

3. Assessing the role of welfare states in reducing inequality: Evidence from EU15 countries in the face of recent global crises (2008-2023)

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1. Introduction¹

The 2008 financial collapse and the COVID-19 pandemic exposed persistent structural inequalities across Europe and underscored the central role of welfare states in cushioning socioeconomic shocks. Although distinct in origin and policy response, these crises served as stress tests for European social protection systems, revealing institutional strengths and vulnerabilities and offering a unique empirical opportunity to evaluate how different welfare regimes withstand and adapt to macroeconomic turbulence. They also reignited longstanding debates over the redistributive capacity of welfare states and their effectiveness in reducing inequality, stabilising household incomes, and protecting vulnerable groups (OECD, 2015; Cantillon *et al.*, 2019; Béland *et al.*, 2023).

This chapter examines the redistributive trajectories of EU15 welfare states during these two critical junctures. The EU15 provides a rich comparative field, encompassing the main welfare regime types identified in the literature, namely Nordic universalist, Bismarckian continental, liberal Anglo-Saxon, and hybrid Southern European models. The institutional diversity of these systems, combined with the availability of harmonized EU-SILC, allows for a straight analysis of how redistribution evolved across different contexts and policy architectures. In doing so, the study contributes to the

¹ This chapter was elaborated in the context of the INCASI2 project that has received funding from the European Union's Horizon Europe research and innovation programme under the Marie Skłodowska-Curie grant agreement No 101130456 (<https://incasi.uab.es>). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Research Executive Agency. Neither the European Union nor the granting authority can be held responsible for them.

longstanding debate on the paradox of redistribution (Korpi and Palme, 1998), which posits that universal welfare systems, though less targeted, may be more effective in reducing inequality due to their broad social and political legitimacy – a claim that has prompted considerable empirical reassessment (Gugushvili and Laenen, 2021).

Although both crises had global repercussions, the intensity of their impacts and the nature of policy responses in Europe diverged not only from those observed in other regions, but also from each other. The Great Recession (2008–2013) was followed by widespread fiscal consolidation and austerity, particularly in Southern Europe, where institutional fragmentation further constrained redistributive capacity (Ferrera, 2017). By contrast, the COVID-19 pandemic, a multidimensional crisis spanning economic, social, and public health domains, triggered a more expansive and proactive policy response. European governments adopted counter-cyclical fiscal measures, such as job retention schemes, emergency transfers, and unconditional support programmes (Eurofound, 2021; European Commission, 2024), marking a clear departure from the austerity paradigm.

The extent to which these interventions were successful in protecting households and curbing inequality, and whether they led to structural shifts in redistributive capacity, remains an open empirical question, particularly given the recent availability of comparative post-COVID data. This study seeks to address this gap by examining whether public interventions became more inclusive and effective over time or whether long-standing institutional constraints continue to shape and limit redistributive outcomes.

Specifically, the analysis focuses on two interrelated dimensions: the effectiveness of social transfers in reducing market-generated inequality, and the degree to which redistributive outcomes varied across regime types and national contexts. Using harmonised EU-SILC data, it compares outcomes from the Great Recession (2008–2013) and the COVID-19 crisis (2018–2023), assessing how the redistributive architecture of European welfare states has evolved under stress and what lessons can be drawn for future resilience.

The chapter is organised as follows. After outlining the theoretical background, research design, and methodology, the findings for 2008–2013 and 2018–2023 are presented, followed by a comparative discussion and concluding remarks.

2. State of the Art and Theoretical Background

The relationship between redistribution and welfare state structures has long been a central concern in comparative social policy research. A corner-

stone of this debate is the paradox of redistribution, formulated by Korpi and Palme (1998), who challenged the conventional assumption that targeted, means-tested welfare systems are inherently more redistributive. Drawing on the power resources approach, they argued that universal programmes — though less progressive in design — generate broader public support, enjoy stronger political legitimacy, and mobilize greater fiscal resources, thereby achieving superior redistributive outcomes and ensuring long-term sustainability.

Since its original formulation, the paradox has generated sustained debate and empirical reassessment. It has been discussed (Abramowitz, 2001; Brady and Bostic, 2015), critically questioned (Marx, Salanauskaite and Verbist, 2013) and revisited in light of changing welfare state dynamics (Oliver and Noël, 2016). More recent analyses have underscored the importance of institutional context, path dependence, and cross-national variation in shaping redistributive outcomes, cautioning against uniform interpretations of the paradox (Gugushvili, 2019; Gugushvili and Laenen, 2021; Béland *et al.*, 2023).

The present study adopts an aggregate approach, focusing on inequality indices – particularly the Gini coefficient – without decomposing the respective effects of taxes and transfers. While such decomposition can provide valuable nuance, our objective is to assess the overall redistributive performance of welfare systems across two major crises: the Great Recession and the COVID-19 pandemic. This comparison highlights continuities and changes in redistributive capacity under distinct economic shocks and policy responses, allowing us to examine whether institutional resilience or divergence has prevailed. To our knowledge, no comparative study has systematically explored these dynamics across EU15 countries using harmonized data up to the most recent period.

Methodological advances have refined income measurement and harmonization (Guio *et al.*, 2021) but have contributed little to comparative evaluation of redistributive trends. Regarding the Great Recession, there is broad consensus that market income inequality rose sharply, largely due to unemployment, while tax–benefit systems played a mitigating – though incomplete – role (Goedemé and Cantillon, 2013). Redistribution was most effective in Nordic and Continental regimes, whereas Southern and liberal welfare states exhibited weaker performance, particularly under austerity constraints (Jenkins *et al.*, 2013; Tasseva, 2016; Ferrera, 2017; Matsaganis, 2018; Hills, 2020).

Emerging analyses of the COVID-19 crisis indicate a shift towards more expansionary fiscal and social responses than those seen during the Great Recession, with extensive reliance on non-contributory transfers, job-reten-

tion schemes, and emergency income support. Comparative evaluations remain limited due to the recency of the data, but early assessments point to a more inclusive and counter-cyclical welfare response (Eurofound, 2021; Béland *et al.*, 2023; Börner and Seeleib-Kaiser, 2023).

3. Objectives and research questions

This study explores the evolving redistributive capacity of welfare states in the EU15 in response to two major global crises: the Great Recession (2008–2013) and the COVID-19 pandemic (2018–2023). Its central aim is to assess whether and how the effectiveness of public transfers (excluding direct taxation), in mitigating market-generated inequality changed across these periods of macroeconomic turbulence. The analysis also seeks to determine how these redistributive effects varied across distinct welfare regimes.

The analysis is guided by the following research questions: i) To what extent did EU15 welfare states reduce market-driven inequality during the Great Recession and the COVID-19 crisis? ii) Did the redistributive performance of welfare states change between the two crisis periods? Iii) How did redistributive outcomes vary across welfare regimes over time?

4. Data and variables

This study adopts a comparative and longitudinal approach to evaluate the redistributive performance of welfare states in the EU15 during two major crises: the Great Recession (2008–2013) and the COVID-19 pandemic (2018–2023). The analysis draws on EU-SILC series published by Eurostat, which provide harmonised, high-quality information on income and living conditions across European countries and are well suited to cross-national and temporal comparisons.

Income is measured at the household level and equalized using the OECD-modified scale. Following Eurostat's published indicators, we work with two concepts: (i) *pre-transfers income* refers to disposable income before social transfers, that is, market income after deducting direct taxes; and (ii) *post-transfers income* refers to disposable income after social transfers, including contributory and non-contributory benefits (pensions and non-pension transfers).

The redistributive effect is assessed by comparing the corresponding pre- and post-transfer Gini Index values, providing a direct estimate of the impact of benefit systems on the income distribution.

5. The Distributive Effect of the Great Recession on EU15 (2008-2013)

The 2008 financial crisis caused a sharp contraction in market incomes across the EU15, particularly in Southern Europe, reaching unprecedented levels, nearly -40% in Greece and around 16% in Spain and Ireland. These dramatic declines reflected the scale of the economic disruption — surging unemployment, wage cuts, and firm closures and widespread austerity policies. Yet the deterioration in living standards was partially cushioned by welfare states: in most countries the fall in disposable income (post-transfer) was markedly smaller than that in market (pre-transfer) income. In a few cases, such as Portugal and Finland, disposable income even rose slightly, illustrating the buffering effect of transfers and taxes (Eurostat, online dataset).

The Great Recession not only disrupted market income flows but also intensified inequality across the EU15. Figure 1 presents the change in Gini indices for pre- and post-transfer income between 2008 and 2013. In most countries, pre-transfer inequality rose, with especially pronounced increases in Southern Europe (Spain, Portugal, Greece). By contrast, post-transfer inequality rose far less, remained broadly stable, or even declined in several Northern and Continental countries. This pattern highlights the capacity of social protection systems to absorb a substantial share of the market-income shock, while also revealing the limits of redistribution under fiscal austerity.

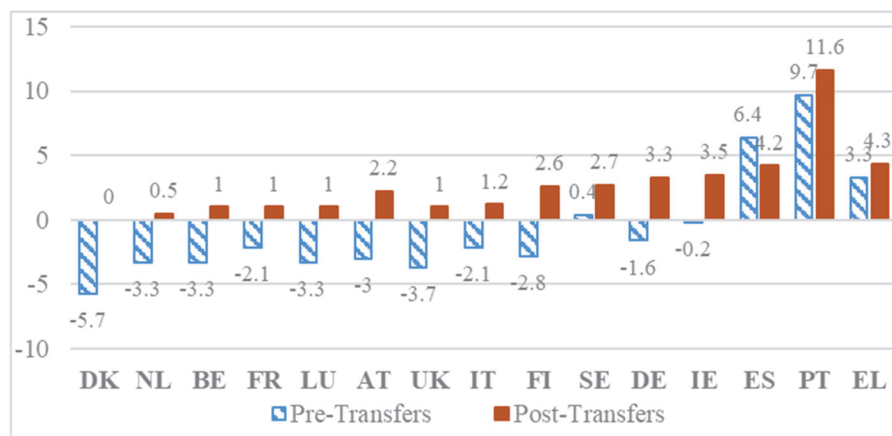


Fig. 1 - Redistribution effect of transfers in EU15 countries (2008–2013)

Source: Eurostat, Gini coefficient of equivalised disposable income before social transfers [ilc_di12b] and after social transfers [ilc_di12].

At the same time, the contrast between pre- and post-transfer inequality reveals marked cross-national variation in redistributive effectiveness. Nor-

dic countries (e.g. Denmark, Finland) maintained robust capacity, substantially reducing final inequality through universal benefits and progressive taxation. Continental regimes (e.g. Germany, France) achieved moderate success via social insurance and targeted transfers. Southern European countries were less effective: despite interventions, post-transfer inequality in Spain and Greece remained well above the EU15 average, reflecting structural constraints in more fragmented welfare states that were compounded by austerity (Ferrera, 2017). Liberal regimes such as Ireland and the United Kingdom also struggled, displaying a relatively weak redistributive impact. While these results broadly align with welfare-regime typologies (Esping-Andersen, 1990; Arts and Gelissen, 2002), they also underscore that institutional design alone does not determine outcomes: policy responsiveness, administrative capacity and political will proved decisive in shaping inequality trajectories during the crisis.

A more structural perspective offers deeper insight into redistributive dynamics. Figure 2 plots pre- and post-transfer Gini indices for 2008 and 2013. The vertical and horizontal red lines divide the graph into four quadrants, classifying countries according to their overall distributive outcomes. This framework allows us to evaluate both the depth and consistency of redistribution across welfare regimes and to observe the extent to which market inequalities were effectively corrected over time.

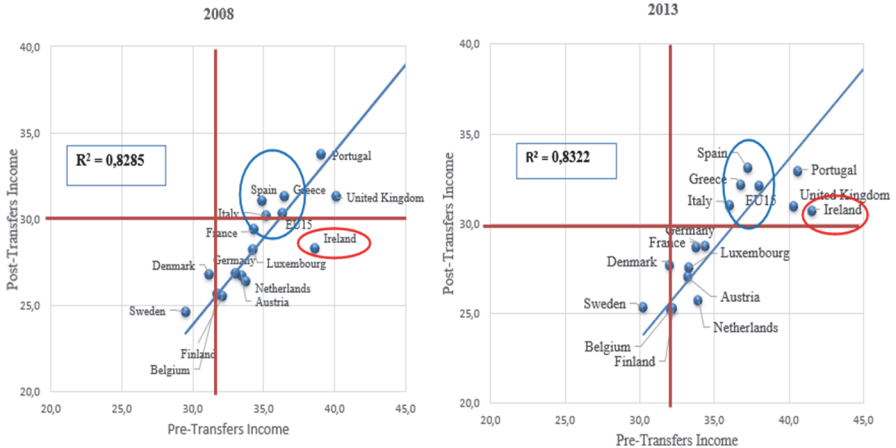


Fig. 2 - Pre- and post-transfers Gini Indices (2008 and 2013)
 Source: EU-SILC, 2009, 2014 (income data refer to the year preceding the survey). Own elaboration.

Countries in the lower-left quadrant (Sweden, Finland, Belgium, and Denmark) combine relatively egalitarian market structures with strong redistribution. In these systems, automatic stabilisers embedded in universal pro-

grammes operated effectively throughout the downturn, maintaining low levels of final inequality. At the opposite end, Portugal, Spain and Greece, together with the United Kingdom, cluster in the upper-right quadrant, combining high inequality both before and after social transfers — an outcome consistent with more limited or fragmented redistributive capacity under austerity constraints.

A third group – France, Germany, Luxembourg, Austria and the Netherlands – lies in the lower-right quadrant: despite higher market inequality, these countries achieve substantial post-transfer reductions via social insurance. Ireland also aligns with this latter profile in both years: it starts from very high market inequality and records sizeable post-transfer Gini reductions.

Finally, no countries appear in the upper-left quadrant (low market inequality, high final inequality), reaffirming the basic directionality of redistribution in Europe: while intensity varies across regimes, redistribution consistently acts to reduce rather than amplify inequality. The 2008–2013 period thus illustrates both the resilience and the limits of European welfare states — effective in cushioning market shocks yet constrained in their capacity to reverse the structural roots of inequality.

6. The Distributive Impact of the COVID-19 Crisis on EU15

The COVID-19 crisis differed fundamentally from the Great Recession. Unlike the financial shock of 2008–2013, the pandemic was a multidimensional emergency – health, social, and economic – met with unprecedented counter-cyclical measures. Rapid action was taken to mitigate the impact of the crisis on household finances – albeit taking various forms and with varying degrees of generosity. While introducing novel policy instruments in several cases, these responses also drew, at least partly, on pre-existing national welfare legacies (Béland *et al.*, 2023).

Figure 3 shows that changes in inequality between 2018 and 2023 were moderate overall but varied widely across countries. Pre-transfer inequality declined in several cases – most notably in Sweden, Germany, Portugal and Luxembourg, and to a lesser extent in Ireland, Greece and Spain – while it increased slightly in France and remained broadly stable elsewhere. Likewise, post-transfer income inequality either decreased or held steady across most countries, reflecting the capacity of social protection systems to cushion households from the effects of the pandemic. As fiscal support measures were gradually withdrawn from 2022 onwards, some redistributive gains began to fade, particularly in countries with weaker or more fragmented welfare institutions.

Taken together, these results confirm that European welfare states played a stabilising role during the pandemic, preventing a rise in post-transfer inequality despite major disruptions in labour markets. Yet persistent cross-national disparities in redistributive capacity remained, revealing once more the structural divide between universalist and fragmented welfare architectures.

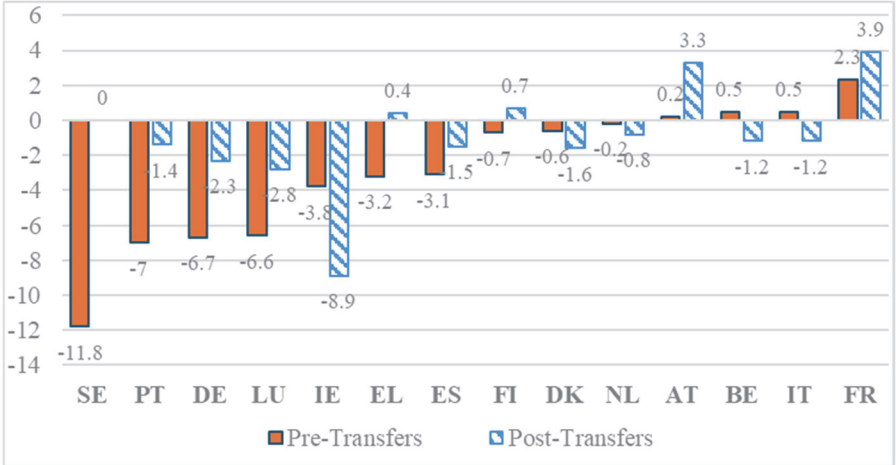


Fig. 3 - Change in Gini Index for Pre-transfer and Post-transfer Income. EU15 (2018-2023)

Source: Eurostat, Gini coefficient of equivalised disposable income before social transfers [ilc_di12b] and after social transfers [ilc_di12].

To complement the diachronic view of inequality trends, Figure 4 offers, as before, a structural comparison by plotting pre-transfer income inequality (x-axis) against post-transfer income inequality (y-axis) for each EU15 country in 2018 and 2023. The relationship between market and disposable income inequality remains strong, though somewhat weaker than during the 2008–2013 period. This suggests that, while initial income structures continue to shape final outcomes, the link between market inequality and redistributive performance has become somewhat more diffuse in the aftermath of the pandemic. Structural patterns of inequality therefore persist, but with greater cross-national dispersion contexts, reflecting differentiated fiscal responses and welfare capacities.

Countries such as Belgium, Denmark, Sweden, and the Netherlands consistently occupy the lower-left quadrant, which represents the most favourable configuration – relatively egalitarian market structures combined with strong redistributive capacity. These outcomes reflect the institutional strength of universalist and corporatist regimes, whose built-in automatic stabilisers continued to perform effectively throughout the crisis.

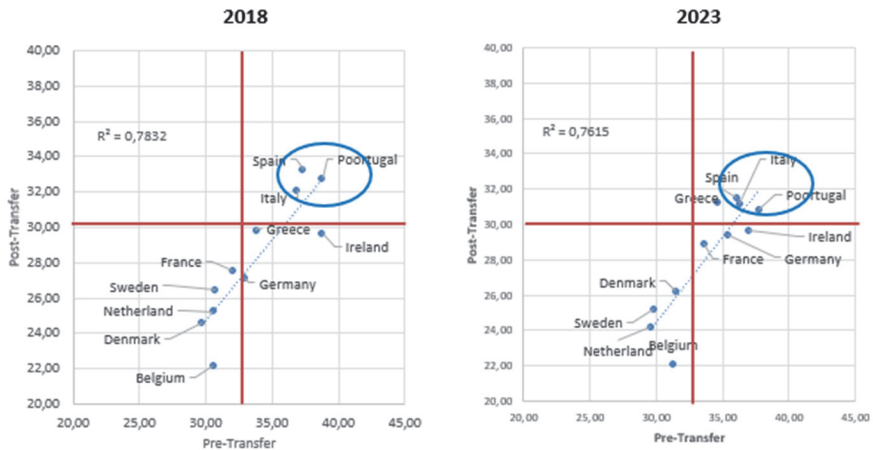


Fig. 4 - Gross and Disposable Gini Indices (2018 and 2023)

Source: Own elaboration based on EU-SILC, 2009, 2014 (income data refer to the year preceding the survey).

At the opposite end of the spectrum, Spain, Italy, and Portugal are persistently located in the upper-right quadrant in both years, indicating high levels of inequality both before and after transfers. This persistent structural disadvantage underscores the limitations of fragmented or dual welfare systems, which struggle to fully compensate for market-driven inequality. Southern European regimes showed enduring weaknesses in redistributive performance despite emergency interventions.

A third group of countries – France, Germany, and Ireland – occupies the lower-right quadrant, characterised by high market inequality but substantial post-transfer reductions. Ireland stands out for its improvement between 2018 and 2023: though still one of the more unequal countries, its post-transfer Gini levels converged closer to the EU average, pointing to a more inclusive policy response during the pandemic.

As in the earlier period, no country occupies the upper-left quadrant -defined by low market inequality but high final inequality. The continued absence of cases in this quadrant supports the conclusion that the European tax-benefit architecture retains a fundamentally equalizing orientation, even under stress of major crises.

7. A Shifting Landscape of Redistribution in Europe (2008–2023)?

The comparative analysis of the 2008-2013 and 2018-2023 periods reveals a landscape marked by both institutional resilience and growing divergence. In both periods, there is a strong correlation between countries' pre-transfer and post-transfer Gini indices, highlighting the path-dependent nature of distributive outcomes in Europe. Welfare states play a stabilising role, mitigating disparities but seldom reversing the distributional patterns generated by markets.

However, the wider dispersion observed around the regression line in 2018–2023 suggests that the pandemic and subsequent inflation widened cross-national differences in fiscal capacity and policy responsiveness. While the redistributive architecture remained intact, its coherence weakened modestly, reflecting the differentiated ability of national welfare systems to sustain high levels of support once emergency measures were withdrawn.

The structural comparison between the 2008–2013 and 2018–2023 periods reveals remarkable stability in the configuration of country clusters. The long-standing core-periphery divide continues to shape European redistribution. Universalist and corporatist regimes – such as those of the Nordic and Continental countries – maintain relatively low inequality across both pre- and post-transfer distributions, showing remarkable institutional stability. In contrast, Southern European countries (Spain, Greece, Portugal, and, to a lesser extent, Italy) persistently occupy the upper-right quadrant, characterised by high market inequality and limited redistributive impact. These enduring weaknesses reflect structural constraints – fragmented benefits, weak tax progressivity, and fiscal limitations – that curtail the equalising capacity of the state.

Nonetheless, some noteworthy shifts emerge. Ireland and France improve their relative positions, reflecting more inclusive and expansive policy responses during the pandemic compared to the austerity logic of the previous crisis. By 2023, Belgium also joins this group of high-performing redistributive systems. Conversely, Greece shows temporary progress early in the period but regresses by 2023, signalling renewed structural strain. Portugal's and Italy's positions remain broadly stable, though slightly less favourable, consistent with the gradual withdrawal of pandemic-era supports.

A broad cluster of Continental and Nordic countries – including Germany, France, Italy, Sweden, Denmark, and the Netherlands – continues to form a stable middle group. Their redistributive impact remains moderate and relatively homogeneous across countries. This pattern reflects enduring institutional resilience and the continued effectiveness of core welfare mechanisms, despite persistent fiscal and political pressures.

Taken together, the structural comparison between the two crises reveals continuity rather than transformation. The correlation between market and disposable inequality remains strong, though marginally weaker in the later period, indicating persistent dependence on initial income structures. The welfare state's role continues to be primarily compensatory rather than transformative: redistribution softens disparities but seldom alters the hierarchy of market incomes.

In sum, the 2018–2023 period confirms the findings from the Great Recession: European welfare systems are resilient but uneven. The most effective outcomes occur where inclusive market institutions coexist with comprehensive redistributive systems, whereas countries with fragmented arrangements and high structural inequality continue to lag behind, despite intensified fiscal efforts during the pandemic.

From a policy standpoint, these findings underscore the importance of both preserving existing redistributive frameworks and adapting them to new socioeconomic risks. Lower-performing countries need structural reforms to strengthen targeting, broaden coverage, and ensure adequacy of fiscal interventions; higher-performing systems must maintain effectiveness under demographic and budgetary pressures. Crucially, renewed emphasis should be placed on pre-distributive policies – active labour-market measures, wage regulation, and universal access to essential services – to reduce inequality at its source.

8. Conclusions

This study assessed the redistributive effectiveness of EU15 welfare states across two major crises – the Great Recession (2008–2013) and the COVID-19 pandemic period (2018–2023) – offering new comparative insights into how different welfare regimes adapt under stress. While both crises generated sharp increases in market inequality due to labour market shocks, the state's capacity to buffer their distributional consequences varied significantly over time and across countries.

In both periods, welfare states played a critical role in stabilising household incomes, though with uneven outcomes. During the Great Recession, the scope of public intervention was curtailed by austerity policies and limited fiscal space, particularly in Southern Europe. The redistributive impact was largely shaped by pre-existing institutional arrangements, with Nordic countries performing most robustly, while Southern and liberal regimes showing limited compensatory capacity. By contrast, the response to the COVID-19 crisis marked a significant shift in policy logic. Governments

implemented broader and more inclusive fiscal measures, expanding non-contributory transfers and relaxing access to support and deployed large-scale job-retention schemes. As a result, post-transfer inequality remained largely stable between 2018 and 2023 despite rising market inequality. Countries such as Ireland and Belgium achieved notable gains, whereas Spain and Greece continued to lag, underscoring the importance of institutional capacity and political commitment.

Overall, the findings confirm that redistribution in Europe is stabilising rather than transformative. Structural patterns – the core-periphery divide and welfare regime differences – persist across time. At a structural level, pre-transfer inequality remains the strongest predictor of final income distribution, reaffirming the path-dependent nature of inequality in Europe: redistribution mitigates disparities but does not fundamentally reorder the distributional hierarchy.

From a policy perspective, strengthening resilience requires not only protecting universalism and reinforcing tax progressivity, but also complementing post-market redistribution with credible pre-distribution – active labour-market policies, wage floors and universal access to essential services – to address inequality at its source. More broadly, redistribution should be embedded as a core function of economic governance rather than a crisis-specific instrument. In an era of renewed uncertainty, effective and inclusive fiscal policy remains essential to sustaining social cohesion and democratic legitimacy in Europe.

References

- Arts W. and Gelissen J. (2002), “Three Worlds of Welfare Capitalism or More? A State-of-the-Art Report”, *Journal of European Social Policy*, 12(2): 137–158.
- Atta-Darkua V. and Barnard A. (2010), “Distributional Effects of Direct Taxes and Social Transfers (Cash Benefits)”, in *Income and Living Conditions in Europe*, Publications Office of the European Union, Luxembourg, p. 345-368.
- Béland D., Cantillon B., Hick R., Greve B. and Moreira A. (2023), “Policy Legacies, Welfare Regimes, and Social Policy Responses to COVID-19 in Europe”, in Börner S. and Seeleib-Kaiser M. (eds.), *European Social Policy and the COVID-19 Pandemic: Challenges to National Welfare and EU Policy*, Oxford University Press, Oxford.
- Brady D. and Bostic A. (2015), “Paradoxes of Social Policy: Welfare Transfers, Relative Poverty, and Redistribution Preferences”, *American Sociological Review*, 80(2): 268–298.
- Cantillon B., Goedemé T. and Hills J. (eds.) (2019), *Decent Incomes for All: Improving Policies in Europe*, Oxford University Press, Oxford.

- Esping-Andersen G. (1990), *The Three Worlds of Welfare Capitalism*, Princeton University Press, Princeton.
- Eurofound (2021), *COVID-19: Implications for Employment and Working Life*, COVID-19 Series, Publications Office of the European Union, Luxembourg.
- European Commission (2024), *Evaluation of the European Instrument for Temporary Support to Mitigate Unemployment Risks in an Emergency (SURE)*, Publications Office of the European Union, Luxembourg, available at: https://commission.europa.eu/publications/evaluation-sure_en.
- Ferrera M. (2017), “The Contentious Politics of the Welfare State in Southern Europe: A Crisis of Legitimacy”, *European Journal of Social Security*, 19(1): 3–16.
- Goedemé T. and Cantillon B. (2013), *The Impact of Tax-Transfer Policies on Income Distribution in the EU: A Decomposition Analysis*, EUROMOD Working Paper EM10/13.
- Gugushvili D. (2019), “Does the Paradox of Redistribution Persist? A Literature Review”, *Journal of International and Comparative Social Policy*, 35(2): 119–137.
- Gugushvili D. and Laenen T. (2021), “Two Decades after the Paradox of Redistribution: What Have We Learned So Far?”, *Journal of European Social Policy*, 31(1): 102–115.
- Guio A.-C., Marlier E., Vandembroucke F. and Verbunt P. (2021), *Microdata, Indicators and Methodology for Monitoring Poverty and Social Exclusion in the EU: State of Play and Future Developments*, Luxembourg Income Study (LIS) Working Paper Series No. 789.
- Hills J. (2020), *Good Times, Bad Times: The Welfare Myth of Them and Us* (2nd ed.), Policy Press, Bristol.
- Immervoll H. and Richardson L. (2011), *Redistribution Policy and Inequality Reduction in OECD Countries: What Has Changed in Two Decades?*, OECD Social, Employment and Migration Working Papers No. 122, OECD Publishing, Paris.
- Jenkins S.P., Brandolini A., Micklewright J. and Nolan B. (eds.) (2013), *The Great Recession and the Distribution of Household Income*, Oxford University Press, Oxford.
- Korpi W. and Palme J. (1998), “The Paradox of Redistribution and Strategies of Equality: Welfare State Institutions, Inequality, and Poverty in the Western Countries”, *American Sociological Review*, 63(5): 661–687.
- Marx I., Salanauskaite L. and Verbist G. (2013), *The Paradox of Redistribution Revisited: And That It May Rest in Peace?*, IZA Discussion Paper No. 7414.
- Matsaganis M. (2018), “Income Inequality and Redistribution in Greece, 2007–2016”, *South European Society and Politics*, 23(1): 97–118.
- Musgrave R.A. (1959), *The Theory of Public Finance*, McGraw-Hill, New York.
- OECD (2015), *In It Together: Why Less Inequality Benefits All*, OECD Publishing, Paris.
- Oliver T. and Noël A. (2016), “The Architecture of the Social Policy Preferences: Revisiting the Paradox of Redistribution”, *Journal of European Social Policy*, 26(1): 73–89.

Tasseva I.V. (2016), “Evaluating the Distributional Effects of Personal Income Taxes and Social Security Contributions in Bulgaria: A Microsimulation Approach”, *International Journal of Microsimulation*, 9(1): 87–119.