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# LIS Working Paper Series

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## The Political Economy of Compensatory Redistribution: Unemployment, Inequality and Policy Choice

Jonas Pontusson and David Weisstanner

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# The political economy of compensatory redistribution: Unemployment, inequality and policy choice

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#### Abstract

This paper explores common trends in inequality and redistribution across OECD countries from the late 1980s to 2013. Low-end inequality rises during economic downturns while rising top-end inequality is associated with economic growth. Most countries retreated from redistribution from the mid-1990s until the onset of the Great Recession and compensatory redistribution in response to rising unemployment was weaker in 2008-13 than in the first half of the 1990s. As unemployment and poverty risk have become increasingly become concentrated among workers with low education, middle-income opinion has become more permissive of cuts in unemployment insurance generosity and income assistance to the poor. At constant generosity, the expansion of more precarious forms of employment reduces compensatory redistribution during downturns because temporary employees do not have the same access to unemployment benefits as permanent employees.

**Keywords:** comparative political economy; income inequality; redistribution; unemployment; poverty risk

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This paper seeks to provide a broad-gauged assessment of what has happened to income inequality and redistribution in OECD countries since the global financial and economic crisis of 2007-09 and to draw lessons from this experience for the literature on the political economy of redistribution. Our empirical analysis concerns inequality and redistribution among working-age households. For eleven core OECD countries, we situate inequality trends and compensatory redistribution in the wake of the Great Recession against the backdrop of the preceding twenty years. With data drawn from a larger set of OECD countries, we also explore determinants of the extent to which income transfers compensate for increases in market inequality.

Focusing on change over time rather than enduring cross-national differences, we want to draw attention to recessions as a source of inequality and to argue, more broadly, that the literature on the political economy of redistribution ought to pay more attention to macroeconomic conditions. It is commonplace for scholars and pundits alike to posit that "market forces" have been a source of steadily rising income inequality for the last 20-30 years, with "institutions" resisting market-generated pressures to a greater extent in some countries than in others. Challenging conventional wisdom, our data show that relative poverty as well as overall inequality, measured before taxes and transfers, jumped in virtually all OECD countries in the early 1990s, held steady or even declined from 1994 to 2007, and then increased again in the wake of the Great Recession.

We will also show that the redistributive impact of taxes and transfers declined in most countries from the mid-1990s to the onset of the crisis. Tax-transfer systems compensated for inequality shocks in the first half of the 1990s and again after 2008, but compensatory redistribution in 2008-13 was less extensive. Taking into account the effects of "inequality stabilizers" built into modern tax-transfer systems, the experience of 2008-13 represents a continuation of the retreat from redistribution that began in 1994-2007.

It is tempting to explain this retreat from redistribution in terms of a growing prorich bias in policy-making, but increases in top income shares are not correlated with reductions in redistribution across countries. Our discussion instead emphasizes support for redistribution among electorally pivotal middle-income citizens. While top-income shares rose, relative poverty rates fell and poverty risk became more concentrated among low-educated citizens in the 10-15 years of economic growth that preceded the Great Recession. Middle-income citizens arguably became less worried about falling into poverty and also less sympathetic towards the poor. In any case, the available evidence suggests that they became less supportive of redistribution. While poverty rates rose in the wake of Great Recession, top income shares fell in most countries, at least initially, and the concentration of poverty risk became even more pronounced.

In what follows, we begin by situating our analysis and arguments in relation to existing literature on the politics of inequality and redistribution. Moving on to empirics, section 2 provides an overview of changes in overall inequality and redistribution from the late 1980s until 2013 while section 3 shows that macroeconomic conditions have different implications for low-end and high-end inequality. Section 4 explores the responsiveness of redistribution to changes in unemployment and the reasons why there was less compensatory redistribution in 2008-12 than in the early 1990s. Section 5 introduces evidence pertaining to pro-rich bias and middle-income support for redistribution and section 6 offers some concluding remarks.

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#### 1. Literature review and preliminary discussion

The topic of redistribution and, in particular, the question of how inequality and redistribution are related to each other has moved to the center stage of comparative political economy in recent years. One strand of research on this topic engages in macrolevel cross-national comparisons. Such analyses can be seen as an extension of the tradition of comparative welfare-state research, with redistribution replacing social spending or welfare-state generosity as the outcome to be explained and inequality featuring as one of the explanatory variables of theoretical interest (see Bradley et al. 2003, Huber and Stephens 2014, also Kenworthy and Pontusson 2005). To date. macrocomparative research has focused on explaining cross-national variation rather than common trends among OECD countries.<sup>1</sup> This is not to say that macro-comparativists are only interested in why it is that some countries redistribute more than others. The point is rather that macro-comparativists approach the question of change over time with a particular question in mind: Why has inequality grown more in some countries than in others? Related to this, the macro-comparative research tradition focuses on long-term structural changes-globalization, the growth of service employment, skill-biased technological change, and changes in household composition—as the drivers of rising inequality.

A second strand of comparative research focuses on individual preferences for redistribution and explores the impact of inequality on individual preferences. This approach to the politics of redistribution often takes the Meltzer-Richard model (Meltzer and Richard 1981) as its point of departure. In the Meltzer-Richard model, the preferences of pivotal voters determine government policy and these voters, situated near the median of the income distribution, demand more redistribution as inequality rises or, more precisely, as income becomes more concentrated at the top. As commonly noted, the prediction that inequality is positively associated with redistribution does not hold crossnationally: quite the contrary, governments in countries with a more egalitarian distribution of market earnings tend to engage in more redistribution through taxes and transfers (Kenworthy and Pontusson 2005, Iversen and Soskice 2009). Focusing on change over time, it is hard to identify any country in which rising top-end inequality has triggered more redistribution.

The literature on individual preferences for redistribution seeks to resolve this puzzle by challenging the Meltzer-Richard assumption that voters are only or primarily motivated by maximization of their current income. Broadly speaking, this literature can be divided into two camps: studies that emphasize insurance motives or, in other words, prospects for downward or upward mobility in the income distribution (e.g., Iversen and Soskice 2001) and studies that invoke other-regarding motives, such as altruism (e.g., Dimick, Rueda and Stegmueller 2016) or affinity with the poor (e.g., Alesina and Glaeser 2004). While the insurance school argues that democratic politics will tolerate rising inequality if and when it is associated with a decline in economic insecurity among middle-income voters, the other-regarding school suggests that democratic politics will tolerate rising inequality when it is associated with an increase in ethnic or racial minorities among the poor.

The literature on preferences for redistribution has yielded many interesting insights, but it might fairly be faulted, we think, for losing sight of redistribution as a macrolevel outcome. By now, we know a good deal about the factors that determine support for redistribution at the individual level, but we know surprisingly little about whether or how support for redistribution matters to political behavior.<sup>2</sup> And even if it is the case that preferences for redistribution determine voting behavior, it is far from self-evident that the preferences of citizens, as expressed in elections, are the key to understanding cross-national and over-time variation in redistribution. Another striking feature of the preferences literature is the absence of any sustained effort to address the sources of rising inequality. Most contributors to this literature treat inequality as an exogenous variable to which citizens and parties respond (some more than others), but it is unclear, theoretically and empirically, whether individuals respond to the distribution of income before or after taxes and transfers.

While drawing on the preferences literature, we seek to bring redistribution, understood as a macro-level outcome, back into the spotlight. Relative to the macrocomparative literature to date, our analysis emphasizes income dynamics related to macroeconomic cycles and, by extension, common trends across OECD countries. Analytical insights might be gained, we believe, by focusing on how tax-transfer systems respond to inequality shocks during economic downturns.

Our core argument about the politics of redistribution builds on Lupu and Pontusson (2011), who posit that it is the structure of inequality rather than the level of inequality that matters to the formation of middle-income preferences and political coalitions. The Lupu-Pontusson thesis boils down to this: if the distance from the middle to the bottom of the income distribution is smaller than the distance from the middle to the top, middle-income citizens will be inclined to join a pro-redistribution coalition with the poor, but if the distance to the bottom is bigger than the distance to the top, middleincome citizens will be inclined to join an anti-redistribution with the affluent. As mobility prospects are a function of income distances, worries about downward mobility dominate in the former scenario while hopes of upward mobility dominate in the latter scenario, but social affinity may also motivate middle-income citizens to behave in the predicted fashion. (Lupu and Pontusson deliberately equivocate on the extent to which support for redistribution is self-interested or other-regarding).

Lupu and Pontusson (2011) measure the structure of inequality by dividing the 90-50 (upper-to-middle) ratio by the 50-10 (middle-to-lower) ratio. Relying on OECD data on earnings among full-time employees, they present regression results suggesting that skew measured in this fashion is indeed associated with redistribution across countries and over time. However, 50-10 earnings ratios have generally changed little while 90-50 ratios have increased in most OECD countries since the mid-1990s. By the logic of Lupu and Pontusson, this should have translated into a general trend for redistribution, which is clearly not what we observe. As a partial solution to this puzzle, we propose to measure low-end inequality by relative poverty rates (the percentage of the population living in households with incomes below 50% of the median income) rather than 50-10 earnings ratios. Relative poverty is arguably a better measure of "income distance," telling us the number of income percentiles that separates the median income earner from the poor. Consistent with Lupu and Pontusson, our working hypothesis is that middle-income citizens become less worried about falling into poverty and perhaps feel less affinity with the poor as the poverty rate falls.

We go beyond Lupu and Pontusson (2011) not only by introducing new measures of low-end and high-end income inequality, but also by taking into account the distribution of unemployment and poverty risk in a more systematic fashion. The "structure of inequality," as we conceive it in this paper, pertains the distribution of risk as well as the distribution of income. An extensive literature demonstrates that labor-market risks unemployment risk in particular—have become significantly more concentrated among low-skilled workers, immigrants and young people as a result of the expansion of nonstandard forms of unemployment over the last two or three decades (e.g., King and Rueda 2008, Emmenegger et al. 2012). Some of this literature argues that welfare states have also undergone "dualization" in the sense that the welfare benefits provided to labormarket "outsiders" have deteriorated relative to the benefits provided to "insiders" (e.g., Palier and Thelen 2010, Seeleib-Kaiser, Saunders and Naczyk 2012). Importantly for our purposes, the dualization literature dovetails with Lupu and Pontusson (2011) in the sense that it treats the (asymmetric) distribution of economic insecurity rather than the average level of insecurity as the critical variable shaping the politics of compensatory redistribution (see also Rehm, Hacker and Schlesinger 2012, and Alt and Iversen 2016).

Like most of the literature on preferences for redistribution, our approach posits that government policy is responsive to the preferences of middle-income citizens. Several important studies of American politics (most notably Hacker and Pierson 2011 and Gilens 2014) question the extent to which this is so and income bias in political representation has recently become a topic of debate among comparativists. It is tempting to suppose, as suggested by Rosset, Giger and Bernauer (2013), that pro-rich political bias rises with income inequality. In due course, we shall briefly address this question. For the time being, suffice it to note that we do not wish to argue that middle-income preferences are the main, let alone the only, driver of policy changes that have rendered tax-transfer systems less responsive to rising inequality. In our thinking, public opinion plays a more limited and indirect role, permitting (or not) policy changes initiated for other reasons.

Our analysis of the political economy of compensatory redistribution situates government policy in a broader context. Our point of departure is the observation that "automatic equalizers" are built into modern tax-transfer systems. Suppose, for the sake of argument, that unemployment insurance is financed by a proportional income tax and provides an income replacement that is strictly proportional to the income earned before becoming unemployed. Typically, firms are more likely to shed unskilled labor than skilled labor during economic downturns and adults in the lower half of the income distribution are less skilled than adults in the upper half of the income distribution.<sup>3</sup> Under these conditions, rising unemployment during economic downturns increases inequality, particularly low-end inequality, before taxes and transfers. At the same time, redistribution increases because low-income households' share of income taxes decreases while their share of unemployment benefits increases. By the same mechanisms, redistribution tends to decline as the economy recovers and (cyclical) unemployment falls.

Policy choices affect the extent to which redistribution responds to inequality generated by rising unemployment. The progressivity of taxation undoubtedly matters, but income transfers to the unemployed (i.e., benefits) would appear to be the main policy source variation in responsiveness across countries and over time. There are essentially two dimensions of policy choice with respect to income transfers: the replacement rate (or generosity level) and the coverage rate. Though the extent to which individuals in temporary and part-time employment are covered by unemployment insurance or similar benefits varies, it is typically the case that they do not qualify for the same level of income replacement as individuals in permanent full-time employment. This, then, introduces another potential source of variation in the responsiveness of redistribution: holding generosity and eligibility conditions constant, compensatory redistribution will decline if unemployment becomes more concentrated to individuals with less than full access to unemployment compensation.

#### 2. Trends in inequality and redistribution

Pooling data from the Luxembourg Income Study (LIS) and the European Union's Statistics on Income and Living Conditions (SILC) allows us to track the evolution of income inequality and redistribution in eleven OECD countries from the late 1980s until 2013. Like many other comparative studies of redistribution, we restrict our analysis to working-age households.<sup>4</sup> Previous studies make this move to sidestep the problem that retired households typically have very little "market income" in countries with generous public pensions, producing inflated measures of redistribution. In our case, this choice is also motivated by our interest in the impact of macroeconomic conditions, which is surely most direct and most pronounced for working-age households.<sup>5</sup>

The measure of inequality used here is the Gini coefficient multiplied by 100, representing the percentage of total income that would have to be redistributed to achieve

perfect equality across all households. In Table 1, we report changes in the Gini coefficient for household income before taxes and income transfers ("pre-fisc inequality") as well as household income after taxes and transfers ("post-fisc inequality").<sup>6</sup> Our measure of redistribution is the reduction in the Gini coefficient produced by taxes and transfers by the government or, in other words, the difference between the pre-fisc Gini coefficient and the post-fisc Gini coefficient. Following Kenworthy and Pontusson (2005), we measure redistribution as the absolute reduction in the Gini coefficient produced by taxes and transfers, but the basic patterns in the data are the same for redistribution measured in percent of the pre-fisc Gini coefficient. For the two inequality measures and the redistribution measure alike, Table 1 reports change measured as the (absolute) difference between the earlier and the more recent observation. In other words, we report percentage-point changes rather than percentage changes in inequality.

To focus attention on the effects of the macroeconomic conditions, Table 1 records changes in inequality and redistribution over three time periods: from the late 1980s to the mid-1990s, from the mid-1990s to the onset of the Great Recession and from 2008 to the most recent observation available (in most cases, 2013). Generalizing across the OECD area, sharp economic downturns, followed by sluggish growth and persistently high unemployment, characterize the first and the third period. By comparison to the early 1990s as well as 2007-08, the international recession of 2001-02 was a minor downturn and sustained economic growth characterizes the second period as a whole.<sup>7</sup>

For heuristic purposes, Table 1 sorts OECD countries into three conventional groups, based on a combination of geography, language and welfare-state regimes. In the last column of Table 1, we report the most recent observation of post-fisc inequality, with

rankings in parentheses. Consistent with conventional wisdom, the Nordic countries tend to be more equal than continental European countries and continental European tend to be more than Anglophone countries (but in 2013, the Netherlands is more equal than Denmark and Australia is more equal than Germany). More importantly for our purposes, Table 1 brings out common trends that cut across the country groups and shows that these common trends follow the macroeconomic cycle.

#### [Table 1]

The role of macroeconomic conditions is most immediately apparent in the data on pre-fisc inequality. While pre-fisc inequality declined in the Netherlands from the late 1980s to the mid-1990s, it increased substantially in the other ten countries and especially in the Nordic countries. Across the eleven countries, the Gini coefficient for pre-fisc income of working-age households increased by an average of 3.7 percentage points. Over the growth period from 1994 to 2007, pre-fisc inequality continued to rise in Norway, Germany and Canada, but held steady in the US and fell in the other seven countries. Averaging across the eleven countries, the Gini coefficient for pre-fisc income among working-age households declined by 0.1 from the mid-1990s to 2007.<sup>8</sup>

Over the period from 2008 to 2013, pre-fisc inequality increased in seven out of eleven countries. The Gini coefficient for pre-fisc income was unchanged in Germany and declined marginally in Norway, France and Australia. While Denmark and the US experienced inequality shocks comparable to the early 1990s, the inegalitarian impact of the Great Recession in core OECD countries was, generally speaking, much less dramatic than the impact of the recession of the early 1990s.<sup>9</sup> Averaging across the eleven countries included in Table 1, the pre-fisc Gini increased by less than one percentage point. As noted

by Jenkins *et al.* (2013:55), the limited impact of the Great Recession on the distribution of income is closely related to the fact that unemployment in core OECD countries rose less sharply than in the recessions of the 1970s, 1980s and 1990s. Across the eleven countries included in Table 1, the (harmonized) rate of unemployment rose by an average of 1.5 percentage points from 2008 to 2012, as compared to an average increase of 3.3 percentage points from 1990 to 1994 (OECD Statistics).

The cyclical pattern that we observe for pre-fisc inequality is less evident in the data on post-fisc inequality presented in Table 1. By definition, the difference between inequality measures based on these two income concepts is a function of the redistributive effects of taxes and income transfers between households. The data presented in Table 1 supports two broad observations about redistribution and the evolution of post-fisc inequality. The first observation concerns the growth period of 1994-2007. As noted above, pre-fisc inequality fell in seven of the eleven countries over this period. However, post-fisc inequality rose in five of these countries (Denmark, Finland, the Netherlands, Australia and the UK) and it fell less than pre-fisc inequality in the other two countries (Sweden and France). In the US, post-fisc inequality rose while pre-fisc inequality was unchanged and in Canada post-fisc inequality rose more sharply than pre-fisc inequality. In the words of the OECD (2011:18), "from the mid-1990s to 2005, the reduced redistributive capacity of tax-benefit systems was sometimes the main source of widening household-income gaps."

The second observation concerns the extent of compensatory redistribution during economic downturns. In nine of the ten countries in which pre-fisc inequality rose from the late 1980s to the mid-1990s, post-fisc inequality rose less or, in the Danish case, actually declined. Averaging across these ten countries, the Gini coefficient for pre-fisc income rose by 4.2 while the Gini coefficient for post-fisc income only increased by 1.3. In other words, changes in the incidence of taxation and income transfers offset roughly 69% of the increase in pre-fisc inequality. In the 2008-2013 period, taxes and transfers again compensated for rising pre-fisc inequality, but not to the same extent. On average, the Gini coefficient for pre-fisc income increased by 1.4 while the Gini coefficient for post-fisc inequality from 2008 to 2013, i.e., taxes and transfers offset only 36% of the increase in pre-fisc inequality (and only 25% across all eleven countries). What distinguishes the experience of the Great Recession from that of the early 1990s is not only smaller inequality shocks, but also less compensatory redistribution.<sup>10</sup>

It deserves to be noted that much of the retreat from redistribution over the period 1994-2007 occurred after 2000. In all but two countries (Denmark and Finland), the decline in redistribution from 2000 to 2007 was greater than the decline in redistribution from 1994 to 2000. The reversal of automatic equalizers accounts for only a part of the retreat from redistribution that began in the mid-1990s.

For the eleven countries included in Table 1, Figure 1 shows the relationship between changes in pre-fisc and post-fisc inequality for each of the three time periods. The 45-degree lines in these scatterplots represent a hypothetical scenario in which there is no change in redistribution and, as a result, changes in post-fisc inequality correspond perfectly to changes in pre-fisc inequality. In the first period, most observations fall below the 45-degree line, meaning that increases in redistribution offset at least some of the increase in pre-fisc inequality. In the second period, quite a few observations fall above the 45-degree line, meaning that changes in redistribution were regressive. Changes in pre-fisc inequality provide surprisingly little leverage on changes in post-fisc inequality across countries in either of these periods. By contrast, they are a strong and consistent predictor of changes in post-fisc inequality in the third period (with most countries below the 45-degree line, as in the early 1990s). Generally speaking, tax-transfer systems appear to have become more market-conforming.

#### [Figure 1]

#### 3. The structure of inequality

We now turn to the question of how macroeconomic conditions affect relative incomes at the bottom and the top of the income distribution or, in other words, how they affect the structure of inequality. With the same periodization as Table 1, Table 2 reports on changes in relative poverty rates and top 1% income shares. Estimated based on LIS and SILC data, the poverty rate is here defined as the percentage of working-age households that have a pre-fisc income below 50% of the median pre-fisc income of working-age households. Taken from the World Wealth and Income Database, the top 1% income share is the percentage total tax-declared income (including transfers) of "physical persons" that is declared by the top 1% of households or individuals. As noted in the last column of Table 2, the top-income share data end before 2012-13 for some countries and thus capture only the initial phase of the crisis.

[Table 2]

Pre-fisc poverty rates follow the macroeconomic cycle in much the same way as prefisc Gini coefficients.<sup>11</sup> From the late 1980s to the mid-1990s, relative poverty increased in all eleven countries for which we have on data pre-fisc income (including the Netherlands, where the pre-fisc Gini coefficient fell in this period). While the inequality shocks experienced by the Nordic countries in this period again stand out, the poverty rate rose by at least two percentage points in nine countries. By contrast, Norway and Germany stand out as the only two countries in which the pre-fisc poverty rate rose from the mid-1990s to the onset of the Great Recession. Norway and Germany are also the only countries in which the pre-fisc poverty rate did not rise in the wake of the Great Recession. As with pre-fisc Gini coefficients, poverty increases in the recent crisis were typically less sharp than poverty increases during the crisis of the early 1990s (with the notable exception of the US).

The pattern in the data for top 1% income shares is strikingly different. From 1989 to 1994, top income shares rose in half the countries and fell in the other half. In the ensuing period of relatively robust economic growth, rising top income shares became an OECD-wide phenomenon. On average, top income shares rose by nearly 3 percentage points from 1994 to 2007. Finally, top income shares fell in all but two countries (Denmark and Sweden) in the immediate aftermath of the financial crisis of 2007-08.

The observation that low-skilled workers are particularly affected by cyclical unemployment provides a straightforward and compelling explanation of why it is that low-end inequality tends to rise during economic downturns and decline during upturns. Table 3 presents the results of estimating a series of simple OLS models that explore the effects of changes in unemployment on changes in pre-fisc Gini coefficients and poverty rates. The results presented here are based on pooling LIS data over the period 1990-2013, with SILC observations for recent years added for eight countries in addition to the eleven countries for which we have data over the entire period 1990-2013.<sup>12</sup> Along with fixed effects for countries and LIS waves, our models include the level of inequality in the previous LIS wave as an independent variable.

#### [Table 3]

In all four models, the coefficient for the lagged level variable is negative and statistically significant, indicating that pre-fisc inequality and relative poverty have grown more rapidly in more egalitarian countries. More importantly for our present purposes, the results confirm that change in the rate unemployment is a powerful predictor of change in relative poverty as well as overall inequality. Contrary to what some of the dualization literature would seem to imply, the effect of changes in unemployment does not appear to have changed over time. Interacting changes in unemployment with period dummies, we find that the inegalitarian impact of rising unemployment was more of less of the same magnitude in 2008-13 as in 1990-95 (difference not statistically significant).

#### 4. Income transfers to the unemployed

Building on the analytical framework sketched at the end of the literature review, this section explores, briefly and tentatively, how redistribution responds to changes in unemployment and how the generosity of unemployment insurance benefits and the incidence of unemployment affect redistribution responsiveness.<sup>13</sup> For this purpose, it makes sense to set taxes aside and to focus on redistribution through transfer payments, measured as the difference between the Gini coefficient for net income before transfers (i.e., post-tax, pre-transfer income) and the Gini coefficient for disposable income or, in the terminology adopted above, post-fisc income.<sup>14</sup>

To measure the generosity of unemployment insurance, we rely on the aggregate index developed by Lyle Scruggs. Summing net replacement rates of unemployment benefits for someone with a wage corresponding to that of the average production worker, with and without dependents, this index also takes into account the coverage of unemployment insurance and the duration of income replacement (Scruggs 2014). Table 4 presents descriptive data for our eleven core countries. In the first half of the 1990s and again in 1995-2008, some countries decreased unemployment insurance generosity while others increased generosity, but the balance appears to have shifted towards cutbacks in the second period, and we observe a pretty consistent pattern of retrenchment during the Great Recession (see also Pontusson and Raess 2012).<sup>15</sup> The substantial cuts in generosity implemented in Denmark, Sweden, Finland and Germany between 1995 and 2008 are noteworthy, as is the contrast between Nordic responses to rising unemployment in the early 1990s and in the Great Recession. In the early 1990s, Sweden maintained generosity while Denmark, Finland and Norway substantially increased generosity. In the Great Recession, Norway and Sweden both cut generosity while Denmark and Finland marginally increased generosity (against the backdrop of big cuts in the preceding period).

#### [Table 4]

We seek to capture changes in the composition of unemployment by the ratio of the unemployment rate among working-age adults with less than secondary education to the unemployment rate for all working-age adults. On the assumption that workers with low education are more likely to have less permanent jobs and therefore less access to full unemployment insurance benefits, we hypothesize that this variable will be associated with less redistribution through income transfers to the unemployed. As indicated in Table 5, we do not have many observations of the concentration of unemployment among workers with less than secondary education for the first half of the 1990s. Over the growth period 1995-2007, unemployment became more concentrated in all of our eleven core countries except Denmark, often significantly, and concentration again increased in eight out eleven countries from 2007 to 2013.

#### [Table 5]

Table 6 presents regression results, with change in redistribution through transfers as the dependent variable. Like the analyses presented in Table 3, the first five models are estimated by pooling LIS data for nineteen countries over the period 1990-2013, with some SILC observations for recent years added.<sup>16</sup> Not including Australia, Canada and the US, the sixth model is estimated with annual SILC data for sixteen countries over the period 2004-13. As in Table 3, all models include the lagged independent variable as country and LIS-wave fixed effects (or, in Model 6, year fixed effects). We again find strong evidence of cross-national convergence: countries that redistribute more through income transfers seem to have been in the forefront of the retreat from compensatory redistribution.

#### [Table 6]

Our results clearly confirm that redistribution rises with unemployment. The interesting question is whether the responsiveness of redistribution to changes in unemployment has changed over time. Before looking at the results of interacting changes

in unemployment with period dummies, it should be noted that unemployment insurance generosity has, unsurprisingly, a strong positive effect on changes in redistribution. The coefficient for our concentration measure has the predicted (negative) sign, but fails to clear conventional thresholds of statistical significance in the models based on LIS data for the entire period 1990-2013. However, the concentration variable clears the 95% significance threshold in the model estimated with SILC data for 2004-13.

Models 2 and 5 both suggest that the effect of changes in unemployment was bigger in the first half of the 1990s than in 2008-13 or, in other words, that redistribution was more responsive to rising unemployment in the former period.<sup>17</sup> Taken together, the results presented in Tables 3 and 6 indicate that the effect of rising unemployment on prefisc inequality remains the same, but its effect on redistribution has diminished. Contrary to our expectations, it does not appear to be the case that changes in generosity and concentration explain the decline in redistribution responsiveness. The decline in responsiveness actually becomes more pronounced when we control for generosity and concentration. One plausible explanation of this puzzle is that the association between low education and limited access to unemployment insurance benefits has become stronger as fixed-term employment has expanded since the late 1990s. We interpret the fact that the negative effect of concentration is much stronger in the analysis based on SILC data for 2004-13 as tentative support for this conjecture.

The growing concentration of unemployment among workers with low education has to do with organizational and technological changes that are commonly referred to with the shorthand expression "knowledge economy," but the preceding discussion suggests a more political explanation of the decline in compensatory redistribution. As commonly noted (e.g., King and Rueda 2008), many European OECD countries deliberately undertook to deregulate temporary employment in order stimulate employment growth in the late 1990s and 2000s. Holding generosity constant, deregulation of temporary employment means that the losers in the transition to a "knowledge economy" no longer had the same access to unemployment benefits as other workers. Employment regulation might thus be seen as a policy domain with important implications for compensatory redistribution during economic downturns.

#### 5. The politics of redistribution

It is tempting to attribute the widespread retreat from redistribution over the last 15-20 years to increased pro-rich bias in the way that democratic politics work and, in turn, to attribute the increase in pro-rich bias to the equally-widespread increase in top income shares prior to the financial crisis. As shown in Figure 2, however, there is no consistent cross-national association between changes in overall redistribution and changes in top 1% income shares over the period 1994-2007. By contrast, we do observe a strong positive correlation between changes in overall redistribution and changes in the pre-fisc poverty rate.

#### [Figure 2]

It should also be noted the retreat from redistribution that we observe over the period 1994-2007 primarily involved a reduction in the redistributive effect of income transfers (see Weistanner and Pontusson 2016). On the assumption that the rich care primarily about reducing their share of taxes, we would expect pro-rich bias to manifest

itself first and foremost as a retreat from progressive taxation. Redistribution through taxes actually increased in seven of our eleven core countries between 1994 and 2007, but it declined in all but two countries in the first half of the 1990s. The retreat from progressive taxation appears to have preceded the rise in top income shares and, following Piketty and Saez (2014), might be invoked to explain the latter development (see also Huber, Huo and Stephens 2016).

Support for redistribution among middle-income citizens has evolved in a manner that roughly corresponds to the over-time changes in redistribution. Based on data from the International Social Survey Program (ISSP) and the European Social Survey (ESS), Table 7 reports on changes in the percentage of survey respondents in the middle third of the income distribution who agreed or strongly agreed with the statement that "the government should take measure to reduce differences in income levels." As the country coverage is uneven and the volatility of the ISSP data for the 1990s rather suspicious, this table must be read with caution. For our purposes, it is the direction rather than the magnitude of change that matters. In every country for which ISSP data are available, middle-income support for redistribution increased in the first half of the 1990s and dropped in the second half of the 1990s and early 2000s. According to the ESS data, middle-income support for redistribution fell from 2002 to 2008 in all countries but Germany. In the wake of the Great Recession, middle-income support for redistribution continued to rise in Germany and continued to decline in Denmark, Finland and Norway. In the UK and the Netherlands, the Great Recession appears to have reversed the decline in support for redistribution.

[Table 7]

Why have middle-income citizens apparently become less supportive of redistribution? Again, our argument is that the concentration of unemployment and poverty risk among low-educated immigrants, minorities and other marginal groups has rendered middle-income citizens less worried about falling into poverty and less sympathetic with the plight of the poor. Figure 3 provides some additional evidence in support of this argument. Based on own analyses of LIS microdata, the top panel of this figure reports pre-fisc poverty rates for individuals who have not completed secondary education divided by poverty rates for the adult population as a whole. The bottom panel in turn reports on the share of the total adult population represented by individuals who have not completed secondary education. With the exception of the US, the population share of the low-educated has declined dramatically in all the countries for which we have LIS data going back to the 1980s and, with the exception of Norway, this decline has been continuous. At the same time, the average poverty rate for the low-educated rose relative to the overall poverty rate from 1980-94 to 1995-2007 in everyone of the ten countries for which we can estimate poverty rates for both of these time periods. Though overall poverty rates rose in the wake of the Great Recession, the concentration of poverty risk among the low-educated became even more pronounced in all but two countries (the Netherlands and the US). While there can be no doubt that economic insecurity has increased for a large swath of "the middle class" since 2008, the Great Recession appears to have reinforced, rather than reversed, the concentration of economic insecurity (see also Heidenreich 2015, Schwander 2016).

[Figure 3]

Our argument is not that middle-income opinion has been the driver of changes in redistribution. More plausibly, governments have retreated from redistribution in response to fiscal pressures associated with globalization and European integration and, perhaps, in response to pressure from export-oriented firms seeking to improve competitiveness by lowering domestic costs. Intended as complementary to such an explanation, our argument is that the concentration of unemployment and poverty risk have rendered public opinion more permissive and thus made "anti-poor" policy choices a more attractive option for governments concerned about re-election.

#### 6. Final remarks

The preceding discussion focuses on macroeconomic cycles and ignores the question of how growth occurs or, in other words, the idea that there are several different post-Fordist growth models. As noted by Baccaro and Pontusson (2016), the British model of consumption-led and credit-financed growth was associated with rising top-end inequality while the German model of export-led growth was associated with rising low-end inequality in the period from the mid-1990s to the global financial crisis of 2007-08. We have instead emphasized that top income shares rose and market-generated poverty declined in most OECD countries over this period. To integrate macroeconomic cycles and growth models into a unified framework is a challenge that we intend to tackle in future work.

Though Ireland and Southern European countries are included in the regression analyses reported above, our discussion has focused on countries that survived the Great Recession in relatively good shape. We lack comparable historical data for Ireland and Southern Europe, but we do have data on what happened to inequality and redistribution in these countries in the wake of the Great Recession, and a few remarks about their experience might serve as a way to summarize our main findings.

From 2008 to 2013, unemployment rates increased more sharply in Greece, Ireland, Italy, Portugal and Spain than in any of the eleven countries on which we have focused so far. As shown in Table 8, the unemployment crises experienced by these countries triggered inequality shocks comparable to the inequality shocks experienced by the Nordic countries in the first half of the 1990s. Perhaps more surprisingly, increased redistribution through taxes and transfers offset much of the increase in market inequality. Except for Italy, the redistributive response to inequality in the so-called PIIGS was much stronger than in most of the eleven core OECD countries discussed above. Critically for our purposes, the concentration of unemployment increased less in these countries than in the OECD core and in the three countries for which we have ESS data for 2008 and 2012 (Ireland, Portugal and Spain) public support for redistribution increased significantly (see Rosset and Pontusson 2014). In all these respects, the experience of the PIIGS resembles the experience of core OECD countries, especially the Nordic countries, in the first half of the 1990s. Needless to say perhaps, the difference is that in the case of the PIIGS compensatory redistribution involved the build-up of unsustainable public debt and that Eurozone membership forced them, from 2010-11 onwards, to cut public spending on unemployment benefits and other redistributive programs (Koehler and König 2015), with distributive consequences that we do not yet see in SILC data.

[Table 8]

Two questions that emerge from the preceding discussion deserve to be noted in closing. The first question concerns cross-national convergence. Our regression results clearly show that pre-fisc inequality has grown more rapidly in more equal countries and that redistribution has declined more in countries that redistribute more. Beckfield (2016) presents further evidence for convergence as well as an upward trend in disposable income inequality among member states of the European Union and develops an interesting argument about the consequences of European integration for redistribution at the national level. In our data, however, cross-national convergence does not appear to be an EU-specific phenomenon. More importantly, our data suggest that convergence among West European countries is primarily a result of the Nordic countries retreating from redistribution while tax-transfer systems in Southern European have, until recently, become more redistributive. The main actors in the process of convergence appear to be states that are not part of the inner core of the European Union. This suggests that we need a less EU-centered account of cross-national convergence than what Beckfield (2016) provides.

The most obvious reason why core OECD countries did not experience inequality shocks comparable to the shocks of the early 1990s in the wake of the Great Recession is that unemployment rose less sharply than in the wake of the international recession of 1990-91. Our discussion thus invites the following question: Why didn't the huge GDP contractions experienced by these countries in 2008-09 lead to bigger increases in unemployment? For the time being, a couple of observations pertaining to this question must suffice. To begin with, it should be noted that economic downturns in the early 1990s were staggered and, in many countries, more prolonged than the Great Recession. By

historical standards, the Great Recession and the ensuing recovery were remarkably synchronized across OECD economies. Arguably, this meant that governments were more willing to engage in fiscal stimulus (see Raess and Pontusson 2015) and that, partly as a result of fiscal stimulus, the initial recovery was swifter, preempting increases in unemployment (which always lag behind GDP contractions). In addition, it may well be the case that wages have become more downwardly adjustable as a result of union decline, the expansion of fixed-term employment contracts and other forms of labor-market deregulation.

Top income shares fell in the wake of the financial crisis of 2007-08, but there are good reasons to suppose that they have subsequently rebounded. We know that this happened in the US in 2010-14.<sup>18</sup> In a context characterized by income stagnation and rising economic insecurity for the working class and the lower-middle class, we might expect rising top income shares to become more politically contested than they were prior to the financial crisis. However, economic insecurity is today more unequally distributed than it has been for many decades and this poses an obstacle to the formation of a proredistribution coalition of the poor and the middle. The new "right-wing populism" can perhaps be seen, in part, as a project that promises to redistribute resources from the rich to the working class and the lower-middle class through protectionist measures, while keeping income support for the poor to a minimum. It is hardly a coincidence that populism primarily takes right-wing forms in core OECD countries whiles it primarily takes left-wing forms in Southern Europe.

#### REFERENCES

- Alt, James and Torben Iversen. 2016. "Inequality, Labor Market Segmentation, and Preferences for Redistribution." *American Journal of Political Science*: 1-16 (online first).
- Armingeon, Klaus, Christian Isler, Laura Knöpfel, David Weisstanner and Sarah Engler. 2016. *Comparative Political Data Set 1960-2014*. Bern: Institute of Political Science, University of Berne.
- Baccaro, Lucio and Jonas Pontusson. 2016. "Rethinking Comparative Political Economy: The Growth Model Perspective." *Politics and Society* 44(2): 175-207.
- Beckfield, Jason. 2016. *Unequal Europe: How Regional Integration Reshaped the Welfare State and Reversed the Egalitarian Turn.* Forthcoming with Oxford University Press.
- Bradley, David, Evelyne Huber, Stephanie Moller, François Nielsen and John Stephens. 2003. "Distribution and Redistribution in Postindustrial Democracies," *World Politics* 55(2): 193-228.
- Brady, David and Markus Jäntti. 2016. "Economic Performance, Poverty and Inequality in Rich Countries." In David Brady and Linda Burton, eds., *The Oxford Handbook of the Social Science of Poverty* (Oxford University Press), 555-573.
- Dimick, Matthew; David Rueda and Daniel Stegmueller. 2016. "The Altruistic Rich? Inequality and Other-Regarding Preferences for Redistribution," *Quarterly Journal of Political Science*, forthcoming.
- Emmenegger, Patrick; Silja Häusermann, Bruno Palier and Martin Seeleib-Kaiser (eds.). 2012. *The Age of Dualization: The Changing Face of Inequality in Deindustrializing Societies* (Oxford: Oxford University Press), 145-183.
- Estevez-Abe, Margarita, Torben Iversen and David Soskice. 2001. "Social Protection and the Formation of Skills." In Peter Hall and David Soskice, eds., *Varieties of Capitalism*, Oxford: Oxford University Press.
- Gilens, Martin. 2014. *Affluence and Influence: Economic Inequality and Political Power in America*. Princeton: Princeton University Press.
- Hacker, Jacob and Paul Pierson. 2011. *Winner-Take-All Politics: How Washington Made the Rich Richer—and Turned Its Back on the Middle Class.* New York: Simon and Schuster.

- Heidenreich, Martin. 2015. "The End of the Honeymoon: The Increasing Differentiation of (Long-Term) Unemployment Risks in Europe." *Journal of European Social Policy* 25: 393-413.
- Huber, Evelyne, and John D. Stephens. 2014. "Income Inequality and Redistribution in Post-Industrial Democracies: Demographic, Economic and Political Determinants." *Socio-Economic Review* 12: 245-67.
- Huber, Evelyne, Jingjing Huo and John D. Stephens. 2016. "Politics, Markets and Top Income Shares." Paper presented at the 23<sup>rd</sup> International Conference of Europeanists, Philadelphia, April 14-16, 2016.
- Hudomiet, Péter. 2014. "What Explains Low-Skilled Unemployment?" Unpublished paper, University of Michigan.
- Iversen, Torben and David Soskice. 2001. "An Asset Theory of Social Policy Preferences." *American Political Science Review* 95 (4): 875-93.
- Iversen, Torben and David Soskice. 2006. "Electoral Institutions and the Politics of Coalitions," *American Political Science Review* 100(2): 165-181.
- Iversen and Soskice. 2009. "Distribution and Redistribution: The Shadow of the Nineteenth Century." *World Politics* 61(3): 438-486.
- Jenkins, Stephen, Andrea Brandolini, John Micklewright and Brian Nolan. 2013. "The Great Recession and its consequences for household incomes in 21 countries." In Stephen Jenkins, Andrea Brandolini, John Micklewright and Brian Nolan, eds., *The Great Recession and the Distribution of Household Income.* Oxford: Oxford University Press. 33-89.
- Kenworthy, Lane and Jonas Pontusson. 2005. "Rising Inequality and the Politics of Redistribution in Affluent Countries," *Perspectives on Politics* 3(3): 449-471.
- King, Desmond and David Rueda. 2008. "Cheap Labor: The New Politics of 'Bread and Roses' in Industrial Democracies." *Perspectives on Politics* 6(2): 279-297.
- Koehler, Sebastian and Thomas König. 2015. "Fiscal Governance in the Eurozone," *Political Science Research and Methods* 3(2): 329-351.
- LIS. 2016. Luxembourg Income Study Database (LIS), www.lisdatacenter.org (multiple countries; microdata accessed on July 27, 2016). Luxembourg: LIS.
- Lupu, Noam and Jonas Pontusson. 2011. "The Structure of Inequality and the Politics of Redistribution," *American Political Science Review* 105(2): 316-336.

- Meltzer, Allan H. and Scott F. Richard. 1981. "A Rational Theory of the Size of Government." Journal of Political Economy 89(5): 914-27.
- OECD. 2011. Divided We Stand. Why Inequality Keeps Rising. Paris: OECD.
- OECD. 2015. In It Together: Why Less Inequality Benefits All. Paris: OECD.
- Piketty, Thomas and Emmanuel Saez. 2014. "Inequality in the Long Run." *Science* 344(6186): 838-843.
- Palier, Bruno and Kathleen Thelen. 2010. "Institutionalizing dualism: Complementarities and Change in France and Germany." *Politics and Society* 38(1): 119-148.
- Pontusson, Jonas. 2005. *Inequality and Prosperity: Social Europe versus Liberal America.* Ithaca, NY: Cornell University Press.
- Pontusson, Jonas and Damian Raess. 2012. "How (and Why) is this Time Different? The Politics of Economic Crisis in Western Europe and the United States," *Annual Review of Political Science* 15: 13-33.
- Raess, Damian and Jonas Pontusson. 2015. "The Politics of Fiscal Policy during Economic Downturns, 1981-2010," *European Journal of Political Research*, 54(1): 1-22.
- Rehm, Philipp; Jacob Hacker and Mark Schlesinger. 2012. "Insecure Alliances: Risk, Inequality and Support for the Welfare State." *American Political Science Review* 106(2): 386-406.
- Rosset, Jan; Nathalie Giger and Julian Bernauer. 2013. "More Money, Fewer Problems? Cross-Level Effects of Economic Deprivation on Political Representation," *West European Politics* 36(4): 817-835.
- Rosset, Jan and Jonas Pontusson. 2014. "The Impact of the Great Recession on Public Preferences for Redistribution in Western Europe." Paper presented at the Annual Meeting of the American Political Science Association.
- Rueda, David. 2014. "Dualization, Crisis and the Welfare State," *Socio-Economic Review* 12: 381-407.
- Rueda, David. 2015. "The State of the Welfare State: Unemployment, Labor Market Policy, and Inequality in the Age of Workfare." *Comparative Politics* 47: 296-314.
- Rueda, David and Daniel Stegmueller. 2016. "Preferences that Matter: Inequality, Redistributuion and Voting." Working paper.
- Schwander, Hanna. 2017. "Labour Market Risks in Times of Welfare State Changes." In Melike Wulfgramm, Tonia Bieber and Stephan Leibfried, eds., *Welfare State*

*Transformations and Inequality in OECD countries* (London: Palgrave MacMillan), 185-218.

- Scruggs, Lyle. 2014. "Social Welfare Generosity Scores in CWED 2: A Methodological Genealogy." CWED Working Paper no. 1.
- Seeleib-Kaiser, Martin; Adam Saunders and Marek Naczyk. 2012. "Shifting the Public-Private Mix." In Emmenegger *et al.* (2012), 151-175.
- Weisstanner, David and Jonas Pontusson. 2016. "Macroeconomic conditions and the political economy of redistribution." Paper presented at the conference "Theory Meets Crisis" conference, European University Institute, Florence, June 30-July 1.

**Table 1**: Changes in pre-fisc income Ginis, post-fisc income Ginis and redistribution.

	early 1990s		са	. 1994-20	07	ca. 2008-13			2013	
	pre-fisc	post-fisc	redistr	pre-fisc	post-fisc	redistr	pre-fisc	post-fisc	redistr	post-fisc Gini
Nordic:										
Denmark (87-95, 95-07, 08-13)	+2.8	-2.9	+5.7	-0.6	+2.3	-2.9	+3.7	+2.8	+0.9	27.7 (5)
Finland (87-95, 95-07, 08-13)	+8.8	+1.8	+7.0	-2.4	+4.2	-6.6	+1.2	0.0	+1.2	26.0 (3)
Norway (86-95, 95-07, 08-13)	+5.8	+1.4	+4.4	+3.5	+1.5	+2.0	-0.8	-0.5	-0.3	24.6 (1)
Sweden (87-95, 95-05, 08-13)	+7.5	+2.7	+4.8	-3.2	-0.7	-2.5	+0.7	+1.1	-0.4	25.4 (2)
Continental:										
France (89-94, 94-05, 08-13)	+0.6	+0.7	-0.1	-2.0	-1.7	-0.3	-0.2	0.0	-0.2	29.1 (6)
Germany (89-94, 94-07, 08-13)	+3.1	+1.8	+1.3	+4.3	+2.4	+1.9	0.0	+1.5	-1.5	31.6 (8)
Netherlands (87-93, 93-07, 08-13)	-1.2	+1.5	-2.7	-1.0	+1.8	-2.8	+0.7	-0.3	+1.0	27.0 (4)
Anglo:										
Australia (89-95, 95-08, 08-10)	+3.7	+1.2	+2.5	-0.6	+2.2	-2.8	-0.2	-0.8	+0.6	31.3 (7)
Canada (87-94, 94-07, 07-10)	+3.4	+0.5	+2.9	+2.5	+3.4	-0.9	+0.7	+0.4	+0.3	32.2 (9)
UK (86-94, 94-07, 08-13)	+3.5	+3.5	0.0	-1.3	+0.4	-1.7	+0.3	+1.3	-1.0	32.5 (10)
USA (86-94, 94-07, 07-13)	+2.5	+2.2	+0.3	0.0	+1.1	-1.1	+2.8	+1.2	+1.6	37.4 (11)
average	+3.7	+1.3	+2.4	-0.1	+1.5	-1.6	+0.8	+0.6	+0.2	29.5

*Note:* The table records absolute changes in pre-fisc Gini coefficients, post-fisc Gini coefficients and redistribution among working-age households, with redistribution measured as the absolute difference between the pre-fisc and post-fisc Gini coefficients. Detailed time periods indicated in brackets after the country names.

*Sources*: LIS (early 1990s, 1994-2007 and recent period for Australia, Canada and the US) and EU-SILC (2008-13) microdata.

**Table 2:** Changes in pre-transfer income poverty rates and top 1% income shares.

	pre-fisc poverty rates				top 1% income shares				
	early	ca. 1994-	ca.	most recent					
	1990s	2007	2008-13	(2013)	1989-1994	1994-2007	2007-	most re	ecent
Nordic:									
Denmark	+2.1	-1.8	+2.2	26.2	-0.2	+1.1	+0.3	6.4	(2010)
Finland	+7.5	-3.8	+1.5	24.5	-0.2	+2.6	-0.8	7.5	(2009)
Norway	+6.5	+2.1	-1.1	20.2	+3.3	+1.1	-0.7	7.8	(2011)
Sweden	+6.7	-4.8	+1.7	21.3	+1.1	+1.4	+0.3	7.2	(2013)
Continental:									
France	+0.5	-0.7	+0.5	23.5	-0.5	+1.4	-0.2	8.9	(2012)
Germany	+3.8	+3.5	-0.7	25.3	-2.3	+4.9	-0.9	13.1	(2010)
Netherlands	+2.0	-3.2	+1.4	24.4	-0.4	+2.2	-1.2	6.3	(2012)
Anglo:									
Australia	+3.5	-2.1	+1.2	23.7	+0.7	+2.7	-0.7	9.2	(2010)
Canada	+4.1	0.0	+1.2	25.5	-0.2	+4.1	-1.5	12.2	(2010)
UK	+2.3	-1.4	+0.4	26.2	+0.8	+4.8	-2.7	12.7	(2012)
USA	+0.9	-0.3	+2.5	26.1	+0.2	+5.5	-0.8	17.5	(2013)
average	+3.6	-1.1	+1.0	24.3	+0.2	+2.9	-0.8	9.9	

*Note*: Pre-fisc poverty rates defined as percentage of working-age population living in working households with pre-fisc income below 50% of median pre-fisc household income. The poverty data refer to country-specific time periods, as in Table 1. For Germany, top 1% income shares include capital gains, for other countries they do not. Periodization: 1989 to 1994, 1994 to 2007 and 2007 to most recent observation, with most recent observations noted in the last column.

*Sources*: LIS and EU-SILC microdata for poverty rates and World Wealth and Income Database (<u>http://www.wid.world</u>, accessed June 8, 2016) for top income shares.

	Δ pre-fis	c income	Δ pre-fis	c poverty	
	Gi	ini	rate		
	(1)	(2)	(3)	(4)	
Pre-fisc Gini level t-1	-0.512***	-0.518***			
	(0.087)	(0.095)			
Pre-fisc poverty level t-1			-0.556***	-0.561***	
			(0.097)	(0.102)	
$\Delta$ Unemployment rate t	0.392***		0.353***		
	(0.058)		(0.055)		
$\Delta$ Unemployment rate t		0.439***		0.389**	
* period 1990-95		(0.105)		(0.138)	
$\Delta$ Unemployment rate t		0.311*		0.284*	
* period 1996-2007		(0.150)		(0.154)	
$\Delta$ Unemployment rate t		0.435***		0.391***	
* period 2008-13		(0.118)		(0.072)	
-					
Number of observations	103	103	103	103	
Number of countries	19	19	19	19	
R <sup>2</sup> (within)	0.66	0.66	0.67	0.67	

**Table 3**: Pre-fisc inequality and changes in unemployment, 1983-2013.

*Note*: \* p < 0.1; \*\* p < 0.05; \*\*\* p < 0.01 (two-sided tests). Fixed-effects (within) regressions with clusterrobust (country clusters) Huber/White standard errors in parentheses and period dummies (LIS survey waves). Unemployment rates are averages between two income survey observations; change in unemployment measured as first difference of average unemployment rates (source: Armingeon *et al.* 2015). Number of observations by time period: N=21 (1990-95), N=46 (1996-2007), and N=36 (2008-13).

	change 1990-95	change 1995-2008	change 2008-11	2011
Nordic:				
Denmark	+1.8	-3.8	+0.2	9.5
Finland	+1.4	-1.6	+0.6	9.4
Norway	+0.9	+0.2	-0.3	13.9
Sweden	0.0	-3.6	-0.5	8.1
Continental:				
France	-2.0	+0.9	-0.2	11.1
Germany	-0.3	-1.1	-0.3	10.0
Netherlands	-0.9	+1.1	-0.1	11.7
Anglo:				
Australia	+0.1	-0.5	0.0	7.2
Canada	-0.8	-0.2	-0.1	8.0
UK	-0.1	+0.5	-0.4	8.3
USA	+0.1	+0.1	+0.4	10.6
average	+0.0	-0.7	-0.1	9.8

**Table 4:** The Scruggs index of unemployment insurance generosity.

*Source*: Comparative Welfare Entitlements Dataset (<u>http://cwed2.org</u>, accessed May 25, 2016).

	earliest (year)	change 1992-95	change 1995-2007	change 2007-13
Nordic:				
Denmark	1.19 (1992)	+0.44	-0.29	+0.17
Finland	1.23 (1995)		+0.39	+0.20
Norway	1.33 (1996)		+0.61	+0.14
Sweden	1.34 (1995)		+0.26	+0.67
Continental:				
France	1.35 (1993)	+0.01	+0.14	+0.15
Germany	1.55 (1992)	+0.15	+0.47	+0.29
Netherlands	1.45 (1996)		+0.03	-0.03
Anglo:				
Australia	1.41 (1997)		+0.14	+0.07
Canada	1.78 (2000)		+0.09	-0.02
UK	1.26 (1992)	+0.02	+0.34	+0.31
USA	1.25 (1997)		+0.11	-0.08
average	1.37	+0.16	+0.21	+0.17

**Table 5:** The ratio of the unemployment rate for low-educated to the nationalunemployment rate.

*Note*: Indicator refers to the unemployment rate for ISCED 2011 levels 0-2 (less than secondary education completed) divided by the unemployment rate for all ISCED 2011 levels, workers aged 25 to 64. *Sources*: Eurostat (<u>http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=lfsa\_urgaed&lang=en</u>, accessed October 27, 2016); data for Australia, Canada and USA from OECD Education at a glance (<u>http://dx.doi.org/10.1787/889e8641-en</u>, accessed October 26, 2016).

		LIS+SILC data 1990-2013					
$\Delta$ Transfer redistribution t	(1)	(2)	(3)	(4)	(5)	(6)	
Transfer redistribution	-0.533***	-0.522***	-0.595***	-0.578***	-0.537***	-0.346**	
level t-1	(0.087)	(0.093)	(0.081)	(0.083)	(0.085)	(0.131)	
$\Delta$ Unemployment rate t	0.401***		0.348***	0.357***		0.269**	
	(0.093)		(0.083)	(0.075)		(0.106)	
UI generosity t			0.665**	0.522**	0.423**	0.359**	
			(0.247)	(0.222)	(0.183)	(0.150)	
Concentration of				-1.382	-1.578	-2.004**	
unemployment t				(1.104)	(0.999)	(0.738)	
$\Delta$ Unemployment rate t		0.567***			0.573***		
* period 1990-95		(0.130)			(0.090)		
$\Delta$ Unemployment rate t		0.293			0.363**		
* period 1996-2007		(0.177)			(0.171)		
$\Delta$ Unemployment rate t		0.347***			0.248***		
* period 2008-13		(0.056)			(0.067)		
Number of observations	127	127	127	110	110	108	
Number of countries	19	19	19	19	19	16	
R <sup>2</sup> (within)	0.66	0.67	0.72	0.76	0.78	0.48	

**Table 6**: Determinants of transfer redistribution changes, 1983-2013 (LIS data).

*Note*: \* p < 0.1; \*\* p < 0.05; \*\*\* p < 0.01 (two-sided tests). Fixed-effects (within) regressions with clusterrobust (country clusters) Huber/White standard errors in parentheses and period dummies (LIS survey waves). Unemployment rates and unemployment insurance (UI) generosity values are averages between two income survey observations; change in unemployment/generosity measured as first difference of average unemployment/generosity rates. UI generosity measured using the Scruggs (2014) index of unemployment insurance generosity. Number of observations by time period (Models 1-3): N=30 (1990-95), N=60 (1996-2007) and N=37 (2008-13). **Table 7:** Percentage-point change in middle-income survey respondents agreeing that government should do more to redistribute from rich to poor ("agree" and "strongly agree").

	ISSP	data	ESS data		
		late 1990s,			
	early 1990s	early 2000s	2002-08	2008-12	
Nordic:					
Denmark		-17.4 (00-04)	-2.6	-1.5	
Finland		-3.9 (00-04)	-1.7	-1.3	
Norway	+25.2 (90-96)	-4.9 (96-00)	-12.7	-4.0	
Sweden		-6.0 (96-02)	-3.7		
Continental:					
France				-4.4	
Germany	+5.9 (90-96)	-32.9 (96-00)	+10.2	+6.9	
Netherlands			-3.2	+2.2	
Anglo:					
Australia	+27.7 (90-96)	-18.0 (96-99)			
Canada	+4.0 (92-96)	-11.0 (96-00)			
UK	+11.5 (90-96)	-12.8 (96-02)	-5.7	+5.4	
USA	+26.3 (90-96)	-24.0 (96-02)			

*Note*: "Middle-income" is defined as individuals with a self-reported post-fisc household income in the middle third of the income distribution. Respondents above the age of 65 are included in the sample. *Sources*: ISSP calculations by Noam Lupu (Lupu and Pontusson 2011), ESS calculations by Jan Rosset (Rosset and Pontusson 2014).

	change in unemployment 2008-13	change in concentration of unemployment	change in pre- fisc Gini coefficient	change in post- fisc Gini coefficient	percentage of inequality increase offset by taxes and
		2008-13	2008-13	2008-13	transfers
Greece	+19.7	+0.10	+5.2	+1.4	73%
Ireland	+6.7	+0.14	+3.8	+1.9	50%
Italy	+5.5	+0.06	+2.0	+1.4	30%
Portugal	+7.7	+0.05	+3.9	0.0	100%
Spain	+14.8	+0.02	+6.5	+3.2	51%
average	+10.9	+0.07	+4.2	+1.6	61%

### **Table 8:** The crisis experience of Ireland and Southern Europe

*Sources*: see Table 1 and Table 5.

**Figure 1:** Changes in post-fisc inequality plotted against changes in pre-fisc inequality.



*Source*: LIS microdata. Dashed line: 45-degree line (equal changes in pre-fisc and post-fisc inequality). Solid line: linear prediction.

**Figure 2**: Changes in transfer redistribution plotted against changes at the top and the bottom of the income distribution, ca. 1994-2007.



Solid line: linear prediction.

Sources: see Table 2.



**Figure 3**: Ratio of pre-fisc poverty rates among low-educated individuals and total population (upper panel) and percentage share of low-educated individuals (lower panel), 1980-2013.

*Notes*: Own calculations based on LIS microdata. Low education = less than secondary education completed (ISCED 2011 levels 0-2). Poverty line at 50% of median pre-fisc household income (across all education groups). Poverty rates are defined as the share of working-age household heads and partners/spouses living in households with an equivalized household income below the poverty line.

#### NOTES

<sup>1</sup> This also holds for macro-comparative studies that treat varieties of capitalism and electoral systems as the main source of cross-national variation (e.g., Estevez-Abe, Iversen and Soskice 2000, Iversen and Soskice 2006).

<sup>2</sup> See Rueda and Stegmueller (2016) for a recent attempt to tackle this question.

<sup>3</sup> See Hudomiet (2014) for a useful review of labor economics literature on the incidence of unemployment by skill; and Brady and Jäntti (2016) for a review of the broader economics literature on macroeconomic performance, inequality and poverty.

<sup>4</sup> The inequality and poverty figures presented here were calculated based on LIS (2016) and EU-SILC microdata. Household income data have been adjusted using the square root of the number of household members as the equivalence scale, top-coded at 10 times the median non-equivalized income and bottom-coded at 1 percent of equivalized mean income. The aggregate indicators based on equivalized household income are restricted to household members aged between 18 and 64 using adult weights. Our LIS-based estimates of Gini coefficients correspond very closely to the Gini coefficients recorded in the "Comparative Welfare States Data Set" (forthcoming version, calculated in July 2016): for pre-fisc Gini coefficients, the correlation is .989 (p=.000, N=105) and for post-fisc Gini coefficients, the correlation is .995 (p=.000, N=134). For 32 overlapping country-years, the correlation between our LIS-based and SILC-based estimates of pre-fisc Gini coefficients is .94 (p=.000) while the correlation between LIS-based and SILC-based estimates of post-fisc Gini coefficients is .95 (p=.000).

<sup>5</sup> See Jenkins *et al.* (2013) and OECD (2015:ch.3) on the immediate impact of the Great Recession on post-fisc inequality among all households; and OECD (2011) on trends in income inequality among all households over the twenty years preceding the Great Recession. OECD (2015:ch.3) emphasizes that poverty rates for the elderly have been much less affected by the Great Recession than poverty rates for the working-age population.

<sup>6</sup> In the terminology of LIS, the former measure pertains to "market income" and the latter to "disposable income." We use the terms "pre-fisc" and "post-fisc" for convenience, but also to signal that income before taxes and transfers is not simply a "market phenomenon."

<sup>7</sup> While LIS is the source of all our data for the first and second periods, our data for the third period come from LIS in three instances (Australia, Canada and the US), otherwise from SILC. SILC data is available on an annual basis and ends in 2013 for all countries but Switzerland (2012). As indicated in the first panel of Table 1, the exact time periods to which the LIS data refer vary by country. This problem might

be addressed by calculating average annual changes, but our goal here is not to compare rates of change across countries. The raw numbers in Table 1 strike us as more informative: for instance, they allow us to see that increases in pre-fisc inequality in the early 1990s were never offset by decreases during the growth period that followed.

<sup>8</sup> It is important to keep in mind that the second period is longer than the first. In countries that continued to experience growing inequality, the growth of inequality slowed down in the second period. On average, the German net-income Gini coefficient increased by .62 per year from 1989 to 1994 and by .33 per year from 1994 to 2007.

<sup>9</sup> The story is entirely different for Ireland and Southern Europe. From 2008 to 2013, the Gini coefficient for pre-fisc income of working-age households increased by 2.0 percentage points in Italy, 3.8 in Ireland, 3.9 in Portugal, 5.2 in Greece and 6.5 in Spain according to our SILC-based estimates. We shall return to the experience of these countries in the concluding discussion.

<sup>10</sup> Note that the third period in Table 1 encompasses the fiscal stimulus phase of 2008-09 as well as the early stages of the fiscal consolidation undertaken by most OECD countries from 2010. As suggested by OECD (2015:ch.3), the retreat from compensatory redistribution would probably be more apparent if the analysis were restricted to 2010-13.

<sup>11</sup> The correlation coefficients for changes in pre-fisc Gini coefficients and changes in pre-fisc poverty rates are .90 (N=87, p=.000) based on LIS estimates and .61 (N=140, p=.000) based on SILC estimates. For the levels of both variables, the correlation coefficients are .89 (N=106, p=.000, LIS-based) and .82 (N=156, p=.000, SILC-based).

<sup>12</sup> The eight additional countries are Austria, Belgium, Greece, Ireland, Italy, Portugal, Spain and Switzerland. SILC data were added for 2004, 2007, 2010 and 2013 when no LIS data was available for these years, thus matching SILC observations with LIS survey waves. We obtain very similar results when we restrict the analysis to the eleven countries listed in Table 1 (available upon request).

<sup>13</sup> The following analysis is inspired by and seeks to improves on Rueda (2014, 2015).

<sup>14</sup> Based on LIS data, transfer payments account for the lion's share of overall redistribution in most OECD countries (see Pontusson 2005, Table 7.4). For the nineteen countries included in our analysis, over the period 1990-2013, the correlation between LIS-based changes in transfer redistribution and changes in total redistribution is .95 (N=112, p=.000).

<sup>15</sup> With Rueda's (2014, 2015) measure of unemployment generosity (public spending on passive labor market programs in percent of GDP divided by the rate of

unemployment), we observe a clear OECD-wide tendency for generosity to decline, but using this measure in our regression models produces results that are very similar to the ones we report in Table 6. For our purposes, the Scruggs measure is preferable, since it does not involve the rate of unemployment (which features on the right-hand side of the regression equation).

<sup>16</sup> The total number of observations is higher than in Table 3 because LIS allows us calculate Gini coefficients for net income for more country-years than Gini coefficients for pre-fisc income.

<sup>17</sup> In Model 2, the difference between the coefficients for 1990-95 and 2008-2013 is almost significant at the 90% level (p=.12); in Model 5, it clears the 95% threshold (p=.02).

 $^{18}$  According to the World Wealth and Income Database, the US top 1% share fell from an all-time high of 18.3% in 2007 to 16.7% in 2009, but surpassed the 2007 figure in 2012, and stood at 17.9% in 2014.