Alcoa and the Government of the Republic of Trinidad and Tobago signed a memorandum of understanding to build a state-of-the-art, environmentally friendly aluminum smelter in Trinidad. The smelter will use low-cost electricity generated from power produced by the nation's vast natural gas fields.*



*Alcoa World Alumina and Chemicals completed a 250,000 mtpy expansion of the Jamalco alumina refinery in Clarendon, Jamaica, and is exploring doubling the size of the expanded facility.*

*The Massena East and West smelters in New York state were restarted and now are running at full capacity.*



# ...Aluminum and Alumina



*In partnership with Elkem ASA, Alcoa plans to build an anode plant in Mosjøen, Norway. The new facility will supply Alcoa's new Fjarðaál smelter in Iceland and the two companies' Mosjøen smelter.*



*Alcoa's Wenatchee smelter in Washington state, idle since 2001, resumed production.*



*A 600,000 mtpy efficiency upgrade at the Pinjarra, Australia, alumina refinery is scheduled for completion by year-end 2005.*

*Alcoa World Alumina and Chemicals' Suralco business completed a 250,000 mtpy expansion of its refinery in Suriname well ahead of schedule.*

*A memorandum of understanding with the Government of the Republic of Ghana paved the way for feasibility studies on developing an integrated aluminum industry in that country.*



# Alcoa is Global: News '04

• 43 Countries • 350-plus operating locations • 131,000 Employees



## Gains for Aerospace Market

Alcoa Mill Products used ABS to avoid a potential process bottleneck at its Davenport (IA) Works and achieve increased revenues, while reducing costs. The effort centered on improving the operational availability of the ultrasonic inspection (USI) station, which inspects Davenport's aerospace components in accordance with U.S. FAA requirements. The USI team posted a 26% improvement, surpassing its goal.

## Expanding in Mexico

Alcoa Wheel and Forged Products completed construction and production ramp-up at its Monterrey, Mexico, plant to meet customer demand. Employees there turned in outstanding quality and delivery performances, and have not had a single lost workday during construction and since production began.



## Building Futures

The Alumar smelter in São Luís, Brazil, is helping to construct the first local high school in the rural area. The Mário Martins Meireles High School Center, which will serve 1,200 students, is a partnership between Alumar and the Maranhão government. Alumar is providing the facilities and operational equipment, and the government will be responsible for ongoing activities.



### Growing Presence

Growing Alcoa operations in Romania include two AFL Automotive plants that produce wire harnesses for the automotive market. These facilities increasingly are involved in their communities through Alcoa Foundation grants and employee volunteerism. Alcoa's European Extruded & End Products business now is building an extrusion facility in north-west Romania to serve European commercial and residential building and construction markets.



### Acquisition in Russia

Alcoa completed its acquisition from RusAL of two fabricating facilities in Samara and Belaya Kalitva in the Russian Federation. The Company plans to invest capital and technology in the plants in 2005, while also investing and training to make the operations consistent with those of other Alcoa operations and strengthen their competitive position.



### New Plant in China

Alcoa Closure Systems International opened a new plant in Hangzhou, its second plant in China. The facility presently produces plastic closures, primarily for export to beverage producers in Japan.



### Refinery Studied

Alcoa World Alumina and Chemicals is a lead partner in a project exploring possible joint development of an alumina refinery with the Government of the Republic of Guinea. A feasibility study should be completed in 2005. The study includes community consultations.

### Waste vs. Waste

Alcoa's Kwinana, Australia, alumina refinery reduced the need for ongoing management of closed bauxite residue storage areas using waste carbon dioxide (CO<sub>2</sub>) from a nearby industrial facility. Mixing high concentration CO<sub>2</sub> with bauxite residue before it is deposited in drying beds creates a more benign bauxite waste.



# News '04

## Carefree Travel

Applying knowledge gained from supplying the automotive and heavy truck markets, AFL helped motor home manufacturer Fleetwood design electrical systems to meet the specific needs of motor home buyers. This is the first time AFL has supplied wire harnesses for Fleetwood diesel vehicles, creating an opportunity to use ABS tools to design the assembly line for the product. AFL's Acuña, Mexico, plant successfully introduced make-to-use product assembly, with smaller lot size production, reduced lead times, and rapid changeovers.

## That's Delivering!

Via ABS, the Alcoa Mill Products (AMP) Texarkana (TX) plant raised its on-time delivery performance from 56% in 2003 to 94% at year-end 2004. This achievement was enabled by plantwide employee involvement that resulted in more effective links between functional areas and dramatic improvements in reliability at critical production centers. For example, improved production planning connections to the shop floor ensured that task dates were met, and kaizen events and problem solving to root cause raised some key reliability factors by double-digit percentages. Customers responded strongly. AMP gained multi-year supply agreements with strategic customers for 2005 and beyond, and grew its share of the painted products market.

## Value Selling

Using ABS to focus on specific customer benefits, Alcoa CSI Argentina achieved a 3% growth in market share – an 11% increase over its business plan – and also added an important new source of revenue. The business concentrated on 100% product quality, established pull systems with customers, and shortened lead time – resulting in reliable delivery and an average 30% reduction in customer-held inventories.

## Acquisitions and Divestitures

- Alcoa and BHP Billiton sold their respective equity interests in Integris Metals, a metals service center company, to Ryerson Tull.
- Alcoa and Fujikura Ltd. signed a letter of intent in which Alcoa will obtain complete ownership of the AFL Automotive business and Fujikura will obtain complete ownership of the AFL Telecommunications business. The transaction should be completed by spring 2005.



Fábio M. Almeida,  
Itajubá, Brazil



Planting trees in Soest, Germany

- Alcoa Alumínio S.A. sold Itaipava, its flexible packaging business, to Latin American-based Dixie Toga.
- Alcoa World Alumina and Chemicals sold Alcoa Specialty Chemicals to two private equity firms led by Rhone Capital LLC.
- Alcoa sold its U.S. Russellville (AR) and St. Louis (MO) aluminum foil plants to JW Aluminum.

## Know the Market

By leveraging its known product quality and Alcoa brand strength with original equipment manufacturers (OEMs) and implementing ABS principles to change its manufacturing processes, Alcoa Wheel Products (AWP) enhanced its position in the growing market for customized wheels and achieved production milestones. Specialty Wheels reduced time-to-market from the industry average of 38 weeks to as little as five weeks. The business also launched 41 new wheel programs, greatly outpacing their historical six to eight. AWP increased its revenue and profits and benefited OEMs with enhanced original purchase and aftermarket sales.

## New ACC-U-BAR

Alcoa Engineered Products, Cressona (PA) added ACC-U-BAR, a premium, high-performance extruded bar product, to its branded bar line. The new product features superior machinability and straightness, suitable for applications that require tighter tolerances and reduced twist. Sales already have exceeded expectations.

## Sustainable Power

Following an agreement with stakeholders that integrates strict environmental and social goals with long-term economic development, the Brazilian government allowed BAESA, a consortium of Alcoa Alumínio and four other Brazilian-based businesses, to proceed with its Barra Grande hydroelectric project. Under terms of the agreement, BAESA will increase its investment in various forms of community support to \$51 million and its investment in environmental activities to \$30 million. Now with 95% of the civil construction completed, the Barra Grande facility will have a capacity of 690 MW, generating 30% of the electricity demand in the Santa Catarina state and the state of Rio Grande do Sul. As part of the Company's sustainable development practices, Alcoa continues to work with both those who favor and those who oppose the project in formal and informal venues.

### Bigger Home Benefits

Alcoa Home Exterior (AHE) and Dow Building Materials introduced Structure Premium Insulated Siding for residential customers. In addition to low maintenance, the product offers superior strength and durability, increased noise reduction and water resistance, and energy savings. AHE also added Ventura Hidden Vent Soffit to its premium line of soffits and fascia. It delivers up to 50% more ventilation than other hidden-vent panels and better ventilation than standard soffit.

### Flying High ▼

Alcoa Alumínio is playing a vital role in two large-scale airport expansions in Brazil. The Itapissuma plant developed aluminum profiles and coating to meet specifications for the Guararapes International expansion. At Congonhas Airport, a new arrivals and departures building was made with Alcoa Façade Systems. Alcoa's Unit System technology made it possible to prefabricate panels and install them during the few hours available as the airport continued to operate.



Alcoa Alumínio is playing a vital role in two large-scale airport expansions in Brazil, including the Guararapes International Airport.

### At the Top

Alcoa, Toyota Motor, and BP were named the world's best in the first annual *Global 100 Most Sustainable Corporations*. The listing, developed by Innovest and Corporate Knights, ranks companies by how well they meet "the triple bottom line," a measure of value that balances environmental, social, and economic impacts.



### Thanks, Alcoans! ▲

As part of Alcoa's program to plant ten million trees, employees at Alcoa's Hannover, Germany, site planted trees with the help of a pachyderm named Sayang. The main tree was placed near the elephant exhibit at the Zoo of Hannover. Sayang apparently was thankful – she lent her trunk to help water it.



### Home Again ▲

Red wolves were native to North Carolina, but experts believe that fewer than 500 of them now exist worldwide. Alcoa Foundation awarded the Rowan Nature and Learning Center near Badin (NC) a grant to construct a red wolf habitat as part of a renovation project at the Center. Badin is home to Yadkin-Alcoa Power Generating and Alcoa Badin Works.

### Planning Ahead

Alcoa partnered with Landsvirkjun, Iceland's national power company, to work with an advisory group to develop methods to measure sustainable performance at Alcoa's new Fjarðaál aluminum smelter and the related hydropower facility. The group comprises more than 30 stakeholders representing diverse environmental, social, and economic perspectives, including project supporters and those opposed.

### Driving Down Problems

To eliminate ergonomic concerns, Alcoa Engineered Products in Lafayette (IN) improved its method of hanging driveshaft tubes for heat treatment. The new process uses chains and tools to hold the tubes in place, eliminating the need to twist strong wires by hand. Production also improved because the stronger connection means that fewer tubes fall into the pit, reducing the need to drain the pit to retrieve them.

### Protecting the Blue Danube

Alcoa Foundation and Alcoa Europe donated funds to the International Commission for the Protection of the Danube River (ICPDR) to support the Transnational Monitoring System, a water management network that tracks substances across country boundaries in the Danube River Basin. The funds purchased technical equipment for the Romanian Waters Department on the Crisuri River in Romania. The ICPDR facilitates cooperation between the European Commission and all the Danube Basin countries.



Jaz Rana,  
Exeter, United Kingdom

### Upgrading Spanish Smelters

Alcoa is investing in technology and environmental improvements at three of its smelters in northern Spain. At Avilés, the Company is making innovation and technology improvements that will enable the plant to meet European Union environmental standards effective in 2007. At La Coruña and the San Ciprián smelter and alumina refinery, Alcoa is implementing the terms of a voluntary agreement with the regional government to improve emissions.

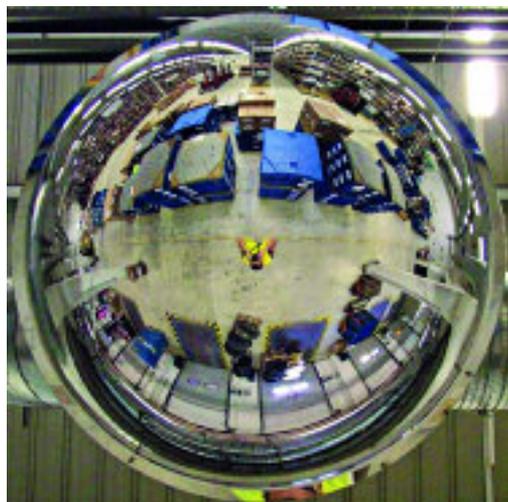
# News '04

## Dynamic Protection

Alcoa's Deschambault smelter in Canada uses storm and snow-melt water in a closed-loop system in its processes. The plant rented treatment equipment to ensure that discharges of the excess water met the norm set for the effluent. Despite this treatment, there were spikes in fluoride concentration in a neighboring river because the discharge was not synchronized with the natural cycles of the river. Now, computerized analysis of river-water fluoride levels, water flow, and fluoride concentration in the plant's storage basin allows Deschambault to adjust discharges automatically.

## All-Around Safety ▼

Attila Soós of AFL Automotive in Mór, Hungary, won first place in the Safety category in Alcoa's employee photo contest, showing a 360° mirror that protects drivers and floor workers from in-plant accidents. He captured one of the many ways Alcoa supports its commitment to safety.



*A complete view of their surroundings keeps floor workers safe.*

## Best of the Year

The American Foundry Society honored Alcoa Automotive Castings with its 2004 Casting of the Year award for a hollow aluminum rear control arm used on several BMW and Rolls-Royce models.

## On Deck

Alcoa Home Exteriors and strategic partner Deceuninck North America entered the growing market for engineered wood building products with Oasis Decking by Alcoa. Composed of a proprietary formulation of high-density polyethylene and pinewood flour, Oasis outperforms both wood and other composite decks in strength, weather resistance, and design possibilities.

## Habitat Helpers

Employees at Alcoa Primary Metals' Gum Springs (AR) plant received international recognition for their contributions to wildlife habitat conservation from the Wildlife Habitat Council. The plant formally initiated a habitat enhancement program site in 2001.



## Animal Attraction ▲

Departing from the usual photos of buildings in construction ads, Alcoa Architectural Products USA (AAP) aimed to create more brand and product awareness by catching viewers' eyes with animals. One ad features a butterfly fluttering around pieces of Reynobond Natural Metal Composites shaped like wings. "Naturally beautiful," the ad begins. Other ads feature a rear shot of an elephant (because Reynobond XXL is available in 2-meter-wide panels) and a chameleon (because Reynobond is available in many colors). AAP saw a 15% increase in architects' calls directly to its plant and more than 1,000 postcard requests generated by ads in *Architectural Record* magazine.

## Excellence in Spain

Three Alcoa facilities in Spain were honored for their workplace achievements in quality management. The Alcoa rolling plant in Amorebieta received the EUSKALIT Silver Q award, which the Basque government grants to companies qualifying as a European Foundation for Quality Management Model of Excellence. Alcoa's smelter in Avilés earned the Asturias Managerial Quality Award 2004, and the Alcoa Flexible Packaging facility in Rubi received the 2004 Cambra

Award from the Tarrasa Chamber of Commerce for its achievements in training in health and safety issues.

## Tops in Hungary

Alcoa Wheel Products Europe received the top prize in the National Quality/Excellence Award business category in Hungary. Sponsored by the Ministry of Economics, the award uses criteria based on the European Foundation for Quality Management model.



*Zsolt Pittmann,  
Székesfehérvár, Hungary*

## GBS Scores High

Members of the Shared Services and Outsourcing Network, a global organization, named Alcoa's Global Business Services organizations (GBS) among the top ten Most Admired Shared Services organizations. GBS supports Alcoa's decentralized business unit structure by consolidating noncore systems and work in its seven international centers, eliminating redundant costs, and providing a better platform for decision making.

# Financial and Corporate Data

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## Selected Financial Data

(in millions, except per-share amounts and ingot prices)

For the year ended December 31	2004	2003	2002	2001	2000
Sales	\$23,478	\$21,092	\$19,934	\$21,933	\$22,010
Income from continuing operations	1,402	1,055	518	904	1,451
(Loss) income from discontinued operations	(92)	(70)	(132)	4	38
Cumulative effect of accounting change	—	(47)	34	—	(5)
Net income	1,310	938	420	908	1,484
Earnings (loss) per share:					
Basic:					
Income from continuing operations	1.61	1.23	.61	1.05	1.78
(Loss) income from discontinued operations	(.11)	(.08)	(.16)	.01	.04
Cumulative effect of accounting change	—	(.06)	.04	—	(.01)
Net income	1.50	1.09	.49	1.06	1.81
Diluted:					
Income from continuing operations	1.60	1.22	.61	1.04	1.76
(Loss) income from discontinued operations	(.11)	(.08)	(.16)	.01	.04
Cumulative effect of accounting change	—	(.06)	.04	—	(.01)
Net income	1.49	1.08	.49	1.05	1.79
Alcoa's average realized price per pound for aluminum ingot	.85	.70	.66	.72	.77
LME average 3-month price per pound for aluminum ingot	.78	.65	.62	.66	.71
Cash dividends paid per common share	.600	.600	.600	.600	.500
Total assets	32,609	31,711	29,810	28,355	31,691
Short-term borrowings	267	50	34	163	2,718
Commercial paper	630	—	665	220	1,510
Long-term debt	5,403	7,216	7,784	6,264	3,897

The financial information for all prior periods has been reclassified to reflect assets held for sale and discontinued operations. See Note B to the Consolidated Financial Statements for further information.

In addition to the operational results presented in Management's Discussion and Analysis of Financial Condition and Results of Operations, other significant items that impacted results included, but were not limited to, the following:

- 2004: Disposition of businesses, restructuring and other charges, changes in the provision for income taxes, the restructuring of debt and associated settlement of interest rate swaps, the effects of the Bécancour strike, the sale of a portion of Alcoa's interest in the Juruti bauxite project, environmental charges, the termination of an alumina tolling arrangement, and discontinued operations
- 2003: Acquisitions and dispositions of businesses, restructuring and other charges, insurance settlements related to environmental matters, changes in the provision for income taxes, discontinued operations, and the adoption of a new accounting standard
- 2002: Restructuring and other charges, the adoption of new accounting standards, goodwill impairment, and discontinued operations
- 2001: Restructuring and other charges, dispositions of businesses, and various charges to cost of goods sold and selling, general administrative and other expenses
- 2000: Acquisitions of Reynolds Metals Company (Reynolds) and Cordant Technologies (Cordant)

The data presented in the Selected Financial Data table should be read in conjunction with the information provided in Management's Discussion and Analysis of Financial Condition and Results of Operations and the Notes to the Consolidated Financial Statements.

# Trends in Major Markets

Alcoa Total Revenues: \$23.5 billion



## Aerospace

9.4% \$2.2 billion

**Alcoa segments that sell products to this market:** Flat-Rolled Products, Engineered Products, Other

Alcoa aerospace products are widely used in the manufacturing of aircraft and aircraft engines, including high-technology airfoils for jet engines, fastening systems, and advanced alloys for the fuselage, wings, landing gear, and wheels. Aerospace products are also serving defense and space applications.

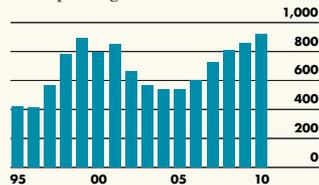
More than 60% of Alcoa aerospace revenues come from propulsion and fastening systems.

World Revenue Passenger Miles grew 11.4% in 2004 – a dramatic increase from 2003 negative 1.4% growth and nearly a 4% increase over 2000 levels. The long-term growth trend is expected to average 5%, driving the requirement for over 15,000 new aircraft in the next 20 years.

Large Commercial Aircraft Deliveries Rebounding – 2004 marked the end of a downturn in deliveries of large commercial aircraft, increasing 3% over 2003, and forecast to increase an additional 20% for 2005, driven by strong growth for air travel.

### Large Commercial Aircraft Demand

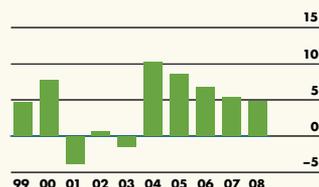
100+ passengers



Source: Various market contributors

### Regional Air Travel Growth

percent



Source: Various market contributors

## Automotive

11.5% \$2.7 billion

**Alcoa segments that sell products to this market:** Flat-Rolled Products, Engineered Products, Other

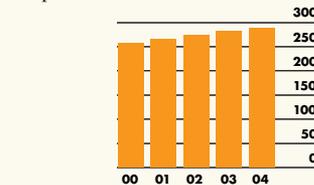
Alcoa revenues in this market come from a range of products for automotive applications: from chassis, suspension, and drivetrain components to crash management systems to body structures, forged and cast wheels, as well as wiring harnesses and other electrical distribution systems.

A 6% to 8% fuel savings can be realized for every 10% reduction in weight from substituting aluminum for steel. Aluminum absorbs nearly twice as much crash energy as steel, and during a crash, aluminum folds like an accordion, letting the vehicle – not its passengers – absorb more of the crash forces. Lighter vehicles generally accelerate quicker and require shorter stopping distances than heavier vehicles.

*The Aluminum Association*

### North American Light Vehicle Aluminum Content

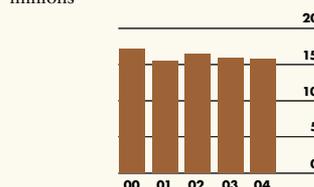
lbs. per vehicle



Source: Ducker

### North American Light Vehicle and Auto Sales

millions



Source: Global Insight (formerly DRI)

## Packaging and Consumer

25.5% \$6.0 billion

**Alcoa segments that sell products to this market:** Flat-Rolled Products, Packaging and Consumer

Convenience continues to be a major trend in home food management with nearly half of U.S. homemakers saying that convenience is most important in the foods they eat.

*NPD Group*

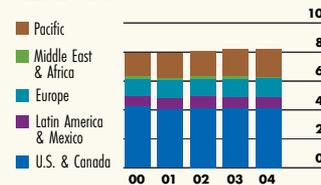
Reynolds brand products are well-positioned as their primary benefit is in ease of food preparation, as underscored by Reynolds Wrap achieving the #1 brand equity rating in the U.S. *Harris Spring 2004 EquiTrend Brand Study*.

The packaged food industry continues conversion from glass to plastic bottles, with packages that integrate the closure into the overall bottle design. Alcoa participates with dispensing closures for the dairy, food, and beverage industries. Alcoa is also a premier supplier of popular printed shrink sleeve labels, designed to fit the new packages' contours and provide a 360-degree billboard for product and brand graphics.

Alcoa supplies aluminum sheet used to make 100 billion cans each year.

### Aluminum Consumption for Beverage Cans

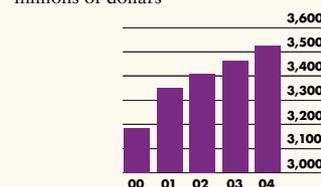
billions of lbs.



Source: CRU Alcoa

### U.S. Market – Foil, Wraps and Bags

millions of dollars



Source: A.C. Nielsen – FDM with Wal-Mart Scanning

## Commercial Transportation

6.4% \$1.5 billion

**Alcoa segments that sell products to this market:**  
Flat-Rolled Products, Engineered Products, Other

A strengthening economy drove ton-mile demand for North America (NA) freight up in 2004.

Truck fleets and owner-operators are facing an even more demanding emissions regulations change in January of 2007.

Three elements – aging fleet (created in part due to delayed buying around by some owners to avoid 2002 engines), improved economy, and awareness of new, even stricter emissions regulations – created a near-perfect storm scenario, driving NA truck builds and demand up nearly 50% over 2003. This pattern is expected to continue in 2005 and 2006, with total NA heavy-duty truck builds increasing yet another 15% above 2004 levels in late 2005 and throughout most of 2006.

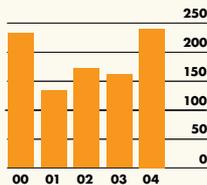
New products and innovations by Alcoa will continue to help fleets save weight and improve overall fuel economy.

European truck build rates are expected to increase about 5% in 2005 compared to 2004, which were up about 5% over 2003.

Trailer builds in NA and Europe were up 29% and 5%, respectively.

### North American Heavy Truck Production

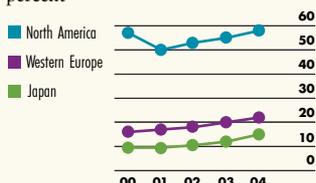
thousands



Source: ACT Research

### Aluminum Wheel Penetration in Heavy-Duty Trucks

percent



Source: Alcoa

## Building and Construction

10.6% \$2.5 billion

**Alcoa segments that sell products to this market:**  
Flat-Rolled Products, Engineered Products, Other

Alcoa's revenues in this market are from an array of fabricated aluminum products for commercial and residential applications, as well as vinyl extrusions and injection moldings for new homes and remodeling.

Due to slow economic recovery, nonresidential construction in Europe experienced a decline of .8% in 2004.

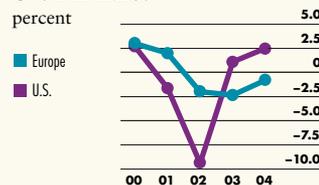
While most countries faced a slowdown in nonresidential construction in 2004, the U.K., Spain, and Central Eastern Europe posted growth.

Nonresidential construction in North America increased by 2.5% in 2004 to approximately \$165 billion as the growing economy in the U.S. continues to fuel a recovery in commercial and industrial construction.

While the U.S. grew by 3%, the recovery for nonresidential construction in Canada lagged behind, posting a 20% decline.

### New Nonresidential Construction Annual Growth Rates

percent



Source: McGraw-Hill Construction Data, Euroconstruct

### U.S. Repair and Improvement Expenditures

billions of dollars



Source: U.S. Census

## Aluminum and Alumina

24.7% \$5.8 billion

**Alcoa segments that sell products to this market:**  
Primary Metals, Alumina and Chemicals

Alcoa is the world's largest producer of alumina, a powdery oxide of aluminum refined from bauxite ore and used to produce aluminum and alumina-based chemicals.

Alcoa alumina production in 2004 rose 3.6% to 14.3 million mtpy.

In 2004, 51% of Alcoa World Alumina and Chemicals' refinery production was supplied to outside customers.

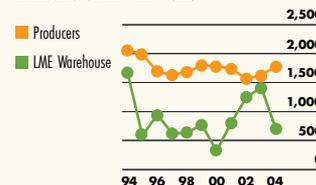
Aluminum ingot is an internationally produced, priced, and traded commodity whose principal trading market is the London Metal Exchange, or LME.

Worldwide aluminum capacity was 32.7 million mtpy, 8.5% of which was idle.

Alcoa's worldwide capacity is approximately 4.0 million mtpy of which 16% is idle. With the planned smelter restarts at ABI and Wenatchee, idle aluminum capacity is expected to fall below 10% in 2005.

### Worldwide Aluminum Ingot Inventory

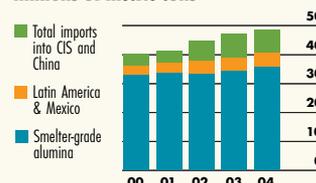
millions of metric tons



Source: LME, IAI

### Western World Alumina Demand

millions of metric tons



Source: CRU Alcoa

## Industrial Products and Other

11.9% \$2.8 billion

**Alcoa segments that sell products to this market:**  
Flat-Rolled Products, Engineered Products, Other

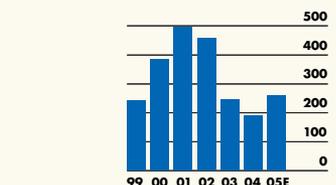
Alcoa's revenues from this market include sales of aluminum sheet, plate, and extrusions to distributors and sales of products and services for power generation.

After reaching bottom in 2004, the projected heavy-duty gas turbine build rates are expected to experience an increase of one-third in 2005. This is being driven primarily by the increased power demand in the Asian and Middle Eastern markets.

Growth opportunities also exist for the supply of spare parts over the next few years, as the installed turbine base from the U.S. boom of 1999-2001 prepares for the first round of overhauls.

### IGT Engine Build Schedule

number of turbines



Source: Howmet and OEM Market Analysis, January 2005

## Management's Discussion and Analysis of Financial Condition and Results of Operations

(dollars in millions, except per-share amounts and ingot prices; shipments in thousands of metric tons [mt])

### Overview

#### Our Business

Alcoa is the world's leading producer of primary aluminum, fabricated aluminum, and alumina, and is active in all major aspects of the industry: technology, mining, refining, smelting, fabricating, and recycling. Aluminum is a commodity that is traded on the London Metal Exchange (LME) and priced daily based on market supply and demand. Aluminum and alumina represent approximately two-thirds of Alcoa's revenues, and the price of aluminum influences the operating results of Alcoa. Nonaluminum products include precision castings, industrial fasteners, vinyl siding, consumer products, food service and flexible packaging products, plastic closures, and electrical distribution systems for cars and trucks. Alcoa's products are used worldwide in aircraft, automobiles, commercial transportation, packaging, consumer products, building and construction, and industrial applications.

Alcoa is a global company operating in 43 countries. North America is the largest market with 64% of Alcoa's revenues. Europe is also a significant market with 22% of the company's revenues. Alcoa also has investments and activities in Australia, Brazil, China, Iceland, Jamaica, Russia, and Trinidad, which present opportunities for substantial growth. Governmental policies and other economic factors, including inflation and fluctuations in foreign currency exchange rates and interest rates, affect the results of operations in these countries.

#### Management Review of 2004 and Outlook for the Future

Alcoa aspires to be the best company in the world. As part of that mission, Alcoa strives to attain certain financial goals to improve both short-term and long-term profitability, while positioning the company to be successful in the future.

In 2004, Alcoa's focus on long-term value creation through living our values, controlling costs and capital, managing our portfolio of businesses, and focusing on profitable growth contributed to the following financial achievements:

- Significant improvement in income from continuing operations, rising 33% from \$1,055 in 2003 to \$1,402 in 2004, as four of the company's six segments increased in profitability;
- Highest annual sales in company history, with revenue growth of \$2,386 over 2003;
- Strong cash flow generation of approximately \$2,200 in cash from operations;
- Strengthened balance sheet and continued cash generation through disciplined capital spending and payment of approximately \$2,000 in debt over the past two years, which facilitated a reduction in the debt-to-capital ratio from 35.1% in 2003 to 30.0% in 2004; and

- The substantial completion of our divestiture plan with the sales of the specialty chemicals business, the automotive fasteners business, the packaging equipment business, the South American flexible packaging business, the Russellville, AR and St. Louis, MO foil facilities, and extrusion facilities in Europe and Brazil.

During 2004, the company was faced with a number of challenges including increased costs for energy, raw materials, and a weakening U.S. dollar. Additionally in 2004, significant efforts continued in globalizing the production base as a means to better serve Alcoa's customers and to take advantage of lower costs to produce in certain global regions. The actions surrounding the globalization provide unique challenges including exposure to foreign currency movement against the U.S. dollar, as well as the general business and political risks involved with expanding operations in global regions where Alcoa does not currently have a significant presence. The company expects that it will continue to face these and similar challenges in the future.

To position ourselves for success in 2005 and beyond, we will work toward the following financial goals:

- Continuing to reduce costs in conjunction with the three-year cost savings challenge initiated in 2004, aimed at eliminating \$1,200 in costs by the end of 2006. Cost savings are targeted to help offset anticipated higher energy and input costs for materials such as resin and caustic. The cost savings will be achieved through continued implementation of the Alcoa Business System (ABS), procurement savings, and headcount reductions;
- Striving to join the first quintile of S&P Industrials in return on capital (ROC) performance and, in pursuit of that goal, we will seek to provide returns in excess of cost of capital, which is currently 9%;
- Maintaining a strong balance sheet with a long-term target for a 25%–35% debt-to-capital ratio; and
- Strengthening our asset base and improving its productivity, as well as expanding our global reach and positioning our primary businesses lower on the cost curve through various strategies including: expanding alumina refinery capacity in Australia, Jamaica, and Suriname; constructing a smelter in Iceland and expanding smelting capacity in Brazil, China, and Trinidad; expanding fabricating capabilities in Russia; investing in energy projects in Brazil, as well as various other projects throughout other segments of the business. Capital expenditures for these major growth projects and other sustaining projects are projected to be approximately \$2,500 in 2005. These projects are outlined in more detail below under Segment Information, Liquidity and Capital Resources, and Contractual Obligations and Off-Balance Sheet Arrangements.

#### Forward-Looking Statements

Certain statements in this report under this caption and elsewhere relate to future events and expectations and, as such, constitute forward-looking statements. Forward-looking statements also include those containing such words as "anticipates," "believes," "estimates," "expects," "hopes," "targets," "should," "will," "will likely result," "forecast," "outlook," "projects,"

or similar expressions. Such forward-looking statements involve known and unknown risks, uncertainties, and other factors that may cause actual results, performance, or achievements of Alcoa to be different from those expressed or implied in the forward-looking statements. For a discussion of some of the specific factors that may cause such a difference, see Notes N and Y to the Consolidated Financial Statements and the disclosures included below under Segment Information and Market Risks. For additional information on forward-looking statements and risk factors, see Alcoa's Form 10-K, Part I, Item 1.

## Results of Operations

### Earnings Summary

Alcoa's income from continuing operations for 2004 was \$1,402, or \$1.60 per diluted share, compared with \$1,055, or \$1.22 per share, in 2003. The highlights for 2004 include: higher realized prices for alumina due to a tightening of the world alumina market, as well as higher realized prices for aluminum as LME prices increased by 20% over 2003 levels; increased sales across five of six segments; higher volumes in downstream businesses serving the commercial transportation, building and construction, aerospace, and packaging markets; improved profitability across four of six segments; a \$38 gain related to the retirement of debt and associated interest rate swap settlement; a \$37 gain on the sale of a portion of Alcoa's interest in the Juruti bauxite project to Alcoa World Alumina and Chemicals (AWAC); a \$15 gain on the termination of an alumina tolling arrangement; and continued focus on completion of divestitures, which included a \$61 gain on the sale of the specialty chemicals business.

Partially offsetting these positive contributions in 2004 were: significant cost increases for energy and raw materials; the impact of a weakened U.S. dollar against other currencies, primarily the Australian and Canadian dollars and the Euro; the impact of a strike at the Bécancour smelter; a \$41 increase in environmental and legal reserves, principally related to the Grasse River site and El Campo; and the absence of \$79 in insurance settlements that occurred in 2003.

Net income for 2004 was \$1,310, or \$1.49 per diluted share, compared with \$938, or \$1.08 per share, in 2003. Net income of \$1,310 in 2004 included a loss of \$92 in discontinued operations, comprised of \$89 in impairment charges to reflect the estimated fair values of the protective packaging business, the telecommunications business, and a small casting business; net operating losses of \$8; slightly offset by a net gain of \$5 on divested businesses. See details of the divestiture plan below.

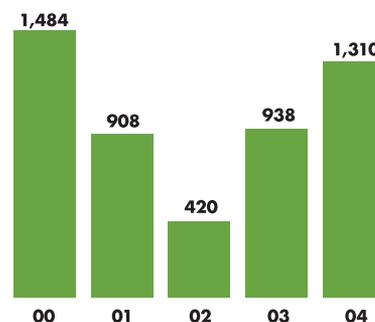
Alcoa's income from continuing operations for 2003 was \$1,055, or \$1.22 per diluted share, compared with \$518, or \$.61 per share, in 2002. The increase in income from continuing operations was primarily due to higher realized prices for alumina and aluminum; improved profitability across all segments; significant restructuring charges that were recognized in 2002; higher equity income; recognition of insurance settlements of a series of environmental matters in the U.S.; and a lower effective tax rate. Partially offsetting these increases were higher energy, employee benefits and raw materials costs, as well as the unfavorable impact of the U.S. dollar against foreign currencies.

The company also experienced volume declines in businesses serving the commercial building and construction and industrial gas turbine markets.

Net income for 2003 was \$938, or \$1.08 per diluted share, compared with \$420, or \$.49 per share, in 2002. Net income of \$938 in 2003 included a charge of \$47 representing the cumulative effect of the accounting change for asset retirement obligations upon adoption of Statement of Financial Accounting Standards (SFAS) No. 143, "Accounting for Asset Retirement Obligations." Net income in 2003 also included a loss of \$70 from discontinued operations, comprised of a \$45 impairment charge for the automotive fasteners business, as well as \$25 of net operating losses from businesses to be divested.

### Net Income

millions of dollars



**Divestiture Plan** — Alcoa's financial statements for all periods presented were significantly impacted by activities relating to the planned divestiture of a number of Alcoa's businesses.

In 2002, Alcoa performed a portfolio review of its businesses and the markets they serve. As a result of this review, Alcoa committed to a plan to divest certain noncore businesses that did not meet internal growth and return measures. This plan was substantially completed in 2004 with the divestitures of the following businesses: specialty chemicals, automotive fasteners, packaging equipment, South American flexible packaging, foil facilities in Russellville, AR and St. Louis, MO, and extrusion facilities in Europe and Brazil.

In the second quarter of 2004, certain architectural products businesses in North America were reclassified from assets held for sale to assets held and used as management discontinued the plan of sale due to market conditions. The financial statements for prior periods have been reclassified to reflect this change. The reclassification did not impact the Statement of Consolidated Income, and the results of operations of these architectural products businesses continue to be presented in the Engineered Products segment.

Also in 2004, Alcoa identified additional businesses to be divested to better focus on its core capabilities. As a result, the following businesses have been reclassified from assets held and used to discontinued operations for all periods presented. See Notes A and B to the Consolidated Financial Statements for additional information on reclassifications for discontinued operations.

- In the third quarter of 2004, the protective packaging business was reclassified to discontinued operations. A \$16 after-tax impairment charge was recorded to reflect the current estimated fair value of the business. The results of the Packaging

and Consumer segment have been reclassified to reflect the movement of this business into discontinued operations.

- In the fourth quarter of 2004, the telecommunications business and a small casting business in the U.K. were reclassified to discontinued operations. Impairment charges of \$63 (after tax and minority interests) for the telecommunications business and \$10 (after tax and minority interests) for the casting business were recorded to reflect the current estimated fair values of these businesses. The results of the Other group have been reclassified to reflect the movement of these businesses into discontinued operations.

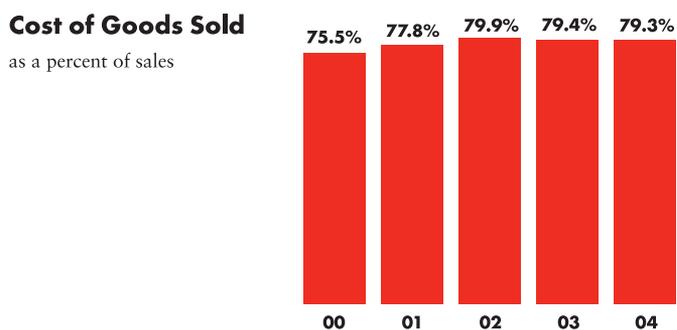
The loss of \$92 in discontinued operations in 2004 was comprised of impairment losses of \$89 to reflect the current estimated fair values on businesses to be divested as described above, \$8 of net operating losses of these businesses, and a net gain of \$5 on businesses sold in 2004. The loss of \$70 in discontinued operations in 2003 was comprised of an impairment loss of \$45 related to the reduction in the estimated fair value of the automotive fasteners business and \$25 of operating losses. The loss of \$132 in discontinued operations in 2002 was comprised of an impairment loss of \$59 to reduce the carrying values of certain businesses to be divested to their estimated fair values less costs to sell, \$53 of operating losses, and \$20 for the impairment of goodwill in the telecommunications business.

**Sales** — Sales for 2004 were \$23,478 compared with sales of \$21,092 in 2003, an increase of \$2,386, or 11%. The 21% increase in the realized price of aluminum and 23% increase in the realized price of alumina contributed significantly to the increase in sales over the prior year, as two-thirds of the increase in sales was due to higher realized prices for alumina and aluminum. Volume increased in downstream businesses serving the commercial transportation, building and construction, aerospace, and packaging markets. In addition, the acquisition of the remaining 50% of KAAL Australia in October 2003 provided \$370 in additional revenue in 2004. Partly offsetting these increases were sales decreases due to divestitures of Alcoa's specialty chemicals business, the Russellville, AR and St. Louis, MO foil facilities, the European and Brazilian extrusion facilities that were sold in 2004, as well as the Latin American PET business that was sold in 2003.

Sales in 2003 were \$21,092 compared with sales of \$19,934 in 2002, an increase of \$1,158, or 6%. Acquisitions accounted for \$913 of the increase in sales in 2003. Sales in 2003 included the full-year results of Ivex Packaging Corporation (Ivex), acquired in July 2002, and Fairchild Fasteners (Fairchild), acquired in December 2002, and three months of activity for KAAL Australia, acquired in October 2003. In addition to the acquisition activity, sales increased in 2003 primarily in the upstream businesses, as realized prices for alumina rose 17% and realized prices for aluminum rose 6% from 2002. Partly offsetting the increases in the upstream businesses were the dispositions of distribution facilities in Europe and the Latin America PET business, as well as lower volumes in the downstream businesses, which were impacted by weak markets for industrial gas turbines and commercial building and construction.

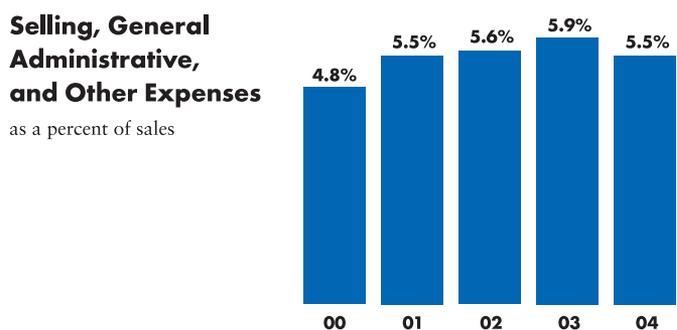
**Cost of Goods Sold** — COGS as a percentage of sales was 79.3% in 2004 compared with 79.4% in 2003. Increased realized prices for alumina and aluminum, higher volumes, and cost savings were mostly offset by higher costs associated with energy and raw materials, the Bécancour strike, an increase of \$42 in environmental reserves, and unfavorable foreign currency exchange movements.

COGS as a percentage of sales was 79.4% in 2003, compared with 79.9% in 2002. Cost reductions as a result of procurement savings, productivity improvements, and headcount reductions from prior restructuring programs, as well as higher realized prices for alumina and aluminum, more than offset lower volumes, higher costs for energy, purchased raw materials and employee benefits, a weakened U.S. dollar against other currencies, and a benefit realized in 2002 as a result of a favorable last-in, first-out (LIFO) adjustment.



**Selling, General Administrative, and Other Expenses** — SG&A expenses were \$1,284, or 5.5% of sales, in 2004 compared with \$1,250, or 5.9% of sales, in 2003. Expenses increased by \$34 due to unfavorable foreign currency exchange movements, increased bad debt expense, and stock awards granted in 2004, somewhat offset by lower deferred compensation costs.

SG&A expenses were \$1,250, or 5.9% of sales, in 2003 compared with \$1,108, or 5.6% of sales, in 2002. The increase of \$142, or 0.3% as a percentage of sales, was primarily due to the full-year results related to the acquisitions of Ivex and Fairchild, which accounted for 60% of the change in 2003 compared with 2002. The remaining increase was primarily due to increased deferred compensation costs in 2003.



**Research and Development Expenses** — R&D expenses were \$182 in 2004 compared with \$190 in 2003 and \$209 in 2002. The decreases in 2004 and 2003 were principally driven by Alcoa's continued focus to reduce spending and control costs.

### Provision for Depreciation, Depletion, and Amortization —

The provision for depreciation, depletion, and amortization was \$1,204 in 2004 compared with \$1,175 in 2003. The increase of \$29, or 3%, was primarily caused by unfavorable foreign currency exchange movements.

The provision for depreciation, depletion, and amortization was \$1,175 in 2003 compared with \$1,096 in 2002. The increase of \$79, or 7%, was primarily due to the full-year results related to the acquisitions of Ivex and Fairchild, as well as the negative impact of foreign currency exchange movements, somewhat offset by a reduction due to ceasing depreciation on assets held for sale.

**Restructuring and Other Charges** — Restructuring and other charges for each of the three years in the period ended December 31, 2004, were comprised of:

December 31	2004	2003	2002
Asset write-downs	\$ 6	\$ —	\$292
Layoff costs	41	44	104
Other costs	—	—	25
Sale of specialty chemicals business	(53)	—	—
Net additions to/(reversals) of prior year layoff and other costs*	(15)	(38)	(7)
Net additions to/(reversals) of prior year gains/losses on assets held for sale	—	(33)	—
Restructuring and other charges	<u>\$ (21)</u>	<u>\$ (27)</u>	<u>\$414</u>

\* Reversals of prior year layoff and other costs resulted from changes in facts and circumstances that led to changes in estimated costs.

Restructuring and other charges consisted of income of \$21 (\$41 after tax and minority interests) in 2004. The income recognized in 2004 was comprised of the following: a gain of \$53 (\$61 after tax and minority interests) on the sale of Alcoa's specialty chemicals business and \$15 from adjustments to prior year reserves; offset by charges of \$41 related to additional layoff reserves recorded in 2004 associated with approximately 4,100 hourly and salaried employees located primarily in Mexico and the U.S., as the company continued to focus on reducing costs, and \$6 of asset write-downs.

As of December 31, 2004, approximately 3,700 of the 4,100 employees associated with the 2004 restructuring charges had been terminated and approximately \$22 of cash payments were made against the reserves.

Restructuring and other charges consisted of income of \$27 (\$25 after tax and minority interests) in 2003. The income recognized in 2003 was comprised of: \$33 of net favorable adjustments on assets held for sale; \$38 of income resulting from adjustments to prior year layoff reserves; and \$44 of charges for additional layoff costs associated with approximately 1,600 hourly and salaried employees located primarily in Europe, the U.S., and Brazil, as the company continued to focus on cost reductions in businesses that continued to be impacted by market declines. The 2003 restructuring program is essentially complete.

During 2002, Alcoa recorded special charges of \$414 (\$272 after tax and minority interests) for restructurings associated with the curtailment of aluminum production at three smelters, as well as restructuring operations for those businesses experiencing negligible growth due to continued market declines and

the decision to divest certain businesses that failed to meet internal growth and return measures. The 2002 charges were comprised of asset write-downs of \$292, consisting of \$113 of goodwill on businesses to be divested, as well as \$179 for structures, machinery, and equipment; employee termination and severance costs of \$104 related to approximately 6,700 salaried and hourly employees at over 70 locations, primarily in Mexico, Europe, and the U.S.; and exit costs, including environmental, demolition, and lease termination costs, of \$25. Additionally, net reversals of \$7 were recorded in 2002, primarily associated with adjustments to 2001 restructuring program reserves due to changes in estimates of liabilities resulting from lower than expected costs. The 2002 restructuring program is essentially complete.

Alcoa does not include restructuring and other charges in the segment results. The pre-tax impact of allocating restructuring and other charges to the segment results would have been as follows:

December 31	2004	2003	2002
Alumina and Chemicals	\$(48)	\$ (1)	\$ 3
Primary Metals	(1)	4	64
Flat-Rolled Products	1	13	65
Engineered Products	9	(4)	217
Packaging and Consumer	10	(44)	46
Other	6	(2)	17
Segment total	<u>(23)</u>	<u>(34)</u>	<u>412</u>
Corporate expenses	2	7	2
Total Restructuring and other charges	<u>\$ (21)</u>	<u>\$ (27)</u>	<u>\$414</u>

**Interest Expense** — Interest expense was \$270 in 2004 compared with \$314 in 2003, resulting in a decrease of \$44, or 14%. This decrease was principally caused by lower average debt levels.

Interest expense was \$314 in 2003 compared with \$350 in 2002. The decrease of \$36, or 10%, was primarily due to lower average effective interest rates, somewhat offset by higher average debt levels due to higher borrowings in 2002 to fund acquisitions.

**Other Income** — Other income of \$268 in 2004 was relatively flat with \$274 in 2003. In 2004, a \$58 gain recognized on the restructuring of debt, \$54 change in favorable foreign currency exchange movements, and a \$35 gain on the termination of an alumina tolling arrangement were mostly offset by the \$105 gain in 2003 from insurance settlements of a series of historical environmental matters in the U.S., as well as a decrease in the cash surrender value of employee life insurance, among other smaller items.

Other income was \$274 in 2003 compared with \$178 in 2002. The increase of \$96, or 54%, was primarily due to a gain of \$105 from insurance settlements; \$66 of higher equity income, primarily at Elkem; and an increase in the cash surrender value of employee life insurance; partially offset by the unfavorable impact of foreign currency translation losses of \$51, primarily due to the impact of strengthening Australian and Canadian currencies; and several favorable nonoperating gains recognized in 2002.

**Income Taxes** — Alcoa's effective tax rate was 25.3% in 2004 compared with the statutory rate of 35% and Alcoa's effective tax rates of 24.4% in 2003 and 31.5% in 2002. The effective tax rate in 2004 reflects a number of discrete tax items that are required to be excluded from management's estimate of the annual effective tax rate:

- Reversal of valuation reserves on foreign net operating losses resulted in a reduction of the rate by approximately 1.0%;
- An agreement to sell a portion of Alcoa's interest in the Juruti bauxite reserves resulted in a reduction of the rate by .6%; and
- The sale of the specialty chemicals business in the first quarter of 2004 resulted in a reduction of the rate by .5%.

Management anticipates that the tax rate in 2005 will be similar to the tax rates for 2004 and 2003 excluding the impact of discrete tax items.

In October of 2004, the American Job Creation Act of 2004 (AJCA) was signed into law. The AJCA allows companies to repatriate earnings from foreign subsidiaries at a reduced U.S. tax rate. Alcoa is evaluating the consequences of repatriating up to \$1,000 with a related potential range of income tax effects of zero to \$90. The company expects to complete its review by December 31, 2005, and will recognize the income tax effect, if any, in the period when a decision whether to repatriate is made. Alcoa has also considered the impact of the Qualified Domestic Production Deduction provision of the AJCA and believes that the 2005 impact will be immaterial.

**Minority Interests** — Minority interests' share of income from operations was \$245 in 2004 compared with \$238 in 2003. The \$7 increase in 2004 was due to higher earnings at AWAC, attributed to higher realized prices, increased volumes, and the gain associated with the termination of an alumina tolling arrangement. This increase was partially offset by Alcoa's acquisition of the minority interest in Alcoa Aluminio in August 2003 and the sale of the specialty chemicals business in 2004.

Minority interests' share of income from operations was \$238 in 2003 compared with \$172 in 2002. The increase of \$66, or 38%, in 2003 was primarily due to higher earnings at AWAC, due to higher realized prices and higher volumes. This increase was somewhat offset by lower minority interests' share of income at Alcoa Aluminio resulting from Alcoa's acquisition of the remaining 40.9% shareholding from Camargo Correa Group in August 2003.

**Loss From Discontinued Operations** — Loss from discontinued operations was \$92 in 2004 compared with \$70 in 2003 and \$132 in 2002. The loss of \$92 was comprised of an impairment of \$89 related to a reduction in the estimated fair values of the telecommunications business, the protective packaging business, and a small casting business; \$8 of net operating losses; and a net gain of \$5 on divested businesses in 2004. The loss of \$70 in 2003 was comprised of an impairment of \$45 related to a reduction in the estimated fair value of the automotive fasteners business and \$25 of operating losses. The loss of \$132 in discontinued operations in 2002 was comprised

of an impairment of \$59 to reduce the carrying values of certain businesses to be divested to their estimated fair values less costs to sell, \$53 of operating losses, and \$20 for the impairment of goodwill in the telecommunications business. See Note B to the Consolidated Financial Statements for further information.

**Cumulative Effect of Accounting Change** — The cumulative effect of accounting changes resulted in a charge of \$47 in 2003 compared with income of \$34 recognized in 2002. The adoption of SFAS No. 143, "Accounting for Asset Retirement Obligations" in 2003 resulted in a cumulative effect adjustment of \$47, consisting primarily of costs to establish assets and liabilities related to spent pot lining disposal for pots currently in operation. The adoption of SFAS No. 141, "Business Combinations" and SFAS No. 142, "Goodwill and Other Intangibles" in 2002 resulted in a cumulative effect adjustment of \$34, consisting of income from the write-off of negative goodwill from prior acquisitions of \$49, offset by a \$15 write-off for the impairment of goodwill in the automotive business resulting from a change in measurement criteria for impairments. See Notes A, C, and E to the Consolidated Financial Statements for further information.

### Segment Information

Alcoa's operations consist of five worldwide segments: Alumina and Chemicals, Primary Metals, Flat-Rolled Products, Engineered Products, and Packaging and Consumer. Alcoa businesses that are not reported to management as part of one of these five segments are combined and reported as "Other." Alcoa's management reporting system measures the after-tax operating income (ATOI) of each segment. Certain items, such as interest income, interest expense, foreign currency translation gains/losses, the effects of LIFO inventory accounting, minority interests, restructuring and other charges, discontinued operations, and accounting changes are excluded from segment ATOI. In addition, certain expenses, such as corporate general administrative expenses and depreciation and amortization on corporate assets, are not included in segment ATOI. Segment assets exclude cash, cash equivalents, short-term investments, and all deferred taxes. Segment assets also exclude items such as corporate fixed assets, LIFO reserves, goodwill allocated to corporate, assets held for sale, and other amounts.

ATOI for all segments totaled \$2,169 in 2004, \$1,740 in 2003, and \$1,549 in 2002. See Note Q to the Consolidated Financial Statements for additional information. The following discussion provides shipment, sales, and ATOI data for each segment for each of the three years in the period ended December 31, 2004. The financial information and data on shipments of all prior periods have been adjusted to remove the results of discontinued operations.

Effective January 2005, Alcoa realigned its organization structure, creating global groups to better serve customers and increase the ability to capture efficiencies. Alcoa is currently evaluating the effect, if any, upon its segment reporting.

## Alumina and Chemicals

	2004	2003	2002
Alumina production (mt)	14,343	13,841	13,027
Third-party alumina shipments (mt)	7,374	7,671	7,486
Third-party sales	\$1,975	\$2,002	\$1,743
Intersegment sales	1,418	1,021	955
Total sales	\$3,393	\$3,023	\$2,698
ATOI	\$ 632	\$ 415	\$ 315

This segment consists of Alcoa's worldwide alumina and chemicals system that includes the mining of bauxite, which is then refined into alumina. Alumina is sold directly to internal and external smelter customers worldwide or is processed into industrial chemical products. Alcoa's alumina operations in Australia are a significant component of this segment. Slightly more than half of Alcoa's alumina production is sold under supply contracts to third parties worldwide, while the remainder is used internally. Alcoa's specialty chemicals business was sold in the first quarter of 2004.

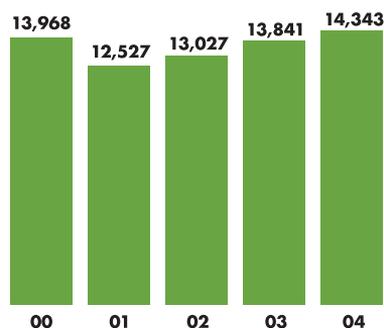
In 2004, alumina production increased by 502,000 mt, resulting primarily from the capacity expansion in Jamaica (14% increase in production) and the restart of capacity at Point Comfort, TX (13% increase in production), as well as an 11% increase in production at the San Ciprián, Spain refinery. In 2003, alumina production increased by 814,000 mt, principally due to the restart of capacity at Point Comfort, TX, which contributed an additional 592,000 mt (41% increase in production) in 2003, compared with 2002.

Third-party sales for the Alumina and Chemicals segment remained relatively flat in 2004 compared with 2003. The increase in realized prices of 23% in 2004 was more than offset by lower third-party volumes due to the expiration of an alumina purchase agreement in 2003, which resulted in higher intersegment sales in 2004. Also, the sale of the specialty chemicals business in 2004 negatively impacted sales by \$287. In 2003, third-party sales of alumina increased 15% compared with 2002, primarily due to an increase in realized prices of 17% influenced by higher LME prices and a tightening of the world alumina market, as well as increased shipments due to higher production at the Point Comfort, TX refinery.

ATOI for this segment rose 52% in 2004 compared with 2003 primarily due to higher realized prices and increased total volumes, a \$15 gain recognized on the termination of an alumina tolling arrangement, and a gain of \$37 recognized on the sale of a portion of Alcoa's interest in a Brazil bauxite project. These positive contributions were somewhat offset by unfavorable foreign currency exchange movements, higher raw

### Alumina Production

thousands of metric tons



material costs, and the loss of profit associated with the sale of the specialty chemicals business. ATOI in 2003 increased 32% compared with 2002 primarily due to higher realized prices and higher volumes, which were somewhat offset by higher energy costs and unfavorable foreign currency exchange movements.

In 2005, Alcoa will continue its brownfield projects at refineries in Suriname (addition of 250,000 mt – 137,000 mt is Alcoa's share) and Pinjarra, Western Australia (600,000 mt addition). A 250,000 mt expansion was completed at the Jamalco alumina refinery in 2004, with another 1,500,000 mt expansion planned. While market conditions for alumina appear to remain strong in 2005, Alcoa anticipates higher costs associated with caustic and energy. In addition, a stronger Australian dollar could also negatively impact earnings in this segment.

## Primary Metals

	2004	2003	2002
Aluminum production (mt)	3,376	3,508	3,500
Third-party aluminum shipments (mt)	1,882	1,952	2,073
Alcoa's average realized price per pound for aluminum ingot	\$ 0.85	\$ 0.70	\$ 0.66
Third-party sales	\$3,806	\$3,229	\$3,174
Intersegment sales	4,335	3,098	2,655
Total sales	\$8,141	\$6,327	\$5,829
ATOI	\$ 808	\$ 657	\$ 650

This segment consists of Alcoa's worldwide smelter system. Primary Metals receives alumina primarily from the Alumina and Chemicals segment and produces aluminum ingot to be used by Alcoa's fabricating businesses, as well as sold to external customers, aluminum traders, and commodity markets. Results from the sale of aluminum powder, scrap, and excess power are also included in this segment, as well as the results of aluminum derivative contracts. Aluminum ingot produced by Alcoa and used internally is transferred to other segments at prevailing market prices. The sale of ingot represents approximately 90% of this segment's third-party sales. In 2004, aluminum production decreased by 132,000 mt, principally due to the strike at the Bécancour facility.

Third-party sales for the Primary Metals segment increased 18% in 2004 compared with 2003 and increased 2% in 2003 compared with 2002 as higher realized prices in both periods more than offset lower third-party shipments. Realized prices increased 21% in 2004 compared with 2003 and 6% in 2003 compared with 2002. An electrical outage at the Alumar smelter in Brazil also had a negative impact on third-party sales in 2003. Intersegment sales increased 40% in 2004 and 17% in 2003 compared with previous periods due to higher realized prices and higher internal demand.

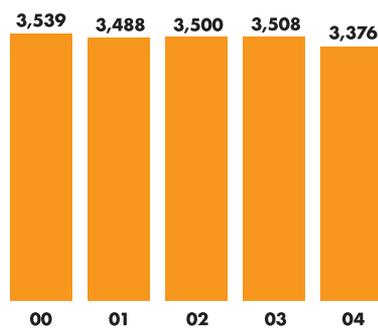
ATOI for this segment increased 23% in 2004 compared with 2003 as higher realized prices and higher total shipments were somewhat offset by the impact of unfavorable foreign currency exchange movements, higher costs for energy and purchased metal, and the effects of a strike at Bécancour in 2004. ATOI for this segment was relatively flat in 2003

compared with 2002 as higher realized prices and ongoing cost savings were substantially offset by higher costs for energy, raw materials, and employee benefits, and the impact of unfavorable foreign currency exchange movements.

In 2004, Alcoa made significant progress toward restarting smelting capacity at the Wenatchee, WA; Bécancour, Canada; and Massena, NY facilities. Once these restarts are complete, Alcoa will have 361,000 metric tons per year (mtpy) of idle capacity on a base capacity of 4,004,000 mtpy. Also during 2004, Alcoa broke ground on its smelter in Iceland, which will add 322,000 mtpy of capacity, and announced an expansion at the Alumar smelter in Brazil. The Iceland smelter is expected to be completed in 2007; however, the unknown impact of pending litigation could affect the completion date. In 2005, the company will invest in a new anode plant in Norway, modernize a Spanish smelter, and continue to explore smelting opportunities in China and Trinidad and energy projects in Brazil. While capacity restarts and anticipated higher metal prices will add to revenue and profit in 2005, the company anticipates that higher energy costs will persist.

### Aluminum Production

thousands of metric tons



### Flat-Rolled Products

	2004	2003	2002
Third-party aluminum shipments (mt)	2,046	1,819	1,774
Third-party sales	\$5,962	\$4,815	\$4,640
Intersegment sales	89	66	68
<b>Total sales</b>	<b>\$6,051</b>	<b>\$4,881</b>	<b>\$4,708</b>
ATOI	\$ 246	\$ 221	\$ 220

This segment's principal business is the production and sale of aluminum plate, sheet, and foil. This segment includes rigid container sheet (RCS), which is sold directly to customers in the packaging and consumer market and is used to produce aluminum beverage cans. Seasonal increases in RCS sales are generally experienced in the second and third quarters of the year. This segment also includes sheet and plate used in the transportation, building and construction, and distributor markets (mainly used in the production of machinery and equipment and consumer durables), of which approximately two-thirds is sold directly to customers while the remainder is sold through distributors. Approximately two-thirds of the third-party sales in this segment are derived from sheet and plate, and foil used in industrial markets, while the remaining one-third of third-party sales consists of RCS. While the customer base for flat-rolled products is large, a significant

amount of sales of RCS, sheet, and plate is to a relatively small number of customers.

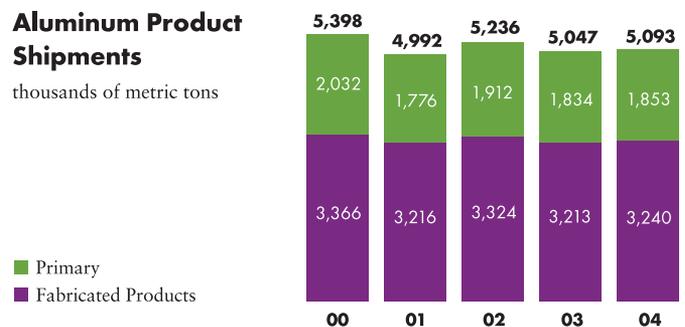
Third-party sales for the Flat-Rolled Products segment increased 24% in 2004 compared with 2003. The increase was due to the acquisition of the remaining 50% interest in KAAL Australia (can sheet rolling mills) in October of 2003, higher prices, the favorable impact of foreign currency exchange movements in Europe, and increased volumes for sheet and plate. Increased volumes for these products resulted from improved performance in businesses serving the commercial transportation, aerospace, automotive, and distribution markets. Third-party sales increased 4% in 2003 compared with 2002, primarily due to the KAAL Australia acquisition, favorable foreign currency exchange movements in Europe, and increased volumes for RCS and sheet and plate. These positive contributions were offset by the absence of sales from the commercial foil business, which was discontinued as a result of a prior year's restructuring program.

ATOI for this segment increased 11% in 2004 compared with 2003, principally due to higher volumes, higher prices, improved productivity, and favorable mix for sheet and plate; favorable foreign currency exchange movements in Europe; and the contribution of KAAL Australia. These positive contributions were somewhat offset by a hot mill interruption at the Kitts Green facility in the U.K. and temporary throughput issues at the Tennessee can sheet facility. These issues were resolved in 2004. ATOI remained flat in 2003 compared with 2002, as the contribution of KAAL Australia to ATOI and the positive results in Europe due to favorable foreign currency exchange movements were offset by higher costs for raw materials, energy, and employee benefits for RCS and the U.S. sheet and plate business.

In January 2005, Alcoa completed the acquisition of two fabricating facilities in Samara and Belaya Kalitva in the Russian Federation.

### Aluminum Product Shipments

thousands of metric tons



### Engineered Products

	2004	2003	2002
Third-party aluminum shipments (mt)	929	879	919
Third-party sales	\$6,300	\$5,589	\$5,150
Intersegment sales	15	24	34
<b>Total sales</b>	<b>\$6,315</b>	<b>\$5,613</b>	<b>\$5,184</b>
ATOI	\$ 250	\$ 155	\$ 105

This segment includes hard- and soft-alloy extrusions, including architectural extrusions, super-alloy castings, steel and aluminum fasteners, aluminum forgings, and wheels. These products

serve the aerospace, automotive, commercial transportation, industrial gas turbine, building and construction, and distributor markets (mainly used in the production of machinery and equipment) and are sold directly to customers and through distributors.

Third-party sales for the Engineered Products segment increased 13% in 2004 compared with 2003, principally due to increased volumes in the commercial transportation, automotive, building and construction, and aerospace markets; higher prices; and favorable foreign currency exchange movements. Third-party sales increased 9% in 2003 compared with 2002, primarily as a result of the Fairchild acquisition, which contributed approximately \$560 in 2003. Additionally, higher sales in Europe, driven by the favorable impact of foreign currency exchange movements, contributed to the increase in 2003. These increases were somewhat offset by volume declines in businesses serving the industrial gas turbine and commercial building and construction markets.

ATOI for this segment increased 61% in 2004 compared with 2003, principally resulting from increased volumes due to improved market conditions as noted previously, higher prices, and strong productivity gains. ATOI increased 48% in 2003 compared with 2002, primarily due to cost savings, the contribution of Fairchild results in 2003, and favorable foreign currency exchange movements in Europe. These favorable results were somewhat offset by higher employee benefit costs.

In 2004, Alcoa continued to pursue expansion of the production of soft-alloy extrusions in Europe through additional production in Hungary and the construction of a new facility in Romania, to be completed in 2005.

### Revenues by Geographic Area

billions of dollars



### Packaging and Consumer

	2004	2003	2002
Third-party aluminum shipments (mt)	164	167	162
Third-party sales	\$ 3,166	\$ 3,113	\$ 2,792
ATOI	\$ 168	\$ 214	\$ 195

This segment includes consumer, foodservice, and flexible packaging products; food and beverage closures; plastic sheet and film for the packaging industry; and imaging and graphic communications for the packaging industry. The principal

products in this segment include aluminum foil; plastic wraps and bags; plastic beverage and food closures; flexible packaging products; design and prepress services; gravure and flexographic image carrier products; thermoformed plastic containers and extruded plastic sheet and film. Consumer products are marketed under brands including Reynolds Wrap®, Diamond®, Baco®, and Cut-Rite® wax paper. Seasonal increases generally occur in the second and fourth quarters of the year for such products as consumer foil and plastic wraps and bags, while seasonal slowdowns for closures generally occur in the fourth quarter of the year. Products are generally sold directly to customers, consisting of supermarkets, beverage companies, food processors, retail chains, and commercial foodservice distributors.

Third-party sales for the Packaging and Consumer segment increased 2% in 2004 compared with 2003, primarily due to increased volumes in the closures, plastic sheet and film, and the imaging and graphic communications businesses and higher prices. These positive contributions were partly offset by the impact of the sale of Alcoa's Latin America PET business. In 2003, sales increased 11% compared with 2002, primarily as a result of the Ivex acquisition, which contributed approximately \$305 more in 2003 than in 2002. Higher volumes in the closures business also contributed to the sales increase in 2003.

ATOI for this segment in 2004 decreased 21% compared with 2003, primarily due to significantly higher resin and metal costs, unfavorable foreign currency exchange movements, and the divestitures of the Latin America PET business and Latasa, which were somewhat offset by increased volumes as noted above. In 2003, increased volumes in the closures business and positive results in Latin America due to improved economic conditions contributed to the 9% increase in ATOI compared with 2002, despite significantly higher resin prices and the divestitures of the Latin America PET business and Latasa.

During 2004, Alcoa continued its globalization of the closures business with new operations in Asia and Egypt. In 2005, higher input costs are anticipated for resin and metal.

### Other

	2004	2003	2002
Third-party aluminum shipments (mt)	72	87	79
Third-party sales	\$ 2,269	\$ 2,344	\$ 2,435
ATOI	\$ 65	\$ 78	\$ 64

This group includes other Alcoa businesses that are not included in the segments previously mentioned. This group includes the automotive business of Alcoa Fujikura, Ltd. (AFL), which produces electrical components for the automotive industry; the residential building products operations, Alcoa Home Exteriors; and automotive parts businesses. Products in this segment are generally sold directly to customers or through distributors. AFL sales are dependent on a relatively small number of customers. Seasonal increases in the building products business generally occur in the second and third

quarters of the year. The results of this segment do not include Alcoa's telecommunications business which was reclassified into discontinued operations.

Third-party sales for the Other group declined 3% in 2004 compared with 2003 and 4% in 2003 compared with 2002 primarily at AFL, as the automotive business continued to rebalance the customer base. In 2004, the decline was partially offset by higher volumes in the residential building products business and favorable foreign currency exchange movements. In 2003, the disposition of distribution facilities in Europe also contributed to the sales decline.

ATOI for this group decreased 17% in 2004 compared with 2003, principally due to decreased volumes and higher raw material costs, which were partially offset by higher equity income from Integris Metals and productivity improvements in the automotive parts business. ATOI for this group increased 22% in 2003 compared with 2002. The increase in ATOI is primarily due to productivity and purchasing cost savings recognized at AFL.

During 2004, Alcoa focused on low cost sourcing by opening an automotive facility in Honduras.

#### Reconciliation of ATOI to Consolidated Net Income —

The following table reconciles segment ATOI to consolidated net income.

	2004	2003	2002
ATOI	\$2,169	\$1,740	\$1,549
Intersegment profit/loss eliminations	52	9	(6)
Unallocated amounts (net of tax):			
Interest income	26	24	31
Interest expense	(176)	(204)	(227)
Minority interests	(245)	(238)	(172)
Corporate expense	(283)	(287)	(234)
Restructuring and other charges	23	26	(296)
Discontinued operations	(92)	(70)	(132)
Accounting changes	—	(47)	34
Other	(164)	(15)	(127)
Consolidated net income	\$1,310	\$ 938	\$ 420

Items required to reconcile segment ATOI to consolidated net income include:

- Corporate adjustments to eliminate any remaining profit or loss between segments;
- The after-tax impact of interest income and expense;
- Minority interests;
- Corporate expense, comprised of general administrative and selling expenses of operating the corporate headquarters and other global administrative facilities along with depreciation on corporate-owned assets;
- Restructuring and other charges (excluding minority interests);
- Discontinued operations;
- Accounting changes for asset retirement obligations in 2003 and goodwill in 2002; and
- Other, which includes the impact of LIFO, differences between estimated tax rates used in the segments and the corporate effective tax rate and other nonoperating items such as foreign currency translation gains/losses.

The significant changes in the reconciling items between ATOI and consolidated net income for 2004 compared with 2003 consisted of:

- A decrease in interest expense primarily due to lower average debt levels;
- An increase in the loss from discontinued operations due to the reclassification of the protective packaging business, the telecommunications business, and a small casting business to discontinued operations, which resulted in an \$89 impairment loss in 2004 to reflect the estimated fair values of these businesses; and
- An increase in Other, principally caused by an increase in LIFO inventory adjustments due to the increase in the price of aluminum, as well as \$79 lower proceeds from insurance settlements compared with 2003. Partially offsetting the increase are \$49 in favorable foreign currency exchange movements and a \$38 gain recognized on the restructuring of debt in 2004. See Note K to the Consolidated Financial Statements for additional information on this transaction.

The significant changes in the reconciling items between ATOI and consolidated net income for 2003 compared with 2002 consisted of:

- An increase in corporate expense, primarily due to an increase in deferred compensation costs.
- A decrease in Other, primarily due to an increase in the cash surrender value of employee life insurance (which essentially offsets the increase in deferred compensation costs), insurance settlements of past environmental matters, and lower taxes related to differences between statutory tax rates applied and the overall corporate effective tax rate, and higher equity income, primarily Elkem. These increases were partly offset by the unfavorable impact of a higher LIFO benefit recognized in 2002, as well as foreign currency translation losses.

## Market Risks and Derivative Activities

In addition to the risks inherent in its operations, Alcoa is exposed to financial, market, political, and economic risks. The following discussion provides information regarding Alcoa's exposure to the risks of changing commodity prices, foreign exchange rates, and interest rates.

Alcoa's derivative activities are subject to the management, direction, and control of the Strategic Risk Management Committee (SRMC). The SRMC is composed of the chief executive officer, the chief financial officer, and other officers and employees that the chief executive officer selects. The SRMC reports to the Board of Directors on the scope of its activities.

All of the interest rate, foreign currency, aluminum and other commodity contracts are held for purposes other than trading. They are used primarily to mitigate uncertainty and volatility, and to cover underlying exposures. The company is not involved in energy-trading activities, weather derivatives, or other nonexchange commodity-trading activities.

**Commodity Price Risks** — Alcoa is a leading global producer of primary aluminum products and aluminum fabricated products. As a condition of sale, customers often require Alcoa to enter into long-term, fixed-price commitments. These commitments expose Alcoa to the risk of higher aluminum prices between the time the order is committed and the time that the order is shipped. Alcoa uses futures contracts, totaling approximately 1,000,000 mt at December 31, 2004, to reduce the aluminum price risk of these fixed-price firm commitments. The effects of this hedging activity will be recognized in earnings over the designated hedge periods, generally within three years.

Alcoa has also entered into futures contracts to minimize its price risk related to aluminum purchases. Alcoa has not qualified these contracts for hedge accounting treatment, and therefore, the fair value gains and losses on these contracts are recorded in earnings. These contracts totaled 67,000 mt at December 31, 2004. In addition, Alcoa has entered into power supply contracts that contain pricing provisions related to the LME aluminum price. The LME linked pricing features are considered embedded derivatives. A majority of these embedded derivatives have been designated as hedges of future sales of aluminum. Gains and losses on the remainder of these derivatives are recognized in earnings. The net earnings impact of these contracts was a gain of \$5 in 2004.

Alcoa purchases natural gas, fuel oil, and electricity to meet its production requirements and believes it is highly likely that such purchases will continue in the future. These purchases expose the company to the risk of higher prices. To hedge a portion of these risks, Alcoa uses futures and forward contracts.

## Financial Risk

**Interest Rates** — Alcoa uses interest rate swaps to help maintain a strategic balance between fixed- and floating-rate debt and to manage overall financing costs. For a portion of its fixed-rate debt, the company has entered into pay floating, receive fixed interest rate swaps to effectively change the fixed interest rates to floating interest rates.

Alcoa previously used interest rate swaps to establish fixed interest rates on anticipated borrowings between June 2005 and June 2006. Due to a change in forecasted borrowing requirements, resulting from the early retirement of debt in June 2004 and a forecasted increase in future operating cash flows resulting from improved market conditions, it is no longer probable that the anticipated borrowings will occur in 2005 and 2006. Therefore, Alcoa recognized \$33 of gains that had been deferred on previously settled swaps and \$44 of additional gains to terminate the remaining interest rate swaps. These amounts were included in the \$58 gain on the restructuring of debt that was recorded in other income in the second quarter of 2004.

**Currencies** — Alcoa is subject to exposure from fluctuations in foreign currency exchange rates. Foreign currency exchange contracts may be used from time to time to hedge the variability in cash flows from the forecasted payment or receipt of currencies other than the functional currency. These contracts cover periods consistent with known or expected exposures, generally within three years.

**Fair Values and Sensitivity Analysis** — The following table shows the fair values of outstanding derivatives contracts at December 31, 2004 and the effect on fair value of a hypothetical change (increase or decrease of 10%) in the market prices or rates that existed at December 31, 2004.

	Fair value gain/(loss)	Price change of + / -10%
Aluminum	\$211	\$145
Interest rates	(42)	74
Other commodities, principally		
natural gas	53	56
Currencies	38	16

**Material Limitations** — The disclosures with respect to commodity prices, interest rates, and foreign exchange risk do not take into account the underlying commitments or anticipated transactions. If the underlying items were included in the analysis, the gains or losses on the futures contracts may be offset. Actual results will be determined by a number of factors that are not under Alcoa's control and could vary significantly from those factors disclosed.

Alcoa is exposed to credit loss in the event of nonperformance by counterparties on the above instruments, as well as credit or performance risk with respect to its hedged customers' commitments. Although nonperformance is possible, Alcoa does not anticipate nonperformance by any of these parties. Futures contracts are with creditworthy counterparties and are further supported by cash, treasury bills, or irrevocable letters of credit issued by carefully chosen banks. In addition, various master netting arrangements are in place with counterparties to facilitate settlement of gains and losses on these contracts.

For additional information on derivative instruments, see Notes A, K, and X to the Consolidated Financial Statements.

## Environmental Matters

Alcoa continues to participate in environmental assessments and cleanups at a number of locations. These include approximately 30 owned or operating facilities and adjoining properties, approximately 39 previously owned or operating facilities and adjoining properties, and approximately 67 waste sites, including Superfund sites. A liability is recorded for environmental remediation costs or damages when a cleanup program becomes probable and the costs or damages can be reasonably estimated. For additional information, see Notes A and Y to the Consolidated Financial Statements.

As assessments and cleanups proceed, the liability is adjusted based on progress made in determining the extent of remedial actions and related costs and damages. The liability can change substantially due to factors such as the nature and extent of contamination, changes in remedial requirements, and technological changes. Therefore, it is not possible to determine the outcomes or to estimate with any degree of accuracy the potential costs for certain of these matters.

The following discussion provides additional details regarding the current status of Alcoa's significant sites where the final outcome cannot be determined or the potential costs in the future cannot be estimated.

Alcoa has been conducting investigations and studies of the Grasse River, adjacent to Alcoa's Massena, New York plant site, under order from the U.S. Environmental Protection Agency (EPA) issued under the Comprehensive Environmental Response, Compensation and Liability Act, also known as Superfund. Sediments and fish in the river contain varying levels of polychlorinated biphenyl (PCB).

In 2002, Alcoa submitted an Analysis of Alternatives Report that detailed a variety of remedial alternatives with estimated costs ranging from \$2 to \$525. Because the selection of the \$2 alternative (natural recovery) was considered remote, Alcoa adjusted the reserve for the Grasse River in 2002 to \$30 representing the low end of the range of possible alternatives, as no single alternative could be identified as more probable than the others.

In June of 2003, based on river observations during the spring of 2003, the EPA requested that Alcoa gather additional field data to assess the potential for sediment erosion from winter river ice formation and breakup. The results of these additional studies, submitted in a report to the EPA in April of 2004, suggest that this phenomenon has the potential to occur approximately every 10 years and may impact sediments in certain portions of the river under all remedial scenarios. The EPA informed Alcoa that a final remedial decision for the river could not be made without substantially more information, including river pilot studies on the effects of ice formation and breakup on each of the remedial techniques. The EPA requested that Alcoa consider a Remedial Options Pilot Study (ROPS) to gather this information. The scope of this study includes sediment removal and capping, the installation of an ice control structure, and significant monitoring.

In May of 2004, Alcoa agreed to perform the study at an estimated cost of \$35. Most of the work should be completed by the fourth quarter of 2005. It is anticipated that a report of findings will be issued to the EPA in 2006. Subsequent to this submittal, a revised Analysis of Alternatives Report will be submitted to the EPA at a date to be determined. This information will be used by the EPA to propose a remedy for the entire river.

Alcoa adjusted the reserves in the second quarter of 2004 to include the \$35 for the ROPS. This is in addition to the \$30 previously reserved. With the exception of the natural recovery remedy, none of the existing alternatives in the 2002 Analysis of Alternatives Report is currently more probable than the others and the results of the ROPS are necessary to revise the scope and estimated cost of many of the current alternatives.

The EPA's ultimate selection of a remedy could result in additional liability. Alcoa may be required to record a subsequent reserve adjustment at the time the EPA's Record of Decision is issued.

In connection with the sale of the Sherwin alumina refinery in Texas, which was required to be divested as part of the Reynolds merger in 2000, Alcoa has agreed to retain responsibility for the remediation of then existing environmental conditions, as well as a pro rata share of the final closure of the active waste disposal areas, which remain in use. Alcoa's share of the closure

costs is proportional to the total period of operation of the active waste disposal areas. Alcoa estimated its liability for the active disposal areas by making certain assumptions about the period of operation; the amount of material placed in the area prior to closure; and the appropriate technology, engineering, and regulatory status applicable to final closure. The most probable cost for remediation has been reserved. It is reasonably possible that an additional liability, not expected to exceed \$75, may be incurred if actual experience varies from the original assumptions used.

Based on the foregoing, it is possible that Alcoa's results of operations, in a particular period, could be materially affected by matters relating to these sites. However, based on facts currently available, management believes that adequate reserves have been provided and that the disposition of these matters will not have a materially adverse effect on the financial position or liquidity of the company.

Alcoa's remediation reserve balance at the end of 2004 and 2003 was \$391 and \$395 (of which \$73 and \$65 was classified as a current liability), respectively, and reflects the most probable costs to remediate identified environmental conditions for which costs can be reasonably estimated. Remediation expenses charged to the reserve were approximately \$46 in 2004, \$32 in 2003, and \$50 in 2002. These amounts include expenditures currently mandated, as well as those not required by any regulatory authority or third party. The reserve balance was increased by \$42 in 2004, principally for the additional reserve recorded for the Grasse River site. In 2003, the reserve balance was reduced by approximately \$9, primarily for adjustments based on recent assessments of remaining work required at certain sites.

Included in annual operating expenses are the recurring costs of managing hazardous substances and environmental programs. These costs are estimated to be about 2% of cost of goods sold.

## Liquidity and Capital Resources

Alcoa takes a disciplined approach to cash management and strengthening its balance sheet, as it undertook aggressive capital controls, management of working capital, and continued focus on its divestiture plan in 2004. These actions helped the company to retire approximately \$2,000 of debt over the past two years. Capital spending increased 32%, as Alcoa made continued progress on brownfield expansions in refining and smelting and broke ground on the greenfield smelter construction in Iceland. Increased sales contributed to Alcoa's cash from operations of \$2,199 in 2004. Additionally, progress on the divestiture program with the sales of the automotive fasteners business, the packaging equipment business, and the specialty chemicals business in 2004, facilitated payments of debt, which aided in a reduction in the debt-to-capital ratio from 35.1% in 2003 to 30.0% in 2004.

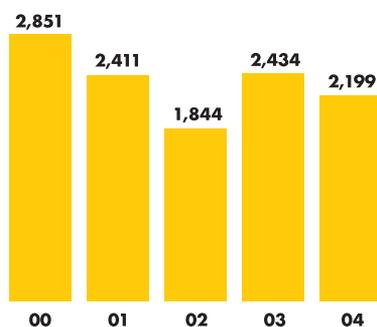
Cash provided from operations and from the divestiture plan is anticipated to be adequate to cover dividends, debt repayments, capital expenditures, and other business needs over the next 12 months.

## Cash from Operations

Cash from operations in 2004 was \$2,199 compared with \$2,434 in 2003. The decrease of \$235, or 10%, was primarily due to increases in inventories due to higher metal prices and the absence of proceeds from a \$440 advance payment against a long-term aluminum supply contract that occurred in 2003. Partially offsetting these items were stronger earnings in 2004 compared with 2003 and an increase in taxes payable and accounts payable. Cash from operations in 2003 was \$2,434 compared with \$1,844 in 2002. The increase of \$590, or 32%, was primarily due to higher earnings after adjustments for noncash items, as well as proceeds of \$440 from an advance payment against a long-term aluminum supply contract. Partially offsetting these increases were higher working capital requirements, primarily attributed to an increase in accounts receivable due to higher sales. See the Results of Operations discussion for further details.

## Cash from Operations

millions of dollars



## Financing Activities

Cash used for financing activities was \$1,525 in 2004 compared with \$1,714 in 2003. The change of \$189 was primarily due to an increase in short-term borrowings related to accounts payable arrangements and lower dividends paid to minority interests.

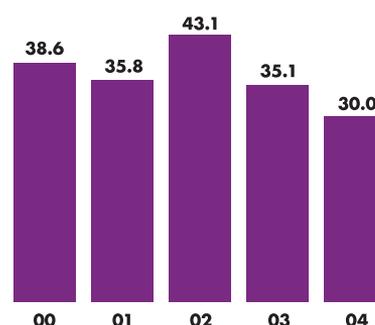
Cash used for financing activities was \$1,714 in 2003 compared with cash provided from financing activities of \$591 in 2002, resulting in a change of \$2,305, primarily due to borrowing activities. Net cash used to pay down short-term borrowings, commercial paper, and long-term debt was \$1,089 in 2003 compared with net cash provided from borrowing activities of \$1,466 in 2002, primarily used to fund the acquisitions of Ixex and Fairchild. In August 2002, Alcoa issued \$1,400 of notes. Of these notes, \$800 mature in 2007 and carry a coupon rate of 4.25%, and \$600 mature in 2013 and carry a coupon rate of 5.375%.

During 2004, Standard and Poor's Rating Services (S&P) maintained its long-term debt rating of Alcoa at A- and its short-term rating at A-2. In January 2005, S&P revised its outlook for Alcoa to negative from stable, citing higher capital expenditures in 2005 and future years. There was no change to either Alcoa's long-term or short-term ratings. Moody's Investors Service long-term debt rating of Alcoa and its rated subsidiaries is A2 and its short-term debt rating of Alcoa is Prime-1.

Alcoa maintains \$3,000 of revolving-credit agreements with varying expiration dates as backup to its commercial paper program. In April 2004, Alcoa refinanced its \$2,000 revolving-

credit agreement that expired in April 2004 into a \$1,000 revolving-credit agreement that will expire in April 2005, with an option to extend the maturity of any borrowings outstanding on the April 2005 expiration date for one year. Additionally, Alcoa refinanced its \$1,000 revolving-credit agreement that was to expire in April 2005 into a \$1,000 revolving-credit agreement that will expire in April 2009. Alcoa also has a \$1,000 revolving-credit agreement that will expire in April 2008. Alcoa intends to refinance the April 2005 agreement in April 2005. Debt of \$57 will mature in 2005.

## Debt as a Percent of Invested Capital



## Investing Activities

Cash used for investing activities was \$802 in 2004 compared with \$526 in 2003, resulting in a change of \$276. The increase was caused primarily by an increase in capital spending of \$273 as Alcoa invested in alumina and smelting expansions, as well as the greenfield smelter construction in Iceland in 2004. Cash proceeds from the sales of assets were \$228 higher in 2004, due to the substantial completion of the company's 2002 divestiture plan, partially offset by a \$129 decrease in cash received on the sale of investments.

Cash used for investing activities was \$526 in 2003 compared with \$2,547 in 2002, resulting in a change of \$2,021. The decrease in cash used in 2003 was primarily due to disciplined capital spending, which drove a reduction of \$403 in capital expenditures. Cash proceeds from sales of assets and investments was \$166 higher in 2003, primarily due to the sales of the PET business and Latasa. Additionally, acquisitions used \$1,244 more cash in 2002 compared with 2003 as a result of the acquisitions of Ixex and Fairchild.

Capital expenditures were \$1,143 in 2004 compared with \$870 and \$1,273 in 2003 and 2002, respectively. Of the total capital expenditures in 2004, approximately 36% related to growth projects, including alumina refinery expansions in Australia, Jamaica, and Suriname, as well as the construction of a smelter in Iceland. Also included are costs of new and expanded facilities for environmental control in ongoing operations totaling \$70 in 2004, \$37 in 2003, and \$115 in 2002. Capital expenditures related to environmental control are anticipated to be approximately \$112 in 2005. Total capital expenditures are anticipated to be approximately \$2,500 in 2005.

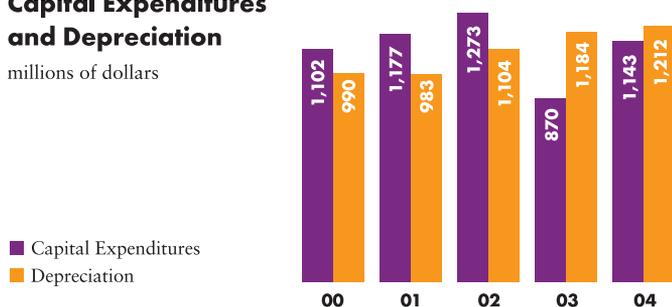
Alcoa added \$69, \$11, and \$112 to its investments in 2004, 2003, and 2002, respectively. In January of 2004, Alcoa paid \$32 to acquire approximately 44 million additional shares of Chalco to maintain its 8% ownership interest. Cash paid for

investments of \$112 in 2002 was primarily due to the purchase of additional shares in the Norwegian metals producer, Elkem.

For a discussion of long-term liquidity, see the disclosure included in Contractual Obligations and Off-Balance Sheet Arrangements that follows.

### Capital Expenditures and Depreciation

millions of dollars



### Critical Accounting Policies and Estimates

The preparation of the financial statements in accordance with generally accepted accounting principles requires management to make judgments, estimates, and assumptions regarding uncertainties that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities, and the reported amounts of revenues and expenses. Areas that require significant judgments, estimates, and assumptions include the accounting for derivatives, environmental matters, asset retirement obligations, the testing of goodwill and other intangible assets for impairment, estimated proceeds on businesses to be divested, pensions and other postretirement benefits, and tax matters. Management uses historical experience and all available information to make these judgments and estimates, and actual results will inevitably differ from those estimates and assumptions that are used to prepare the company's financial statements at any given time. Despite these inherent limitations, management believes that Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) and the financial statements and related footnotes provide a meaningful and fair perspective of the company. A discussion of the judgments and uncertainties associated with accounting for derivatives and environmental matters can be found in the Market Risks and Environmental Matters sections of MD&A.

A summary of the company's significant accounting policies is included in Note A to the Consolidated Financial Statements. Management believes that the application of these policies on a consistent basis enables the company to provide the users of the financial statements with useful and reliable information about the company's operating results and financial condition.

In 2002, Alcoa adopted the new standard of accounting for goodwill and intangible assets with indefinite lives. The cumulative effect adjustment recognized on January 1, 2002, upon adoption of the new standard, was income of \$34 (after tax). Also in 2002, amortization ceased for goodwill and intangible assets with indefinite lives. Additionally, goodwill and indefinite lived intangibles are required to be tested for impairment at least annually. The evaluation of impairment involves

comparing the current fair value of the business to the recorded value (including goodwill). The company uses a discounted cash flow model (DCF model) to determine the current fair value of the business. A number of significant assumptions and estimates are involved in the application of the DCF model to forecast operating cash flows, including markets and market share, sales volumes and prices, costs to produce, and working capital changes. Management considers historical experience and all available information at the time the fair values of its businesses are estimated. However, actual fair values that could be realized in an actual transaction may differ from those used to evaluate the impairment of goodwill.

The fair values of all businesses to be divested are estimated using accepted valuation techniques such as a DCF model, earnings multiples, or indicative bids, when available. A number of significant estimates and assumptions are involved in the application of these techniques, including the forecasting of markets and market share, sales volumes and prices, costs and expenses, and multiple other factors. Management considers historical experience and all available information at the time the estimates are made; however, the fair values that are ultimately realized upon the sale of the businesses to be divested may differ from the estimated fair values reflected in the financial statements.

Other areas of significant judgments and estimates include the liabilities and expenses for pensions and other postretirement benefits. These amounts are determined using actuarial methodologies and incorporate significant assumptions, including the rate used to discount the future estimated liability, the long-term rate of return on plan assets, and several assumptions relating to the employee workforce (salary increases, medical costs, retirement age, and mortality). The rate used to discount future estimated liabilities is determined considering the rates available at year-end on debt instruments that could be used to settle the obligations of the plan. The impact on the liabilities of a change in the discount rate of  $\frac{1}{4}$  of 1% is approximately \$350 and a change of \$16 to after-tax earnings in the following year. The long-term rate of return is estimated by considering historical returns and expected returns on current and projected asset allocations and is generally applied to a five-year average market value of assets. A change in the assumption for the long-term rate of return on plan assets of  $\frac{1}{4}$  of 1% would impact after-tax earnings by approximately \$12 for 2005.

In 2002, the declines in equity markets and interest rates had a negative impact on Alcoa's pension plan liability and fair value of plan assets. As a result, the accumulated benefit obligation exceeded the fair value of plan assets at the end of 2002, which resulted in a net charge of \$851 to shareholders' equity. In 2003, a net charge of \$39 was recorded in shareholders' equity as strong asset returns of 19.75% almost entirely offset higher accumulated benefit obligations resulting from a 50 basis point decline in the discount rate. A net charge of \$21 in shareholders' equity in 2004 reflected asset returns of 12%, which were more than offset by higher accumulated benefit obligations caused by a 25 basis point decline in the discount rate.

As a global company, Alcoa records an estimated liability for income and other taxes based on what it determines will likely be paid in the various tax jurisdictions in which it operates.

Management uses its best judgment in the determination of these amounts. However, the liabilities ultimately realized and paid are dependent on various matters, including the resolution of the tax audits in the various affected tax jurisdictions, and may differ from the amounts recorded. An adjustment to the estimated liability would be recorded through income in the period in which it becomes probable that the amount of the actual liability differs from the amount recorded. Alcoa has unamortized tax deductible goodwill of \$573 resulting from intercompany stock sales and reorganizations (generally at a 34% rate). Alcoa recognizes the tax benefits associated with this tax deductible goodwill as it is being amortized for local income tax purposes from 2004 through 2009, rather than in the period in which the transaction was consummated.

## Related Party Transactions

Alcoa buys products from and sells products to various related companies, consisting of entities in which Alcoa retains a 50% or less equity interest, at negotiated arms-length prices between the two parties. These transactions were not material to the financial position or results of operations of Alcoa at December 31, 2004.

## Contractual Obligations and Off-Balance Sheet Arrangements

The company is obligated to make future payments under various contracts such as long-term purchase obligations, debt agreements, lease agreements, and unconditional purchase obligations and has certain contingent commitments such as debt guarantees. The company has grouped these contractual obligations and off-balance sheet arrangements into operating activities, financing activities, and investing activities in the same manner as they are classified in the Statement of Consolidated Cash Flows in order to provide a better understanding of the nature of the obligations and arrangements and to provide a basis for comparison to historical information. The table below provides a summary of contractual obligations and off-balance sheet arrangements as of December 31, 2004:

Contractual obligations	Total	2005	2006–2007	2008–2009	Thereafter
Operating activities:					
Energy-related purchase obligations	\$8,849	\$1,151	\$1,325	\$ 959	\$5,414
Raw material and other purchase obligations	2,311	1,483	603	90	135
Operating leases <sup>(1)</sup>	1,147	225	350	216	356
Estimated pension funding	<sup>(2)</sup>	57	600	400	<sup>(2)</sup>
Postretirement benefit payments	<sup>(2)</sup>	358	700	700	<sup>(2)</sup>
Layoff and impairment payments <sup>(3)</sup>	64	64	—	—	—
Deferred revenue arrangements	563	132	163	129	139
Financing activities:					
Total debt <sup>(4)</sup>	6,300	954	932	237	4,177
Dividends to shareholders <sup>(5)</sup>					
Investing activities:					
Capital projects <sup>(6)</sup>	2,746	1,396	1,302	48	—
Acquisitions	257	257	—	—	—
Other:					
Standby letters of credit <sup>(7)</sup>	293	249	2	3	39
Guarantees <sup>(7)</sup>	128	—	10	13	105
<b>Total contractual obligations</b>		<b>\$6,326</b>	<b>\$5,987</b>	<b>\$2,795</b>	

<sup>(1)</sup> See Note U to the Consolidated Financial Statements for further details on operating leases.

<sup>(2)</sup> Annual payments and funding are expected to continue into the foreseeable future at the amounts or ranges noted in the discussion below.

<sup>(3)</sup> See Note D to the Consolidated Financial Statements for further details on layoff and impairment payments.

<sup>(4)</sup> See Note K to the Consolidated Financial Statements for further details on debt and associated interest.

<sup>(5)</sup> See discussion below under Obligations for Financing Activities.

<sup>(6)</sup> See discussion below under Obligations for Investing Activities.

<sup>(7)</sup> See Note N to the Consolidated Financial Statements for further details on standby letters of credit and guarantees.

## Recently Issued Accounting Standards

SFAS No. 123 (revised 2004) “Share-Based Payment” was issued in December 2004. This standard requires companies to measure and recognize the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value. The effective date is the first interim reporting period beginning after June 15, 2005. Alcoa is currently evaluating pricing models and the transition provisions of this standard and will begin expensing stock options in the third quarter of 2005.

In November 2004, the Financial Accounting Standards Board (FASB) issued SFAS No. 151, “Inventory Costs – an Amendment of ARB No. 43, Chapter 4.” This standard provides clarification that abnormal amounts of idle facility expense, freight, handling costs, and spoilage should be recognized as current-period charges. Additionally, this standard requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. The provisions of this standard are effective for inventory costs incurred during fiscal years beginning after June 15, 2005. This standard does not have a material impact to Alcoa’s financial statements.

### **Obligations for Operating Activities**

The table provides a summary of the type or nature of the company's obligations associated with operating activities that exceed \$5 annually or \$10 in total over the life of the contract. Energy-related purchase obligations consist primarily of electricity and natural gas contracts with expiration dates ranging from less than one year to 40 years. The majority of raw material and other purchase obligations have expiration dates of 24 months or less. Operating leases represent multi-year obligations for rental of facilities and equipment.

Estimated pension funding and postretirement benefit payments are based on actuarial estimates using current assumptions for discount rates, expected return on long-term assets, rate of compensation increases, and health care cost trend rates. Cash outlays for pension funding are estimated to be \$57 for 2005, \$100 for 2006, and \$500 for 2007. The increase in 2007 is a result of the depletion of prior pension-funding credits that are projected to be fully used during 2006, requiring additional funding in 2007. The funding estimate for 2008 and 2009 is \$400. Postretirement benefit payments are expected to approximate \$350 annually. Annual payments will vary based on actuarial estimates. See Note W to the Consolidated Financial Statements for additional information.

Deferred revenue arrangements require Alcoa to deliver aluminum and alumina over the specified contract period. While these obligations are not expected to result in cash payments, they represent contractual obligations for which the company would be obligated if the specified product deliveries could not be made.

### **Obligations for Financing Activities**

Cash outlays for financing activities consist primarily of debt and dividend payments to shareholders. The company has historically paid quarterly dividends to shareholders. Shareholder dividends are subject to quarterly approval by the company's Board of Directors and are currently at a rate of \$524 annually.

### **Obligations for Investing Activities**

Alcoa has made announcements indicating its intention to participate in several significant expansion projects. These projects include the construction of a smelter in Iceland; the expansion of alumina refineries at Pinjarra, Australia; Clarendon, Jamaica; and Suriname, South America; the expansion of a smelter in São Luis, Brazil; the construction of a smelter in Trinidad; a smelter joint venture project in China; and the investment in several hydroelectric power construction projects in Brazil. These projects are in various stages of development and, depending on business and/or regulatory circumstances, may not be completed. The amounts included in the table above for capital projects represent the amounts which have been approved by management for these projects as of December 31, 2004. Funding levels vary in future years based on anticipated construction schedules of the projects.

It is anticipated that significant expansion projects will be funded through various sources, including cash provided from operations. Alcoa anticipates that financing required to execute all of these investments will be readily available over the time frame required.

In January 2005, Alcoa acquired two fabricating facilities in the Russian Federation for \$257 in cash.

In December 2004, Alcoa signed a letter of intent with Fujikura Ltd. of Japan in which Alcoa will obtain complete ownership of the AFL automotive business, and Fujikura will obtain complete ownership of the AFL telecommunications business. This transaction is in the negotiation phase, and any cash requirements have not yet been determined. This transaction is not reflected in the Contractual Obligations and Off-Balance Sheet Arrangements table.

## Management's Reports to Alcoa Shareholders

### Management's Report on Financial Statements and Practices

The accompanying consolidated financial statements of Alcoa Inc. and its subsidiaries (the "Company") were prepared by management, which is responsible for their integrity and objectivity. The statements were prepared in accordance with generally accepted accounting principles and include amounts that are based on management's best judgments and estimates. The other financial information included in the annual report is consistent with that in the financial statements.

Management also recognizes its responsibility for conducting the Company's affairs according to the highest standards of personal and corporate conduct. This responsibility is characterized and reflected in key policy statements issued from time to time regarding, among other things, conduct of its business activities within the laws of the host countries in which the Company operates and potentially conflicting outside business interests of its employees. The Company maintains a systematic program to assess compliance with these policies.

### Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting for the Company. In order to evaluate the effectiveness of internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act, management has conducted an assessment, including testing, using the criteria in *Internal Control – Integrated Framework*, issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's system of internal control over financial reporting is 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. 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.

Based on its assessment, management has concluded that the Company maintained effective internal control over financial reporting as of December 31, 2004, based on criteria in *Internal Control – Integrated Framework* issued by the COSO. Management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2004, has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

### Management's Certifications

The certifications of the Company's Chief Executive Officer and Chief Financial Officer required by the Sarbanes-Oxley Act have been included as Exhibits 31 and 32 in the Company's Form 10-K. In addition, in 2004, the Company's Chief Executive Officer provided to the New York Stock Exchange the annual CEO certification regarding the Company's compliance with the New York Stock Exchange's corporate governance listing standards.



Alain J. P. Belda  
Chairman and  
Chief Executive Officer



Richard B. Kelson  
Executive Vice President  
and Chief Financial Officer

## Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Alcoa Inc.:

We have completed an integrated audit of Alcoa Inc.'s 2004 consolidated financial statements and of its internal control over financial reporting as of December 31, 2004 and audits of its 2003 and 2002 consolidated financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

### Consolidated financial statements

In our opinion, the accompanying consolidated balance sheet and the related consolidated statements of income, shareholders' equity and cash flows present fairly, in all material respects, the financial position of Alcoa Inc. and its subsidiaries (Alcoa) at December 31, 2004 and 2003, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2004 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of Alcoa's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note C to the consolidated financial statements, Alcoa changed its method of accounting for asset retirement obligations in 2003. As discussed in Notes A and E to the consolidated financial statements, Alcoa changed its method of accounting for long-lived asset impairments and goodwill and other intangible assets in 2002.

### Internal control over financial reporting

Also, in our opinion, management's assessment, included in the accompanying Management's Report on Internal Control over Financial Reporting, that Alcoa maintained effective internal control over financial reporting as of December 31, 2004 based on criteria established in *Internal Control – Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), is fairly stated, in all material respects, based on those criteria. Furthermore, in our opinion, Alcoa maintained, in all material respects, effective internal control over financial reporting as of December 31, 2004, based on criteria established in *Internal Control – Integrated Frame-*

*work* issued by the COSO. Alcoa'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. Our responsibility is to express opinions on management's assessment and on the effectiveness of Alcoa's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

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.

*PricewaterhouseCoopers* LLP

Pittsburgh, Pennsylvania  
February 18, 2005

## Statement of Consolidated Income

Alcoa and subsidiaries

(in millions, except per-share amounts)

For the year ended December 31	2004	2003	2002
Sales (A and Q)	\$23,478	\$21,092	\$19,934
Cost of goods sold	18,623	16,754	15,928
Selling, general administrative, and other expenses	1,284	1,250	1,108
Research and development expenses	182	190	209
Provision for depreciation, depletion, and amortization (A and E)	1,204	1,175	1,096
Restructuring and other charges (D)	(21)	(27)	414
Interest expense (V)	270	314	350
Other income, net (O)	(268)	(274)	(178)
	21,274	19,382	18,927
Income from continuing operations before taxes on income	2,204	1,710	1,007
Provision for taxes on income (T)	557	417	317
Income from continuing operations before minority interests' share	1,647	1,293	690
Less: Minority interests' share	245	238	172
Income from continuing operations	1,402	1,055	518
Loss from discontinued operations (B)	(92)	(70)	(132)
Cumulative effect of accounting change (C and E)	—	(47)	34
<b>Net Income</b>	<b>\$ 1,310</b>	<b>\$ 938</b>	<b>\$ 420</b>
<b>Earnings (loss) per Share (S)</b>			
Basic:			
Income from continuing operations	\$ 1.61	\$ 1.23	\$ .61
Loss from discontinued operations	(.11)	(.08)	(.16)
Cumulative effect of accounting change	—	(.06)	.04
Net income	\$ 1.50	\$ 1.09	\$ .49
Diluted:			
Income from continuing operations	\$ 1.60	\$ 1.22	\$ .61
Loss from discontinued operations	(.11)	(.08)	(.16)
Cumulative effect of accounting change	—	(.06)	.04
Net income	\$ 1.49	\$ 1.08	\$ .49

The accompanying notes are an integral part of the consolidated financial statements.

# Consolidated Balance Sheet

Alcoa and subsidiaries

(in millions)

December 31	2004	2003
<b>Assets</b>		
Current assets:		
Cash and cash equivalents (X)	\$ 457	\$ 576
Receivables from customers, less allowances: 2004–\$87; 2003–\$102	2,738	2,492
Other receivables	261	351
Inventories (G)	2,968	2,505
Deferred income taxes (T)	279	266
Prepaid expenses and other current assets	790	493
Total current assets	7,493	6,683
Properties, plants, and equipment, net (H)	12,592	12,500
Goodwill (E and F)	6,541	6,443
Investments (I)	2,066	2,005
Other assets (E and J)	3,707	3,288
Assets held for sale (B)	210	792
<b>Total Assets</b>	<b>\$32,609</b>	<b>\$31,711</b>
<b>Liabilities</b>		
Current liabilities:		
Short-term borrowings (K and X)	\$ 267	\$ 50
Commercial paper (K and X)	630	—
Accounts payable, trade	2,226	1,958
Accrued compensation and retirement costs	1,021	948
Taxes, including taxes on income	1,019	737
Other current liabilities	1,078	866
Long-term debt due within one year (K and X)	57	523
Total current liabilities	6,298	5,082
Long-term debt, less amount due within one year (K and X)	5,346	6,693
Accrued pension benefits (W)	1,513	1,568
Accrued postretirement benefits (W)	2,150	2,220
Other noncurrent liabilities and deferred credits (L)	1,727	1,820
Deferred income taxes (T)	790	815
Liabilities of operations held for sale (B)	69	98
Total liabilities	17,893	18,296
<b>Minority Interests (M)</b>	<b>1,416</b>	<b>1,340</b>
Commitments and Contingencies (N)		
<b>Shareholders' Equity</b>		
Preferred stock (R)	55	55
Common stock (R)	925	925
Additional capital	5,775	5,831
Retained earnings	8,636	7,850
Treasury stock, at cost	(1,926)	(2,017)
Accumulated other comprehensive loss	(165)	(569)
Total shareholders' equity	13,300	12,075
<b>Total Liabilities and Equity</b>	<b>\$32,609</b>	<b>\$31,711</b>

The accompanying notes are an integral part of the consolidated financial statements.

# Statement of Consolidated Cash Flows

Alcoa and subsidiaries

(in millions)

For the year ended December 31	2004	2003	2002
<b>Cash from Operations</b>			
Net income	\$ 1,310	\$ 938	\$ 420
Adjustments to reconcile net income to cash from operations:			
Depreciation, depletion, and amortization	1,212	1,184	1,104
Change in deferred income taxes	(95)	128	(167)
Equity income, net of dividends	(54)	(94)	(40)
Noncash restructuring and other charges (D)	(21)	(27)	414
Net gain on early retirement of debt and interest rate swap settlements (K)	(58)	—	—
Gains from investing activities—sale of assets (O)	(44)	(37)	(52)
Provision for doubtful accounts	24	11	16
Loss from discontinued operations (B)	92	70	132
Accounting changes (C and E)	—	47	(34)
Minority interests	245	238	172
Other	80	116	8
Changes in assets and liabilities, excluding effects of acquisitions and divestitures:			
(Increase) reduction in receivables	(95)	(144)	380
(Increase) reduction in inventories	(395)	94	148
(Increase) reduction in prepaid expenses and other current assets	(94)	58	38
Increase (reduction) in accounts payable and accrued expenses	122	(164)	(256)
Increase (reduction) in taxes, including taxes on income	113	(247)	(199)
Cash paid on early retirement of debt and interest rate swap settlements (K)	(52)	—	—
Cash received on long-term aluminum supply contract	—	440	—
Net change in noncurrent assets and liabilities	(240)	(256)	(182)
Reduction in net assets held for sale	148	81	33
<b>Cash provided from continuing operations</b>	<b>2,198</b>	<b>2,436</b>	<b>1,935</b>
<b>Cash provided from (used for) discontinued operations</b>	<b>1</b>	<b>(2)</b>	<b>(91)</b>
<b>Cash from operations</b>	<b>2,199</b>	<b>2,434</b>	<b>1,844</b>
<b>Financing Activities</b>			
Net changes to short-term borrowings	213	12	(384)
Common stock issued for stock compensation plans	83	98	55
Repurchase of common stock	(67)	—	(224)
Dividends paid to shareholders	(524)	(516)	(509)
Dividends paid to minority interests	(119)	(207)	(197)
Net change in commercial paper	630	(665)	445
Additions to long-term debt	180	387	1,636
Payments on long-term debt	(1,921)	(823)	(231)
<b>Cash (used for) provided from financing activities</b>	<b>(1,525)</b>	<b>(1,714)</b>	<b>591</b>
<b>Investing Activities</b>			
Capital expenditures	(1,142)	(863)	(1,264)
Capital expenditures of discontinued operations	(1)	(7)	(9)
Acquisitions, net of cash acquired (F and P)	(2)	(9)	(1,253)
Proceeds from the sale of assets	392	164	127
Additions to investments	(69)	(11)	(112)
Sale of investments (F)	—	129	—
Changes in short-term investments	30	19	(54)
Changes in minority interests	(5)	—	26
Other	(5)	52	(8)
<b>Cash used for investing activities</b>	<b>(802)</b>	<b>(526)</b>	<b>(2,547)</b>
<b>Effect of exchange rate changes on cash</b>	<b>9</b>	<b>38</b>	<b>(56)</b>
Net change in cash and cash equivalents	(119)	232	(168)
Cash and cash equivalents at beginning of year	576	344	512
<b>Cash and cash equivalents at end of year</b>	<b>\$ 457</b>	<b>\$ 576</b>	<b>\$ 344</b>

The accompanying notes are an integral part of the consolidated financial statements.

## Statement of Shareholders' Equity

(in millions, except per-share amounts)

December 31	Comprehensive income	Preferred stock	Common stock	Additional capital	Retained earnings	Treasury stock	Accumulated other comprehensive loss	Total shareholders' equity
<b>Balance at end of 2001</b>		\$56	\$925	\$6,114	\$7,517	\$(2,706)	\$(1,292)	\$10,614
Comprehensive loss—2002:								
Net income—2002	\$ 420				420			420
Other comprehensive income (loss):								
Change in minimum pension liability, net of \$421 tax benefit	(851)							
Unrealized translation adjustments	309							
Unrealized losses on available-for-sale securities, net of \$13 tax benefit	(25)							
Unrecognized gains on derivatives, net of tax and minority interests of \$(106) (X):								
Net change from periodic revaluations	60							
Net amount reclassified to income	45							
Net unrecognized gains on derivatives	105							
Comprehensive loss	<u>\$ (42)</u>						(462)	(462)
Cash dividends: Preferred @ \$3.75 per share					(2)			(2)
Common @ \$.60 per share					(507)			(507)
Treasury shares purchased		(1)				(224)		(225)
Stock issued: compensation plans				(13)		102		89
<b>Balance at end of 2002</b>		55	925	6,101†	7,428	(2,828)	(1,754)	9,927
Comprehensive income—2003:								
Net income—2003	\$ 938				938			938
Other comprehensive income (loss):								
Change in minimum pension liability, net of \$21 tax benefit	(39)							
Unrealized translation adjustments	818							
Unrealized gains on available-for-sale securities, net of \$183 tax expense (X)	340							
Unrecognized gains/(losses) on derivatives, net of tax and minority interests of \$(53) (X):								
Net change from periodic revaluations	115							
Net amount reclassified to income	(49)							
Net unrecognized gains on derivatives	66							
Comprehensive income	<u>\$2,123</u>						1,185	1,185
Cash dividends: Preferred @ \$3.75 per share					(2)			(2)
Common @ \$.60 per share					(514)			(514)
Stock issued: Alcoa Aluminio minority interest acquisition (F)				(193)		603		410
Stock issued: compensation plans				(77)		208		131
<b>Balance at end of 2003</b>		55	925	5,831†	7,850	(2,017)	(569)	12,075
Comprehensive income—2004:								
Net income—2004	\$1,310				1,310			1,310
Other comprehensive income (loss):								
Change in minimum pension liability, net of \$11 tax benefit	(21)							
Unrealized translation adjustments	535							
Unrealized losses on available-for-sale securities, net of \$51 tax benefit (X)	(94)							
Unrecognized gains/(losses) on derivatives, net of tax and minority interests of \$34 (X):								
Net change from periodic revaluations	120							
Net amount reclassified to income	(136)							
Net unrecognized losses on derivatives	(16)							
Comprehensive income	<u>\$1,714</u>						404	404
Cash dividends: Preferred @ \$3.75 per share					(2)			(2)
Common @ \$.60 per share					(522)			(522)
Stock issued: compensation plans				(56)		91		35
<b>Balance at end of 2004</b>		\$55	\$925	\$5,775†	\$8,636	\$(1,926)	\$ (165)*	\$13,300

\* Comprised of unrealized translation adjustments of \$535, minimum pension liability of \$(972), unrealized gains on available-for-sale securities of \$221, and unrecognized gains/(losses) on derivatives of \$51, net of tax

† Includes stock to be issued under options of \$96 in 2004, \$130 in 2003, and \$130 in 2002

The accompanying notes are an integral part of the consolidated financial statements.

## Notes to the Consolidated Financial Statements

(dollars in millions, except per-share amounts)

### A. Summary of Significant Accounting Policies

**Basis of Presentation.** The Consolidated Financial Statements are prepared in conformity with accounting principles generally accepted in the United States of America and require management to make certain estimates and assumptions. These may affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements. They also may affect the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates upon subsequent resolution of identified matters.

**Principles of Consolidation.** The Consolidated Financial Statements include the accounts of Alcoa and companies more than fifty percent owned. Intercompany transactions have been eliminated. Investments in affiliates and other joint ventures in which Alcoa has a noncontrolling ownership interest between twenty and fifty percent are accounted for on the equity method. Investments in affiliates in which Alcoa has an ownership interest less than twenty percent are accounted for on the cost method.

Alcoa also evaluates consolidation of entities under Financial Accounting Standards Board Interpretation No. 46, "Consolidation of Variable Interest Entities" (FIN 46). FIN 46 requires management to evaluate whether an entity is a variable interest entity and whether Alcoa is the primary beneficiary. Consolidation is required if both of these criteria are met. Alcoa does not have any variable interest entities requiring consolidation.

**Cash Equivalents.** Cash equivalents are highly liquid investments purchased with an original maturity of three months or less.

**Inventory Valuation.** Inventories are carried at the lower of cost or market, with cost for a substantial portion of U.S. and Canadian inventories determined under the last-in, first-out (LIFO) method. The cost of other inventories is principally determined under the average-cost method. See Note G for additional information.

**Properties, Plants, and Equipment.** Properties, plants, and equipment are recorded at cost. Depreciation is recorded principally on the straight-line method at rates based on the estimated useful lives of the assets, averaging 33 years for structures and approximately 16 years for machinery and equipment, as useful lives range between 5 and 25 years. Gains or losses from the sale of assets are included in other income. Repairs and maintenance are charged to expense as incurred. Interest related to the construction of qualifying assets is capitalized as part of the construction costs. Depletion is taken over the periods during which the estimated mineral reserves are extracted. See Notes H and V for additional information.

**Goodwill and Other Intangible Assets.** Alcoa adopted Statement of Financial Accounting Standards (SFAS) No. 142, "Goodwill and Other Intangible Assets," effective January 1, 2002. Under this standard, goodwill and intangibles with indefinite useful lives are no longer amortized. Intangible assets

with finite useful lives are amortized generally on a straight-line basis over the periods benefited, with a weighted average useful life of 13 years.

The carrying values of goodwill and other intangible assets with indefinite useful lives are tested at least annually for impairment. If the carrying value of goodwill or an intangible asset exceeds its fair value, an impairment loss is recognized. The evaluation of impairment involves comparing the current fair value of the business to the recorded value (including goodwill). The company uses a discounted cash flow model (DCF model) to determine the current fair value of the business. A number of significant assumptions and estimates are involved in the application of the DCF model to forecast operating cash flows, including markets and market share, sales volumes and prices, costs to produce, and working capital changes. Management considers historical experience and all available information at the time the fair values of its businesses are estimated. However, actual fair values that could be realized in an actual transaction may differ from those used to evaluate the impairment of goodwill. See Note E for additional information.

**Accounts Payable Arrangements.** Alcoa participates in computerized payable settlement arrangements with certain vendors and third-party intermediaries. The arrangements provide that, at the vendor's request, the third-party intermediary advances the amount of the scheduled payment to the vendor, less an appropriate discount, before the scheduled payment date. Alcoa makes payment to the third-party intermediary on the date stipulated in accordance with the commercial terms negotiated with its vendors. The amounts outstanding under these arrangements that will be paid through the third-party intermediaries have been classified as short-term borrowings in the Consolidated Balance Sheet at December 31, 2004 and as cash provided from financing activities in the Statement of Consolidated Cash Flows at December 31, 2004. See Note K for additional information.

**Revenue Recognition.** Alcoa recognizes revenue when title, ownership, and risk of loss pass to the customer, in accordance with the provisions of Staff Accounting Bulletin 104, "Revenue Recognition in Financial Statements."

Alcoa periodically enters into long-term supply contracts with alumina and aluminum customers and receives advance payments for product to be delivered in future periods. These advance payments are recorded as deferred revenue, and revenue is recognized as shipments are made and title, ownership, and risk of loss pass to the customer during the term of the contracts.

**Environmental Expenditures.** Expenditures for current operations are expensed or capitalized, as appropriate. Expenditures relating to existing conditions caused by past operations, and which do not contribute to future revenues, are expensed. Liabilities are recorded when remedial efforts are probable and the costs can be reasonably estimated. The liability may include costs such as site investigations, consultant fees, feasibility studies, outside contractor, and monitoring expenses. Estimates are generally not discounted or reduced by potential claims for recovery. Claims for recovery are recognized as agreements are reached with third parties. The estimates also

include costs related to other potentially responsible parties to the extent that Alcoa has reason to believe such parties will not fully pay their proportionate share. The liability is periodically reviewed and adjusted to reflect current remediation progress, prospective estimates of required activity, and other factors that may be relevant, including changes in technology or regulations. See Note Y for additional information.

**Income Taxes.** The provision for income taxes is determined using the asset and liability approach of accounting for income taxes in accordance with SFAS No. 109 "Accounting for Income Taxes." Under this approach, deferred taxes represent the future tax consequences expected to occur when the reported amounts of assets and liabilities are recovered or paid. The provision for income taxes represents income taxes paid or payable for the current year plus the change in deferred taxes during the year. Deferred taxes result from differences between the financial and tax bases of Alcoa's assets and liabilities and are adjusted for changes in tax rates and tax laws when changes are enacted. Valuation allowances are recorded to reduce deferred tax assets when it is more likely than not that a tax benefit will not be realized. Alcoa also has unamortized tax deductible goodwill resulting from intercompany stock sales and reorganizations. Alcoa recognizes the tax benefits associated with this tax deductible goodwill as it is being amortized for local income tax purposes rather than in the period in which the transaction is consummated.

**Stock-Based Compensation.** Alcoa accounts for stock-based compensation in accordance with the provisions of Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees," and related interpretations using the intrinsic value method, which resulted in no compensation cost for options granted.

Alcoa's net income and earnings per share would have been reduced to the pro forma amounts shown below if compensation cost had been determined based on the fair value at the grant dates in accordance with SFAS Nos. 123 and 148, "Accounting for Stock-Based Compensation."

	2004	2003	2002
Net income, as reported	\$1,310	\$ 938	\$420
Less: compensation cost determined under the fair value method, net of tax	35	30	113
Pro forma net income	\$1,275	\$ 908	\$307
Basic earnings per share:			
As reported	\$ 1.50	\$1.09	\$ .49
Pro forma	1.46	1.06	.36
Diluted earnings per share:			
As reported	1.49	1.08	.49
Pro forma	1.45	1.06	.36

In addition to stock option awards described above, beginning in 2004 the company granted stock awards and performance share awards that vest in three years from the date of grant. Compensation expense for stock awards is calculated based on the fair value at the grant date, and compensation expense for performance share awards is based on the fair value on the date the performance criteria is determined. The after-tax expense recognized on these awards in 2004 was \$9.

The fair value of each option is estimated on the date of grant or subsequent reload using the Black-Scholes pricing model with the following assumptions:

	2004	2003	2002
Average risk-free interest rate	2.1%	2.2%	3.5%
Expected dividend yield	1.6	2.5	2.1
Expected volatility	32	38	42
Expected life (years):			
New option grants	3.0	3.0	3.0
Reload option grants	3.0	2.5	2.5

The weighted average fair value per option granted was \$7.72 in 2004, \$5.75 in 2003, and \$9.96 in 2002. See Note R for additional information.

**Derivatives and Hedging.** Derivatives are held as part of a formally documented risk management program. All derivatives are straight-forward and are held for purposes other than trading. For derivatives designated as fair value hedges, Alcoa measures hedge effectiveness by formally assessing, at least quarterly, the historical high correlation of changes in the fair value of the hedged item and the derivative hedging instrument. For derivatives designated as cash flow hedges, Alcoa measures hedge effectiveness by formally assessing, at least quarterly, the probable high correlation of the expected future cash flows of the hedged item and the derivative hedging instrument. The ineffective portions of both types of hedges are recorded in sales or other income in the current period. A loss of \$18 was recorded in 2004 for the ineffective portion of these hedges. If the hedging relationship ceases to be highly effective or it becomes probable that an expected transaction will no longer occur, future gains or losses on the derivative are recorded in other income or expense. Two interest rate swaps ceased to qualify as hedges in 2004 due to the restructuring of debt and were terminated. See Notes K and X for additional information. No other hedging transactions ceased to qualify as hedges.

Alcoa accounts for interest rate swaps related to its existing long-term debt and hedges of firm customer commitments for aluminum as fair value hedges. As a result, the fair values of derivatives and changes in the fair values of the underlying hedged items are reported in other current and noncurrent assets and liabilities in the Consolidated Balance Sheet. Changes in the fair values of these derivatives and underlying hedged items generally offset and are recorded each period in sales or interest expense, consistent with the underlying hedged item.

Alcoa accounts for hedges of foreign currency exposures and certain forecasted transactions, principally purchases of natural gas, as cash flow hedges. The fair values of the derivatives are recorded in other current and noncurrent assets and liabilities in the Consolidated Balance Sheet. The effective portions of the changes in the fair values of these derivatives are recorded in other comprehensive income and are reclassified to sales, cost of goods sold, or other income in the period in which earnings are impacted by the hedged items or in the period that the transaction no longer qualifies as a cash flow hedge. These contracts cover the same periods as known or expected exposures, generally within three years. Assuming market rates remain constant with the rates at December 31, 2004, \$39 of the \$51 gain included in other comprehensive income is expected to be recognized in earnings over the next 12 months.

If no hedging relationship is designated, the derivative is marked to market through earnings.

Cash flows from financial instruments are recognized in the Statement of Consolidated Cash Flows in a manner consistent with the underlying transactions. See Notes K and X for additional information.

**Foreign Currency.** The local currency is the functional currency for Alcoa's significant operations outside the U.S., except in Canada, where the U.S. dollar is used as the functional currency. The determination of the functional currency for Alcoa's operations is made based on the appropriate economic and management indicators.

**Acquisitions.** Alcoa's acquisitions are accounted for using the purchase method. The purchase price is allocated to the assets acquired and liabilities assumed based on their estimated fair market values. Any excess purchase price over the fair market value of the net assets acquired is recorded as goodwill. For all acquisitions, operating results are included in the Statement of Consolidated Income since the dates of the acquisitions. See Note F for additional information.

**Discontinued Operations and Assets Held For Sale.** Alcoa adopted SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets," effective January 1, 2002. This standard establishes accounting and reporting requirements for the impairment or disposal of long-lived assets. For those businesses where management has committed to a plan to divest, each business is valued at the lower of its carrying amount or estimated fair value less cost to sell. If the carrying amount of the business exceeds its estimated fair value, a loss is recognized. The fair values are estimated using accepted valuation techniques such as a DCF model, earnings multiples, or indicative bids, when available. A number of significant estimates and assumptions are involved in the application of these techniques, including the forecasting of markets and market share, sales volumes and prices, costs and expenses, and multiple other factors. Management considers historical experience and all available information at the time the estimates are made; however, the fair values that are ultimately realized upon the sale of the businesses to be divested may differ from the estimated fair values reflected in the financial statements.

Businesses to be divested are classified in the Consolidated Financial Statements as either discontinued operations or assets held for sale. For businesses classified as discontinued operations, the balance sheet amounts and income statement results are reclassified from their historical presentation to assets and liabilities of operations held for sale on the Consolidated Balance Sheet and to discontinued operations in the Statement of Consolidated Income for all periods presented. The Statement of Consolidated Cash Flows is also reclassified for assets held for sale and discontinued operations for all periods presented. Additionally, segment information does not include the results of businesses classified as discontinued operations. Management does not expect any continuing involvement with these businesses following the sales, and these businesses are expected to be disposed of within one year.

For businesses classified as assets held for sale, the balance sheet and cash flow amounts are reclassified from their historical presentation to assets and liabilities of operations held for sale. The income statement results continue to be

reported in the historical income statement categories as income from continuing operations. The segment results include the results of businesses classified as assets held for sale for all periods presented. Management expects that Alcoa will have continuing involvement with these businesses following the sale, primarily in the form of ongoing aluminum or other significant supply contracts.

**Recently Issued Accounting Standards.** SFAS No. 123 (revised 2004) "Share-Based Payment" was issued in December 2004. This standard requires companies to measure and recognize the cost of employee services received in exchange for an award of equity instruments based on the grant-date fair value. The effective date is the first interim reporting period beginning after June 15, 2005. Alcoa is currently evaluating pricing models and the transition provisions of this standard and will begin expensing stock options in the third quarter of 2005.

In November 2004, the Financial Accounting Standards Board (FASB) issued SFAS No. 151, "Inventory Costs – an Amendment of ARB No. 43, Chapter 4." This standard provides clarification that abnormal amounts of idle facility expense, freight, handling costs, and spoilage should be recognized as current-period charges. Additionally, this standard requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. The provisions of this standard are effective for inventory costs incurred during fiscal years beginning after June 15, 2005. This standard does not have a material impact to Alcoa's financial statements.

**Reclassification.** Certain amounts in previously issued financial statements were reclassified to conform to 2004 presentations. See Note B for further information.

## **B. Discontinued Operations and Assets Held for Sale**

Alcoa's financial statements for all periods presented were significantly impacted by activities relating to the planned divestiture of a number of Alcoa's businesses.

In 2002, Alcoa performed a portfolio review of its businesses and the markets they serve. As a result of this review, Alcoa committed to a plan to divest certain noncore businesses that did not meet internal growth and return measures. This plan was substantially completed in 2004 with the divestitures of the following businesses: specialty chemicals, packaging equipment, automotive fasteners, South American flexible packaging, foil facilities in Russellville, AR and St. Louis, MO, and extrusion facilities in Europe and Brazil. See Note F for additional details.

In the second quarter of 2004, certain architectural products businesses in North America were reclassified from assets held for sale to assets held and used as management discontinued the plan of sale due to market conditions. The financial statements for prior periods have been reclassified to reflect this change. The reclassification did not impact the Statement of Consolidated Income, and the results of operations of these architectural products businesses continue to be presented in the Engineered Products segment.

Also in 2004, Alcoa identified additional businesses to be divested so as to better focus on its core capabilities. As a result, the following businesses have been reclassified from assets held

and used to discontinued operations for all periods presented.

- In the third quarter of 2004, the protective packaging business was reclassified to discontinued operations. A \$16 after-tax impairment charge was recorded to reflect the current estimated fair value of the business. The results of the Packaging and Consumer segment have been reclassified to reflect the movement of this business into discontinued operations.
- In the fourth quarter of 2004, the telecommunications business and a small casting business in the U.K. were reclassified to discontinued operations. Impairment charges of \$63 (after tax and minority interests) for the telecommunications business and \$10 (after tax and minority interests) for the casting business were recorded to reflect the current estimated fair values of these businesses. The results of the Other group have been reclassified to reflect the movement of these businesses into discontinued operations.

The following table details selected financial information for the businesses included within discontinued operations in the Statement of Consolidated Income.

	2004	2003	2002
Sales	\$ 482	\$ 636	\$ 685
Loss from operations	(14)	(47)	(153)
Gain on sale of businesses	8	—	—
Loss from impairment	(153)	(69)	(91)
Pre-tax loss	(159)	(116)	(244)
Benefit for taxes	24	39	75
Minority interests	43	7	37
Loss from discontinued operations	\$ (92)	\$ (70)	\$(132)

The loss of \$92 in discontinued operations in 2004 was comprised of impairment losses of \$89 to reflect the current estimated fair values on businesses to be divested as described above, \$8 of net operating losses of these businesses, and a net gain of \$5 on businesses sold in 2004. The loss of \$70 in discontinued operations in 2003 was comprised of an impairment loss of \$45 related to the reduction in the estimated fair value of the automotive fasteners business and \$25 of operating losses. The loss of \$132 in discontinued operations in 2002 was comprised of an impairment loss of \$59 to reduce the carrying values of certain businesses to be divested to their estimated fair values less costs to sell, \$53 of operating losses, and \$20 for the impairment of goodwill in the telecommunications business.

The major classes of assets and liabilities of operations held for sale in the Consolidated Balance Sheet are as follows:

December 31	2004	2003
Assets:		
Receivables	\$ 98	\$181
Inventories	44	161
Properties, plants, and equipment, net	42	371
Other assets	26	79
Total assets held for sale	\$210	\$792
Liabilities:		
Accounts payable and accrued expenses	\$ 54	\$ 52
Other liabilities	15	46
Total liabilities of operations held for sale	\$ 69	\$ 98

For all of the businesses to be divested, the fair values were estimated utilizing accepted valuation techniques. The fair values that are ultimately realized upon the sale of the businesses to

be divested may differ from the estimated fair values reflected in the financial statements.

### C. Asset Retirement Obligations

Effective January 1, 2003, Alcoa adopted SFAS No. 143, "Accounting for Asset Retirement Obligations." Under this standard, Alcoa recognized additional liabilities, at fair value, of approximately \$136 at January 1, 2003, for asset retirement obligations (AROs), consisting primarily of costs associated with spent pot lining disposal, bauxite residue disposal, mine reclamation, and landfills. These costs reflect the legal obligations associated with the normal operation of Alcoa's bauxite mining, alumina refining, and aluminum smelting facilities. Alcoa had previously recorded liabilities for certain of these costs. Additionally, Alcoa capitalized asset retirement costs by increasing the carrying amount of related long-lived assets, primarily machinery and equipment, and recorded associated accumulated depreciation from the time the original assets were placed into service. At January 1, 2003, Alcoa increased the following: net properties, plants, and equipment by \$74; net deferred tax assets by \$22; liabilities by \$136 as noted above; and minority interests by \$7.

The cumulative effect adjustment recognized upon adoption of this standard was \$47, consisting primarily of costs to establish assets and liabilities related to spent pot lining disposal for pots currently in operation. Net income for the full year of 2002 would not have been materially different if this standard had been adopted effective January 1, 2002.

The changes in the carrying amount of AROs for the years ended December 31, 2004 and 2003 follow.

December 31	2004	2003
Balance at beginning of year	\$217	\$224
Accretion expense	15	16
Payments	(25)	(27)
Liabilities incurred	30	8
Translation and other	(4)	(4)
Balance at end of year	\$233	\$217

In addition to the AROs discussed above, Alcoa may have other obligations in the event of a permanent plant shutdown. However, these plant assets have indeterminate lives and, therefore, the associated AROs are not reasonably estimable and liabilities cannot be established.

### D. Restructuring and Other Charges

Restructuring and other charges for each of the three years in the period ended December 31, 2004, were comprised of:

December 31	2004	2003	2002
Asset write-downs	\$ 6	\$ —	\$292
Layoff costs	41	44	104
Other costs	—	—	25
Sale of specialty chemicals business	(53)	—	—
Net additions to/(reversals) of prior year layoff and other costs*	(15)	(38)	(7)
Net additions to/(reversals) of prior year gains/losses on assets held for sale	—	(33)	—
Restructuring and other charges	\$ (21)	\$ (27)	\$414

\* Reversals of prior year layoff and other costs resulted from changes in facts and circumstances that led to changes in estimated costs.

During 2004, Alcoa recorded income of \$21 (\$41 after tax and minority interests) for restructuring and other items. The income recognized was comprised of the following components: a gain of \$53 (\$61 after tax and minority interests) on the sale of Alcoa's specialty chemicals business and \$15 resulting from adjustments to prior year reserves; offset by charges of \$41 related to additional layoff reserves associated with approximately 4,100 hourly and salaried employees (located primarily in Mexico and the U.S.), as the company continued to focus on reducing costs, and \$6 of asset write-downs.

As of December 31, 2004, approximately 3,700 of the 4,100 employees had been terminated, and cash payments of approximately \$22 were made against the reserves.

Restructuring and other charges consisted of income of \$27 (\$25 after tax and minority interests) in 2003. The income was comprised of: \$33 of net favorable adjustments on assets held for sale; \$38 of income resulting from adjustments to prior year layoff reserves; and \$44 of charges for additional layoff costs associated with approximately 1,600 hourly and salaried employees located primarily in Europe, the U.S., and Brazil, as the company continued to focus on cost reductions in businesses that continued to be impacted by market declines. The 2003 restructuring program is essentially complete.

During 2002, Alcoa recorded restructuring and other charges of \$414 (\$272 after tax and minority interests) for restructurings associated with the curtailment of aluminum production at three smelters, as well as restructuring operations for those businesses experiencing negligible growth due to continued market declines and the decision to divest certain businesses that have failed to meet internal growth and return measures.

The 2002 charges were comprised of the following components: \$104 of charges for employee termination and severance costs associated with approximately 6,700 salaried and hourly employees at over 70 locations, primarily in Mexico, Europe, and the U.S.; \$292 related to asset write-downs, consisting of \$113 of goodwill on businesses to be divested, as well as \$179 for structures, machinery, and equipment; and \$25 for exit costs, primarily for remediation and demolition costs, as well as lease termination costs. Additionally, net reversals of \$7 were recorded in 2002, primarily associated with adjustments to 2001 restructuring program reserves due to changes in estimates of liabilities resulting from lower than expected costs. The 2002 restructuring program is essentially complete.

Activity and reserve balances related to restructuring charges in 2002, 2003, and 2004 are as follows:

	Employee termination and severance costs	Other exit costs	Total
Reserve balance at December 31, 2001	\$ 142	\$ 92	\$ 234
<b>2002:</b>			
Cash payments	(74)	(30)	(104)
2002 restructuring charges	104	25	129
Net changes to 2001 restructuring reserves	(11)	(3)	(14)
Reserve balances at December 31, 2002	\$ 161	\$ 84	\$ 245
<b>2003:</b>			
Cash payments	(120)	(27)	(147)
2003 restructuring charges	44	—	44
Additions to/(reversals) of 2002 restructuring charges	(38)	(9)	(47)
Reserve balances at December 31, 2003	\$ 47	\$ 48	\$ 95
<b>2004:</b>			
Cash payments	(52)	(5)	(57)
2004 restructuring charges	41	—	41
Reversals of 2003 restructuring charges	(11)	(4)	(15)
Reserve balances at December 31, 2004	\$ 25	\$ 39	\$ 64

## E. Goodwill and Other Intangible Assets

The following table details the changes in the carrying amount of goodwill.

December 31	2004	2003
Balance at beginning of year	\$6,443	\$6,282
Additions during the period	24	75
Translation and other adjustments	74	86
Balance at end of year	\$6,541	\$6,443

The increase in goodwill of \$24 during 2004 was due primarily to adjustments to preliminary purchase price allocations from prior periods, which had a \$13 impact on the Engineered Products segment and an \$11 impact on corporate.

The increase in goodwill of \$75 during 2003 was due primarily to the acquisition of the remaining 40.9% interest in Alcoa Aluminio, as well as adjustments to preliminary purchase price allocations from prior periods. See Note F for additional information. The impact to the segments follows: Engineered Products \$40 and the Other group \$(17). The impact to corporate was \$52.

Upon adoption of SFAS No. 142 on January 1, 2002, Alcoa recognized a cumulative effect adjustment of \$34 (after tax) consisting of income from the write-off of negative goodwill from prior acquisitions of \$49, offset by a \$15 write-off for the impairment of goodwill in the automotive business resulting from a change in criteria for the measurement of fair value under SFAS No. 142 from an undiscounted to a discounted cash flow method. In the fourth quarter of 2002, Alcoa recorded an impairment charge of \$44 for goodwill associated with its operations serving the telecommunications market due to lower than expected projected operating profits and cash flows. This amount was recorded in discontinued operations.

The following table details other intangible assets.

	2004		2003	
	Gross carrying amount	Accumulated amortization	Gross carrying amount	Accumulated amortization
Computer software	\$ 464	\$(218)	\$ 336	\$(169)
Patents and licenses	157	(70)	154	(57)
Other intangibles	491	(148)	471	(126)
Total amortizable intangible assets	1,112	(436)	961	(352)
Indefinite-lived trade names and trademarks	176	—	179	—
Total other intangible assets	\$1,288	\$(436)	\$1,140	\$(352)

Computer software costs consisted primarily of software costs associated with an enterprise business solution (EBS) within Alcoa to drive common systems among all businesses. The increase in the balance in 2004 is attributed to continued implementation of EBS across the company. Other intangibles consisted primarily of customer relationship intangibles.

Amortization expense for intangible assets for the years ended December 31, 2004, 2003, and 2002 was \$81, \$84, and \$67, respectively. Amortization expense is expected to be in the range of approximately \$72 to \$80 annually from 2005 to 2009.

## F. Acquisitions and Divestitures

In 2004, Alcoa substantially completed its 2002 plan to divest certain noncore businesses, as outlined below:

In the first quarter of 2004, Alcoa completed the sale of its specialty chemicals business to two private equity firms led by Rhone Capital LLC for an enterprise value of \$342, which included the assumption of debt and other obligations. Alcoa received cash of \$248 and recognized a pre-tax, pre-minority interest gain of approximately \$53 (\$61 after tax and minority interests) in restructuring and other charges in the Statement of Consolidated Income.

Additionally, in the first quarter of 2004, Alcoa sold two businesses that were included in discontinued operations: the packaging equipment business was sold for \$44 in cash and resulted in the recognition of an after-tax gain of \$10, and the automotive fasteners business was sold for \$17 in cash and notes receivable and resulted in an additional after-tax loss of \$5.

During the second quarter of 2004, Alcoa sold its Russellville, AR and St. Louis, MO foil facilities and an extrusion facility in Europe for \$37 in cash. Alcoa also sold its flexible packaging business in South America, which had been included in discontinued operations. There was no material gain or loss recognized on these transactions.

During the fourth quarter of 2004, Alcoa sold an extrusion facility in Brazil, and no material gain or loss was recorded on the transaction. Alcoa also sold 40% of its interest in the Juruti bauxite project in Brazil to Alumina Limited, its partner in Alcoa World Alumina and Chemicals (AWAC). Alcoa holds 60% of AWAC, and Alumina Limited holds the remaining 40%. In exchange for 40% of Alcoa's interest in the Juruti project, Alumina Limited contributed \$40 to AWAC, and Alcoa realized a gain of \$37 on the transaction.

During 2004, Alcoa completed two acquisitions at a cash cost of \$2. None of these transactions had a material impact on Alcoa's financial statements.

In August of 2003, Alcoa acquired the remaining 40.9% shareholding in Alcoa Alumínio (Alumínio) held by Camargo Correa Group (Camargo Group) since 1984. Alcoa issued to the Camargo Group 178 million shares of Alcoa common stock, with a fair value of approximately \$410, in exchange for the Camargo Group's holdings. The agreement also provides for contingent payments over the next five years based on the performance of the South American operations. The maximum amount of contingent payments is \$235. The contingent payments will be reduced by appreciation on the Alcoa shares issued in the transaction, as specified in the agreement. No contingent payments related to this agreement were made in 2004. The final purchase price allocation resulted in goodwill of approximately \$56.

In October of 2003, Alcoa expanded its aluminum alliance with Kobe Steel Ltd. (Kobe) in Japan on the joint development of aluminum products for the automotive market. As part of this arrangement and due to changes in the business environment, Alcoa and Kobe discontinued their association in three can sheet joint ventures: KAAL Australia, KAAL Japan, and KAAL Asia. Based on terms of the agreement, Alcoa acquired from Kobe the remaining 50% interest in KAAL Australia, as well as the remaining 20% interest in KAAL Asia. In turn, Kobe purchased a 47% interest in KAAL Japan from Alcoa. These transactions, which were recorded at fair value, resulted in net cash proceeds to Alcoa of \$9 and recognition of a gain of \$17. Also, Alcoa and Kobe amended an existing aluminum supply agreement related to the KAAL Japan operations, which resulted in an acceleration of the delivery term of the agreement to two years.

In October of 2003, Alcoa completed the sale of its Latin America PET business to Amcor PET Packaging for \$75, which resulted in an immaterial gain on the transaction. Alcoa also sold investments for approximately \$129, comprised primarily of its interest in Latasa, a Latin America aluminum can business.

During 2002, Alcoa completed 15 acquisitions at a cost of \$1,573, of which \$1,253 was paid in cash. The most significant of these transactions were the acquisitions of Ivex Packaging Corporation (Ivex) in July 2002 and Fairchild Fasteners (Fairchild) in December 2002.

The Ivex transaction was valued at approximately \$790, including debt assumed of \$320, and the purchase price allocation resulted in goodwill of approximately \$470. Ivex is part of Alcoa's Packaging and Consumer segment. Alcoa paid \$650 in cash for Fairchild, and the purchase price allocation resulted in goodwill of approximately \$330. In 2004, Alcoa made a contingent payment of approximately \$5 on the Fairchild acquisition

in connection with the achievement of certain 2003 operating targets. Fairchild is part of the Engineered Products segment.

In connection with certain acquisitions made during 2002, Alcoa could be required to make additional payments of approximately \$67 from 2005 through 2006 based upon the achievement of various financial and operating targets.

Pro forma results of the company, assuming all acquisitions had been made at the beginning of each period presented, would not have been materially different from the results reported.

## G. Inventories

December 31	2004	2003
Finished goods	\$ 913	\$ 742
Work in process	909	787
Bauxite and alumina	456	337
Purchased raw materials	472	429
Operating supplies	218	210
	<u>\$2,968</u>	<u>\$2,505</u>

Approximately 45% of total inventories at December 31, 2004 were valued on a LIFO basis. If valued on an average-cost basis, total inventories would have been \$700 and \$558 higher at the end of 2004 and 2003, respectively.

## H. Properties, Plants, and Equipment, at Cost

December 31	2004	2003
Land and land rights, including mines	\$ 462	\$ 445
Structures	6,177	5,834
Machinery and equipment	18,004	17,436
	<u>24,643</u>	<u>23,715</u>
Less: accumulated depreciation and depletion	13,273	12,275
	<u>11,370</u>	<u>11,440</u>
Construction work in progress*	1,222	1,060
	<u>\$12,592</u>	<u>\$12,500</u>

\*Project costs associated with EBS are included in this balance, and at December 31, 2004 and 2003, totaled \$231 and \$233, respectively. Upon completion, these software costs are capitalized and recorded as intangible assets.

## I. Investments

December 31	2004	2003
Equity investments	\$1,517	\$1,346
Other investments	549	659
	<u>\$2,066</u>	<u>\$2,005</u>

Equity investments represent investments in affiliates in which Alcoa has a noncontrolling ownership interest between twenty and fifty percent and are comprised of the following: 46.5% investment in Elkem ASA (Elkem), a Norwegian producer of aluminum; 50% investment in Elkem Aluminium ANS, a joint venture between Alcoa and Elkem that owns and operates two aluminum smelters in Norway; 50% interest in Integris Metals, Inc., a metals distribution joint venture with BHP Billiton (which was subsequently sold in January 2005); and investments in several hydroelectric power construction projects in Brazil. See Note N for additional information.

The increase in equity investments in 2004 was attributed to higher earnings at Elkem and favorable foreign currency exchange movements.

Other investments are primarily comprised of Alcoa's 8% interest in Aluminum Corporation of China (Chalco). The Chalco investment is classified as an available-for-sale security and is carried at fair value. The decrease in other investments in 2004 was primarily due to a revaluation of the Chalco investment with the offset recorded in accumulated other comprehensive income, slightly offset by an additional investment in Chalco of \$32.

## J. Other Assets

December 31	2004	2003
Intangibles (E)	\$ 852	\$ 788
Deferred income taxes	1,606	1,343
Prepaid pension benefit (W)	83	108
Deferred charges and other	1,166	1,049
	<u>\$3,707</u>	<u>\$3,288</u>

## K. Debt

December 31	2004	2003
Floating-rate notes, due 2004 (1.5% average rate)	\$ —	\$ 467
6.125% Bonds, due 2005	—	200
7.25% Notes, due 2005	—	500
5.875% Notes, due 2006	—	500
4.25% Notes, due 2007	800	800
6.625% Notes, due 2008	150	150
7.375% Notes, due 2010	1,000	1,000
6.5% Notes, due 2011	1,000	1,000
6% Notes, due 2012	1,000	1,000
5.375% Notes, due 2013	600	600
6.5% Bonds, due 2018	250	250
6.75% Bonds, due 2028	300	300
Tax-exempt revenue bonds ranging from 5.7% to 5.9%, due 2007–2031	28	49
Medium-term notes, due 2005–2013 (8.2% and 7.6% average rates)	142	176
Alcoa Aluminio		
7.5% Export notes, due 2005–2008	74	89
Fair value adjustments	33	104
Other	26	31
	<u>5,403</u>	<u>7,216</u>
Less: amount due within one year	57	523
	<u>\$5,346</u>	<u>\$6,693</u>

The amount of long-term debt maturing in each of the next five years is \$57 in 2005, \$69 in 2006, \$863 in 2007, \$204 in 2008, and \$33 in 2009.

In 2004, Alcoa retired early \$1,200 of debt securities, consisting of the following: \$200 of 6.125% Bonds due in 2005, \$500 of 7.25% Notes due in 2005, and \$500 of 5.875% Notes due in 2006. These debt securities were retired primarily with proceeds from commercial paper borrowings and cash provided from operations. Alcoa recognized a net gain of \$58 in other income on the early retirement of long-term debt and the associated settlement of interest rate swaps. The net gain of \$58 is comprised of the following:

- a premium paid for early retirement of debt and related expenses of \$67;
- a gain of \$48 from previously settled interest rate swaps that hedged the retired debt and was reflected as an increase in its carrying value; and

- a gain of \$77 from the settlement of interest rate swaps that hedged anticipated borrowings between June 2005 and June 2006. See Note X for additional information.

During 2004, Standard and Poor's Rating Services (S&P) maintained its long-term debt rating of Alcoa at A- and its short-term rating at A-2. In January 2005, S&P revised its debt outlook for Alcoa to negative from stable, citing higher capital expenditures in 2005 and future years. There was no change to either Alcoa's long-term or short-term ratings. Moody's Investors Service long-term debt rating of Alcoa and its rated subsidiaries is A2 and its short-term debt rating of Alcoa is Prime-1.

Commercial paper of \$630 at December 31, 2004 was classified as a current liability, based on a revised interpretation of the existing accounting rules. Commercial paper matures at various times within one year and has an annual weighted average interest rate of 2.3%. Alcoa maintains \$3,000 of revolving-credit agreements with varying expiration dates as backup to its commercial paper program. In April 2004, Alcoa refinanced its \$2,000 revolving-credit agreement that expired in April 2004 into a \$1,000 revolving-credit agreement that will expire in April 2005, with an option to extend the maturity date of any borrowings outstanding on the April 2005 expiration date for one year. Additionally, Alcoa refinanced its \$1,000 revolving-credit agreement that was to expire in April 2005 into a \$1,000 revolving-credit agreement that will expire in April 2009. Alcoa also has a \$1,000 revolving-credit agreement that will expire in April 2008. Under these agreements, a certain ratio of indebtedness to consolidated net worth must be maintained. There were no amounts outstanding under the revolving-credit agreements at December 31, 2004. The interest rate on the 364-day agreement, if drawn upon, is Libor plus 19 basis points, which is subject to adjustment if Alcoa's credit rating changes, to a maximum interest rate of Libor plus 86 basis points. The interest rate on the agreements expiring in 2008 and 2009, if drawn upon, is Libor plus 17 basis points, which is subject to adjustment if Alcoa's credit rating changes, to a maximum interest rate of Libor plus 83.5 basis points.

Aluminio's export notes are collateralized by receivables due under an export contract. Certain financial ratios must be maintained, including the maintenance of a minimum debt service ratio, as well as a certain level of tangible net worth of Aluminio and its subsidiaries. During 2002, the notes were amended to exclude the effects of foreign currency changes from the tangible net worth calculation.

The fair value adjustments result from changes in the carrying amounts of certain fixed-rate borrowings that have been designated as being hedged. Of the \$33 in 2004, \$(42) related to outstanding hedges and \$75 related to hedges that were settled early. Of the \$104 in 2003, \$(75) related to outstanding hedges and \$179 related to hedges that were settled early. The adjustments for hedges that were settled early are being recognized as reductions of interest expense over the remaining maturity of the related debt (through 2028). For additional information on interest rate swaps, see Note X.

**Short-Term Borrowings.** Alcoa participates in computerized payable settlement arrangements with certain vendors and third-party intermediaries. As of December 31, 2004, short-

term borrowings included \$216 of amounts that will be paid through the third-party intermediaries. The arrangements provide that, at the vendor's request, the third-party intermediary advances the amount of the scheduled payment to the vendor, less an appropriate discount, before the scheduled payment date. Alcoa makes payment to the third-party intermediary on the date stipulated in accordance with the commercial terms negotiated with its vendors. For the first three quarters of 2004, these arrangements were classified as accounts payable, trade. Based on the nature of the arrangements, the company has concluded that a more appropriate classification is short-term borrowings. Imputed interest on the borrowings in 2004 was insignificant for reclassification to interest expense. For the full year 2004, the change in the amounts outstanding was reported as cash provided from financing activities. For the first three quarters of 2004, the changes in the amounts outstanding under these arrangements were classified in cash provided from operating activities in the Statement of Consolidated Cash Flows. Quarterly amounts classified as cash provided from operating activities were \$25, \$37, and \$64 in the first, second, and third quarters of 2004, respectively.

#### L. Other Noncurrent Liabilities and Deferred Credits

December 31	2004	2003
Deferred alumina sales revenue	\$ 179	\$ 187
Deferred aluminum sales revenue	260	384
Environmental remediation	318	330
Deferred credits	96	108
Asset retirement obligations	204	195
Other noncurrent liabilities	670	616
	<u>\$1,727</u>	<u>\$1,820</u>

In 2003, Alcoa received a partial advance payment of \$440 (approximately \$70 was classified as current) related to a long-term aluminum supply contract with a customer. Each month for a six-year period, the customer will purchase and Alcoa is required to deliver 7,500 tons of aluminum at market prices. Alcoa has deposited \$7 into a cash collateral account to satisfy one month's delivery obligation under the aluminum supply contract.

#### M. Minority Interests

The following table summarizes the minority shareholders' interests in the equity of consolidated subsidiaries.

December 31	2004	2003
Alcoa of Australia	\$ 798	\$ 676
Alcoa World Alumina LLC	200	208
Alcoa Fujikura Ltd.	273	297
Other majority-owned companies	145	159
	<u>\$1,416</u>	<u>\$1,340</u>

#### N. Commitments and Contingencies

Various lawsuits, claims, and proceedings have been or may be instituted or asserted against Alcoa, including those pertaining to environmental, product liability, and safety and health matters. While the amounts claimed may be substantial, the ultimate liability cannot now be determined because of the considerable uncertainties that exist. Therefore, it is possible

that results of operations or liquidity in a particular period could be materially affected by certain contingencies. However, based on facts currently available, management believes that the disposition of matters that are pending or asserted will not have a materially adverse effect on the financial position or liquidity of the company.

Aluminio is a participant in several hydroelectric power construction projects in Brazil for purposes of increasing its energy self-sufficiency and providing a long-term, low-cost source of power for its facilities. The completed and committed hydroelectric construction projects that Aluminio participates in are outlined in the following tables.

Completed projects	Date completed	Investment participation	Share of output	Debt guarantee	Debt guarantee through 2013
Machadinho	2002	27.23%	22.62%	35.53%	\$105

Aluminio committed to taking a share of the output of the completed Machadinho project for 30 years at cost (including cost of financing the project). In the event that other participants in this project fail to fulfill their financial responsibilities,

Aluminio may be required to fund a portion of the deficiency. In accordance with the agreement, if Aluminio funds any such deficiency, its participation and share of the output from the project will increase proportionately.

Committed projects	Scheduled completion date	Share of output	Investment participation	Total estimated project costs	Aluminio's share of project costs	Performance bond guarantee
Barra Grande	2006	42.20%	42.20%	\$449	\$189	\$ 6
Pai-Querê	2008	35.00%	35.00%	\$261	\$ 91	\$ 2
Estreito	2009	19.08%	19.08%	\$741	\$141	\$11
Serra do Facão		39.50%	39.50%	\$218	\$ 86	\$ 4

These projects were committed to during 2001 and 2002, and the Barra Grande project commenced construction in 2002. At December 31, 2004, approximately 60% of the long-term financing for the Barra Grande project was obtained, of which Aluminio guaranteed 42.20% based on its investment participation. The plans for financing the other projects have not yet been finalized. It is anticipated that a portion of the project costs will be financed with third parties. Aluminio may be required to provide guarantees of project financing or commit to additional investments as these projects progress.

total \$483 in 2005, \$383 in 2006, \$289 in 2007, \$277 in 2008, \$277 in 2009, and \$2,754 thereafter. AofA is obligated to make minimum payments related to these contracts totaling \$135 in 2005, \$103 in 2006, \$115 in 2007, \$124 in 2008, \$125 in 2009, and \$802 thereafter. Expenditures under these take-or-pay contracts totaled \$356 in 2004, \$266 in 2003, and \$178 in 2002.

In 2004, the Installation Permit of Serra do Facão was temporarily suspended by legal injunction from the Brazilian Judicial Department (Public Ministry). As a result, the Serra do Facão project has been suspended.

Alcoa has standby letters of credit related to environmental, insurance, and other activities. The total amount committed under these letters of credit, which expire at various dates in 2005 through 2013, was \$293 at December 31, 2004.

During the second quarter of 2003, the participants in the Santa Isabel project formally requested the return of the performance bond related to the license to construct the hydroelectric project. This project has been terminated.

## O. Other Income, Net

	2004	2003	2002
Equity income	\$145	\$138	\$ 72
Interest income	41	38	46
Foreign currency losses	(27)	(81)	(30)
Gains on sales of assets	44	37	52
Net gain on early retirement of debt and interest rate swap settlements (K)	58	—	—
Other income	7	142	38
	\$268	\$274	\$178

Aluminio accounts for the Machadinho and Barra Grande hydroelectric projects on the equity method. Its total investment was \$124 and \$136 at December 31, 2004 and 2003, respectively. There have been no significant investments made in any of the other projects.

The changes in equity income for all years presented were primarily due to Alcoa's investment in Elkem. The gain on the sale of assets in 2004 was primarily the result of the sale of 40% of Alcoa's interest in the Juruti bauxite project in Brazil, which resulted in a \$37 gain in 2004. The gains on sales of assets in 2003 and 2002 were primarily associated with dispositions of office space and other smaller noncore business assets. In 2004, Alcoa recognized a gain of \$58 on the early retirement of long-term debt and the associated settlement of interest rate swaps. Also in 2004, other income included a \$35 gain on the termination of an alumina tolling arrangement, primarily offset by environmental litigation settlements of \$20. The increase in other income from 2002 to 2003 is primarily due to a \$105 gain from insurance settlements of a series of historical environmental matters in the U.S. and an increase in the cash surrender value of employee life insurance.

In October of 2004, Alcoa agreed to acquire a 20% interest in a consortium formed to acquire the Dampier to Bunbury Natural Gas Pipeline (DBNGP) in exchange for an initial cash investment of \$17, which is classified as an equity investment. Alcoa has committed to an additional \$72 in investment to be paid as the pipeline expands through 2008. The investment in the DBNGP was made in order to secure a competitively priced long-term supply of power to Alcoa's refineries in Western Australia. In addition to its equity ownership, Alcoa has an agreement to purchase natural gas from the DBNGP until after 2016. Alcoa's maximum exposure to loss on the investment and the related contract is approximately \$412.

Alcoa of Australia (AofA) is party to a number of natural gas, steam, caustic soda, and electricity contracts that expire between 2005 and 2025. Commitments related to these contracts

## P. Cash Flow Information

Cash payments for interest and income taxes follow.

	2004	2003	2002
Interest	\$318	\$352	\$329
Income taxes	294	303	583

The details of cash payments related to acquisitions follow.

	2004	2003	2002
Fair value of assets acquired	\$ 7	\$ 275	\$1,944
Liabilities assumed	(5)	(80)	(666)
Minority interests acquired	—	224	—
Stock issued	—	(410)	—
Cash paid	2	9	1,278
Less: cash acquired	—	—	25
Net cash paid for acquisitions	\$ 2	\$ 9	\$1,253

## Q. Segment and Geographic Area Information

Alcoa is primarily a producer of aluminum products. Aluminum and alumina represent approximately two-thirds of Alcoa's revenues. Nonaluminum products include precision castings, industrial fasteners, vinyl siding, consumer products, food service and flexible packaging products, plastic closures, and electrical distribution systems for cars and trucks. Alcoa's segments are organized by product on a worldwide basis. Alcoa's management reporting system evaluates performance based on a number of factors; however, the primary measure of performance is the after-tax operating income (ATOI) of each segment. Certain items such as interest income, interest expense, foreign currency translation gains/losses, the effects of LIFO inventory accounting, minority interests, restructuring and other charges, discontinued operations, and accounting changes are excluded from segment ATOI. In addition, certain expenses, such as corporate general administrative expenses, and depreciation and amortization on corporate assets, are not included in segment ATOI. Segment assets exclude cash, cash equivalents, short-term investments, and all deferred taxes. Segment assets also exclude items such as corporate fixed assets, LIFO reserves, goodwill allocated to corporate, assets held for sale, and other amounts.

The accounting policies of the segments are the same as those described in the Summary of Significant Accounting Policies (Note A). Transactions among segments are established based on negotiation among the parties. Differences between segment totals and Alcoa's consolidated totals for line items not reconciled are primarily due to corporate allocations.

Alcoa's products are used worldwide in packaging, consumer products, transportation (including aerospace, automotive, truck trailer, rail, and shipping), building and construction, and industrial applications. Total exports from the U.S. from continuing operations were \$1,825 in 2004, \$1,646 in 2003, and \$1,609 in 2002.

Effective January 2005, Alcoa realigned its organization structure, creating global groups to better serve customers and increase the ability to capture efficiencies. Alcoa is currently evaluating the effect, if any, upon its segment reporting.

Alcoa's reportable segments are as follows.

**Alumina and Chemicals.** This segment consists of Alcoa's worldwide alumina and chemicals system that includes the mining of bauxite, which is then refined into alumina. Alumina is sold directly to internal and external smelter customers worldwide or is processed into industrial chemical products. Alcoa's alumina operations in Australia are a significant component of this segment. Slightly more than half of Alcoa's alumina production is sold under supply contracts to third parties worldwide, while the remainder is used internally. In the first quarter of 2004, Alcoa sold its specialty chemicals business.

**Primary Metals.** This segment consists of Alcoa's worldwide smelter system. Primary Metals receives alumina primarily from the Alumina and Chemicals segment and produces aluminum ingot to be used by Alcoa's fabricating businesses, as well as sold to external customers, aluminum traders, and commodity markets. Results from the sale of aluminum powder, scrap, and excess power are also included in this segment, as well as the results from aluminum derivative contracts. Aluminum ingot produced by Alcoa and used internally is transferred to other segments at prevailing market prices. The sale of ingot represents approximately 90% of this segment's third-party sales.

**Flat-Rolled Products.** This segment's principal business is the production and sale of aluminum plate, sheet, and foil. This segment includes rigid container sheet (RCS), which is sold directly to customers in the packaging and consumer market and is used to produce aluminum beverage cans. Seasonal increases in RCS sales are generally experienced in the second and third quarters of the year. This segment also includes sheet and plate used in the transportation, building and construction, and distributor markets (mainly used in the production of machinery and equipment and consumer durables), of which approximately two-thirds is sold directly to customers while the remainder is sold through distributors. Approximately two-thirds of the third-party sales in this segment are derived from sheet and plate, and foil used in industrial markets, while the remaining one-third of third-party sales consists of RCS. While the customer base for flat-rolled products is large, a significant amount of sales of RCS, sheet, and plate is to a relatively small number of customers.

**Engineered Products.** This segment includes hard- and soft-alloy extrusions, including architectural extrusions, super-alloy castings, steel and aluminum fasteners, aluminum forgings, and wheels. These products serve the aerospace, automotive, commercial transportation, industrial gas turbine, building and construction, and distributor markets (mainly used in the production of machinery and equipment) and are sold directly to customers and through distributors.

**Packaging and Consumer.** This segment includes consumer, foodservice, and flexible packaging products; food and beverage closures; plastic sheet and film for the packaging industry; and imaging and graphic communications for the packaging industry. The principal products in this segment include aluminum foil; plastic wraps and bags; plastic beverage and

food closures; flexible packaging products; design and prepress services; gravure and flexographic image carrier products; thermoformed plastic containers and extruded plastic sheet and film. Consumer products are marketed under brands including Reynolds Wrap®, Diamond®, Baco®, and Cut-Rite® wax paper. Seasonal increases generally occur in the second and fourth quarters of the year for such products as consumer foil and plastic wraps and bags, while seasonal slowdowns for closures generally occur in the fourth quarter of the year. Products are generally sold directly to customers, consisting of supermarkets, beverage companies, food processors, retail chains, and commercial foodservice distributors.

**Other.** This group includes other Alcoa businesses that are not included in the segments previously mentioned. This group includes Alcoa Fujikura Ltd. (AFL), which produces electrical components for the automotive industry; the residential building products operations, Alcoa Home Exteriors; and automotive parts businesses. Products in this segment are generally sold directly to customers or through distributors. AFL sales are dependent on a relatively small number of customers. Seasonal increases in the building products business generally occur in the second and third quarters of the year. The results of this segment do not include Alcoa's telecommunications business which was reclassified into discontinued operations.

Alcoa's reportable segments, as reclassified for discontinued operations and assets held for sale, follow.

Segment information	Alumina and Chemicals	Primary Metals	Flat-Rolled Products	Engineered Products	Packaging and Consumer	Other	Total
<b>2004</b>							
Sales:							
Third-party sales	\$1,975	\$3,806	\$5,962	\$6,300	\$3,166	\$2,269	\$23,478
Intersegment sales	1,418	4,335	89	15	—	—	5,857
Total sales	\$3,393	\$8,141	\$6,051	\$6,315	\$3,166	\$2,269	\$29,335
Profit and loss:							
Equity income (loss)	\$ 1	\$ 58	\$ (1)	\$ —	\$ 1	\$ 26	\$ 85
Depreciation, depletion, and amortization	153	326	198	247	142	68	1,134
Income taxes	240	314	75	103	86	24	842
ATOI	632	808	246	250	168	65	2,169
Assets:							
Capital expenditures	\$ 339	\$ 281	\$ 153	\$ 174	\$ 79	\$ 38	\$ 1,064
Equity investments	187	563	6	—	2	208	966
Goodwill	15	931	168	2,638	888	198	4,838
Total assets	3,605	8,121	3,672	6,823	3,063	1,436	26,720
<b>2003</b>							
Sales:							
Third-party sales	\$2,002	\$3,229	\$4,815	\$5,589	\$3,113	\$2,344	\$21,092
Intersegment sales	1,021	3,098	66	24	—	—	4,209
Total sales	\$3,023	\$6,327	\$4,881	\$5,613	\$3,113	\$2,344	\$25,301
Profit and loss:							
Equity income (loss)	\$ —	\$ 55	\$ (1)	\$ —	\$ 10	\$ 3	\$ 67
Depreciation, depletion, and amortization	147	310	192	235	141	77	1,102
Income taxes	161	256	70	60	107	47	701
ATOI	415	657	221	155	214	78	1,740
Assets:							
Capital expenditures	\$ 173	\$ 169	\$ 149	\$ 130	\$ 78	\$ 37	\$ 736
Equity investments	163	489	13	—	2	187	854
Goodwill	17	918	165	2,587	876	198	4,761
Total assets	3,077	7,398	3,380	6,362	3,038	1,452	24,707
<b>2002</b>							
Sales:							
Third-party sales	\$1,743	\$3,174	\$4,640	\$5,150	\$2,792	\$2,435	\$19,934
Intersegment sales	955	2,655	68	34	—	—	3,712
Total sales	\$2,698	\$5,829	\$4,708	\$5,184	\$2,792	\$2,435	\$23,646
Profit and loss:							
Equity income (loss)	\$ 1	\$ 44	\$ (4)	\$ —	\$ 17	\$ 4	\$ 62
Depreciation, depletion, and amortization	139	300	192	219	130	67	1,047
Income taxes	130	266	87	50	99	44	676
ATOI	315	650	220	105	195	64	1,549
Assets:							
Capital expenditures	\$ 156	\$ 248	\$ 227	\$ 204	\$ 89	\$ 63	\$ 987
Equity investments	163	411	50	—	134	176	934
Goodwill	16	910	153	2,488	869	209	4,645
Total assets	2,615	7,166	3,266	6,451	3,093	1,557	24,148

The following reconciles segment information to consolidated totals.

	2004	2003	2002
<b>Sales:</b>			
Total sales	\$29,335	\$25,301	\$23,646
Elimination of intersegment sales	(5,857)	(4,209)	(3,712)
<b>Consolidated sales</b>	<b>\$23,478</b>	<b>\$21,092</b>	<b>\$19,934</b>
<b>Net income:</b>			
ATOI	\$ 2,169	\$ 1,740	\$ 1,549
Intersegment profit/(loss) eliminations	52	9	(6)
<b>Unallocated amounts (net of tax):</b>			
Interest income	26	24	31
Interest expense	(176)	(204)	(227)
Minority interests	(245)	(238)	(172)
Corporate expense	(283)	(287)	(234)
Restructuring and other charges	23	26	(296)
Discontinued operations	(92)	(70)	(132)
Accounting changes	—	(47)	34
Other	(164)	(15)	(127)
<b>Consolidated net income</b>	<b>\$ 1,310</b>	<b>\$ 938</b>	<b>\$ 420</b>
<b>Assets:</b>			
Total segment assets	\$26,720	\$24,707	\$24,148
Elimination of intersegment receivables	(565)	(382)	(285)
<b>Unallocated amounts:</b>			
Cash, cash equivalents, and short-term investments	463	606	413
Deferred tax assets	1,884	1,610	1,482
Corporate goodwill	1,703	1,682	1,637
Corporate fixed assets	595	810	593
LIFO reserve	(700)	(558)	(514)
Assets held for sale	210	792	894
Other	2,299	2,444	1,442
<b>Consolidated assets</b>	<b>\$32,609</b>	<b>\$31,711</b>	<b>\$29,810</b>
<b>Geographic information for revenues, based on country of origin, and long-lived assets follows.</b>			
	2004	2003	2002
<b>Revenues:</b>			
U.S.	\$14,484	\$12,843	\$12,572
Australia	1,971	1,615	1,250
Spain	1,307	1,119	999
United Kingdom	830	714	735
Brazil	603	617	677
Germany	770	786	656
Other	3,513	3,398	3,045
	<b>\$23,478</b>	<b>\$21,092</b>	<b>\$19,934</b>
<b>Long-lived assets: *</b>			
U.S.	\$12,009	\$12,395	\$12,603
Canada	2,566	2,634	2,711
Australia	2,262	2,050	1,544
United Kingdom	869	828	732
Brazil	797	708	372
Germany	278	265	225
Other	2,358	2,061	1,896
	<b>\$21,139</b>	<b>\$20,941</b>	<b>\$20,083</b>

\* Long-lived assets include intangible assets.

## R. Preferred and Common Stock

**Preferred Stock.** Alcoa has two classes of preferred stock. Serial preferred stock has 546,024 shares authorized and outstanding, with a par value of \$100 per share and an annual \$3.75 cumulative dividend preference per share. Class B serial preferred stock has 10 million shares authorized (none issued) and a par value of \$1 per share.

**Common Stock.** There are 1.8 billion shares authorized at a par value of \$1 per share. As of December 31, 2004, 136.6 million shares of common stock were reserved for issuance under the long-term stock incentive plans.

Stock options under the company's stock incentive plans have been granted, at not less than market prices on the dates of grant. Stock option features based on date of original grant are as follows:

Date of original grant	Vesting	Term	Reload feature
2002 and prior	One year	10 years	One reload over option term
2003	3 years (1/3 each year)	10 years	One reload in 2004 for 1/3 vesting in 2004
2004 and forward	3 years (1/3 each year)	6 years	None

The transactions for shares under options were: (shares in millions)

	2004	2003	2002
<b>Outstanding, beginning of year:</b>			
Number of options	87.8	81.6	73.5
Weighted average exercise price	\$32.50	\$33.19	\$32.02
<b>Granted:</b>			
Number of options	8.8	16.8	17.3
Weighted average exercise price	\$35.63	\$24.93	\$36.10
<b>Exercised:</b>			
Number of options	(5.6)	(8.0)	(7.1)
Weighted average exercise price	\$23.34	\$23.29	\$26.77
<b>Expired or forfeited:</b>			
Number of options	(1.4)	(2.6)	(2.1)
Weighted average exercise price	\$37.87	\$32.58	\$37.50
<b>Outstanding, end of year:</b>			
Number of options	89.6	87.8	81.6
Weighted average exercise price	\$33.34	\$32.50	\$33.19
<b>Exercisable, end of year:</b>			
Number of options	73.5	71.6	68.8
Weighted average exercise price	\$34.39	\$34.22	\$32.68
<b>Shares reserved for future options</b>	<b>35.1</b>	<b>13.1</b>	<b>25.6</b>

The following tables summarize certain stock option information at December 31, 2004: (shares in millions)

### Options Outstanding

Range of exercise price	Number	Weighted average remaining life	Weighted average exercise price
\$ 0.125	0.1	employment career	\$0.125
\$ 4.38-\$12.15	0.7	1.20	10.97
\$12.16-\$19.93	1.9	2.43	16.56
\$19.94-\$27.71	16.9	5.98	22.55
\$27.72-\$35.49	17.2	4.52	31.71
\$35.50-\$45.59	52.8	4.79	38.28
<b>Total</b>	<b>89.6</b>	<b>4.88</b>	<b>33.34</b>

## Options Exercisable

Range of exercise price	Number	Weighted average exercisable price
\$ 0.125	0.1	\$0.125
\$ 4.38–\$12.15	0.7	10.97
\$12.16–\$19.93	1.9	16.56
\$19.94–\$27.71	8.3	22.56
\$27.72–\$35.49	16.8	31.69
\$35.50–\$45.59	45.7	38.69
Total	73.5	34.39

In addition to stock option awards, there are 1 million unvested stock awards and 500,000 unvested performance share awards (targeted amount) as of December 31, 2004. There are 10.5 million shares reserved for future grants. Compensation expense recognized on these awards in 2004 was \$9 (after tax).

## Share Activity (number of shares)

	Preferred stock	Common stock		
		Issued	Treasury	Net outstanding
<b>Balance at end of 2001</b>	557,649	924,574,538	(76,992,662)	847,581,876
Treasury shares purchased	(11,625)		(6,313,100)	(6,313,100)
Stock issued: compensation plans			3,550,686	3,550,686
<b>Balance at end of 2002</b>	546,024	924,574,538	(79,755,076)	844,819,462
Stock issued: Alcoa Aluminio minority interest acquisition (F)			17,773,541	17,773,541
Stock issued: compensation plans			5,897,683	5,897,683
<b>Balance at end of 2003</b>	546,024	924,574,538	(56,083,852)	868,490,686
Treasury shares purchased			(1,777,354)	(1,777,354)
Stock issued: compensation plans			4,266,751	4,266,751
<b>Balance at end of 2004</b>	546,024	924,574,538	(53,594,455)	870,980,083

## S. Earnings Per Share

Basic earnings per common share (EPS) amounts are computed by dividing earnings after the deduction of preferred stock dividends by the average number of common shares outstanding. Diluted EPS amounts assume the issuance of common stock for all potentially dilutive equivalents outstanding.

The information used to compute basic and diluted EPS on income from continuing operations follows. (shares in millions)

	2004	2003	2002
Income from continuing operations	\$1,402	\$1,055	\$518
Less: preferred stock dividends	2	2	2
Income from continuing operations available to common shareholders	\$1,400	\$1,053	\$516
Average shares outstanding—basic	869.9	853.4	845.4
Effect of dilutive securities:			
Shares issuable upon exercise of dilutive stock options	7.5	3.2	4.4
Average shares outstanding—diluted	877.4	856.6	849.8

Options to purchase 56 million shares of common stock at an average exercise price of \$38 per share were outstanding as of December 31, 2004 but were not included in the computation of diluted EPS because the option exercise price was greater than the average market price of the common shares.

## T. Income Taxes

The components of income from continuing operations before taxes on income were:

	2004	2003	2002
U.S.	\$ 301	\$ 369	\$ (302)
Foreign	1,903	1,341	1,309
	\$2,204	\$1,710	\$1,007

The provision for taxes on income from continuing operations consisted of:

	2004	2003	2002
Current:			
U.S. federal*	\$190	\$ (34)	\$ 111
Foreign	448	306	356
State and local	14	17	17
	652	289	484
Deferred:			
U.S. federal*	(161)	132	(193)
Foreign	54	(4)	11
State and local	12	—	15
	(95)	128	(167)
Total	\$557	\$417	\$ 317

\*Includes U.S. taxes related to foreign income

Included in discontinued operations is a tax benefit of \$24 in 2004, \$39 in 2003, and \$75 in 2002.

The exercise of employee stock options generated a tax benefit of \$21 in 2004, \$23 in 2003, and \$34 in 2002. This amount was credited to additional capital and reduced current taxes payable.

Reconciliation of the U.S. federal statutory rate to Alcoa's effective tax rate for continuing operations follows.

	2004	2003	2002
U.S. federal statutory rate	35.0%	35.0%	35.0%
Taxes on foreign income	(9.4)	(7.3)	(5.8)
State taxes net of federal benefit	0.7	0.9	2.4
Minority interests	0.5	1.1	1.4
Permanent differences on asset disposals	(1.1)	(0.1)	2.6
Goodwill impairment and amortization	—	—	0.2
Adjustments to prior years' accruals	0.7	(4.1)	(3.8)
Other	(1.1)	(1.1)	(0.5)
Effective tax rate	25.3%	24.4%	31.5%

The components of net deferred tax assets and liabilities follow.

	2004		2003	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
December 31				
Depreciation	\$ —	\$1,434	\$ —	\$1,603
Employee benefits	1,422	—	1,447	—
Loss provisions	420	—	375	—
Deferred income/expense	113	202	248	153
Tax loss carryforwards	498	—	438	—
Tax credit carryforwards	348	—	258	—
Unrealized gains on available-for-sale securities	—	119	—	169
Other	199	156	154	179
	3,000	1,911	2,920	2,104
Valuation allowance	(120)	—	(147)	—
	<u>\$2,880</u>	<u>\$1,911</u>	<u>\$2,773</u>	<u>\$2,104</u>

Of the total deferred tax assets associated with the tax loss carryforwards, \$194 expires over the next ten years, \$63 over the next 20 years, and \$241 is unlimited. Of the tax credit carryforwards, \$161 is unlimited with the balance expiring over the next ten years. A substantial portion of the valuation allowance relates to the loss carryforwards because the ability to generate sufficient foreign taxable income in future years is uncertain. The net reduction in the valuation allowance for foreign net operating losses and tax credits resulted in the recognition of a tax benefit of \$21 in 2004, and \$49 in 2003. At December 31, 2004, approximately \$31 of the valuation allowance related to acquired companies for which subsequently recognized benefits will reduce goodwill.

The cumulative amount of Alcoa's foreign undistributed net earnings for which no deferred taxes have been provided was \$7,248 at December 31, 2004. Management has no plans to distribute such earnings in the foreseeable future. It is not practical to determine the deferred tax liability on these earnings. Alcoa is currently evaluating the American Job Creation Act of 2004 provision that allows companies to repatriate earnings from foreign subsidiaries at a reduced U.S. tax rate. Alcoa is evaluating the consequences of repatriating up to \$1,000 with a related potential range of income tax effects of zero to \$90. Alcoa will complete its review by December 31, 2005, and will recognize the income tax effect, if any, in the period when a decision whether to repatriate is made.

#### U. Lease Expense

Certain equipment, warehousing and office space, and ocean-going vessels are under operating lease agreements. Total expense from continuing operations for all leases was \$256 in 2004, \$221 in 2003, and \$204 in 2002. Under long-term operating leases, minimum annual rentals are \$225 in 2005, \$197 in 2006, \$153 in 2007, \$118 in 2008, \$98 in 2009, and a total of \$356 for 2010 and thereafter.

#### V. Interest Cost Components

	2004	2003	2002
Amount charged to expense	\$270	\$314	\$350
Amount capitalized	27	21	22
	<u>\$297</u>	<u>\$335</u>	<u>\$372</u>

#### W. Pension Plans and Other Postretirement Benefits

Alcoa maintains pension plans covering most U.S. employees and certain other employees. Pension benefits generally depend on length of service, job grade, and remuneration. Substantially all benefits are paid through pension trusts that are sufficiently funded to ensure that all plans can pay benefits to retirees as they become due.

Alcoa maintains health care and life insurance benefit plans covering most eligible U.S. retired employees and certain other retirees. Generally, the medical plans pay a percentage of medical expenses, reduced by deductibles and other coverages. These plans are generally unfunded, except for certain benefits funded through a trust. Life benefits are generally provided by insurance contracts. Alcoa retains the right, subject to existing agreements, to change or eliminate these benefits. All U.S. salaried and certain hourly employees hired after January 1, 2002 will not have postretirement health care benefits.

Alcoa uses a December 31 measurement date for the majority of its plans.

The projected benefit obligation for all defined benefit pension plans was \$10,751 and \$10,268 at December 31, 2004 and 2003, respectively.

The accumulated benefit obligation for all defined benefit pension plans was \$10,326 and \$9,771 at December 31, 2004 and 2003, respectively.

The aggregate projected benefit obligation and fair value of plan assets for the pension plans with benefit obligations in excess of plan assets were \$10,518 and \$8,343, respectively, as of December 31, 2004, and \$10,047 and \$8,093, respectively, as of December 31, 2003. The aggregate accumulated benefit obligation and fair value of plan assets with accumulated benefit obligations in excess of plan assets were \$10,086 and \$8,320, respectively, as of December 31, 2004, and \$9,554 and \$8,087, respectively, as of December 31, 2003.

At December 31, 2004 and 2003, the long-term accrued pension benefits on the Consolidated Balance Sheet were \$1,513 and \$1,568, respectively. The total accrued benefit liability was \$1,587 in 2004 and \$1,599 in 2003, which included the current portion of the liability of \$57 in 2004 and \$12 in 2003 and the amounts attributed to joint venture partners of \$17 in 2004 and \$19 in 2003.

The benefit obligation for postretirement benefit plans and net amount recognized were \$3,829 and \$2,546, respectively, as of December 31, 2004, and \$3,661 and \$2,609, respectively, as of December 31, 2003. Of the net amount recognized, the long-term, current, and amounts attributed to joint venture partners were \$2,150, \$358, and \$38, respectively, as of December 31, 2004, and \$2,220, \$344, and \$45, respectively, as of December 31, 2003.

On December 8, 2003, the Medicare Prescription Drug, Improvement and Modernization Act of 2003 (the Act) was signed into law. The Act introduced a prescription drug benefit under Medicare (Medicare Part D), as well as a federal subsidy to sponsors of retiree health care benefit plans that provide a benefit that is at least actuarially equivalent to Medicare Part D. As of December 31, 2004 and 2003, Alcoa recognized the effects of the Act in the measure of its Accumulated Postretirement Benefit Obligation (APBO) for certain retiree groups in accordance with FASB Staff Position No. FAS 106-2.

## Obligations and Funded Status

December 31	Pension benefits		Postretirement benefits	
	2004	2003	2004	2003
<b>Change in projected benefit obligation</b>				
Benefit obligation at beginning of year	\$10,268	\$ 9,360	\$ 3,661	\$ 3,661
Service cost	204	194	31	31
Interest cost	617	609	221	237
Amendments	(4)	20	(6)	(31)
Actuarial losses	220	540	276	112
Acquisitions	—	17	—	—
Divestitures	(10)	—	—	—
Benefits paid, net of participants' contributions	(668)	(656)	(355)	(349)
Other transfers, net	46	—	—	—
Exchange rate	78	184	1	—
Projected benefit obligation at end of year	\$10,751	\$10,268	\$ 3,829	\$ 3,661
<b>Change in plan assets</b>				
Fair value of plan assets at beginning of year	\$ 8,386	\$ 7,531	\$ 137	\$ 119
Actual return on plan assets	927	1,254	20	18
Acquisitions	—	20	—	—
Employer contributions	101	87	—	—
Participants' contributions	24	31	—	—
Benefits paid	(676)	(667)	—	—
Administrative expenses	(28)	(17)	—	—
Other transfers, net	27	—	—	—
Exchange rate	39	147	—	—
Fair value of plan assets at end of year	\$ 8,800	\$ 8,386	\$ 157	\$ 137
<b>Funded status</b>				
Unrecognized net actuarial loss	\$ (1,951)	\$ (1,882)	\$ (3,672)	\$ (3,524)
Unrecognized net prior service cost (benefit)	1,912	1,775	1,133	916
	73	160	(7)	(1)
Net amount recognized	\$ 34	\$ 53	\$ (2,546)	\$ (2,609)
<b>Amounts recognized in the Consolidated Balance Sheet consist of:</b>				
Prepaid benefit	\$ 83	\$ 108	\$ —	\$ —
Accrued benefit liability	(1,587)	(1,599)	(2,546)	(2,609)
Intangible asset	53	84	—	—
Accumulated other comprehensive loss	1,485	1,460	—	—
Amount recognized	\$ 34	\$ 53	\$ (2,546)	\$ (2,609)
Amounts attributed to joint venture partners	17	19	38	45
Net amount recognized	\$ 51	\$ 72	\$ (2,508)	\$ (2,564)

Recognition of the subsidy for certain retiree groups as an offset to plan costs resulted in a \$190 reduction in the APBO at December 31, 2003. The reduction in APBO is included with other deferred actuarial gains and losses.

The net periodic benefit cost for postretirement benefits for the year ended December 31, 2004 reflected a reduction of \$24 related to the recognition of the federal subsidy under Medicare Part D. Subsequent net periodic postretirement benefit costs will be adjusted to reflect the lower interest cost due to the lower APBO. To the extent that the deferred gains and losses are outside the corridor, the excess will continue to be recognized as prescribed under FAS 106. For other retiree groups, the

impact of the potential subsidy benefit has not been recorded because those amounts could not be reasonably estimated.

Alcoa has not reflected any changes in participation in the company plan as a result of the Act. The reduction in APBO represents the value of the 28% subsidy and does not reflect any other changes. The subsidy is estimated to reduce the prescription drug portion of the per capita cost by 24%.

Currently, Alcoa pays a portion of the prescription drug cost for certain retirees. The benefits for certain retirees were determined to be actuarially equivalent based on an analysis of Alcoa's existing prescription drug plan provisions and claims experience as compared to the Medicare Part D prescription drug benefit that will be effective in 2006.

## Components of Net Periodic Benefit Costs

December 31	Pension benefits			Postretirement benefits		
	2004	2003	2002	2004	2003	2002
Service cost	\$ 204	\$ 194	\$ 176	\$ 31	\$ 31	\$ 25
Interest cost	617	609	593	221	237	224
Expected return on plan assets	(719)	(727)	(776)	(13)	(11)	(11)
Amortization of prior service cost (benefit)	39	38	38	(6)	(32)	(32)
Recognized actuarial loss	61	8	4	46	40	5
Net periodic benefit costs	\$ 202	\$ 122	\$ 35	\$279	\$265	\$211

An increase in the minimum pension liability resulted in a charge to shareholders' equity of \$21 in 2004 and \$39 in 2003.

### Assumptions

Weighted average assumptions used to determine benefit obligations are as follows:

December 31	2004	2003
Discount rate	6.00%	6.25%
Rate of compensation increase	4.50	5.00

The discount rate is based on settling the pension obligation with high grade, high yield corporate bonds, and the rate of compensation increase is based upon actual experience.

Weighted average assumptions used to determine the net periodic benefit cost are as follows:

Year ended December 31	2004	2003	2002
Discount rate	6.25%	6.75%	7.25%
Expected long-term return on plan assets	9.00	9.00	9.50
Rate of compensation increase	5.00	5.00	5.00

The expected return on plan assets is based on historical performance as well as expected future rates of return on plan assets considering the current investment portfolio mix and the long-term investment strategy.

Assumed health care cost trend rates are as follows:

December 31	2004	2003	2002
Health care cost trend rate assumed for next year	8.0%	9.0%	11.0%
Rate to which the cost trend rate gradually declines	5.0%	5.0%	5.0%
Year that the rate reaches the rate at which it is assumed to remain	2009	2009	2008

The health care cost trend rate in the calculation of the 2003 benefit obligation was 9.0% from 2003 to 2004 and 8.0% from 2004 to 2005. Actual company health care trend experience in 2003 and 2004 was 7.5% and 5.0%, respectively. The 8% trend rate will be maintained for 2005.

Assumed health care cost trend rates have an effect on the amounts reported for the health care plan. A one-percentage-point change in these assumed rates would have the following effects:

	1% increase	1% decrease
Effect on total of service and interest cost components	\$ 10	\$ (9)
Effect on postretirement benefit obligations	153	(137)

### Plan Assets

Alcoa's pension and postretirement plans' investment policy, weighted average asset allocations at December 31, 2004 and 2003, and target allocations for 2005, by asset category, are as follows:

Asset category	Policy range	Plan assets at December 31		Target %
		2004	2003	2005
Equity securities	35-60%	56%	52%	53%
Debt securities	30-55%	35	36	35
Real estate	5-15%	5	6	6
Other	0-15%	4	6	6
Total		100%	100%	100%

The basic goal underlying the pension plan investment policy is to ensure that the assets of the plan, along with expected plan sponsor contributions, will be invested in a prudent manner to meet the obligations of the plan as those obligations come due. Investment practices must comply with the requirements of the Employee Retirement Income Security Act of 1974 (ERISA) and any other applicable laws and regulations.

Numerous asset classes with differing expected rates of return, return volatility, and correlations are utilized to reduce risk by providing diversification. Debt securities comprise a significant portion of the portfolio due to their plan-liability-matching characteristics and to address the plan's cash flow requirements. Additionally, diversification of investments within each asset class is utilized to further reduce the impact of losses in single investments. The use of derivative instruments is permitted where appropriate and necessary for achieving overall investment policy objectives.

### Cash Flows

Alcoa expects to contribute \$57 to its pension plans in 2005.

Alcoa also sponsors a number of defined contribution pension plans. Expenses were \$118 in 2004, \$107 in 2003, and \$101 in 2002.

Benefit payments expected to be paid to plan participants and expected subsidy receipts are as follows:

Year ended December 31	Pension benefits	Post-retirement benefits	Subsidy receipts
2005	\$ 700	\$ 358	\$ —
2006	700	350	15
2007	750	350	15
2008	750	350	15
2009	800	350	15
2010 through 2014	4,400	1,500	75
	\$8,100	\$3,258	\$135

## X. Other Financial Instruments and Derivatives

**Other Financial Instruments.** The carrying values and fair values of Alcoa's financial instruments at December 31 follow.

	2004		2003	
	Carrying value	Fair value	Carrying value	Fair value
Cash and cash equivalents	\$ 457	\$ 457	\$ 576	\$ 576
Short-term investments	6	6	30	30
Noncurrent receivables	18	18	23	23
Available-for-sale investments	527	527	639	639
Short-term debt	324	324	573	573
Commercial paper	630	630	—	—
Long-term debt	5,346	5,968	6,693	7,372

The methods used to estimate the fair values of certain financial instruments follow.

**Cash and Cash Equivalents, Short-Term Investments, Short-Term Debt, and Commercial Paper.** The carrying amounts approximate fair value because of the short maturity of the instruments.

**Noncurrent Receivables.** The fair value of noncurrent receivables is based on anticipated cash flows which approximates carrying value.

**Available-for-Sale Investments.** The fair value of investments is based on readily available market values. Investments in marketable equity securities are classified as “available for sale” and are carried at fair value.

**Long-Term Debt.** The fair value is based on interest rates that are currently available to Alcoa for issuance of debt with similar terms and remaining maturities.

**Derivatives.** Alcoa uses derivatives for purposes other than trading. Fair value gains (losses) of outstanding derivatives contracts were:

December 31	2004	2003
Aluminum	\$211	\$ 70
Interest rates	(42)	(74)
Other commodities, principally natural gas	53	73
Currencies	38	(6)

### Fair Value Hedges

**Aluminum.** Customers often require Alcoa to enter into long-term, fixed-price commitments. These commitments expose Alcoa to the risk of higher aluminum prices between the time the order is committed and the time that the order is shipped. Alcoa’s aluminum commodity risk management policy is to manage, principally through the use of futures contracts, the aluminum price risk of its firm commitments. These contracts cover known exposures, generally within three years.

**Interest Rates.** Alcoa uses interest rate swaps to help maintain a strategic balance between fixed- and floating-rate debt and to manage overall financing costs. As of December 31, 2004, the company had pay floating, receive fixed interest rate swaps that were designated as fair value hedges. These hedges effectively convert the interest rate from fixed to floating on \$2,750 of debt through 2018. For additional information on interest rate swaps and their effect on debt and interest expense, see Note K.

**Currencies.** Alcoa uses cross-currency interest rate swaps that effectively convert its U.S. dollar denominated debt into Brazilian reais debt at local interest rates.

### Cash Flow Hedges

**Interest Rates.** Alcoa previously used interest rate swaps to establish fixed interest rates on anticipated borrowings between June 2005 and June 2006. Due to a change in forecasted borrowing requirements, resulting from the restructuring of debt in June 2004 and a forecasted increase in future operating cash flows resulting from improved market conditions, it is no longer probable that the anticipated borrowings will occur in 2005 and 2006. Therefore, Alcoa recognized \$33 of gains that had been deferred on previously settled swaps and \$44 of additional gains to terminate the remaining interest rate swaps. These gains were recorded in other income in the second quarter of 2004. For additional information, see Note K.

**Currencies.** Alcoa is subject to exposure from fluctuations in foreign currency exchange rates. Foreign currency exchange contracts may be used from time to time to hedge the variability in cash flows from the forecasted payment or receipt of currencies other than the functional currency.

These contracts cover periods commensurate with known or expected exposures, generally within three years. The U.S. dollar notional amount of all foreign currency contracts was approximately \$400 and \$200 as of December 31, 2004 and 2003, respectively.

**Commodities.** Alcoa anticipates the continued requirement to purchase aluminum and other commodities such as natural gas, fuel oil, and electricity for its operations. Alcoa enters into futures contracts to reduce volatility in the price of these commodities.

### Other

Alcoa has also entered into certain derivatives to minimize its price risk related to aluminum purchases. Alcoa has not qualified these contracts for hedge accounting treatment, and therefore, the fair value gains and losses on these contracts are recorded in earnings. In addition, Alcoa has entered into power supply contracts that contain pricing provisions related to the LME aluminum price. The LME linked pricing features are considered embedded derivatives. A majority of these embedded derivatives have been designated as cash flow hedges of future sales of aluminum. Gains and losses on the remainder of these derivatives are recognized in earnings. The net earnings impact of these contracts was a gain of \$5 in 2004.

Alcoa is exposed to credit loss in the event of nonperformance by counterparties on the above instruments, as well as credit or performance risk with respect to its hedged customers’ commitments. Although nonperformance is possible, Alcoa does not anticipate nonperformance by any of these parties. Contracts are with creditworthy counterparties and are further supported by cash, treasury bills, or irrevocable letters of credit issued by carefully chosen banks. In addition, various master netting arrangements are in place with counterparties to facilitate settlement of gains and losses on these contracts.

For further information on Alcoa’s hedging and derivatives activities, see Notes A and K.

### Y. Environmental Matters

Alcoa continues to participate in environmental assessments and cleanups at a number of locations. These include approximately 30 owned or operating facilities and adjoining properties, approximately 39 previously owned or operating facilities and adjoining properties, and approximately 67 waste sites, including Superfund sites. A liability is recorded for environmental remediation costs or damages when a cleanup program becomes probable and the costs or damages can be reasonably estimated. See Note A for additional information.

As assessments and cleanups proceed, the liability is adjusted based on progress made in determining the extent of remedial actions and related costs and damages. The liability can change substantially due to factors such as the nature and extent of contamination, changes in remedial requirements, and technological changes. Therefore, it is not possible to determine the outcomes or to estimate with any degree of accuracy the potential costs for certain of these matters.

The following discussion provides additional details regarding the current status of Alcoa’s significant sites where the final outcome cannot be determined or the potential costs in the future cannot be estimated.

**Massena, New York.** Alcoa has been conducting investigations and studies of the Grasse River, adjacent to Alcoa's Massena, NY plant site, under order from the U.S. Environmental Protection Agency (EPA) issued under the Comprehensive Environmental Response, Compensation and Liability Act, also known as Superfund. Sediments and fish in the river contain varying levels of polychlorinated biphenyl (PCB).

In 2002, Alcoa submitted an Analysis of Alternatives Report that detailed a variety of remedial alternatives with estimated costs ranging from \$2 and \$525. Because the selection of the \$2 alternative (natural recovery) was considered remote, Alcoa adjusted the reserve for the Grasse River in 2002 to \$30 representing the low end of the range of possible alternatives, as no single alternative could be identified as more probable than the others.

In June of 2003, based on river observations during the spring of 2003, the EPA requested that Alcoa gather additional field data to assess the potential for sediment erosion from winter river ice formation and breakup. The results of these additional studies, submitted in a report to the EPA in April of 2004, suggest that this phenomenon has the potential to occur approximately every 10 years and may impact sediments in certain portions of the river under all remedial scenarios. The EPA informed Alcoa that a final remedial decision for the river could not be made without substantially more information, including river pilot studies on the effects of ice formation and breakup on each of the remedial techniques. The EPA requested that Alcoa consider a Remedial Options Pilot Study (ROPS) to gather this information. The scope of this study includes sediment removal and capping, the installation of an ice control structure, and significant monitoring.

In May of 2004, Alcoa agreed to perform the study at an estimated cost of \$35. Most of the work should be completed by the fourth quarter of 2005. It is anticipated that a report of findings will be issued to the EPA in 2006. Subsequent to this submittal, a revised Analysis of Alternatives Report will be submitted to the EPA at a date to be determined. This information will be used by the EPA to propose a remedy for the entire river.

Alcoa adjusted the reserves in the second quarter of 2004 to include the \$35 for the ROPS. This is in addition to the \$30 previously reserved. With the exception of the natural recovery remedy, none of the existing alternatives in the 2002 Analysis of Alternatives Report is currently more probable than the others, and the results of the ROPS are necessary to revise the scope and estimated cost of many of the current alternatives.

The EPA's ultimate selection of a remedy could result in additional liability. Alcoa may be required to record a subsequent reserve adjustment at the time the EPA's Record of Decision is issued.

**Sherwin, Texas.** In connection with the sale of the Sherwin alumina refinery in Texas, which was required to be divested as part of the Reynolds merger in 2000, Alcoa has agreed to retain responsibility for the remediation of then existing environmental conditions, as well as a pro rata share of the final closure of the active waste disposal areas, which remain in use. Alcoa's share of the closure costs is proportional to the total period of operation of the active waste disposal areas. Alcoa estimated

its liability for the active disposal areas by making certain assumptions about the period of operation, the amount of material placed in the area prior to closure, and the appropriate technology, engineering, and regulatory status applicable to final closure. The most probable cost for remediation has been reserved. It is reasonably possible that an additional liability, not expected to exceed \$75, may be incurred if actual experience varies from the original assumptions used.

Based on the foregoing, it is possible that Alcoa's results of operations, in a particular period, could be materially affected by matters relating to these sites. However, based on facts currently available, management believes that adequate reserves have been provided and that the disposition of these matters will not have a materially adverse effect on the financial position or liquidity of the company.

Alcoa's remediation reserve balance at the end of 2004 and 2003 was \$391 and \$395 (of which \$73 and \$65 were classified as a current liability), respectively, and reflects the most probable costs to remediate identified environmental conditions for which costs can be reasonably estimated. Remediation expenses charged to the reserve were approximately \$46 in 2004, \$32 in 2003, and \$50 in 2002. These amounts include expenditures currently mandated, as well as those not required by any regulatory authority or third party. The reserve balance was increased by \$42 in 2004, primarily for the additional reserve recorded for the Grasse River site. In 2003, the reserve balance was reduced by approximately \$9, primarily for adjustments based on recent assessments of remaining work required at certain sites.

Included in annual operating expenses are the recurring costs of managing hazardous substances and environmental programs. These costs are estimated to be about 2% of cost of goods sold.

## **Z. Subsequent Events**

On January 4, 2005, Alcoa and BHP Billiton completed the sale of their interests in Integris Metals Inc., a metals distribution joint venture in which Alcoa and BHP Billiton each owned a 50% interest. The investment was sold for \$410 in cash plus assumption of Integris' debt, which was approximately \$234. Alcoa received cash of \$205. There was no material gain or loss recorded on the transaction.

On January 31, 2005, Alcoa completed its acquisition of two fabricating facilities in Samara and Belaya Kalitva in the Russian Federation. The facilities were purchased from RUSAL for \$257 in cash. These assets provide a wide product breadth that supports Alcoa's growth plans in the commercial transportation, aerospace, automotive, and packaging markets.

On February 8, 2005, Alcoa received a tender offer from Orkla ASA to purchase its 46.5% stake in Norwegian metal group Elkem ASA. Alcoa is currently in the process of evaluating the offer, which remains open through March 8, 2005.

## Supplemental Financial Information

### Quarterly Data (unaudited)

(dollars in millions, except per-share amounts)

	First	Second	Third	Fourth	Year
<b>2004</b>					
Sales	\$5,588	\$5,971	\$5,878	\$6,041	\$23,478
Income from continuing operations	353	405	299	345	1,402
Income (loss) from discontinued operations (B)	2	(1)	(16)	(77)	(92)
Net income*	355	404	283	268	1,310
Earnings (loss) per share:					
Basic:					
Income from continuing operations	.41	.46	.34	.40	1.61
Loss from discontinued operations	—	—	(.02)	(.09)	(.11)
Net income	.41	.46	.32	.31	1.50
Diluted:					
Income from continuing operations	.41	.46	.34	.39	1.60
Loss from discontinued operations	—	—	(.02)	(.09)	(.11)
Net income	.41	.46	.32	.30	1.49

The financial information for all periods presented has been reclassified to reflect assets held for sale and discontinued operations. See Note B to the Consolidated Financial Statements for further information.

\* After restructuring and other charges reflecting income of \$41 in 2004 (Note D)

	First	Second	Third	Fourth	Year
<b>2003</b>					
Sales	\$5,048	\$5,393	\$5,234	\$5,417	\$21,092
Income from continuing operations	202	221	290	342	1,055
Loss from discontinued operations (B)	(4)	(5)	(10)	(51)	(70)
Cumulative effect of accounting change (C)	(47)	—	—	—	(47)
Net income*	151	216	280	291	938
Earnings (loss) per share:					
Basic:					
Income from continuing operations	.24	.26	.34	.39	1.23
Loss from discontinued operations	(.01)	—	(.01)	(.06)	(.08)
Cumulative effect of accounting change	(.06)	—	—	—	(.06)
Net income	.17	.26	.33	.33	1.09
Diluted:					
Income from continuing operations	.24	.26	.34	.39	1.22
Loss from discontinued operations	(.01)	—	(.01)	(.06)	(.08)
Cumulative effect of accounting change	(.06)	—	—	—	(.06)
Net income	.17	.26	.33	.33	1.08

The financial information for all periods presented has been reclassified to reflect assets held for sale and discontinued operations. See Note B to the Consolidated Financial Statements for further information.

\* After restructuring and other charges reflecting income of \$25 in the fourth quarter (Note D)

### Number of Employees (unaudited)

	2004	2003	2002
U.S.	47,800	49,300	53,500
Other Americas	35,200	35,300	38,200
Europe	28,500	27,700	28,300
Pacific	7,500	7,700	7,000
	<b>119,000</b>	<b>120,000</b>	<b>127,000</b>

## 11-Year Summary of Financial and Other Data

(dollars in millions, except per-share amounts and ingot prices)

The financial information for all periods has been reclassified to reflect assets held for sale and discontinued operations.

	For the year ended December 31	2004	2003	2002
<b>Operating Results</b>	Sales	\$23,478	\$21,092	\$19,934
	Cost of goods sold	18,623	16,754	15,928
	Selling, general administrative, and other expenses	1,284	1,250	1,108
	Research and development expenses	182	190	209
	Depreciation, depletion, and amortization	1,204	1,175	1,096
	Restructuring and other charges—(income) expense	(21)	(27)	414
	Interest expense	270	314	350
	Other income, net	268	274	178
	Taxes on income	557	417	317
	Less: Minority interests' share	245	238	172
	Income from continuing operations	1,402	1,055	518
	(Loss) income from discontinued operations	(92)	(70)	(132)
	Cumulative effect of accounting change*	—	(47)	34
	Net income	1,310	938	420
	Alcoa's average realized price per pound for aluminum ingot	.85	.70	.66
	LME average 3-month price per pound for aluminum ingot	.78	.65	.62
<b>Dividends Declared</b>	Preferred stock	2	2	2
	Common stock	522	514	507
<b>Financial Position</b>	Properties, plants, and equipment, net	12,592	12,500	12,039
	Total assets	32,609	31,711	29,810
	Total debt	6,300	7,266	8,483
	Minority interests	1,416	1,340	1,293
	Shareholders' equity	13,300	12,075	9,927
<b>Common Share Data</b> (dollars per share)	Basic earnings per share†	1.50	1.09	.49
	Diluted earnings per share†	1.49	1.08	.49
	Dividends declared	.600	.600	.600
	Book value (based on year-end outstanding shares)	15.21	13.84	11.69
	Price range: High	39.44	38.92	39.75
	Low	28.51	18.45	17.62
	Shareholders (number)	295,000	278,400	273,000
	Average shares outstanding (thousands)	869,907	853,352	845,439
<b>Operating Data</b> (thousands of metric tons)	Alumina shipments	7,374	7,671	7,486
	Aluminum product shipments:			
	Primary	1,853	1,834	1,912
	Fabricated and finished products	3,240	3,213	3,324
	Total	5,093	5,047	5,236
	Primary aluminum capacity:			
	Consolidated	4,004	4,020	3,948
	Total, including affiliates' and others' share of joint ventures	4,955	4,969	4,851
	Primary aluminum production:			
	Consolidated	3,376	3,508	3,500
Total, including affiliates' and others' share of joint ventures	4,233	4,360	4,318	
<b>Other Statistics</b>	Capital expenditures	\$1,143	\$870	\$1,273
	Number of employees	119,000	120,000	127,000

\* Reflects the cumulative effect of the accounting change for asset retirement obligations in 2003, goodwill in 2002, and revenue recognition in 2000

† Represents earnings per share on net income

2001	2000	1999	1998	1997	1996	1995	1994
\$21,933	\$22,010	\$15,871	\$15,003	\$13,014	\$12,741	\$12,220	\$ 9,686
17,058	16,609	12,168	11,659	10,030	9,817	9,251	7,765
1,213	1,051	823	760	662	696	699	623
197	189	126	126	140	164	140	126
1,216	1,190	879	834	729	747	713	671
562	—	—	—	(96)	199	16	80
371	427	195	198	141	134	120	107
307	153	124	148	163	64	153	378
515	898	537	503	517	348	432	171
204	348	228	229	261	202	229	157
904	1,451	1,039	842	793	498	773	364
4	38	15	11	12	17	18	11
—	(5)	—	—	—	—	—	—
908	1,484	1,054	853	805	515	791	375
.72	.77	.67	.67	.75	.73	.81	.64
.66	.71	.63	.63	.73	.70	.83	.68
2	2	2	2	2	2	2	2
516	416	296	263	169	232	160	142
11,449	12,307	8,655	8,648	6,303	6,616	6,539	6,390
28,355	31,691	17,066	17,463	13,071	13,450	13,643	12,353
6,647	8,125	3,055	3,478	1,946	2,066	1,897	1,432
1,313	1,514	1,458	1,476	1,440	1,611	1,609	1,688
10,614	11,422	6,318	6,056	4,419	4,462	4,445	3,999
1.06	1.81	1.44	1.22	1.17	.74	1.11	.53
1.05	1.79	1.41	1.21	1.15	.73	1.10	.52
.600	.500	.403	.375	.244	.333	.225	.200
12.46	13.13	8.51	8.18	6.49	6.39	6.23	5.52
45.71	43.63	41.69	20.31	22.41	16.56	15.06	11.28
27.36	23.13	17.97	14.50	16.06	12.28	9.22	8.03
266,800	265,300	185,000	119,000	95,800	88,300	83,600	55,200
857,990	814,229	733,888	698,228	688,904	697,334	712,072	711,528
7,217	7,472	7,054	7,130	7,223	6,406	6,407	6,660
1,776	2,032	1,411	1,367	920	901	673	655
3,216	3,366	3,067	2,584	2,036	1,940	1,909	1,896
4,992	5,398	4,478	3,951	2,956	2,841	2,582	2,551
4,165	4,219	3,182	3,159	2,108	2,101	1,905	1,905
5,069	5,141	4,024	3,984	2,652	2,642	2,428	2,428
3,488	3,539	2,851	2,471	1,725	1,708	1,506	1,531
4,257	4,395	3,695	3,158	2,254	2,240	2,037	2,067
\$1,177	\$1,102	\$917	\$931	\$913	\$996	\$887	\$612
129,000	142,000	107,700	103,500	81,600	76,800	72,000	60,200

## Directors

**Alain J. P. Belda**, 61, chairman of the board of Alcoa since January 2001, and chief executive officer since May 1999. Elected president and chief operating officer in January 1997, vice chairman in 1995, and executive vice president in 1994. President of Alcoa Aluminio S.A. from 1979 to 1994. Director of Alcoa since 1998.

**Kathryn S. Fuller**, 58, president and chief executive officer of the World Wildlife Fund U.S. (WWF), one of the world's largest nature conservation organizations, since 1989; various positions with the organization since 1982 including executive vice president, general counsel, and director of WWF's public policy and wildlife trade monitoring programs. Director of Alcoa since 2002.

**Carlos Ghosn**, 50, president and chief executive officer, Nissan Motor Company, Ltd., since 2001; chief operating officer 1999-2001. From 1996 to 1999 he was executive vice president of Renault S.A., and from 1979 to 1996 he served in various capacities with Compagnie Générale des Etablissements Michelin. Director of Alcoa since 2002.

**Joseph T. Gorman**, 67, chairman and chief executive officer of Moxahela Enterprises, LLC, a venture capital firm, since 2001. He was chairman and chief executive officer of TRW Inc., a global company serving the automotive, space, and information systems markets, 1988-2001. Director of Alcoa since 1991.

**Judith M. Gueron**, 63, visiting scholar at the Russell Sage Foundation, a foundation devoted to research in the social sciences, and president emerita of MDRC, a nonprofit research organization that designs, manages, and studies projects to increase the self-sufficiency of economically disadvantaged groups, since September 2004. Dr. Gueron was president of MDRC from 1986 to August 2004. Director of Alcoa since 1988.

**Sir Ronald Hampel**, 72, former chairman of United Business Media, a U.K.-based media company, from 1999-2002; chairman of Imperial Chemical Industries plc (ICI) 1995-1999, and a director 1985-1999; deputy chairman and chief executive officer 1993-1995; chief operating officer 1991-1993. Director of Alcoa since 1995.

**Klaus Kleinfeld**, 47, deputy chairman of the Managing Board and president and chief executive officer of Siemens AG, a global electronics and industrial conglomerate, since January 27, 2005. Mr. Kleinfeld served as deputy chairman of the Managing Board and executive vice president of Siemens AG from 2004 to January 27, 2005. He served as president and chief executive officer, Siemens Corporation, the U.S. arm of Siemens AG, from 2002 to 2004. He was also a member of the Managing Board of Siemens AG from December 2002 to December 2003. Mr. Kleinfeld served as chief operating officer of Siemens Corporation from January to December 2001. Prior to his U.S. assignment, Mr. Kleinfeld was executive vice president and a member of the Executive Board of the Siemens AG Medical Engineering group from January to December 2000. Director of Alcoa since 2003.

**Henry B. Schacht**, 70, managing director and senior advisor of Warburg Pincus LLC, a global private equity firm, since 2004. Mr. Schacht served as chairman (1996 to 1998; October 2000 to February 2003) and chief executive officer (1996 to 1997; October 2000 to January 2002) of Lucent Technologies Inc. He also previously served as senior advisor (1998 to 1999 and 2003) to Lucent. Mr. Schacht was managing director of Warburg Pincus LLC from February 1999 until October 2000. Director of Alcoa since 1994.

**Franklin A. Thomas**, 70, consultant, TFF Study Group, a nonprofit institution assisting development in South Africa, since 1996; chairman, September 11 Fund since 2001; president and chief executive officer of The Ford Foundation 1979-1996. Director of Alcoa since 1977.

**Ernesto Zedillo**, 53, director, Yale Center for the Study of Globalization, since September 2002. Former president of Mexico, elected in 1994 and served until 2000; held various positions in the Mexican federal government from late 1987 to his election. Director of Alcoa since 2002.



Alain J. P. Belda



Kathryn S. Fuller



Carlos Ghosn



Joseph T. Gorman



Judith M. Gueron

Sir Ronald Hampel

Klaus Kleinfeld

Henry B. Schacht

Franklin A. Thomas

Ernesto Zedillo



## Board Committees

### Audit Committee

Joseph T. Gorman  
Judith M. Gueron  
Klaus Kleinfeld  
Henry B. Schacht – Chair  
Ernesto Zedillo

### Compensation and Benefits Committee

Carlos Ghosn  
Joseph T. Gorman – Chair  
Sir Ronald Hampel  
Franklin A. Thomas

### Executive Committee

Alain J. P. Belda – Chair  
Joseph T. Gorman  
Henry B. Schacht  
Franklin A. Thomas

### Governance and Nominating Committee

Kathryn S. Fuller  
Sir Ronald Hampel  
Franklin A. Thomas – Chair

### Public Issues Committee

Kathryn S. Fuller  
Carlos Ghosn  
Judith M. Gueron – Chair  
Henry B. Schacht  
Ernesto Zedillo

For information on Alcoa's corporate governance program, go to [www.alcoa.com](http://www.alcoa.com)

## Officers

(As of February 18, 2005)

### Alain J. P. Belda

Chairman and Chief Executive Officer

### Robert T. Alexander

Vice President – Alcoa and Chairman, Alcoa Fujikura, Ltd.

### Margaret A. Aupke

Assistant Treasurer

### Ricardo E. Belda

Executive Vice President – European Region

### Julie A. Caponi

Assistant Controller

### William F. Christopher

Executive Vice President – Alcoa and Group President, Alcoa Aerospace, Automotive and Commercial Transportation

### Donna C. Dabney

Secretary and Group Counsel

### Denis A. Demblowski

Assistant General Counsel

### Ronald D. Dickel

Vice President – Tax

### Janet F. Duderstadt

Assistant Secretary

### Franklin L. Feder

Vice President – Alcoa and President, Alcoa Latin America

### Brenda A. Hart

Assistant Secretary

### Paul A. Hayes

Assistant Treasurer

### Regina M. Hitchery

Vice President – Human Resources

### Cynthia E. Holloway

Assistant Treasurer

### Rudolph P. Huber

Vice President – Alcoa Global Business Services and Chief Information Officer

### Barbara S. Jeremiah

Executive Vice President – Corporate Development

### Richard B. Kelson

Executive Vice President and Chief Financial Officer

### Denise H. Kluthe

Assistant Controller

### Mario Longhi Filho

Vice President – Alcoa and Group President, Global Extruded and End Products

### Ruth J. Mack

Vice President – Alcoa and Group President, Packaging and Consumer Products

### Charles D. McLane, Jr.

Vice President and Corporate Controller

### Thomas J. Meek

Assistant General Counsel

### Colleen P. Miller

Assistant Secretary

### Joseph C. Muscari

Executive Vice President – Alcoa and Group President, Rigid Packaging, Foil, and Asia

### Judith L. Nocito

Assistant General Counsel

### William J. O'Rourke, Jr.

Vice President – Environment, Health, and Safety and Audit

### Dale C. Perdue

Assistant General Counsel

### William B. Plummer

Vice President and Treasurer

### Russell W. Porter, Jr.

Vice President and Deputy General Counsel

### Lawrence R. Purtell

Executive Vice President and General Counsel; Chief Compliance Officer

### Bernt Reitan

Executive Vice President – Alcoa and Group President, Global Primary Products

### Ricardo B. M. Sayao

Assistant Treasurer

### Richard L. (Jake) Siewert, Jr.

Vice President – Global Communications and Public Strategy

### Paul D. Thomas

Executive Vice President – People, ABS, and Culture

### Kurt R. Waldo

Assistant General Counsel

### Robert G. Wennemer

Vice President – Pension Fund Investments and Analysis

### Helmut Wieser

Vice President – Alcoa and Group President, Mill Products Europe and North America

### John M. Wilson

Vice President and Deputy General Counsel

### Russell C. Wisor

Vice President – Government Affairs

### Mohammad A. Zaidi

Vice President and Chief Technical Officer

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## Shareowner Information

### Annual Meeting

The annual meeting of shareowners will be at 9:30 a.m. Friday, April 22, 2005 at the Westin Convention Center Hotel Pittsburgh.

### Company News

Visit [www.alcoa.com](http://www.alcoa.com) for Securities and Exchange Commission (SEC) filings, quarterly earnings reports, and other company news.

Copies of the annual report and Forms 10-K and 10-Q may be requested at no cost at [www.alcoa.com](http://www.alcoa.com) or by writing to Corporate Communications at the corporate center address.

### Investor Information

Security analysts and investors may write to Director – Investor Relations at 390 Park Avenue, New York, NY 10022-4608, call 1 212 836 2674, or email [investor.relations@alcoa.com](mailto:investor.relations@alcoa.com).

### Other Publications

For more information on Alcoa Foundation and Alcoa community investments, visit [www.alcoa.com](http://www.alcoa.com) under “community.”

For Alcoa’s 2004 Sustainability Report, visit [www.alcoa.com](http://www.alcoa.com) or write Director – Sustainable Development, 390 Park Avenue, New York, NY 10022-4608 or email [sustainability@alcoa.com](mailto:sustainability@alcoa.com).

### Dividends

Alcoa’s objective is to pay common stock dividends at rates competitive with other investments of equal risk and consistent with the need to reinvest earnings for long-term growth. To support this objective, Alcoa pays a quarterly dividend of 15 cents per common share and 93.75 cents per preferred share. Quarterly dividends are paid to shareowners of record at each quarterly distribution date.

### Dividend Reinvestment

The company offers a Dividend Reinvestment and Stock Purchase Plan for shareowners of Alcoa common and preferred stock. The plan allows shareowners to reinvest all or part of their quarterly dividends in shares of Alcoa common stock. Shareowners also may purchase additional shares under the plan with cash contributions. The company pays brokerage commissions and fees on these stock purchases.

### Direct Deposit of Dividends

Shareowners may have their quarterly dividends deposited directly to their checking, savings, or money market accounts at any financial institution that participates in the Automated Clearing House (ACH) system.

## Shareowner Services

Shareowners with questions on account balances, dividend checks, reinvestment, or direct deposit; address changes; lost or misplaced stock certificates; or other shareowner account matters may contact Alcoa’s stock transfer agent, registrar, and dividend disbursing agent:

Equiserve Trust Company, N.A. Telephone Response Center:  
P.O. Box 43069 1 800 317 4445  
Providence, RI 02940-3069 Outside U.S. and Canada:  
1 781 575 2724

Internet: [www.equiserve.com](http://www.equiserve.com)  
Telecommunications Device for the Deaf (TDD): 1 800 952 9245

For shareowner questions on other matters related to Alcoa, write to Donna C. Dabney, Office of the Secretary, 390 Park Avenue, New York, NY 10022-4608 or call 1 412 553 4707.

### Stock Listing

Common: New York Stock Exchange and exchanges in Australia, Belgium, Germany, Switzerland, and the United Kingdom  
Preferred: American Stock Exchange  
Ticker symbol: AA

### Quarterly Common Stock Information

Quarter	2004			2003		
	High	Low	Dividend	High	Low	Dividend
First	\$39.44	\$32.60	\$.15	\$24.75	\$18.45	\$.15
Second	36.60	28.51	.15	27.22	18.86	.15
Third	33.70	29.44	.15	29.50	24.00	.15
Fourth	34.99	30.63	.15	38.92	26.27	.15
Year	\$39.44	\$28.51	\$.60	\$38.92	\$18.45	\$.60

### Common Share Data

	Estimated number of shareowners*	Average shares outstanding (000)
2004	295,000	869,907
2003	278,400	853,352
2002	273,000	845,439
2001	266,800	857,990
2000	265,300	814,229

\* These estimates include shareowners who own stock registered in their own names and those who own stock through banks and brokers.

### Corporate Center

Alcoa  
201 Isabella St. at 7th St. Bridge  
Pittsburgh, PA 15212-5858  
Telephone: 1 412 553 4545  
Fax: 1 412 553 4498  
Internet: [www.alcoa.com](http://www.alcoa.com)

Alcoa Inc. is incorporated in the Commonwealth of Pennsylvania.

# **Vision**

Alcoa aspires to  
be the best company  
in the world.

# **Values**

## ***Integrity***

Alcoa's foundation is our integrity. We are open, honest and trustworthy in dealing with customers, suppliers, coworkers, shareholders and the communities where we have an impact.

## ***Environment, Health and Safety***

We work safely in a manner that protects and promotes the health and well-being of the individual and the environment.

## ***Customer***

We support our customers' success by creating exceptional value through innovative product and service solutions.

## ***Excellence***

We relentlessly pursue excellence in everything we do, every day.

## ***People***

We work in an inclusive environment that embraces change, new ideas, respect for the individual and equal opportunity to succeed.

## ***Profitability***

We earn sustainable financial results that enable profitable growth and superior shareholder value.

## ***Accountability***

We are accountable – individually and in teams – for our behaviors, actions and results.

***We live our Values and measure our success by  
the success of our customers, shareholders,  
communities and people.***



## Managing Resources for a Sustainable Future

*At Alcoa, we blend business performance with environmental, social, and community leadership every day. Through a unique process that involved numerous governmental agencies, local communities, and environmental organizations, Alcoa enabled the continuation of its Tapoco Hydropower Project in Tennessee and North Carolina, while simultaneously protecting the environment.*

*Following legislation signed by U.S. President George W. Bush, Alcoa's Tapoco Project and its four hydroelectric dams received a new 40-year license in exchange for Alcoa's*

*preservation of more than 10,000 acres of land in the Great Smoky Mountains National Park through a land exchange and conservation agreement.*

*Major features of the agreement include:*

- *Preservation of Alcoa's ability to generate power to support its aluminum smelting operations in Tennessee*
- *Protection of 10,000 acres of pristine and ecologically significant lands adjoining the Great Smoky Mountains National Park and Cherokee National Forest*
- *Restoration of flows in two mountain rivers – the Cheoah and Little Tennessee rivers*
- *Fish and wildlife habitat improvements to enhance species biodiversity, including the restoration of four, federally listed, endangered fish species*
- *Enhanced recreational opportunities in a remote and primitive setting*
- *Protection of cultural resources of historic importance to the region and of tribal importance to the Eastern Band of Cherokee Indians.*