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Novel welfare state responses in times of crises: the COVID-19 crisis versus the Great Recession

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Abstract

Using microsimulation tools, we explore the social policy responses to the Great Recession and the COVID-19 crisis, and their impact on preserving living standards in Ireland. During the Great Recession, the focus was on cost reduction. By contrast, during the COVID-19 crisis, the focus was on mitigating the impact on household incomes. In addition, an innovation in joint public and private responses emerged through social partnership. We find a stronger policy response during the COVID-19 crisis than the Great Recession. The COVID-19 crisis was more rapid, leaving more individuals out of work, thus family support was weaker. This was compensated by stronger private support through social partnership. Consequently, those with lower incomes had larger disposable incomes at the onset of the crisis; an effect that reduced with policy learning. We find increasing trust in public institutions during the COVID-19 crisis as opposed to a decline during the Great Recession.

Key words: Economic crises, income, income distribution, methodology, social policy

JEL classification: D31, H12, I38

1. Introduction

Similar to other countries, Ireland was hit rapidly by a major crisis in the spring of 2020 induced by the COVID-19 pandemic. It was the second crisis in a little over a decade, in which the financial crisis that arose around the time of the bankruptcy of Lehman Brothers

in September 2008 disproportionally affected Ireland. In the current paper, we consider and analyse the insulating impact of the immediate social policy responses to both crises.

Different dimensions of crises, and the public and private responses to them, affect different people in different ways, resulting in distributional effects. The financial crisis saw labour market impacts on the construction sector, while austerity-focused policy measures had important distributional consequences (Callan *et al.*, 2014). The COVID-19 crisis is very different, with increased illness and mortality, policy measures aimed at closing non-essential businesses and services, the restriction of movement, gatherings and public events, self-isolation, and the reduction of public transport and mobility (Coffey *et al.*, 2020; Hale *et al.*, 2020; OECD, 2020). Policy mitigation measures have been implemented, including social protection measures, debt relief and fiscal stimuli (Coffey *et al.*, 2020; O'Donoghue *et al.*, 2020; OECD, 2020). The impact on employment from both crises has been highly asymmetric, with younger workers, women and the lower educated more likely to lose their jobs (Jenkins *et al.*, 2013; Adams-Prassl *et al.*, 2020; World Bank, 2020).

Both crises have spawned a wealth of distributional analyses. Inequality analyses of the Great Recession have examined impacts on the labour market (Jenkins *et al.*, 2013; Salgado *et al.*, 2014), the mitigating effects of policy responses (Joumard *et al.*, 2012, Taylor, 2014) and automatic stabilizers (Dolls *et al.*, 2012; Alari and Tasseva, 2020), with a significant focus on the consequences of public finance rigidity and austerity (Matsaganis, 2011; Matsaganis and Leventi, 2013, 2014; Savage *et al.*, 2019; Matsaganis, 2020). Recent studies on COVID-19 in Europe have noted differential distributional effects. In their studies on the UK, Brewer and Gardiner (2020) and Brewer and Tasseva (2021) found that social protection measures—both new ones and existing stabilizers—had an important role in mitigating the impact of the crisis on incomes, leading to an overall reduction in poverty but relatively unchanged inequality. For Italy, Figari and Fiorio (2020) found slight increases in inequality and poverty, although the targeted measures significantly mitigated them. Sologon *et al.* (2022) analysed the impact of policy responses on the household income distribution in Luxembourg, which is a country with a strong pre-crisis system of automatic stabilizers (taxes and benefits). These researchers found that the system absorbed the employment and income shocks very well, with a minimal adverse effect on inequality.

According to the Eurostat Labour Force Survey, Ireland had the largest loss of employment in the financial crisis, with a 14% reduction in employment between 2007 and 2011. In the COVID-19 crisis, Ireland had the second highest fall in employment between the end of 2019 and the second quarter of 2020, when COVID-related economic closures were at their peak. Although there were significant effects on employment during both crises, the consequences for the total economy were differential, with the twelfth lowest GDP fall in the EU during the financial crisis and the largest GDP gain in 2020. This is a reflection of the insulating impact—at least on GDP—of the multi-national sector.

Despite the similarity in terms of the employment severity of the two shocks, the policy responses, their impact on non-discretionary disposable income and the consequential trust in government were different. Along with the UK, Ireland can be classified as having an Anglo-Liberal welfare state regime, with largely Beveridgean flat-rate social insurance benefits supported by means-tested payments, with the primary goal of poverty alleviation (Esping-Andersen, 1990). The response to the COVID crisis was not means-tested or insurance based and—at least initially—not income related. It was more typical of the Scandinavian model, whereas the move to an income-related approach is more akin to the

Continental model (Hick and Murphy, 2021). This reflects the policy agility demonstrated by many countries in responding to the crisis (Moreira and Hick, 2021). Compared with other countries, Ireland recorded a reduction in income inequality following the policy measures introduced during the COVID-19 crisis (Beirne *et al*., 2020; O'Donoghue *et al*., 2020). In this paper, we consider the nature of these policy responses and their impact on purchasing power over the two periods.

After 1 year of the COVID-19 crisis, it was apparent that there was greater policy innovation, greater public–private partnership and a much smaller focus on austerity compared with the financial crisis. In this paper, we examine the policy formation process that resulted in these differential outcomes. Given the need for a speedy response during the COVID crisis, initial policy responses were crude, with policy learning over the crisis resulting in adjustments being made to make policies more targeted. Similarly, the policy response was broader than merely focusing on publicly financed and delivered instruments. Maintaining household incomes and cash flow during the crisis relied on interventions in both the public and private spheres. We consider the impact and timing of these interventions over the crisis.

We contrast the policy response to the COVID-19 crisis (which was relatively generous) with the austerity-focused policy response to the financial crisis during the emergency budget of 2009. The COVID-19 crisis had a much deeper and immediate impact in terms of a change in the number of individuals registered for out-of-work benefits, thus implying the necessary nature of the public policy response. It is still too early to judge the longer-term effects of the pandemic, but after the number of employed individuals sharply decreased in March and April 2020, it started rising again in May (according to the Labour Force Survey and Live Register data).

Methodologically, as there is no detailed household income data available for the middle of the COVID-19 crisis, we utilize a microsimulation approach to 'nowcast' the income distribution. Our nowcasting approach explores the heterogeneity of changes in the population with the aim of producing a real-time picture of the population (O'Donoghue *et al*., 2020; Sologon *et al*., 2022). We 'update' the latest available wave of the European Survey on Income and Living Conditions (EU-SILC) using dynamic microsimulation techniques and real-time detailed statistics on employment, prices and industry-specific wage growth rates to calibrate the simulations and to capture the rapid economic changes.

In the paper, we next reflect on the theory of public and private delivery of welfare state objectives, followed by a description of the new policy measures and existing automatic stabilizers operating during the Great Recession and the COVID-19 crisis.

2. Theoretical framework

When evaluating the impact of policy responses on the purchasing power of individuals during the crisis, we rely on the concept of individual welfare, which we consider as material well-being measured through the purchasing power of individuals.[1] Figure 1 presents a theoretical framework of its formation.

As highlighted by Barr (1992), individual welfare can be generated from four sources: labour market, state, private provision and voluntary welfare. Individuals receive their main

1 Material well-being is an important determinant of psychological and physical well-being, social trust and confidence in government (Cummins, 2000; Marmot, 2002; Gallego, 2016).

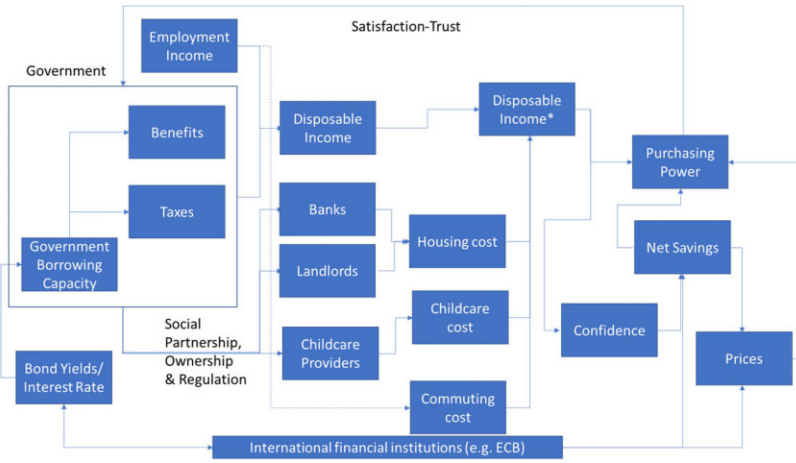

Figure 1. Theoretical Framework.
Source: authors' elaboration.

income from work. In addition, they benefit from different types of occupational welfare, such as complementary pensions, health insurance, transportation and childcare, all provided or co-financed by the employer. The government contributes to individual welfare by redistributing income via taxes and benefits, market regulations, social partnerships and the provision of public goods and services (e.g. education and public housing). Depending on the level of welfare received from the market and the state, individuals may also look for private sources of welfare provision by investing in voluntary private insurance, accumulating savings and redistributing resources within the family.

The level of individual welfare also depends, among other things, on the behaviour of banks and landlords (that predefine the housing costs) and childcare providers (that predefine the childcare costs). These costs may also be influenced by the state, if it opts to provide subsidized housing or childcare. Even in the presence of state interventions, housing and childcare costs normally form a substantial proportion of the expenditure that needs to be covered from disposable income before any further decisions regarding consumption or savings can be made. Depending on their preferences and level of confidence in the government, individuals decide whether to make additional savings or to spend all their disposable income on consumption. Apart from the amount of disposable income, individuals' purchasing power also depends on the prices of goods and services.

Given the objective of the paper, in the following, we discuss in detail the role of the state as a regulator of welfare provided by the market and by private sources.

2.1 The impact of the state on individual welfare

The state can influence individual welfare in multiple ways, by activating a set of policy instruments that have a direct or indirect impact on purchasing power. Given that the purchasing power of individuals depends on the amount of their disposable income and the prices of goods and services, the government can affect it through two channels:

- by influencing the size of disposable incomes (via distribution and redistribution, labour market regulation, etc.);
- by influencing consumption patterns and spending (via price regulation, monetary policy, housing market regulation, provision of public goods, etc.).

Redistribution represents one of the main objectives of the welfare state (Gough, 1979; Barr, 1992), driven by the aim of the government to achieve social justice in society, and the ambition to raise trust in public institutions and maximize voters' support during elections.

Governments redistribute via taxes and benefits. The redistributive impact of taxes depends on their size, portfolio and progressivity. Personal income tax is the most progressive tax, whereas consumption taxes and real estate taxes tend to be regressive in most OECD countries (Joumard *et al.*, 2012). The degree of redistribution achieved by the provision of benefits, in turn, depends on: (a) the type of the transfer (flat rate versus earnings related), (b) the degree of means-testing (targeted versus universal) and (c) the percentage of individual recipients in each income decile (Kyzyma and Williams, 2017).

A flat-rate transfer implies the same payment to all recipients, whereas earnings-related transfers depend on the recipients' previous earnings. In general, earnings-related transfers are less redistributive than flat-rate equivalents, but their redistributive effect also depends on the income position of the recipients (Heady *et al.*, 2001). Targeting refers to the extent to which benefits are directed at specific recipients (e.g. the poor) (Creedy, 1996; Heady *et al.*, 2001). It is usually implemented via means-testing, when the eligibility for a certain benefit is defined by taking into account the entire income (assets) of the household. By contrast, universal benefits are provided without means-testing. By focusing on the provision of scarce resources to those most in need, targeted transfers are believed to be more effective than universal transfers in redistributing income (Savage *et al.*, 2019). However, universal transfers can be equally (or even more) effective alongside progressive taxes as a result of, among other things, lower administrative costs and less stigmatization (Korpi and Palme, 1998).

Labour market regulations serve as another important policy instrument for influencing the amount of individual incomes. By setting a minimum level for workers' remuneration, the government raises the market incomes of those at the bottom of the distribution, improving their living standards and reducing income inequality in the population (Autor *et al.*, 2016). Similar redistributive effects are found for collective wage bargaining: greater collective bargaining coverage is typically associated with reduced market income inequality and vice versa (Hayter and Weinberg, 2011). Lastly, the government also serves as an employer for a substantial proportion of the workforce. As shown by Rueda and Pontusson (2000), a high level of public sector employment increases the demand for a workforce, thereby limiting large wage differentials.

Apart from the interventions directed at disposable income, the state may also affect the purchasing power of individuals by influencing their consumption patterns and spending. Half of welfare state transfers in rich countries are in-kind benefits, such as health insurance, education, public housing, childcare and other services financed or co-financed by the state (Garfinkel *et al.*, 2006). These services are usually more equally distributed than cash benefits, thus reducing inequalities in consumption and standards of living between individuals with different levels of income.

The state also plays an important role in the regulation of the housing market and related individual expenditure. Apart from the provision of housing benefits and subsidized

housing, governments also set regulations for the rental market and mortgages. As shown by Taylor (2014), the demand for housing and housing expenditure depends in part on mortgage requirements and the interest rates imposed on mortgages, which the state may choose to regulate. In periods of crisis, the government may also take the decision to introduce mortgage deferrals and freeze rent payments, thereby helping individuals to maintain their living standards.

Lastly, the impact of the state on individual welfare also depends on the availability of financial resources. The largest proportion of welfare expenditure in modern welfare states comes from taxes and social security contributions (Morel and Palme, 2018). Apart from taxes and social security contributions, governments may also turn to borrowing resources from financial institutions at both international and national levels. Debt financing involves a contract between generations, as borrowing today needs to be paid back in the future. However, in an environment where there is economic growth, the public debt repayment is more theoretical than actual, whereas the cost of borrowing—which depends on bond yields—is more important.

The ability of a government to borrow money also relies on the borrowing rules established by national central banks and supreme international institutions, for example, the European Central Bank (ECB) and International Monetary Fund (IMF). Although the great majority of these institutions (at least at the European level) are designed to be politically independent, in practice they often engage with governmental policies, serving as 'financial stabilizers of last resort' (Diessner and Lisi, 2020). At the EU level, additional regulations on the financing of nation-states are imposed by treaties.

2.2 The role of the state during a crisis

The role of the state intensifies during economic recessions, when it acts as an insurance provider to individuals who experience a decline in income due to the unfavourable economic situation (Dolls *et al.*, 2012; Salgado *et al.*, 2014; Savage *et al.*, 2019; Figari and Fiorio, 2020). As highlighted by Saez and Zucman (2020), governments can prevent a very sharp and short recession from becoming a long depression. On the one hand, employment/income shocks during a crisis activate automatic stabilizers, which cushion the drop in individual incomes via the existing system of taxes and benefits. On the other hand, governments may introduce discretionary policy measures to strengthen the purchasing power of individuals and their families in periods of economic uncertainty.

Dolls *et al.* (2012) found that during the Great Recession of 2008, automatic stabilizers played a key role in providing income insurance, absorbing around 47% of the idiosyncratic unemployment shock in the EU and 34% in the USA. However, the ability of automatic stabilizers to mitigate the impact of a crisis on individual incomes depends on their design, which varies substantially across countries (Dolls *et al.*, 2012; Jenkins *et al.*, 2013; Alari and Tasseva, 2020). Anglo-Saxon systems target low-income individuals and are more generous in the provision of social assistance schemes, while unemployment benefits are flat rate and limited in generosity. Scandinavian and Continental systems have a tradition of insurance-based unemployment benefits, with social assistance schemes providing a safety net of last resort (Salgado *et al.*, 2014). Automatic stabilizers in Eastern and Southern Europe are relatively heterogeneous and much lower than in the Scandinavian and Continental countries (Dolls *et al.*, 2012).

Countries also differ with regard to the discretionary policy measures they adopt to tackle the consequences of a crisis. Like any policy intervention, governmental responses to

a crisis are contingent on the local political and social contexts (Hale *et al*., 2020). They also depend on the government's ability to bear the costs of the recession (borrowing capacity and the availability of budgetary resources). When resources are available, governments may introduce stimulus packages, involving temporary transfer payments to individuals with the objective of increasing their disposable income and stimulating consumption (Dolls *et al*., 2012; Taylor, 2014). In the context of austerity, the welfare state becomes subject to fiscal consolidation measures aimed at reducing welfare provision and increasing taxes (Salgado *et al*., 2014; Matsaganis, 2020).

3. Irish welfare state and policy responses to the financial and COVID crises

3.1 Key features of the Irish welfare state

The Irish welfare system belongs to the liberal welfare regime. As a liberal system, it is characterized by limited state intervention and a substantial role for market forces in welfare provision (Esping-Andersen, 1990; Ebbinghaus and Manow, 2001; Art and Gelissen, 2002; Ebbinghaus, 2012). The key features of the system as described by Ferrera (2013), are Beveridgean 'encompassing' schemes, involving weak universalism (e.g. universal payments for dependent children), occupational welfare for the middle class and social assistance for the poor.

In the way it is designed, the Irish benefits system almost entirely consists of flat-rate payments for different contingencies (unemployment, old age, illness, survivorship and caring). Benefits are either insurance based or means tested for those outside of the insurance system or who have exhausted their entitlements. As a result, the replacement rate (the ratio of out-of-work payments to in-work income) is an important insurance element of the system. In terms of generosity of payments, there had been an improvement in the replacement rate in the run-up to the financial crisis. Recognizing the growing relative poverty rates, benefit rates increased at a rate that was higher than both prices and incomes. The increases in payment rates above the price index—and for some sectors, above the earnings index—continued into 2008 and 2009 for pension recipients.

Compared with other countries having a liberal welfare regime (e.g. the USA and the UK), the Irish welfare system is more generous in terms of average transfer rates and more redistributive due to higher tax progressivity (Sologon *et al*., 2021).

3.2 Two crises

The financial and the COVID-19 crisis were somewhat different, as were the relevant policy responses. The financial crisis began at the end of 2007, after a long period of growth termed the 'Celtic Tiger'. The latter part of the boom was associated with a large increase in private debt that financed an unsustainable construction boom. After the Lehman Brothers collapsed and confidence fell in 2008, a vicious cycle followed, where construction slowed dramatically and house prices dropped, leading to a large decrease in employment in the construction and related sectors. This in turn led to an increase in public expenditure on unemployment benefits. As the banking sector had over-extended itself in property lending, a reduction in the price of property held as collateral undermined the entire banking system, requiring a state bailout. The heavy reliance of public sector revenue on taxes raised from the construction sector, combined with the increase in demand for unemployment benefits,

led to a massive gap between public sector revenue and expenditure. While the main increase in unemployment occurred in 2009, the numbers out of work peaked in 2012, followed by a strong recovery afterwards.

The financial crisis saw a significant reduction in real purchasing power, given the size of the loss of employment noted above, with half of this in the construction sector (Jenkins *et al.*, 2013). The growth in unemployment was concentrated among the young, with youth unemployment increasing from 10% to 19% (Kelly and McGuinness, 2014). While transfers mitigated some of the loss of income—albeit with nominal cuts to some benefits (particularly for young people)—the austerity-focused increases in taxation and charges to fund the budgetary gap were not sufficient to cover the scale of the losses of income in the financial crisis (Bargain *et al.*, 2017). The collapse in youth employment resulted in large-scale migration of young people and readjustments of individual spending and savings, which had a negative knock-on effect in the domestic consumer-based economy (Roche *et al.*, 2016).

The austerity programme had the greatest effect at the top and the bottom of the distribution, as a result of nominal benefit cuts at the bottom and tax rises at the top (Savage *et al.*, 2019). While inequality in terms of disposable income rose slightly, automatic stabilizers reduced the increase in market inequality that occurred. Whelan and Maître (2014) highlight the polarized nature of the effect of the financial crisis, with the growth of the 'squeezed middle' who were disproportionally affected; particularly skilled manual and non-manual workers—the petit bourgeoisie. Salary earners and people self-employed in agriculture were largely insulated, while the position of the unskilled and those who had never worked remained largely the same, with an overall reduction in social class advantage (Whelan *et al.*, 2018).

The crisis began as a fiscal one, with a growing gap between expenditure and revenue, but became a banking crisis putting significant pressure on the state to fund public expenditure. As a proportion of GDP, Ireland's general government gross debt rose from a little over 25% in 2007 to 120% in 2012, or 160% of GNI (Honohan, 2016). Interest rates rose rapidly, particularly in 2011, driven primarily by fundamental aspects of the economy and public finances, including debt ratios, public sector balance, loss of investment-grade ratings and policy interventions such as access to emergency liquidity. However, the interest rate spike was higher than could be explained through normal fundamentals. Purdue and White (2014) speculate that the most likely explanation is a temporary collective movement due to fear and uncertainty (about government bond default and/or euro exit) that is divorced from the fundamentals.

The tax increases were not sufficient to fund the budgetary gap. Given bond holder sentiment about Ireland and other countries at the time, and the resulting size of the bond yields, the country had to make use of an EU-IMF financial support programme at the end of 2010 (Honohan, 2016). Honohan argues that while interventions prior to the crisis might have mitigated the need to take these measures, there were few alternatives available at the time. However, he argues that a more innovative approach to state financing could have lessened the impact of the downturn.

The fall in purchasing power during the financial crisis in Ireland had other consequences, such as an increase in ill-health from 13% to 15%, with growth in financial hardship and associated stress being the largest associated causes (Mazeikaite *et al.*, 2019).

The COVID-19 crisis was different. Whereas the financial crisis was driven by four interconnected issues—i.e., property market, banking, fiscal and financial crises (Donovan and

Murphy, 2013)—the COVID crisis was a purely exogenous shock, reflecting a major external event resulting from the Coronavirus (Allen-Coghlan and Varthalitis, 2020). The economy had been growing strongly since 2012, and although it had not reached the same employment rate as in 2007, the numbers in employment surpassed the 2007 levels and public finances were balanced. Most of the growth was due to export sectors, such as international finance, technology, pharma-medical and food. The main pressures in the property sector were due to rental prices, which had increased because of population growth during a time of limited house building. The crisis was driven by businesses closures put in place to avoid social interactions. Those that remained open were either providing essential services or could continue to function online. During the first wave of the epidemic, in the spring and early summer of 2020, some 598,000 additional people were out of work because their businesses had closed due to COVID-19. In addition, over 50,000 were out of work due to either having to self-isolate because of a positive test or diagnosis for COVID-19, or because of close contact with someone infected. The most affected sector was by far that of accommodation and food services, which relied on face-to-face interaction.

The COVID crisis saw a period of lower bond yields than the financial crisis, albeit the general government gross debt as a proportion of GDP/GNI was lower (62.6/107.8%). There were a number of interventions by Central Banks such as the Pandemic Emergency Purchase Programme, Asset Purchases and Liquidity Provision by the ECB. Aguilar *et al.* (2020) found that the effects of these programmes were to reduce sovereign bond yields, increase stock market indices in the Euro area and lessen volatility. However, there is no uniform agreement about the causality of the ECB intervention (Bernoth *et al.*, 2020). In addition, the low-interest rate strategy preceded the COVID crisis, with real short-term interest rates remaining negative after the financial crisis (Mayer and Schnabl, 2021). Regardless of the extent to which the ECB intervention affected bond yields, it is clear that the yields remained lower than during the equivalent debt stage of the financial crisis. As a result, access to cheaper sovereign debt in the COVID crisis mitigated the need to increase taxation (Aguilar *et al.*, 2020).

Monetary policy interventions by the ECB also affect consumers via two channels: a direct impact on incentives to save (and on households' net financial income) and an indirect impact through general equilibrium responses in wages and prices (Ampudia *et al.*, 2018). The direct effect can be ambiguous depending upon the balance of debt, reliance on income from savings and the proportion of income spent within a household, while the indirect effect is positive, at least in the short term. The direct effect varies across countries depending upon the relationship between debt and income along the income distribution (O'Farrell *et al.*, 2016). While there is no direct evidence available for Ireland, in a long-term study in the UK, Mumtaz and Theophilopoulou (2017) found that quantitative easing might have increased inequality to capital income gains at the top of the distribution, dominating lower consumer price growth at the bottom. However, indirect effects tend to be larger, with the combined direct and indirect effect of lower interest rates benefitting households in the Eurozone (Ampudia *et al.*, 2018).

3.3 The social policy response

The policy response to the two crises was different in Ireland. In both, the tax-benefit system underwent structural changes in order to deal with the issues that arose. In the 2007–2012 crisis, the structural changes related mainly to reducing the cost of the support measures and

other welfare services. These included factors that influence social insurance coverage, such as increases in contributory requirements or reductions in the length of entitlement to social insurance benefits. A number of support measures were withdrawn, including the early childcare supplement and mortgage interest relief. A new substantially-reduced rate band was introduced for young people, and the extra payment to social welfare recipients at Christmas was withdrawn. A new pension contribution for public sector workers was introduced to reduce the net cost of occupational pensions. Consequently, there was a fall in social welfare payments for working-age people and a near halving for younger people in 2010. There were also pay reductions for public sector workers.

In the COVID-19 crisis, an entirely new system of support was introduced on 15 March 2020, with less stringent compliance costs and regulations.[2] A new pandemic unemployment payment (PUP) was created for those who lost their job. A similar, although less-stringent, sickness benefit was created for people unable to work due to a COVID-19-related illness or due to self-isolation because of a close contact. As the crisis was expected to be temporary, the government established a wage subsidy payment to maintain a connection between employees and their employers until the crisis abated.

At the start of the COVID-19 crisis, payment rates for the new benefits were aligned with the pre-existing payment rates for unemployment benefits. However, given the scale of the crisis and the relatively low replacement rate for many workers, it was recognized that the rates of payment would not be sufficient. Another issue that became relevant was the fact that parents using childcare facilities would continue to remain liable for the payments, even if they lost their job. As Ireland has some of the EU's highest childcare costs as a percentage of employment income, this would have represented a significant burden on parents who could no longer work (Immervoll and Barber, 2006). In response to these pressures, the state moved rapidly to change the unemployment and sickness-related payment rates from €203 per week to €350 within a fortnight of the start of the crisis (Table A.8 in Online Appendix).[3,4] In addition, the wage subsidy payments were increased (see Table A.9 in Online Appendix).

More frequent policy changes in response to the shock were part of both crises. A 'supplementary budget' was announced in April 2009, as the economic crisis accelerated and public finances worsened in Ireland. However, in the COVID-19 crisis, changes were even more frequent and more rapid. The initial system was created with very limited time to assess its effects. An attempt was made to introduce greater wage support for low-paid workers who remained in employment, and as a result, a highly complex wage subsidy was established on 26 March 2020. There were initially some concerns expressed by businesses in relation to the implications for higher-paid workers, so a revision to the scheme was introduced on 4 May 2020. In this case, the extent of the wage subsidy for higher-paid workers depended on the employer's contribution.

Unemployment and sickness payments were initially flat rate in nature. In the second iteration of reforms, when payments were €350 per week, we calculate that 33% of employees

2 In this paper, we focus primarily on social policy responses to the COVID crisis. For a more comprehensive description of wider policy responses, see Kennelly *et al.* (2020).

3 https://www.irishtimes.com/news/ireland/irish-news/coronavirus-creches-will-not-ask-parents-for-fees-after-deal-with-state-1.4211230

4 https://www.kildarestreet.com/debates/?id=2020-05-06a.155&s=speaker%3A445

had a higher rate of pandemic unemployment payment than their previous wage (on an annualized basis), particularly part-time workers. In the fourth iteration of reforms, on 1 July and after the bulk of the first wave had passed, pandemic payments were split into two rates: (i) a regular unemployment level of €203 was paid to those with a previous income of less than €200 per week, and (ii) a €350 per week payment remained for higher earners. The structure became more nuanced and less generous in September, with the introduction of three rates of €203, €250 and €300 per week, for prior weekly earnings of under €200, €200–€300 and over €300, respectively. This change also saw the wage subsidy scheme revert to a flat-rate payment, with two bands of €151 and €203. The proportion of employees with higher wages than the PUP was 28% at €300, 24% at €250 and 19% at €200. On 16 October, as the second wave of COVID-19 took off, the PUP rate of €350 was reintroduced for those earning €400 or more, while four bands were also introduced for the wage subsidy scheme. These frequent policy changes, while responding to needs and learning over the course of the crisis, brought along confusion and higher compliance costs for those participating in or managing the programmes.

3.4 Financing the policy response

The impact of a policy response on incomes depends not only on the policies introduced, but also on how they are financed. The crisis in the period prior to 2010 had moderate bond yields, so the cost of borrowing was important. The fiscal environment in the EU was relatively conservative. As a result, the budgets in 2008 and in 2009 had significant tax increases that were required to fund the public expenditure increases. The deteriorating public finance bond yields skyrocketed in 2010, effectively locking Ireland out of international bond markets. Consequently, on 28 November 2010, the European Troika of the European Commission, the European Central Bank (ECB) and the International Monetary Fund (IMF), agreed a lending programme of €85 billion from these sources and from Ireland itself.[5] These were accompanied by an austerity programme for public expenditure, aimed at restoring balance in the public finances, with significant distributional implications (Callan *et al.*, 2014; Whelan and Nolan, 2017).

This programme, combined with the quantitative easing of the ECB and the commitment made by ECB President Mario Draghi in July 2012 to do whatever it took to preserve the euro, saw bond yields fall. It should be noted that most of the austerity programme was actually implemented by the Irish government in advance of the arrival of the Troika (Roche *et al.*, 2016). Honohan (2016) questions whether the return to lower bond yields could have been achieved less painfully through the use of other financial measures at the European level, but highlights, in particular, the role of policy failure in advance of the collapse that could have avoided much of what happened later.

The public finance environment for the COVID-19 crisis was different, although not as robust from a debt point of view as in 2007. The annual public finances had moved to being in balance before the crisis. Recovery from the crisis resulted in a relatively low bond yield compared with other countries, particularly the Southern European ones (Portugal, Italy, Greece and Spain) that had experienced a major financial crisis. When the COVID-19 pandemic struck, the ECB responded more quickly with monetary policy measures that kept bond yields low. As a result, in 2020 (and expected to be the same for 2021), the cost of

5 https://www.imf.org/en/Countries/IRL/ireland-from-tiger-to-phoenix

funding policy measures to mitigate the COVID-19 crisis came from borrowing rather than from taxation or expenditure reduction measures.

3.5 Social partnership

A feature of the Celtic Tiger in the 1990s was the system of social partnerships between government, unions, industry and the NGO sector, established in 1987 (O'Donnell and O'Reardon, 2000). It allowed for dialogue between social partners in making major policy reforms. However, during the financial crisis in 2009, this system collapsed, as the state bypassed the unions in reducing public expenditure and cutting public sector salaries (Maccarrone *et al.*, 2019).

During the COVID-19 crisis, although there was no formal social partnership process, a series of government negotiations with important social partners facilitated a unified approach to the pandemic, enabling private sector measures to mitigate the impact of the crisis. In particular, these included important financial costs related to childcare, housing and commuting. A key point highlighted above was negotiating an agreement with childcare providers not to charge fees to parents when childcare facilities closed during the crisis.[6] About 85% of providers signed up to a scheme that provided support with overheads and a wage subsidy to businesses, in return for not charging fees.

Another important pillar of private sector mitigation measures was the provision of mortgage payment breaks by the banks (Kennelly *et al.*, 2020). In the previous crisis, equity bailouts of the banking sector left the Irish state with significant shareholdings in three of the five main retail banks, meaning that the state had more direct influence over the decision-making of the Irish banks. Under guidance from the European Banking Authority, and after negotiations with the Irish state, the five main Irish retail banks enabled 67,000 mortgage holders to take advantage of payment breaks by the end of May; about 10% of the total number of mortgage holders. The proportion rose to over 14% where the loan-to-income ratio exceeded four (Gaffney and Greaney, 2020). In the financial crisis, the combination of unemployment and high prior lending led to 7.4% of mortgages being in arrears of 90 days or more (Lydon and McCarthy, 2013). However, the response of the banks was ad hoc. Although relatively few mortgages were foreclosed during the financial crisis,[7] there was no formal insolvency management process until 2012, meaning that households in arrears would have endured a relatively stressful time engaging with their banks until resolutions were found. Early agreements with banks meant that these experiences were largely avoided in the COVID-19 crisis.

In relation to rental accommodation, the state introduced a rent freeze and a moratorium on evictions during the COVID-19 crisis (Kennelly *et al.*, 2020). From a supply-side point of view, the reduction in the tourism market saw a shift of many properties from the Airbnb sector into longer-term leases, with a 92% growth experienced in Dublin and 41% increase outside the capital (Allen-Coghlan and McQuinn, 2021).[8] Coffey *et al.* (2020) examined

6 https://www.earlychildhoodireland.ie/wp-content/uploads/2020/09/Dealing-with-the-Pandemic-Report.pdf

7 https://www.irishtimes.com/business/economy/homes-of-nearly-8-200-irish-mortgage-holders-repossessed-since-crash-1.3421091

8 https://www.irishtimes.com/business/economy/pandemic-reveals-impact-of-airbnb-on-irish-rental-market-1.4335784

rental affordability, which was challenging prior to the crisis, and concluded that the pandemic would not have made these affordability challenges any worse as a result of the generous support and the slight fall in rental prices due to extra supply.

4. Methodology and data

We are faced with a number of methodological challenges in relation to comparing the two crises, due to the lack of contemporary data covering the COVID crisis. As a result, out of necessity, we need to simulate or 'nowcast' some data. Although we have actual data for the financial crisis, there is a risk involved in comparing changes in actual data with those in simulated data. The primary differences are that simulated data ignore changes in underlying demographics and education levels. They also ignore changes in the sample. Thus, the nowcasted population assumes a constant demographic structure and inter-household characteristics. To avoid 'comparing apples and oranges', we accordingly chose to simulate both periods.

In order to circumvent the lack of up-to-date household survey data for the COVID crisis, we utilize a nowcasting approach that captures the heterogeneity of changes in the population with the aim of producing a real-time picture of the population (see O'Donoghue *et al*., 2020 for details). We 'update' the latest available wave of the EU-SILC using dynamic microsimulation techniques and real-time detailed statistics on employment, prices and industry-specific growth rates.[9] These control totals are used to calibrate the simulations and to capture the rapid changes in the economy during the crisis, including its heterogeneous consequences for various population sub-groups.

The procedure involves the simulation of disposable income, which is composed of market incomes, benefits and taxes. These depend on personal, household and labour market characteristics, as well as tax-benefit parameters. In order to take into account the asymmetry of the shock on households' standard of living, we use an augmented definition of disposable income that accounts for housing costs, work-related expenditures (such as childcare and commuting) and capital losses (O'Donoghue *et al*., 2020).

Our approach relies on three components, illustrated in Figure 2:

- Income generation model (IGM);
- Tax-benefit model;
- Calibration model.

The IGM relies on estimating a system of sequential equations that model the process of income formation for the various components of household income (Sologon *et al*., 2021): labour income (employment and self-employment), capital income (property and investment) and other income (private pensions and any other sources). The structure of the labour market is modelled in the Labour Market Module, whereas the levels of income

9 Our approach is in line with the latest developments in the field (O'Donoghue *et al.,* 2020 and Sologon et al., 2022) and goes beyond most of the existing literature, which only applies price inflation factors and proportional changes to the employment rate in specific industries (Navicke *et al.,* 2014).

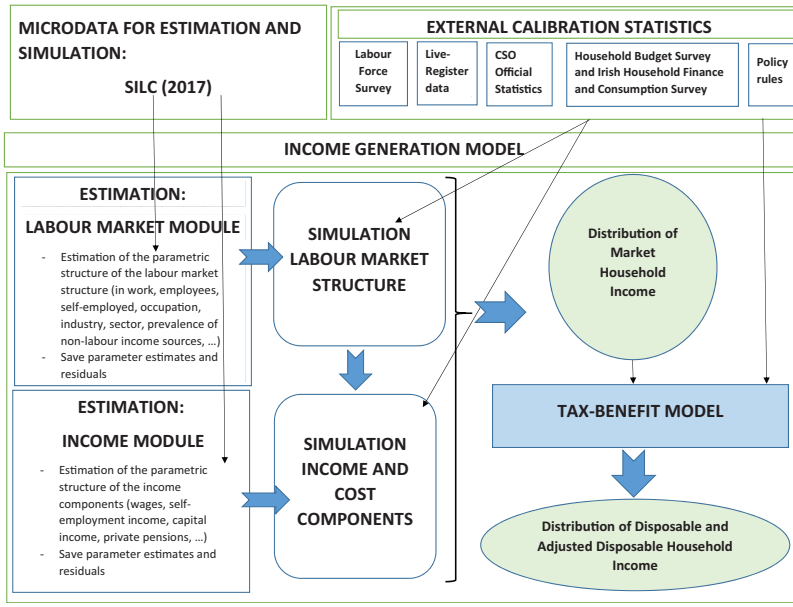

Figure 2. Model infrastructure.
Source: Authors' elaboration.

sources are modelled in the Income Module (Figure 2). To convert market income into disposable income, we apply the NUI-Galway tax-benefit microsimulation model for Ireland (O'Donoghue, 2014; O'Donoghue *et al.*, 2018). The estimates of the income generation model and the tax-benefit rules are used to simulate/project the distribution of disposable income. O'Donoghue *et al.* (2018) undertook a substantial validation of the simulation properties of the model.

We use two data sources: (i) microdata to estimate/simulate the IGM and (ii) calibration data to align the simulations with the labour market, prices and income growth changes. Our microdata are the 2008 and the 2017 EU-SILC (Irish component), containing detailed information on the demographics, labour market characteristics, incomes (with a 1-year lag) and living conditions of the households.

In order to calibrate EU-SILC data to reflect the real-time population during the crisis, we use timely external calibration control totals based on the Labour Force Survey, the Live Register and price data. First, we align the structure of the labour market in terms of employment, occupation, industry and unemployment, differentiated by age and gender. Once the labour market is re-simulated and each individual is given a new labour market status, we re-simulate incomes using the IGM as a function of their demographic and labour market characteristics.

In order to account for the differential income growth across industries, we update earnings using industry-specific growth rates. The other income sources are updated using the consumer price index. For capital income, we use the GDP per capita.[10] Lastly, we update the tax-benefit parameters and the rules to reflect the policies during the desired

target period. For the augmented definition of disposable income, we further deduct housing and work-related expenses using data from the Household Budget Survey 2016 and the Irish Household Finance and Consumption Survey 2018.

For the COVID period, we use the estimates of the IGM based on the EU-SILC 2017. Using quarterly data, we nowcast to quarter 1, 2020. This is the pre-COVID baseline distribution against which we evaluate the replacement rates of the system during the crisis. For the period during the crisis, we use weekly data. We nowcast the distribution to reflect the peak of the crisis (the week of 5 May). All the policy changes and innovations during the crisis are evaluated against the shock at the peak.

For the financial crisis, we estimate the IGM using the EU-SILC 2008, which we then use to nowcast the data to quarter 2 for each year from 2008 to 2011. The year 2008 represents the pre-crisis baseline distribution, against which we evaluate the replacement rates of the policy changes introduced during the financial crisis and the recovery period.[11]

5. Results

Comparing the impact of the two crises in terms of employment (Figure 3), the COVID crisis was deeper and more rapid. The starting positions in both crises were similar, albeit the employment rate at the bottom of the adjusted equivalized disposable income distribution was higher during the COVID-19 crisis than during the financial crisis. The biggest fall in employment in the financial crisis occurred in 2009, followed by 2010, with smaller drops occurring in 2008 and 2011. During the COVID-19 crisis, the week of 5 May (the peak of the first wave) showed the largest fall in employment. By the end of the first wave (the end of August), the employment rates had increased, but stayed close to the lowest point in the previous economic crisis.

In order to understand how the insurance mechanism of public policy worked during the crises, we utilize replacement rates, defined as the ratio of out-of-work income to in-work income (Callan *et al.*, 1996). The higher the ratio, the higher the insurance impact of alternative income sources.[12] Figure 4 reports a stylized replacement rate for a single earner on different wage rates. The bands were selected on the basis of the instruments developed in the COVID crisis that varied by previous earnings. The unit of analysis is the individual and the income considered is gross (i.e., before taxes and contributions).

Replacement income benefits did not vary substantially over time in the financial crisis, and were higher for those with lower previous earnings. In 2007, for example, they ranged between 97.8% for people with an income of €190, and less than 30% for those earning the

10 Capital incomes at the very top of the distribution are typically underestimated in survey data (Ooms, 2021). The EU-SILC data for Ireland in 2018, however, were drawn from register data. As shown by Carranza *et al.* (2021), inequality estimates for Ireland based on recent EU-SILC data, therefore change little when top income adjustments are made using the World Inequality Database. However, this may not be the case for 2008 EU-SILC data, which were mainly collected via a survey. Hence, we may somewhat underestimate inequality levels in 2008.

11 We nowcast the situation during the 2008 crisis in order to control for demographics and survey changes that would be present if we used actual data instead of nowcasting. Using the same approach for both periods allows us to draw policy learning from the two crises.

12 While higher replacement rates are often regarded as a measure of disincentives to work, they are also used to assess how well standards of living are protected when out of work.

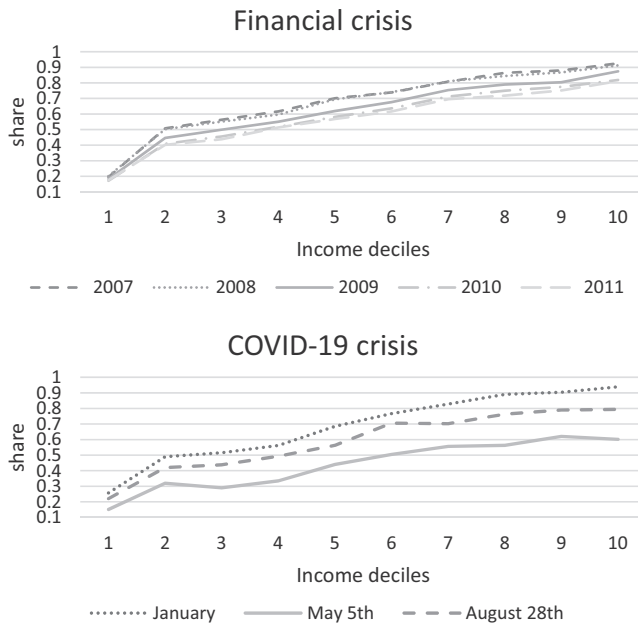

Figure 3. Proportion of individuals in work by deciles in adjusted equivalized disposable income (%).
Note: Based on Table A.1 in Online Appendix A.
Source: Author's calculations using EU-SILC data.

average wage.[13] The replacement rate exhibited the same trend over the crisis, as unemployment assistance was increasing until 2010 when it fell in nominal terms.

In the COVID-19 crisis, the gross individual replacement rate was very similar to that in the financial crisis in mid-March 2020, when the level of the Pandemic Unemployment Rate was set at the level of the 'normal' system. However, when the enhanced payment levels were introduced on 24 March, the replacement rate became much higher than under the earlier system, with anyone earning less than €350 pre-crisis having a replacement rate of 100% or greater. The reduction of the lower rate of payment for those earning less than €200 saw their replacement rate fall back at the end of June, and for those on higher earnings, in mid-September. Hence, the replacement rates were much greater during the COVID-19 crisis than during the financial crisis.

5.1 Distributional impact of policy interventions

Figure 5 shows the distribution of the gross replacement rates at an individual level across six replacement rate bands and for different systems covering the two crises. It should be noted that it includes all individuals and not only single earners (as in Figure 4). The upper panel reflects the replacement rates for the 2008, 2009, 2010 and 2011 systems evaluated against the respective pre-crisis situation. The lower panel reflects the replacement rates of

13 In 2007, this was €685, before rising to €708 in 2008 and 2009, falling in nominal terms to €694 and €690 in 2010 and 2011, respectively.

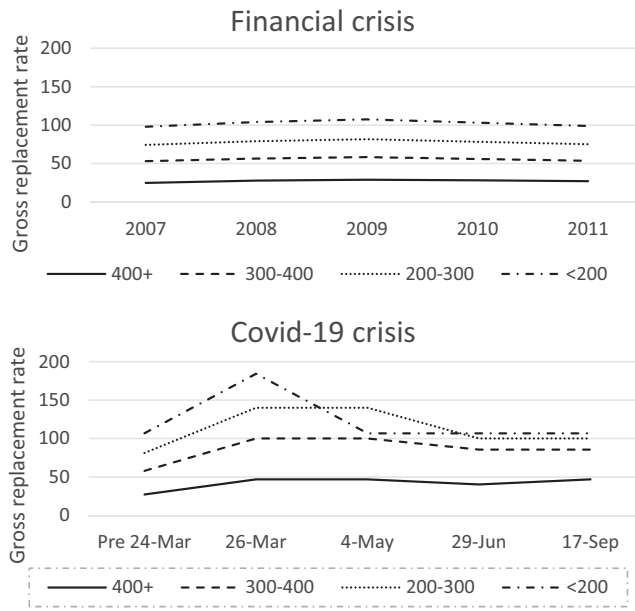

Figure 4. Gross replacement rate for unemployment benefit for single earner in the financial and COVID-19 crises (in %).

Notes: The wage bands represent gross weekly earnings. For the lowest band, we assumed the earnings of €190 if previous earnings were less than €200. Based on Table A.2 in Online Appendix A.

six policy systems (January to September 2020), evaluated against the shock at the peak of the crisis (May 2020). The distribution depends on both the income replacement benefit (the numerator) and the individuals' pre-crisis income (the denominator). Comparing the two crises, we find a smaller proportion of individuals with a low replacement rate (less than 20%) in the COVID crisis than in the financial crisis.

For the other bands, the story is not as clear cut. At the other end of the distribution, the earlier years of the financial crisis involved a larger proportion of those with replacement rates of over 100%. Part of the reason for this is that the financial crisis started more slowly, with a relatively small number of people losing their job in 2008. One of the features of the model is that those with the lowest employment potential (low levels of skills or experience, working in sectors that were disproportionally affected by the crisis, working part-time or part-year or with caring responsibilities) lose their jobs first. People with these characteristics have lower earnings and as a result have higher replacement rates with benefits that are not dependent on income. Gradually, as the crisis evolved, a greater proportion of those with higher earnings lost their jobs, resulting in a falling proportion of higher replacement rates up to 2011. In the COVID-19 crisis, the onset was rapid, with businesses closing due to regulations rather than through a gradual process. Thus, a greater number of those with higher incomes lost their job immediately.

For this reason, 2011 is a better comparator with the COVID-19 crisis. In 2011, 66.4% of those who lost their job had a replacement rate of less than 40%. The percentage of

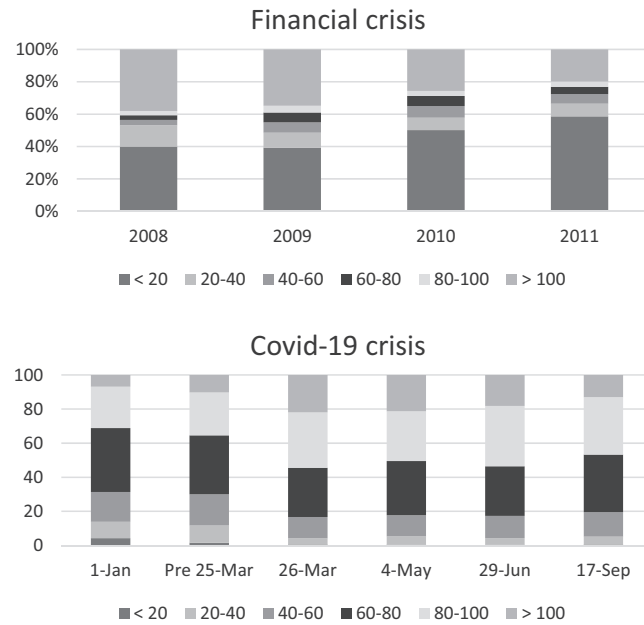

Figure 5. Distribution of gross replacement rates at the individual level (%).
Note: Based on Table A.3 in Online Appendix A.

individuals with the same replacement rate would have been much lower during the COVID crisis even if the reductions in income in May 2020 were compensated with the pre-crisis benefit schemes. When the COVID-specific income support schemes were introduced, this percentage fell even further. Looking at the other side of the distribution, in 2011, some 27.5% of people who lost their job had a gross replacement rate of over 60%, which was close to the position if the January 2020 system had applied to those who lost their job at the beginning of the COVID crisis. However, it rose to 45% when the more generous benefits system was introduced on 25 March. Categorizing replacement rates of 60% or higher as generous, the introduction of the lower-income compensation rate in June slightly reduced the proportion of the high replacement rate, while the reduction in the higher PUP rate to €300 in September reduced the proportion to below 40%.

Turning to household disposable income (after subtracting taxes and contributions), in Figure 6 we report the distribution of replacement rates at the household level. In order to account for housing and work-related expenses, we further adjust disposable income for these factors.

As in the case of the gross individual-level replacement rate, 2011 is a better comparator. In the early part of the financial crisis, there were more cases where only one spouse lost their job, enabling the other partner's income to partially insulate from this loss. As a result, over 90% of households had a net replacement rate of over 60% in 2008. However, this declined to less than 70% in 2011. This is similar to what would have been observed at the peak of the COVID-19 crisis if the January 2020 system had been in place (instead of the

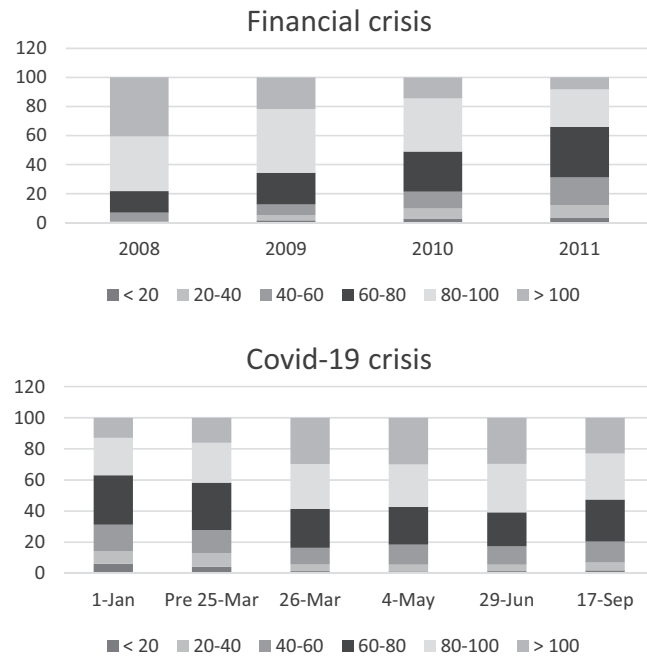

Figure 6. Distribution of household net replacement rate (incorporating work-related and housing-related expenditures) (%).

Note: Based on Table A.4 in Online Appendix A.

crisis-induced policy innovation). The 26 March system increased the proportion of replacement rates of 60% or higher to over 83%, with greater targeting in subsequent reforms reducing this to under 80% in the September system.

Figure 7 illustrates the change in income components pre- and post-crisis for the 2011 system in the financial crisis and the May 2020 system in the COVID-19 crisis. Market income is split into two: 'own income' for the person who lost their job and 'other income' for others in the household. We see that in 2011, other market income stayed on average at 73% of the pre-crisis levels for those with the highest replacement rates, while the figure was only 12% on average for those with the lowest replacement rates. Given the higher employment losses in May 2020 than in 2011, other family income had a smaller effect, at 45% of pre-crisis levels. Benefit levels increased radically more, reflecting the higher gross replacement rates reported above. Given the greater loss of other market income, taxes and contributions fell more for the high replacement rate group in 2020 than in 2011. In addition, income support measures in 2011 were funded by higher taxation, whilst in 2020 these measures were funded from future debt, further impacting on the way taxation helped to reduce the gap between in-work and out-of-work incomes.

Lastly, as a result of social partnership measures in relation to rent freezes and mortgage interest deferrals in the 2020 crisis, 'compulsory' expenditures relating to work and housing costs fell more for those with higher replacement rates in 2020, further insulating household living standards in the crisis.

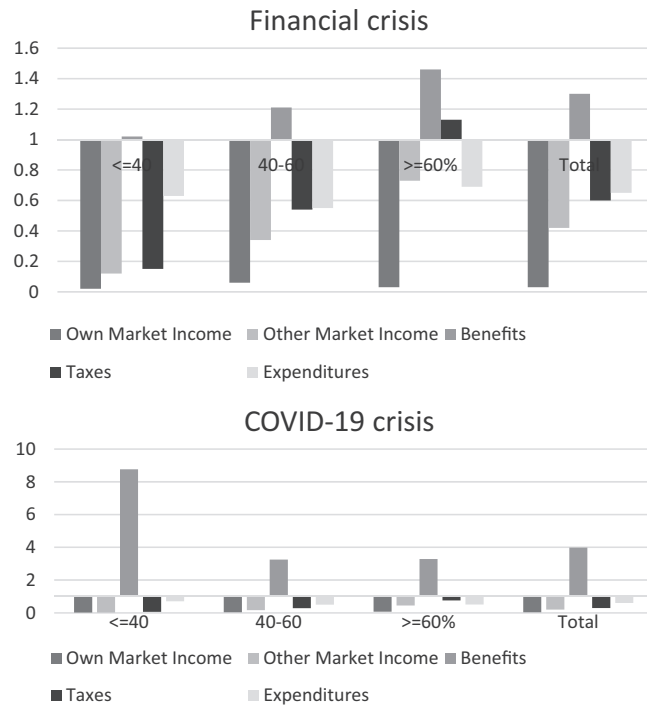

Figure 7. Change in income components by net replacement rate for those who lost their job during the crisis.

Note: Based on Table A.5 in Online Appendix A.

Table 1 details the average change in these 'compulsory' costs pre- and post-crisis for those who lost their job during either crisis. We note in both cases that childcare and commuting costs fell when people lost their job, but that nominal housing costs did not change in 2011.[14] The population that lost jobs in the financial crisis were younger and less likely to have children, reflecting lower childcare costs. Pre-crisis, the commuting costs were similar for both population groups. However, as many of those who remained employed in the COVID-19 crisis were able to work from home, their commuting costs fell by more than in the financial crisis. Deferred mortgage payments reduced compulsory costs in 2020, nevertheless, it should be noted that housing costs were much higher in 2020 than in 2011, reflecting both the fact that housing costs had increased and that the COVID-19 crisis had a greater effect on those who were middle-aged and had substantial mortgages than those who were affected in the financial crisis.

In Figure 8, we report the change in the average replacement rates across the pre-crisis income distribution, taking adjusted equivalized household disposable income as the basis of the deciles. In most cases, the average net replacement rates were higher at the bottom of the distribution than at the top. However, given the relative importance of the PUP, and the

14 In reality, many individuals stopped paying their mortgage and accumulated unauthorized mortgage arears, bringing with it the stress associated with lawyers' letters and court cases.

Table 1. Average 'compulsory' costs for the unemployed in both crises

Expenditures related to	Financial crisis			COVID crisis		
	2007	2011	2011/2007	2020 January	2020 May	May/January
Childcare	897	386	0.43	1889	258	0.14
Commuting	2723	1352	0.50	2780	419	0.15
Housing	1619	1619	1.00	4603	3815	0.83
Total	5239	3357	0.64	9272	4491	0.48
Housing share	0.309	0.482		0.496	0.849	

lower pre-crisis incomes at the bottom during the COVID-19 crisis, we see how the crisis reduced inequality.[15] The greater targeting of the PUP resulted in an increased average replacement rate at the bottom of the distribution. Even with the more-constrained system in September, the average replacement rates for those in the bottom two deciles were over 100%. We decomposed this analysis by the sex of the head of household (see Figure A.1 in online Appendix A), but did not find a major difference between the households.

In the short term, what matters to a household's financial well-being is its capacity to purchase the normal basket of goods and services that it consumes. Utilizing the relationship between disposable income and expenditure from the Household Budget Survey, in Figure 9 we show the consumption patterns during both crises as a percentage of the disposable income measured in the pre-crisis periods. As savings increase with higher earnings, the proportion of disposable income used for consumption declines over the course of the income distribution. It is also often above 100% at the bottom of the distribution, as poor people sometimes consume from savings if they temporarily do not have a sufficient inflow of income.

The amount of purchasing power for consumption depends on prices. Prices fell in both crises as a result, in part, of lower demand. As these price drops were larger for necessities (such as rent or fuel) than for other items, and as the poorer consume a higher proportion of necessities than the wealthier, the price falls were felt more by poorer people.

Applying the replacement rate to previous income and adding savings from the pre-crisis year, we obtain an estimate of potential consumption in the crisis year.[16] As a result of the lower replacement rates in 2011, potential consumption is less than pre-crisis disposable income across all deciles, with most deciles having about 85% of pre-crisis potential expenditure. This presumes the dissaving that originally took place must be replenished. It also means that those in the bottom six deciles have lower potential consumption than pre-crisis, without savings, while those in the top four deciles still have the potential to save. However, in the COVID-19 crisis, the higher average replacement rates mean that—in the absence of savings—all have the capacity to meet pre-crisis consumption. Adjusting for the lower prices that pertained post-crisis increased purchasing power in both cases, particularly for the poorest, but it did not change the conclusions significantly.

15 It should be noted that this table only includes those who lost their job. Incomes also changed for those who remained in work, if their work-related costs fell as a result of lower commuting or childcare costs.

16 Although this presumes that all savings would be usable in the crisis year, it is an indication of potential consumption.

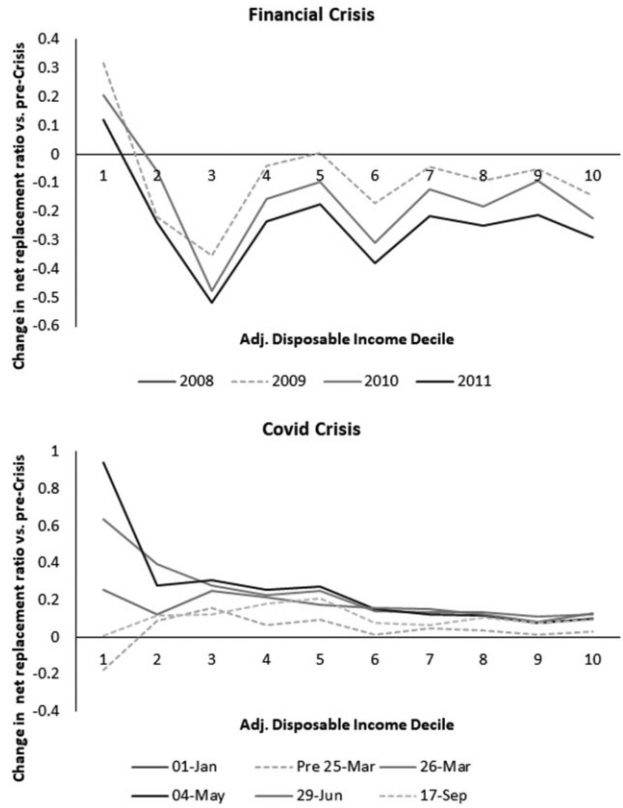

Figure 8. Change in the average adjusted net replacement rate by pre-crisis deciles.
Note: Based on Table A.6 in Online Appendix A.

6. Discussion

Drawing on the theoretical framework, the response to the COVID crisis was more generous than that in the financial crisis. Although there was a large increase in expenditure in the former, low-interest rates (due to ECB interventions) enabled additional and more generous expenditures to be incurred without contemporaneous financing through taxation. Although the COVID crisis was deeper and more rapid, the potential for the family as an insulating mechanism was smaller than during the financial crisis, particularly in the earlier years. This was nevertheless compensated by the higher generosity of the benefit system, which enabled replacement rates or the insulating impact of public policy to be greater.

Compared with the financial crisis, another important feature of the COVID crisis was the use of non-fiscal instruments, such as regulation in the case of rental markets, public sector ownership in relation to mortgage deferrals and social partnership in relation to childcare costs to defer and protect some of the non-discretionary costs that households faced. In the case of those who lost their job, this improved their purchasing power and reduced their potential financial vulnerability.

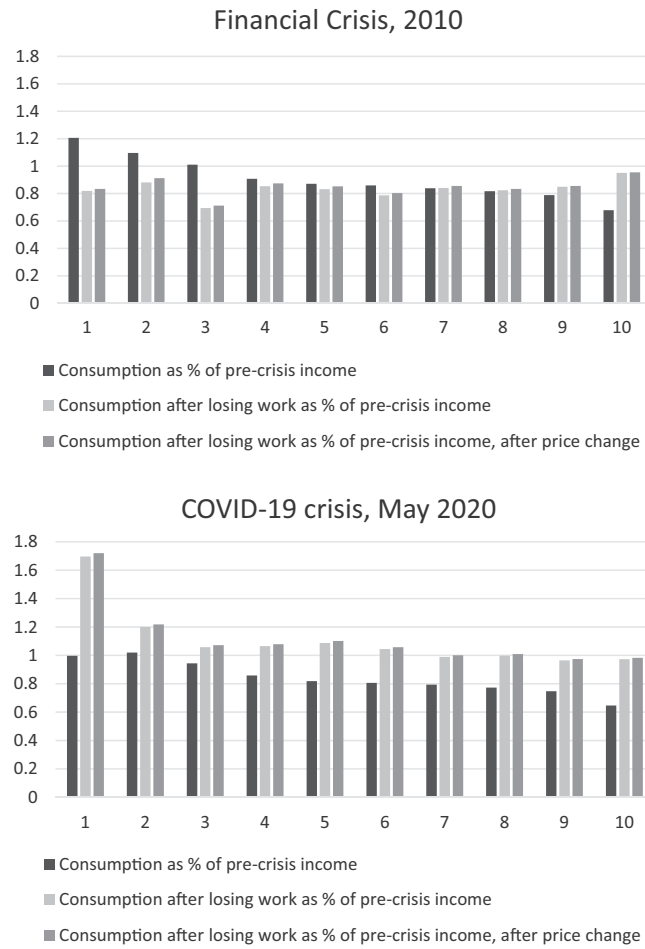

Figure 9. Purchasing power by pre-crisis deciles.
Note: Based on Table A.7 in Online Appendix A.

Overall, although in both crises the responses were skewed towards the bottom of the distribution, the COVID reforms were better able to protect consumption levels for all income groups than the responses in the financial crisis. Key to enabling a more insulating impact of the tax-benefit system in the COVID crisis was the rapid introduction of a more generous benefit with uniform entitlement for those who lost their job. This instrument improved the replacement rate of higher-income workers relative to the 'normal' system that prevailed prior to the crisis.

In the COVID-19 crisis, while some countries made relatively minor changes to exiting policy instruments (e.g. Luxembourg), other countries had to introduce radically different policies from their prevailing systems. Ireland falls within the latter category, together with other two Anglo-Saxon systems: the UK and Australia. The 'normal' Anglo-Saxon system

relies on means-tested benefits designed to reach the poorest parts of the population (Esping-Andersen, 1990). Unemployment benefits have short durations, relatively low generosity levels (at two-thirds of the average wage, the replacement rates for a single person without children are 50–60% for Ireland and the UK, and 40% for Australia)[17] and are often means-tested.

The discretionary policy measures introduced in response to the COVID-19 crisis (for example, short-time work schemes and similar) aimed to secure employment during the peaks of the crisis. They offered broader eligibility criteria than the standard unemployment schemes and high replacement rates: 80% in the UK (subject to a maximum threshold), a maximum rate of €410 per week per qualifying employee in Ireland (at least at the beginning of the crisis) and a flat rate of €460 per week in Australia. Short-time working schemes had a key role in mitigating market income losses in Ireland, the UK and Australia during the COVID-19 crisis (Figari and Fiorio, 2020; O'Donoghue *et al.*, 2020; Brewer and Tasseva, 2021; Li *et al.*, 2022). These discretionary measures also led to a slight decrease in inequality of disposable household incomes in Ireland and Australia.

One of the main lessons learned is that during the COVID-19 crisis, policymakers focused more on building resilient systems and less on the financing of income losses, as most countries put in place generous systems when the need was warranted. Some countries had these systems by default. For example, Dolls *et al.* (2022) show that automatic stabilizers during the Great Recession were much stronger in Nordic and Continental Europe (which have a higher GDP per capita) than in Eastern or Southern European countries. During COVID-19, Almeida *et al.* (2021) reinforce that richer countries were more successful in cushioning household incomes and preventing a rise in poverty and inequality than poorer countries. Many countries such as Ireland are heading towards building more resilient systems in the future, relying on generous time-limited earnings-related unemployment benefits.

As food for thought, we present in parallel how the trust in government has evolved since 2008. Different policy responses to the two crises seem to be accompanied by different trends and levels of trust in government. This is illustrated in Figure 10, based on data from the Eurobarometer survey.

Around 40% of respondents expressed trust in the national government just before the onset of the financial crisis. Following the introduction of drastic austerity measures, the level of trust rapidly decreased, reaching its lowest point in 2010. Except for 2011, the level of trust stayed around 20% until 2014. The stabilization of the economic situation, followed by strong economic growth, was accompanied by a steady increase in the level of trust in government, reaching 58% in 2019. The strong policy response in the early months of the COVID-19 crisis was accompanied by a further increase in the level of trust, which reached the unprecedented level of more than 65% in July 2020.

These findings should nevertheless be interpreted with caution. The survey was conducted immediately after the first wave of the COVID-19 outbreak (July 2020) and

17 These proportions are based on OECD data, https://stats.oecd.org.

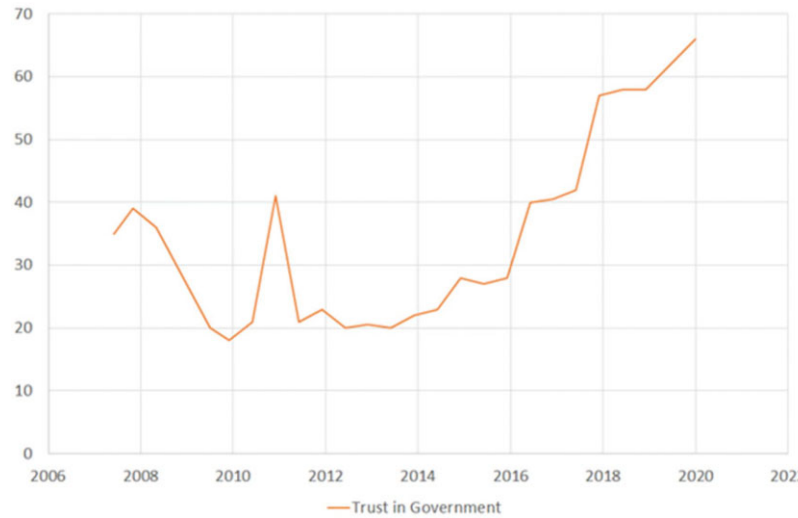

Figure 10. Public attitudes around Financial Crisis, in %.
Source: Eurobarometer 90.

attitudes might have changed during the subsequent waves of the pandemic. As highlighted in a recent OECD publication (OECD, 2021), the increase in trust early in the pandemic could reflect the so-called 'rallying around the flag effect', which predicts an increase in trust during sudden crises as people rally behind leaders and institutions. The vast news and social media coverage of the COVID-19 crisis and government responses to it might have facilitated this effect, which was not the case in 2008.[18] In addition, the nature of two crises differed. Whereas the COVID-19 crisis came as an exogenous shock, governments were held partially responsible for policies and financial regulations that led to the financial crisis.

7. Conclusions

This paper aimed to assess the relative impact of public and private policy responses on household incomes in times of crisis, contrasting the COVID-19 crisis with the financial crisis of 2008–2012. Both crises were highly asymmetric, affecting different people in different ways; a variability that allows us to look at policy learning in greater depth.

Policy learning during the fast-developing COVID-19 crisis was challenged by the lack of real-time household survey data with detailed information on the socio-economic characteristics of households. To overcome this challenge, we used a 'nowcasting' method, which aligns the available income information with real-time labour market statistics and policy changes using dynamic microsimulation techniques.

18 As discussed by Rieger and Wang (2022), the coverage of COVID-19 in the news and social media was huge, ranging from high-quality scientific information to all kinds of conspiracy theories.

We find a stronger social policy impact during the COVID-19 crisis than during the financial crisis. As the impact of the COVID-19 crisis was deeper and more rapid, family support was not as strong as in the financial crisis. By contrast, private support based on social partnership was stronger. As a result, those with lower incomes ended up with higher levels of disposable income at the onset of the COVID-19 crisis, compared with the pre-crisis period.

From a social policy perspective, our paper reinforces the idea that public provision of welfare plays an important role in mitigating household income losses during crisis periods. Our results show that the design of tax-benefit instruments matters for maintaining incomes at pre-crisis levels, and is contingent on the budgetary situation and the ability of the government to borrow money to cover budget deficits.

We contribute to previous literature by demonstrating the advantages of a broader approach to social policy responses in periods of crisis. Our findings suggest that a series of government negotiations with important social partners enabled private sector measures to complement public policy responses to the COVID-19 crisis, in terms of mitigating its impact on living standards. Following these negotiations, households could save due to reductions in housing, childcare and other work-related costs during the COVID-19 crisis, allowing them to meet pre-crisis levels of consumption, even in the absence of savings. This was not the case during the financial crisis, when the limited income support programmes provided by the government were not accompanied by private policy responses via social partnership channels.

Lastly, as food for thought, we present in parallel how the trust in government evolved over the period between the two crises. Strong austerity measures during the financial crisis and the absence of private responses through social partnerships were accompanied by a drastic decline in the level of trust in public institutions over the period. By contrast, the combination of public and private policy responses at the onset of the COVID-19 crisis was accompanied by further increases in the levels of trust in governmental actions. Given that the main motivation of the government to perform income redistribution is driven by political interests, greater trust in its actions serves as a success indicator. One should keep in mind, however, that in contrast to the financial crisis, the government was not responsible for the occurrence of the COVID-19 pandemic. This might have also contributed to a positive evaluation of governmental policy responses at the beginning of the COVID crisis. Future research should seek to understand the link between policy decisions in times of crisis and trust in institutions, and how this may spill over into other aspects, such as the differential rate of COVID-19 vaccinations across the EU countries.

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Supplementary Material

Supplementary material is available at *Socio-Economic Review Journal* online.

References

Adams-Prassl, A., Boneva, T., Golin, M. and Rauh, K. (2020) 'Inequality in the Impact of the Coronavirus Shock: Evidence from Real Time Surveys', *Journal of Public Economics*, **189**, 104245.

Aguilar, P., Arce, O., Hurtado, S., Martinez-Martin, J., Nuno, G. and Thomas, C. (2020) *The ECB Monetary Policy Response to the Covid-19 Crisis*, Documentos Ocasionales 2026, Madrid, Banco de España.

Alari, P. and Tasseva, I. V. (2020) 'Europe through the Crisis: Discretionary Policy Changes and Automatic Stabilizers', *Oxford Bulletin of Economics and Statistics*, **82**, 864–888.

Allen-Coghlan, M. and McQuinn, K. M. (2021) 'The Potential Impact of Covid-19 on the Irish Housing Sector', *International Journal of Housing Markets and Analysis*, **14**, 636–651.

Allen-Coghlan, M. and Varthalitis, P. (2020) *Comparing Two Recessions in Ireland: Global Financial Crisis vs COVID-19*, ESRI QEC Research Note 20200401, Dublin, Economic & Social Research Institute.

Almeida, V., Barrios, S., Christl, M., De Poli, S., Tumino, A. and van der Wielen, W. (2021) 'The Impact of COVID-19 on Households' Income in the EU', *Journal of Economic Inequality*, **19**, 413–431.

Ampudia, M., Georgarakos, D., Slacalek, J., Tristani, O., Vermeulen, P. and Violante, G.L. (2018) *Monetary Policy and Household Inequality*, European Central Bank Discussion Paper No. 2170, Frankfurt, European Central Bank.

Art, W. and Gelissen, J. (2002) 'Three Worlds of Welfare Capitalism or More? A State-of-the-Art Report', *Journal of European Social Policy*, **12**, 137–158.

Autor, D. H., Manning, A. and Smith, C. L. (2016) 'The Contribution of the Minimum Wage to U.S. Wage Inequality over Three Decades: A Reassessment', *American Economic Journal: Applied Economics*, **8**, 58–99.

Bargain, O., Callan, T., Doorley, K. and Keane, C. (2017) 'Changes in Income Distributions and the Role of Tax-Benefit Policy during the Great Recession: An International Perspective', *Fiscal Studies*, **38**, 559–585.

Barr, N. (1992) 'Economic Theory and the Welfare State: A Survey and Interpretation', *Journal of Economic Literature*, **30**, 741–803.

Beirne, K., Doorley, K., Regan, M., Roantree, B. and Tuda, D. (2020) *The Potential Costs and Distributional Effect of Covid-19 Related Unemployment in Ireland*, Budget Perspectives 2021, Paper 1, Dublin, Economic & Social Research Institute.

Bernoth, K., Dany-Knedlik, G. and Gibert, A. (2020) *ECB and Fed Monetary Policy Measures Against the Economic Effects of the Coronavirus Pandemic Have Little Effect*, DIW focus, No. 3, Berlin, Deutsches Institut für Wirtschaftsforschung (DIW).

Brewer, M. and Gardiner, L. (2020) 'The Initial Impact of COVID-19 and Policy Responses on Household Incomes', *Oxford Review of Economic Policy*, **36**, S187–S199.

Brewer, M. and Tasseva, I. V. (2021) 'Did the UK Policy Response to Covid-19 Protect Household Incomes?', *The Journal of Economic Inequality*, **19**, 433–458.

Callan, T., Nolan, B. and O'Donoghue, C. (1996) 'What Has Happened to Replacement Rates?', *Economic and Social Review*, **27**, 439–456.

Callan, T., Nolan, B., Keane, C., Savage, M. and Walsch, J.R. (2014) 'Crisis, Response and Distributional Impact: The Case of Ireland', *IZA Journal of European Labor Studies*, **3**, article 9.

Carranza, R., Morgan, M. and Nolan, B. (2021) *Top Income Adjustments and Inequality: An Investigation of the EU-SILC*, INET Oxford Working Paper No 2021-16, Oxford, Institute for New Economic Thinking.

Coffey, C., Doorley, K., O'Toole, C. and Roantree, B. (2020) *The Effect of the COVID-19 Pandemic on Consumption and Indirect Tax in Ireland*, Budget Perspectives 2021. Paper 3, Dublin, Economic & Social Research Institute.

Creedy, J. (1996) 'Comparing Tax and Transfer Systems: Poverty, Inequality and Target Efficiency', *Economica*, **63**, S163.S174.

Cummins, R. A. (2000) 'Personal Income and Subjective Well-Being: A Review', *Journal of Happiness Studies*, **1**, 133–158.

Diessner, S. and Lisi, G. (2020) 'Masters of the "Masters of the Universe"? Monetary, Fiscal and Financial Dominance in the Eurozone', *Socio-Economic Review*, **18**, 315–335.

Dolls, M., Fuest, C. and Peichl, A. (2012) 'Automatic Stabilizers and Economic Crisis: US Vs', *Journal of Public Economics*, **96**, 279–294.

Dolls, M., Fuest, C., Peichl, A. and Wittneben, C. (2022) 'Fiscal consolidation and automatic stabilization: New results', *IMF Economic Review*, https://doi.org/10.1057/s41308-022-00162-y.

Donovan, D. and Murphy, A. E. (2013) *The Fall of the Celtic Tiger: Ireland and the Euro Debt Crisis*, Oxford, Oxford University Press.

Ebbinghaus, B. and Manow, P. (eds) (2001) *Studying Varieties of Welfare Capitalism. Social Policy and Political Economy in Europe, Japan, and the USA*, London, Routledge.

Ebbinghaus, B. (2012) 'Comparing Welfare State Regimes: Are Typologies an Ideal or Realistic Strategy?', Paper Presented at European Social Policy Analysis Network – ESPAnet Conference, Edinburgh 06-08/09/2012.

Esping-Andersen, G. (1990) *The Three Worlds of Welfare Capitalism*, Princeton, NJ, Princeton University Press.

Ferrera, M. (2013). 'From Protection to Investment? New Frontiers for the European Social Model(s)', Presentation prepared for the 6th EU-India Joint Seminar on Employment and Social Policy, Brussels, 24–25 June 2013, accessed at https://ec.europa.eu/social/BlobServlet?docId=10354&langId=en on November 30, 2021.

Figari, F. and Fiorio, C. V. (2020) *Welfare Resilience in the Immediate Aftermath of the Covid-19 Outbreak in Italy*, EUROMOD Working Paper No 06/20, Essex, Institute for Social and Economic Research.

Gaffney, E. and Greaney, D. (2020) *COVID-19 Payment Breaks on Residential Mortgages*, Central Bank of Ireland Financial Stability Note No. 5, Dublin, Central Bank of Ireland.

Gallego, A. (2016) 'Inequality and Erosion of Trust among the Poor: Experimental Evidence', *Socio-Economic Review*, **14**, mww010.

Garfinkel, I., Rainwater, L. and Smeeding, T. (2006) 'A Re-Examination of Welfare States and Inequality in Rich Nations: How in-Kind Transfers and in-Kind and Indirect Taxes Change the Story', *Journal of Policy Analysis and Management*, **25**, 897–919.

Gough, J. (1979) *The Political Economy of the Welfare State*, London, Palgrave Macmillan.

Hale, T., Angrist, N., Cameron-Blake, E., Hallas, L., Kira, B., Majumdar, S., Petherick, A., Phillips, T., Tatlow, H. and Webster, S. (2020) *Variation in Government Responses to COVID-19*, BSG-WP-2020/032, Version 7, Oxford, Blavatnik School of Government, University of Oxford.

Hayter, S. and Weinberg, B. (2011) 'Mind the Gap: Collective Bargaining and Wage Inequality'. In Hayter, S. (ed) *The Role of Collective Bargaining in the Global Economy*, Cheltenham, Edward Elgar Publishing, pp. 136–186.

Heady, C., Mitrakos, T., and Tsakloglou, P. (2001) 'The Distributional Impact of Social Transfers in the European Union: evidence from the ECHP', Fiscal Studies, **22**(4),547–565.

Hick, R. and Murphy, M. P. (2021) 'Common Shock, Different Paths? Comparing Social Policy Responses to COVID-19 in the UK and Ireland', *Social Policy & Administration*, **55**, 312–325.

Honohan, P. (2016) 'Debt and Austerity: Post-Crisis Lessons from Ireland', *Journal of Financial Stability*, **24**, 149–157.

Immervoll, H. and Barber, D. (2006) '*Can Parents Afford to Work?*', *Childcare Costs, Tax-Benefit Policies and Work Incentives*, IZA Discussion Paper No. 1932, Bonn, Institute of Labor Economics (IZA).

Jenkins, S., Brandolini, A., Micklewright, J. and Nolan, B. (2013) 'The Great Recession and Its Consequences for Household Incomes in 21 Countries'. In Jenkins, S., Brandolini, A., Micklewright, J. and Nolan, B. (eds) *The Great Recession and the Distribution of Household Income*, Oxford, Oxford University Press, pp. 33–89.

Joumard, J., Pisu, M. and Bloch, D. (2012) 'Tackling Income Inequality: The Role of Taxes and Transfers', *OECD Journal: Economic Studies*, **2012**, 37–34.

Kelly, E. and McGuinness, S. (2014) 'The Impact of the Recession on the Structure and Labour Market Success of NEET Youth in Ireland', *Intereconomics*, **48**, 196–235.

Kennelly, B., O'Callaghan, M., Coughlan, D., Cullinan, J., Doherty, E., Glynn, L., Moloney, E. and Queally, M. (2020) 'The COVID-19 Pandemic in Ireland: An Overview of the Health Service and Economic Policy Response', *Health Policy and Technology*, **9**, 419–429.

Korpi, W. and Palme, J. (1998) 'The Paradox of Redistribution and Strategies for Equality: Welfare State Institutions, Inequality and Poverty in the Western Countries', *American Sociological Review*, **63**, 661–687.

Kyzyma, I. and Williams, D. (2017) 'Public Cash Transfers and Poverty Dynamics in Europe', *Empirical Economics*, **52**, 485–524.

Li, J., Vidyattama, Y., La, H.A., Miranti, R. and Sologon, D.M. (2022) 'Estimating the Impact of Covid-19 and Policy Responses on Australian Income Distribution Using Incomplete Data', *Social Indicators Research*, **162**(1), 1–31.

Lydon, R. and McCarthy, Y. (2013) 'What Lies beneath? Understanding Recent Trends in Irish Mortgage Arrears', *The Economic and Social Review*, **44**, 117–150.

Maccarrone, V., Erne, R. and Regan, A. (2019) 'Ireland: Life after Social Partnership'. In Müller, T., Vandaele, K. and Waddington, J. (eds) *Collective Bargaining in Europe: Towards an Endgame*, Brussels, ETUI, pp. 315–335.

Marmot, M. (2002) 'The Influence of Income on Health: Views of and Epidemiologist', *Health Affairs (Project Hope)*, **21**, 31–46.

Matsaganis, M. (2011) 'The Welfare State and the Crisis: The Case of Greece', *Journal of European Social Policy*, **21**, 501–512.

Matsaganis, M. (2020) 'Safety Nets in (the) Crisis: The Case of Greece in the 2010s', *Social Policy & Administration*, **54**, 587–598.

Matsaganis, M. and Leventi, C. (2013) 'The Distributional Impact of the Greek Crisis in 2010', *Fiscal Studies*, **34**, 83–108.

Matsaganis, M. and Leventi, C. (2014) 'The Distributional Impact of Austerity and the Recession in Southern Europe', *South European Society and Politics*, **19**, 393–412.

Mayer, T. and Schnabl, G. (2021) 'Covid-19 and the Euthanasia of Interest Rates: A Critical Assessment of Central Bank Policy in Our Times', *Journal of Policy Modeling*, **43**, 1241–1258. https://doi.org/10.1016/j.jpolmod.2021.04.004

Mazeikaite, G., O'Donoghue, C. and Sologon, D. M. (2019) 'The Great Recession, Financial Strain and Self-Assessed Health', *The European Journal of Health Economics : Hepac : Health Economics in Prevention and Care*, **20**(4), 579–596.

Moreira, A. and Hick, R. (2021) 'COVID-19, the Great Recession and Social Policy: Is This Time Different?', *Social Policy & Administration*, **55**, 261–279.

Morel, N. and Palme, J. (2018) *'Financing the Welfare State and the Politics of Taxation'*. In Greve, B. (ed) Routledge Handbook of the Welfare State, London and New York, Routledge, pp. 401–409.

Mumtaz, H. and Theophilopoulou, A. (2017) 'The Impact of Monetary Policy on Inequality in the UK. An Empirical Analysis', *European Economic Review*, **98**, 410–423.

Navicke, J., Rastrigina, O. and Sutherland, H. (2014) 'Nowcasting Indicators of Poverty Risk in the European Union: A Microsimulation Approach', *Social Indicators Research*, **119**, 101–119.

O'Donnell, R. and O'Reardon, C. (2000) 'Social Partnership in Ireland's Economic Transformation'. In Fajertag, G. and Pochet, P. (eds) *Social Pacts in Europe – New Dynamics*, Brussels, European Trade Union Institute (ETUI), pp. 237–256.

O'Donoghue, C. (2014) *Handbook of Microsimulation Modelling (Contributions to Economic Analysis, Volume 293)*, Cheltenham, Emerald Group Publishing Limited.

O'Donoghue, C., Loughrey, J. and Sologon, D. M. (2018) 'Decomposing the Drivers of Changes in Inequality during the Great Recession in Ireland Using the Fields Approach', *The Economic and Social Review*, **49**, 173–200.

O'Donoghue, C., Sologon, D., Kyzyma, I. and McHale, J. (2020) 'Modelling the Distributional Impact of the COVID-19 Crisis', *Fiscal Studies*, **41**, 321–336.

OECD (2020) Evaluating the Initial Impact of COVID-19 Containment Measures on Economic Activity. A note from 10 June 2020, Paris, OECD.

OECD (2021) *Government at a Glance 2021*, Paris, OECD Publishing.

O'Farrell, R., Rawdanowicz, Ł. and Inaba, K. I. (2016) *Monetary Policy and Inequality*, OECD Economics Department Working Paper ECO/WKP(2016)5, Paris, OECD.

Ooms, T. C. (2021) 'Correcting the Underestimation of Capital Incomes in Inequality Indicators: With an Application to the UK, 1997', *Social Indicators Research*, **157**, 929–953. https://doi.org/10.1007/s11205-021-02644-4

Purdue, D. and White, R. (2014) *What Drove Irish Government Bond Yields during the Crisis?, Technical Paper*, Dublin, National Treasury Management Agency.

Rieger, M. O. and Wang, M. (2022) 'Trust in Government Actions during the COVID-19 Crisis', *Social Indicators Research*, **159**, 967–989. https://doi.org/10.1007/s11205-021-02772-x

Roche, W. K., O'Connell, P. J.and Prothero, A. (eds) (2016) *Austerity and Recovery in Ireland: Europe's Poster Child and the Great Recession*, Oxford, Oxford University Press.

Rueda, D. and Pontusson, J. (2000) 'Wage Inequality and Varieties of Capitalism', *World Politics*, **52**, 350–383.

Saez, E. and Zucman, G. (2020) *Trends in US Income and Wealth Inequality: Revising after the Revisionists*, NBER Working Paper No 27921, Boston, National Bureau of Economic Research.

Salgado, M.F., Figari, F., Sutherland, H. and Tumino, A. (2014) 'Welfare Compensation for Unemployment in the Great Recession', *Review of Income and Wealth*, **60**, S177–S204.

Savage, M., Callan, T., Nolan, B. and Colgan, B. (2019) 'The Great Recession, Austerity and Inequality: Lessons from Ireland', *Review of Income and Wealth*, **65**, 312–336.

Sologon, D. M., O'Donoghue, C., Kyzyma, I., Li, J., Linden, J. and Wagener, R. (2022) 'The COVID-19 Resilience of a Continental Welfare Regime - Nowcasting the Distributional Impact of the Crisis', *Journal of Economic Inequality, https://doi.org/10.1007/s10888-021-09524-4*.

Sologon, D. M., Van Kerm, P., Li, J. and O'Donoghue, C. (2021) 'Accounting for Differences in Income Inequality across Countries: Tax-Benefit Policy, Labour Market Structure, Returns and Demographics', *The Journal of Economic Inequality*, **19**, 13–43.

Taylor, J. B. (2014) 'The Role of Policy in the Great Recession and the Weak Recovery', *American Economic Review*, **104**, 61–66.

Whelan, C. T. and Maître, B. (2014) 'The Great Recession and the Changing Distribution of Economic Vulnerability by Social Class: The Irish Case', *Journal of European Social Policy*, **24**, 470–485.

Whelan, C. T. and Nolan, B. (2017) 'Austerity and Inequality in Ireland'. In Moore-Cherry, N., McHale, J. and Heffernan, E. (eds) *Debating Austerity in Ireland: Crisis, Experience and Recovery*, Dublin, Royal Irish Academy, pp. 100–114.

Whelan, C. T., Nolan, B. and Maître, B. (2018) 'Economic Stress and the Great Recession in Ireland: The Erosion of Social Class Advantage', *Economic and Social Review*, **49**, 259–286.

World Bank (2020) *Poverty and Distributional Impacts of COVID-19: Potential Channels of Impact and Mitigating Policies*, A Note from April 16, Washington, DC, World Bank.