Unionization, inequality and redistribution

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This article draws extensively on previous collaborative work with Michael Becher and David Rueda and ongoing collaborative work with Lucio Baccaro and Nadja Mosimann. It has benefitted greatly from seminar discussions at the University of Geneva, the University of St. Gallen and the Juan March Institute as well as comments by Michael Donnelly, John Godard, Noam Lupu, Daniel Oesch, Mary O'Sullivan, Line Rennwald, John Stephens, and the aforementioned collaborators.

This essay explores the implications of union decline for the rise of inequality and the politics of redistribution in the OECD countries over the last three decades. Relying on aggregate (country-level) data, my discussion of this topic is not meant to be definitive: rather, my goal is to take stock of what such data tell us and to identify questions for further research and analysis.

Recent literature in comparative political economy identifies, and seeks to resolve, what Lindert (2004:15) and Iversen and Soskice (2009:440) refer to as the "Robin Hood paradox."[1] Although higher inequality would seem to imply that more citizens stand to gain from redistribution, governments in countries with a more egalitarian distribution of market income, measured based on gross earnings from employment, typically engage in more redistribution through taxes and transfers than governments in more unequal countries. Looking within countries over the last two or three decades, the same puzzle appears, with government policies in many countries apparently becoming more "pro-rich" as inequality increases. Why have democratically elected governments so rarely responded to rising inequality by engaging in new redistributive initiatives?

The observation that unionization has declined dramatically at the same time as inequality has risen will not come as a surprise to anyone, but it is fair to say that the new literature on the political economy of redistribution does not pay much attention to trade unions or other "intermediary organizations." Most of this literature has a distinctively individualist orientation, focusing on individual preferences for redistribution and, secondarily, on the aggregation of individual preferences by political parties. There is, however, an important theoretical tradition in comparative welfare-state research, commonly known as "power resources theory" (PRT), that assigns a key explanatory role to the collective organization of workers. As articulated most clearly by Bradley *et al* (2003), the PRT solution to the Robin Hood paradox holds that earnings compression and

redistribution are both to be attributed to "working-class mobilization" or, in other words, that the negative association between earnings inequality and redistribution is essentially spurious. Representing the interests of the median union member, the wage demands articulated by unions typically favor low-wage workers relative to high-wage workers and, as a result, union strength is associated with earnings compression. At the same time, unions mobilize workers to vote for parties that promise to redistribute income. This mobilization may lead to Left government, as typically emphasized by PRT scholars (see also Korpi 2006), but it could also lead all parties to engage in more redistribution.

In what follows, I will show that, across OECD countries, levels of earnings inequality and redistribution are indeed associated with levels of unionization in the manner posited by PRT. I shall also present evidence in support of the key PRT claim that unions play an important role as agents of electoral mobilization. Across countries, the decline of union density correlates quite closely with the decline of voter turnout over the last two or three decades. However, cross-national comparison of changes over time poses a challenge for PRT. Over the period from the late 1970s to the mid-1990s, union decline is clearly correlated with changes in earnings inequality and redistribution in the manner predicted by PRT, but this is not the case for the period from 1995 to 2010. Union decline seems to have become less important as a driver of rising inequality and also seems to have become less relevant for explaining the lack of compensatory redistribution.

My tentative explanation of the attenuation of the egalitarian effect of unionization has to do with the position of union members in the income distribution. In the PRT-inspired literature, the interests of workers and union members are always the same: what varies, across countries and over time, is the extent to which workers are organized in unions. By contrast, I want to bring to the fore the question of who unions organize. As we shall see, union members are relatively well paid today in most OECD countries. Thus is by

no means obvious that the material interests of the average union member are served by earnings compression or redistribution. Though I do not have any historical data to support this claim, it seems likely that union decline has been accompanied by significant shifts in the composition of union membership, rendering union members less supportive of redistributive wage policies and fiscal policies than they were in the 1970s or 1980s.

In a sense, my essay seeks to improve on PRT by incorporating considerations of individual self-interest from the literature on the political economy of redistribution. However, unions cannot be understood simply to represent the self-interest of their members. As I will briefly report, comparative analyses of recent survey data indicate that, controlling for income, union members are more supportive of egalitarianism and redistribution than other citizens. This important observation must also be taken into account if our goal is to assess the implications of union decline for redistributive politics.

Some readers will be troubled by my inattention to institutional differences among OECD countries. In particular, they may object to the way I equate union strength with union density. In many countries, collective bargaining coverage rates may well be a better measure of union influence over distributive labor-market outcomes. I focus on unionization because this variable is more directly relevant to the role of unions in the electoral domain. It also deserves to be noted that changes in union density and bargaining coverage since 1990 are quite closely correlated.[2] More broadly, let me state at the outset that I do not mean to imply that industrial relations institutions and political institutions—for example, electoral rules, party systems, and federalism—are inconsequential. In a short essay like this one, choices obviously have to be made: I have chosen to focus on the (changing) effects of unionization across different institutional contexts.

My discussion unfolds in seven steps. (1) I present cross-national data on union density and briefly discuss reasons for the pervasive decline of union density in OECD

countries. (2) In support of the PRT solution to the Robin Hood paradox, I present scatterplots showing level-relationships between, on the one hand, unionization and, on the other hand, earnings inequality and redistribution. (3) I elaborate on the electoral mobilization mechanism in PRT and present evidence indicating that declining voter turnout can partly be attributed to union decline. (4) I demonstrate that union decline has become less relevant to changes in earnings inequality and redistribution since the early 1990s. (5) I present recent data on unionization by income and some reasons why it seems plausible that union members have moved up in the income distribution as unionization has fallen. (6) I discuss the relationship between union membership and preferences for redistribution. (7) I conclude by explaining how my argumentation differs from that of right-wing union critics.

1. Union decline

Jelle Visser's comprehensive and much-cited dataset provides annual observations of net union density (employed union members in percent of the employed labor force) since 1960. Based on this source, Table 1 identifies the peak year of union density for twenty-two OECD countries and reports the percentage change in union density (defined as employed union members in percent of the employed labor force) from the peak to 2011. I have sorted the countries into three groups, based on the timing of trend changes. The first group consists of countries in which union density peaked during or prior to the 1960s.[3] This group includes the US, Austria, the Netherlands, Switzerland, Norway, Japan and France. With the exception of Norway, which is really a case of union stability rather than decline, these countries have experienced a very long, more or less continuous, decline in union density. By 2010, their unionization rates had fallen by at least half and in two cases, France and the US, by nearly two-thirds. The second group consists of countries in which

the onset of union decline began between 1975 and 1985. This group includes three of the four countries that have experienced the most dramatic cumulative decline in union density—New Zealand, Australia and Portugal—but it also includes several countries characterized by relatively modest cumulative decreases: Spain, Canada and Denmark. Finally, Belgium, Finland, Sweden and Germany make up a third group of countries, the "late comers." In these countries, union density peaked in the first half of the 1990s and, with the very notably exception of Germany, the cumulative decline of union density has so far been quite limited.

[Table 1]

Sweden, Denmark and Finland stand out as the three countries with the highest peaks of union density (above 80%). Belgium and Norway are the two countries that have experienced the smallest declines of union density (below 10%). As union density has fallen dramatically in other countries, these five countries have become an increasingly distinctive high-density group. While there is clearly a common de-unionization trend across the OECD countries, it is not the case that unionization rates have converged (see also Pinto and Beckfield 2011).

It is commonplace to attribute high union density in Sweden, Denmark, Finland and Belgium to the role of unions in the administration of unemployment insurance (e.g., Western 1999, Scruggs 2002, and Ebbinghaus, Göbel and Koos 2011). Selective incentives created by the "Ghent system" served to sustain unionization in these countries as unemployment rose in the 1980s and 1990s and recent reforms of unemployment insurance have had a negative impact on union density in Finland (Böckerman and Uusitalo 2006) as well as Sweden (Kjellberg 2011). More broadly, political and institutional factors are surely important for understanding cross-national variation around the OECD-wide trend for union density to decline. Yet the main challenge, it seems to me, is to explain the

general trend. What accounts for the OECD-wide decline of union density over the last 20-30 years?

Very usefully summarized by Schnabel (2012), the existing literature provides very little evidence of any direct impact of globalization on union density.[4] It seems more plausible to conceive deindustrialization as the "driver" behind the OECD-wide trend, though this line of argument is complicated by fact that public-sector workers are typically much better organized than private-sector workers. In many countries, the expansion of public-sector employment in the 1970s and 1980s meant that declining private-sector unionization did not translate into declining aggregate union density.

Visser's dataset contains information on union density by sector as well as aggregate union density, but this part of the dataset leaves much to be desired: the sector-specific data pertain to different time periods for different countries, and there are only single-year observations, often quite dated, for some countries. Table 2 summarizes the available data on union density in three sectors: the public sector, manufacturing and "commerce."[5]

[Table 2]

The consistency and extent of union decline in the manufacturing sector is the most outstanding feature of Table 2. In all but one of the countries for which we have measures of change over time, we observe significant declines in manufacturing union density. (The one exception is Belgium and this exception may well be due to the fact that the Belgian time series ends in 1992). By comparison, the public-sector story is much more mixed. In just about half the countries covered by these data, unionization of the public sector has declined; in the other half, it has held steady or increased. That public-sector unions have fared better than manufacturing unions will not come as a surprise to anyone. What is more surprising is that unionization trends in low-end private services (commerce) are also

very mixed. Over varying time periods, we observe big declines in the unionization of commercial workers in Australia, Austria, Finland, Ireland and the US, but quite significant increases in Belgium, Canada, the Netherlands, Norway, Sweden, and the UK. Austria and Finland stand are the only two cases in which unionization of commerce has declined more than unionization of manufacturing.

Clearly, the OECD-wide decline of aggregate union density cannot be explained simply by the failure of union membership to keep up with the shift of employment to private services, but it remains plausible to argue that the shift of employment to private services has been an important source of de-unionization. As Table 2 shows, union density in low-end private services (commerce) has always been, and remains, much lower than union density in either manufacturing or the public sector. This observation holds for every one of the eighteen countries for which Visser provides at least one observation of union density in commerce. Holding unionization rates constant, we should expect a shift in employment from manufacturing or public services to private services to be associated with lower aggregate union density.[6]

The existing literature demonstrates that these establishment size and atypical employment are strongly associated with levels of unionization within and across sectors (see Schnabel 2012). Workers in large production unions are more likely to perceive employers as adversaries and to join unions. In addition, it is commonly argued that economies of scale that make it easier (cheaper) for unions to organize larger production units.[7] Regarding atypical employment, the standard argument is that part-time and temporary workers are less willing to bear the costs of joining a union and also more vulnerable to employer pressure (Ebbinghaus, Göbel and Koos 2011). The expansion of temporary employment is primarily a continental European phenomenon, but the point about employer pressure applies equally to employees with indefinite employment

contracts when such contracts are not backed by legal protections (King and Rueda 2008). Critically, decentralization of production and the spread of atypical employment provide a plausible explanation of the decline of union density in manufacturing as well as low levels of union density in private services (relative to manufacturing and public services).[8]

2. Levels of unionization, earnings inequality and redistribution

As noted at the outset, power-resources theory (PRT) resolves the "Robin Hood paradox" by arguing that working-class mobilization, measured by unionization and electoral support for Left parties, promotes compression of market earnings as well as redistributive government policies. With union density as the measure of labor power, comparing OECD countries at any given point in time yields considerable support for these claims.

The OECD's employment database provides annual observations of decile earnings ratios for full-time employees. For a handful of countries, these observations extend back to the 1970s. The rest of the OECD countries enter the dataset in later years, some as late as the 2000s. For all countries for which the OECD provides comparable 1990 data, Figure 1 plots 90-10 ratios against the level of union density in 1990.[9] Figure 2 repeats this exercise with data for 2009. In both figures, we see clearly that countries in which unions are strong tend to have a more equal distribution of earnings. The slope of the best-fit line is almost exactly the same in the two figures, but we observe more dispersion around the best-fit line in Figure 2 (R^2= .443) than in Figure 1 (R^2=.575), suggesting that union density has become a less consistent predictor of earnings inequality over time.[10]

[Figures 1 and 2]

Figures 3 and 4 in turn speak to the relationship between union density and redistribution. Following conventional practice, redistribution is here defined as the

percentage change in the Gini coefficient produced by taxation and income transfers, i.e., the percentage change from inequality measured in terms of market ("pre-fisc") household income to inequality measured in terms of disposable ("post-fisc") household income.[11] With 2010 data (Figure 4) as well as 1990 data (Figure 3), it is clearly the case that, across countries, unionization and redistribution are positively associated with each other. Again, however, this association appears to have become less consistent over time (indicated by a smaller t-static and R^2 square for Figure 4 relative to Figure 3). In particular, France, Germany, the Netherlands and Portugal seem to have emerged as an increasingly distinctive group of countries characterized by relatively low levels of union density and relatively high levels of redistribution.

[Figures 3 and 4]

It is immediately evident from visual inspection of Figures 1-4 that the cross-national association of union density with redistribution as well as earnings compression depends crucially on the Nordic countries. Dropping the Nordic countries from the analysis, the core PRT claims could no longer be sustained in this manner. But if we areinterested in exploring the effects of union density, we surely ought not restrict our sample by eliminating all cases with high values on this variable.

Needless to say, the evidence presented in Figures 1-4 does not allow us to infer that unionization is a "cause" of wage compression or redistribution. The empirical associations shown in these graphs could be spurious. The possibility of reverse causality must also be considered. I shall return to the latter issue in due course. For the time being, suffice it to note that a number of multivariate regression analyses of OECD data on relative earnings, pooling cross-section time-series observations and controlling for potentially confounding variables, such as wage-bargaining centralization and public-sector employment, report significant negative effects of union density or the percentage of the labor force covered by

union-negotiated wage agreements (e.g., Rueda and Pontusson 2000; Pontusson, Rueda and Way 2002; and OECD 2011).[12] Further empirical evidence supporting the idea that unions tend to compress earnings differentials is provided by Scheve and Stasavage (2009), who analyze the evolution of top income shares in twelve countries over the period from 1916 to 2000. Though Scheve and Stasavage warn against a causal interpretation of this finding, union density turns out to be the only "institutional variable" that is consistently associated with (less) income inequality in their long-run analysis. It is also noteworthy that Iversen and Soskice (2006) find that unionization has a significant positive effect on redistribution while controlling for government partisanship and electoral rules.

3. Electoral mobilization

Electoral mobilization featured prominently in early PRT formulations linking working-class mobilization to welfare-state development (see Korpi 1983 in particular). Building on PRT insights, I want to suggest that the role of unions as agents of electoral mobilization is a theme that should be resuscitated and brought to bear on the puzzles identified in the recent literature on the politics of inequality and redistribution.

The argumentation that I have in mind rests on two premises: first, relative income is an important determinant of support for redistribution (poor citizens are more likely to support redistribution) and, secondly, preferences for redistribution in turn matter for vote choice (citizens who support redistribution are more likely to vote for parties that promise to redistribute). The growing literature on preferences for redistribution provides ample evidence in support of the first proposition, but has yet to tackle the question of what difference support for redistribution makes for voting behavior. Starting with Finseeras (2009), every single study that I have seen finds a statistically significant negative association between relative income, measured by self-reported household income, and

support for redistribution, measured by agreement with the statement that "the government should take measures to reduce differences in income levels." Importantly, Rueda (2012) demonstrates that the effect of relative income still holds when we control for social class (based on Goldthorpe's class schema).

Analyzing data from the Luxembourg Income Study (LIS), Mahler (2008) shows that a number of different measures of redistribution of income through taxation and transfers are strongly associated with voter turnout (cf. Kenworthy and Pontusson 2005:459-462). Mahler also documents income-based disparities in voter turnout tend to decline as aggregate voter turnout rises, an empirical observation that is reinforced by Schäfer (2011) and Schäfer and Streeck (2013:13-16). Given that relative income is a strong (negative) predictor of support for redistribution at the individual level, it seems highly plausible to suppose that the cross-national association between voter turnout and redistribution stems from the fact that low-income citizens represent a more important electoral constituency in countries with higher voter turnout, and that the same logic applies to temporal variation within countries.

Stronger representation of low-income citizens in the electorate ought to present Left parties with opportunities to gain support, and may encourage these parties to prioritize redistribution, but standard models of electoral competition imply that centrist and center-right parties would seek to preempt leftist gains by adopting more redistributive platforms. For the purposes of this short essay, it is not necessary to resolve the thorny question of whether—or under what circumstances—parties cater to core constituencies or behave according to median-voter logic.[13]

Turning to the effects of unionization on voter turnout, many studies of electoral participation in the US have shown that union members are more likely to vote than other voting-age citizens, controlling for other determinants of voting. Based on 1978-90 data

from the General Social Survey, Kerrissey and Schofer (2013) estimate that the probability of voting is 18% higher among union members than survey respondents who are eligible to vote but do not belong to a union. Pooling European Social Survey data for 19 countries in 2008-10, countries in European Social Survey, Mosimann and Pontusson (2013) report similar results: survey respondents who identify themselves as union members are more likely to vote than other survey respondents. This association remains significant when we control for self-declared in interest in politics, suggesting that it is not simply the case that politically engaged individuals are more likely to join unions. Unions may stimulate political interest, but being a union member also seems to have a direct "mobilizational effect." We might think of this effect either in terms of deliberate union efforts to lower the costs of voting for individuals (most obviously relevant in the US case, distinguished by voter registration requirements and week-day elections) or as a social-network effect, premised on the idea that individuals are more likely to vote to the extent that they interact with others who vote (or at least say that they vote).[14]

Consistent with the results of these individual-level analyses, Radcliff and Davis' (2000) multivariate analysis of macro-level data shows that union density is a powerful predictor of variation in voter turnout across American states over the period 1964-82 as well as a powerful predictor of variation in voter turnout in nineteen OECD countries over the period 1960-88. Plotting average turnout in national elections between 2000 and 2009 against union density in 2005, Figure 5 indicates that the cross-national association between union density and voter turnout identified by Radcliff and Davis still holds.[15]

[Figure 5]

For our present purposes, the crucial question concerns change over time: has union decline been a source of declining voter turnout in OECD countries? While other variables must surely be taken into account as well, Figure 6 suggests that union decline

deserves more attention than it has received in the literature on this topic (notably Franklin 2004). On the vertical axis, Figure 6 reports the percentage change in voter turnout from the election immediately following the peak of union density (or the peak year itself if there was an election that year) to the most recent pre-2008 election. On the horizontal axis, it reports the percentage change in union density from the peak year to the year of the most recent election pre-2008 election. While restricting the analysis to the time period since the onset of union decline allows us to focus on the component of the decline of voter turnout that could potentially be explained by union decline, I have excluded elections since 2008 on the grounds that the Great Recession seems to have precipitated "extraordinary" voter mobilization in many countries, apparently unrelated to unionization.[16] With Canada and New Zealand as notable outliers, we observe a quite strong association between the extent of union decline and the extent of turnout decline.[17]

[Figure 6]

4. Comparative analysis of within-country change

Level relationships are broadly supportive of core PRT claims: across countries, union density has been and remains associated with (a) less earnings inequality, (b) higher voter turnout, and (c) more redistributive government. In addition, change in union density appears to be associated with change in voter turnout (Figure 6). In this section, I want to probe the question of change over time further. Looking across countries, has union decline also been associated with rising earnings inequality and declining redistribution? With regard to redistribution, a more appropriate formulation might be: has union decline been associated with a decline in the responsiveness of redistribution to increases in market inequality?

The existing literature addresses these questions indirectly by pooling cross-section time-series data and estimating regression models with country fixed effects. The standard setup (e.g., OECD 2011) focuses on the determinants of within-country change in the dependent variable, but assumes that the effects of independent variables, such as union density, have been constant over time. However, the fact that union density seems to be a less consistent predictor of earnings inequality and redistribution with 2008-10 data than with 1990 data raises questions about this assumption. In a preliminary fashion, I propose to explore *changes in the effects of unionization* by comparing patterns in pre-1995 data with patterns in post-1995 data. The 1995 cutoff point is arbitrary, but convenient in the sense that it allows for comparing time periods of more or less equal duration.

Let us begin by considering the relationship between union density and earnings inequality. For ten countries, Figure 7 plots changes in 90-10 earnings ratios against changes in union density over the period 1975-95, and Figure 8 does the same for the period since 1995. In Figure 9, I have added six additional countries for which we have observations of change in earnings inequality over the period 1995-2009. As collective bargaining agreements often last for two or three years, changes in union density have been lagged by three years to generate these graphs. It should also be noted that that change in both variables is measured relative to initial levels or, in other words, in percentages. The intuition that justifies this choice is simple. On the one hand, a decline in union density by, say, five percentage points surely represents a bigger decline in union influence over the distribution of earnings if union density is 15% (the US) than if union density is 80% (Sweden). On the other hand, any given increase in the 90-10 earnings ratio, measured in absolute terms, represents a larger increase of earnings inequality if the initial ratio is smaller.

[Figures 7-9]

As noted earlier, the OECD database on relative earnings extends back to the 1970s for only a handful of countries. The distribution of earnings is a sticky, slow-moving variable and we would not expect union decline (or growth) to have discernable effects on the distribution of earnings unless it persists over some reasonably extended period of time. At the same time, meaningful cross-national comparisons presuppose a reasonably large number of countries. For half of the ten countries included, Figure 7 reports percentage changes in the 90-10 earnings ratio from 1975 to 1995, matched with percentage changes in union density from 1972 to 1992. For the other half, the time span is shorter (inside the 1975-95 window), with union density lagged accordingly. The data summarized in Figure 8 cover more or less the same time period for all countries while Figure 9 again encompasses some countries for which the data on changes in earnings inequality are more limited.

With Japan as a notable outlier, Figure 7 shows a strong negative association between changes in union density over 1972-92 and changes in earning inequality o over 1975-95. As suggested by Cecchi, Visser and van de Werfhorst (2010), we must be cautious in interpreting such evidence to imply that union decline has been a cause of rising earnings inequality (see also Scheve and Stasavage 2009). Observing that an individual's probability being a union member falls as his or her earnings rise above median earnings, these authors argue that workers who are farther above the median stand to loose more from solidaristic wage policies and will therefore shun unions. Thus union decline might, in part, be a consequence of increasing earnings inequality. Assuming that unions typically pursue solidaristic wage policies, however, this argument complements rather substitutes for the argument that union decline has been a source rising inequality. It should also be noted that lagging changes in union density by three years lends plausibility to the standard causal interpretation.

For our present purposes, the more important point is that we do not observe any consistent cross-national association between changes in union density and earnings inequality for the period since 1995. Restricting the analysis to the ten countries included in Figure 7, the slope of the best-fit line is still negative, but the association between the two variables fails to satisfy even the most lax criteria of statistical significance (Figure 8). With other countries added (Figure 9), we find no indication whatsoever that countries experiencing larger declines in union density have also experienced larger increases of earnings inequality. On the one hand, Japan and Ireland stand out as cases that have combined wage compression with large decreases in union density. On the other hand, strong and relatively stable unions have apparently accommodated large increases in earnings inequality, albeit from very low initial levels, in Norway, Denmark and Finland.[18]

Replicating Figures 7-9 with changes in redistribution on the vertical axis, we do not observe any association between changes in union density and redistribution over the period 1980-95, let alone 1995-2010. From a dynamic perspective, the relationship between union density and redistribution is more complicated than the relationship between union density and earnings inequality. As Kenworthy and Pontusson (2005) demonstrate, most contemporary welfare states are organized such that redistribution increases more or less automatically in response to increases in household income inequality. To the extent that union decline has been a source of rising inequality before taxes and transfers, it would thus be associated with more redistribution.

Table 3 reports the results of estimating a simple multivariate regression model that separates the "welfare-state compensation effect" from the direct effect of changes in union density and also takes into account potential convergence in levels of redistribution across OECD countries. Based on data for 20 countries, the results are quite interesting.[19] For the period 1980-95, we find that redistribution increased more (or declined less) in countries

that experienced more rapid growth of inequality measured in terms of market income. This remains true for the period 1995-2010, but redistribution appears to have become less responsive to inequality over time. For 1980-95, we also observe some convergence among OECD countries: over these 15 years, redistribution increased more in countries that, on average, redistributed less in 1980. This effect no longer appears when the model is estimated with data for 1995-2010. Most importantly for our present purposes, the model yields a significant positive effect of change in union density for the period 1980-95 and no such effect for 1995-2010. Controlling for catch-up and inequality-induced redistribution, increasing unionization appears to have been a source of pressure on governments to redistribute more—or, conversely, union decline removed pressure on governments to redistribute—in the 1980s and early 1990s. For 1995-2010, the sign of the (insignificant) coefficient for change in union density is actually negative.

[Table 3]

The evidence presented above suggests that the egalitarian effects of unionization, for government redistribution as well as the distribution of earnings from employment, have diminished, possibly disappeared altogether, over the last two decades or so. In other words, union decline seems to have become a less powerful explanation of inegalitarian labor-market trends and retreat from redistribution over time. It goes without saying that this observation needs be verified through more rigorous analyses based on pooling cross-section time-series data. For the time being, let me simply note that the data patterns shown in Figures 7-9 are consistent multivariate regression results reported by Baccaro (2011) and Golden and Wallerstein (2011).

5. Unionization by income

One plausible explanation for the diminishing effects of unionization on inequality and redistribution is that the position of union members in the income distribution has changed over time. This relates to what I consider to be the main weakness of power resources theory, namely the assumption that workers constitute a more or less homogenous constituency with a common interest in social protection and redistribution. The critical variable in PRT-inspired literature is the extent to which this constituency is organized, or mobilized, and thus able to exert influence over distributive outcomes, with "working-class mobilization" varying across countries and over time. To my mind, the PRT framework needs to incorporate the idea that the interests represented by unions also vary across countries and over time. In particular, I want to suggest that the dramatic decline of unions that has occurred in many OECD countries since the 1970s has been accompanied by important shifts in the position of union members in the income distribution.

The recent literature on "dualization" frequently argues (or implies) that unions organize and represent labor-market insiders or, in other words, middle-aged male workers with protected jobs and relatively high wages (e.g., Rueda 2007 and Emmenegger *et al* 2012). Side-stepping conceptual and empirical problems involved in distinguishing between "insiders" and "outsiders," my discussion here will be restricted to unionization by income. Table 4 presents the main findings of Becher and Pontusson's (2011) analysis of ESS data from 2006-08. The analysis is based on a survey question asking respondents to identify the disposable income of the household to which they belong. Having adjusted for household size, we estimated the distribution of household income for all survey respondents belonging to the dependent labor force (i.e., either employed by someone else or registered as unemployed), assigned each respondent to an income quintile, and then calculated the unionization rate for each quintile.[20] The last column reports our estimates

of the percentage of union members who belong to households below the median disposable household income of the dependent labor force.

[Table 4]

The most striking feature of Table 4 is that for every country but Belgium and Portugal union density in the top income quintile is higher than union density in the bottom quintile. In a majority of countries, union density peaks in either the fourth or the fifth quintile. The exceptions to the latter generalization are Finland, Sweden and Switzerland, where unionization is highest in the second quintile, and Belgium and Ireland, where unionization is highest in the third quintile. Denmark is a special case, with the third and fifth quintiles being tied for first place. Setting Switzerland aside, the countries with the highest aggregate rates of unionization are also the countries with the highest percentage of union members with household incomes below the median. By mathematical necessity, the proportion of union members with incomes below the median will converge on 50% as aggregate union density approaches 100%. What is striking is that Switzerland seems to the only case in which this logic would reduce (rather than increase) the percentage of low-wage workers among union members.

As noted above, much of the literature on implications of unionization for the earnings distribution proceeds from the idea that the wage of the median union member is lower than the average wage and, as a result, the median union member favors solidaristic wage policies (see, most notably, Freeman 1980). Similarly, my earlier discussion of the implications of unionization for redistributive politics assumes that unions primarily mobilize citizens with market incomes below the average and thus shift the center of political gravity—or, in other words, "the preferred policy of the median voter"—in favor of redistribution. According to Becher and Pontusson (2011:197), however, the ratio of the household income of the median union member to the household income of the median

voter ranges between a low of 1.00 for Switzerland and a high of 1.37 for Greece. Assuming that preferences for redistribution are strictly self-interested, we would not expect higher rates of voter turnout among union members to be a source of higher support for redistribution in the electorate.

Though I do not have any comparable estimates of unionization by income for earlier time periods, I find it to hard to believe that a similar analysis for, say, the 1970s would yield results akin to those presented in Table 4.[21] In many OECD countries, organized labor has probably become more representative of high-wage workers over the last twenty or thirty years. Holding wage differentials constant, the relative earnings of the median or average union member will increase if it is the case that union density among high-wage workers increases more or declines less than union density among low-wage workers. It is tempting to suppose that union decline derives first and foremost from the failure of unions to organize low-wage workers expansion of low-wage employment, but the data on unionization by sector presented in Table 2 raises questions about this line of argument. In general, workers in manufacturing are better paid than workers in commerce, but it does not appear to be the case that union density has held up better in manufacturing than in commerce.

Figure 10 provides the basis for a different story as to why organized labor has become more representative of high-wage workers over the last two decades.[22] Pooling data from sixteen OECD countries, this figure shows the evolution of average real hourly earnings in export-oriented manufacturing, public services and low-end private services (hotels and restaurants as well as wholesale and retail trade) from 1990 to 2007. On average, earnings in manufacturing increased by more than 31% while earnings in public services increased by just about 25% and earnings in low-end private services increased by 17-18% over this period.[23] In other words, earnings have grown much faster in sectors

where unions have been and remain relatively strong and, as a result, the relative earnings of union members have increased. Given the very large initial differences in union density between manufacturing and commerce, it seems reasonable to suppose that the effects of changing earnings relativities have trumped the effects of disproportionate declines in union density among manufacturing workers.

[Figure 10]

My working hypothesis concerning the diminishing egalitarian effects of unionization can be summarized as follows. In many countries, national union movements resisted market pressures for inter-sectoral wage differentials to rise from the 1970s onwards. Manufacturing unions initially went along with national union policies, but in response to membership losses they became increasingly supportive of employer efforts decouple of wage developments in manufacturing and services. As the relative earnings of union members have increased, the effect of electoral mobilization by unions on the center of political gravity has in turn diminished.

6. Union membership and preferences for redistribution

Based on self-interest, the account of the implications of (de-)unionization for redistributive politics proposed above needs to be qualified. Recent comparative analyses of individual preferences for redistribution that include union membership as an independent variable find that, controlling for income, survey respondents who identify themselves as union members are significantly more likely to support redistribution than respondents who are not union members (Cecchi, Visser and van de Werfhorst 2010, Rueda 2012, Mosimann and Pontusson 2013). Analyzing support for redistribution with 2008-10 data from the European Social Survey, Mosimann and Pontusson (2013) also find a robust positive effect of interacting union membership and income: in other words, the difference

in support for redistribution between union members and non-members is biggest among survey respondents with high (household) incomes.

Cecchi, Visser and van de Werfhorst (2010) interpret the finding that union member favor egalitarianism and redistribution as a self-selection effect. Simply put, their argument is that individuals with a more egalitarian ideological disposition are more likely to join unions. The obvious alternative interpretation is that the experience of being a union member generates—or sustains—egalitarian attitudes. These interpretations need not be conceived as mutually exclusive. Assuming that individuals tend to conform to the attitudes of other members of social networks or organizations to which they belong, one might plausibly argue that unions nurture egalitarianism precisely because they attract individuals with egalitarian attitudes. To the extent that unions encompass a wide range of the earnings distribution, it might also be argued (following Lupu and Pontusson 2011) that they constitute social networks that generate social affinity with the poor among middle and high-income individuals.

The challenge of parsing between self-selection and socialization lies well beyond the scope of this essay, but it is noteworthy that the association between union membership and support for redistribution still holds when the analysis is restricted to countries with Ghent systems of unemployment insurance. According to conventional wisdom, selective incentives to join unions explain high levels of unionization in these countries. By implication, ideological motivations for joining unions should be less prominent, yet it appears that union members are still distinctively support of redistribution. To my mind, this constitutes quite compelling evidence that the association between union membership and support for redistribution is not entirely due to self-selection.

Recall the opening question of this essay: why do we observe so little effort by democratically elected governments to offset rising inequality through new redistributive

initiatives? Union decline deserves to be taken into account in addressing this question. The most obvious way that union decline matters for redistributive politics is that it has contributed to declining voter turnout, especially among poorly paid workers with strong self-interested reasons for supporting redistribution. But there a second potential mechanism involved here that also deserves to be noted: as unionization among well-paid workers has fallen, other-regarding support for redistribution among well-paid workers has arguably fallen as well. Related to this second mechanism, an important question that I wish to pursue in future research concerns the effects of different types of unions for individual attitudes and preferences. My working hypothesis is that union decline implies not only that well-paid workers (as well as poorly paid workers) are less likely to belong to unions, but also that they are more likely to belong to unions that encompass a relatively narrow range of occupations and incomes (cf. Hassel 2013).

7. Final remarks

Some readers have responded to earlier drafts of this essay by asking me to elaborate on how my interpretation of the contemporary role of trade unions differs from that of "right-wing commentators" who allege that unions represent a privileged labor aristocracy. Let me briefly comply with this request and, in so doing, restate the main points of the preceding discussion.

In contrast to many right-wing union critics, I consider contemporary unions to be, broadly speaking, democratic organizations that represent the preferences of their members. To a large extent, the preferences of union members are self-interested, but this is not entirely the case. We have at least some evidence indicating that being a union member tends to encourage people to be more other-regarding or to conceive of their own interests in broader terms. I do not believe that unions are more "selfish" than other

economic interest groups; quite the contrary, my view is that unions have always been and remain associated with solidaristic values of a distinctively universalistic cast.

The aggregate, cross-national evidence presented above indicates that the egalitarian effects of unionization have become weaker over time, but it remains the case that more unionized countries are, on average, characterized by less earnings inequality and more redistribution than less unionized countries. None of the evidence presented above indicates that strong unions have become associated with more inequality.

In the end, right-wing critiques of unions invariably seem to boil down to the claim that these organizations deliver benefits to their members (or officials) at the expense of the common good—or at the expense of unorganized and less privileged workers. I have not made any argument along these lines or presented any evidence supporting such an interpretation. The fundamental point of this essay is that any political project aspiring to redress the growth of inequality in the OECD countries ought to promote unionization and, in particular, the unionization of low-wage and precariously employed workers. Existing union organizations have neither the incentives nor the resources to tackle this challenge on their own.

Notes

[1] In Lindert's words, "redistribution from rich to poor is least present when and where it seems to be most needed."

[2] For 21 of the 22 countries included in Table 1 below (South Korea missing for lack of coverage data), the correlation between percentage changes in union density and bargaining coverage from 1990 to 2007 is .712 (p= .000). Without Austria, the single biggest outlier (and missing from my analysis of change in earnings inequality), the correlation is .776 (p= .000). Data source: Visser (2013).

[3] In the US, unionization of non-agricultural workers peaked at 35.5% in 1945 and union membership in percent of the total labor force peaked at 25.4% in 1954 according to the Bureau of Labor Statistics (cited by Goldfield 1987:10). The 1960 BLS figure for non-agricultural workers (31.4%) is very close to Visser's figure (30.9%). For lack of comparable data for countries, my discussion is restricted to the period since 1960. It should also be noted that Table 1 ignores very high figures immediately following the transition to democracy in Portugal and Spain. According to Visser's dataset, union density peaked at 60.8% in Portugal, in 1978 and at 45.1% in Spain, also in 1978. My decision to use 1980 as the baseline for these countries is entirely arbitrary and potentially problematic. In the Spanish case, union density stabilized around 10% in the mid-1980s and then rose to a new peak of 16.7% in 2000. In the Portuguese case, by contrast, we observe a continuous decline of union density from the late 1970s onwards. Note that none of the empirical generalizations made in this essay depend on Portuguese or Spanish data.

[4] Lange and Scruggs (2002) convincingly demonstrate the absence of any direct linkage between globalization and union decline.

[5] Visser's dataset also includes some observations of union density in other service sectors, such transportation, finance and hotel and restaurants (as well as construction). Provided that we knew the employment share of each sub-sector, we could potentially use these data to generate overall estimates of union density in private services, but the data are too fragmentary and Visser's documentation (for the sector-specific part of his dataset) is not sufficiently detailed to make such an exercise worthwhile. Note that the figures on union density in hotels and restaurants reported by Visser are generally quite close to his figures for union density in commerce: thus it seems reasonable to conceive union density in commerce as a rough proxy for union density in low-end private services.

[6] This expectation is borne out by Lee's (2005) analysis of pooled cross-section time-series data.

[7] The argument about economies of scale is deployed by Wallerstein (1989) to explain why union density tends to be higher in smaller economies. See Pontusson (1992) and Bartolini (2000) for further discussion of the implications of plant size for union strength and working-class support for Left parties.

[8] The argument about atypical employment invites concerns about reverse causality, for the expansion atypical employment might, of course, be attributed to labor-market reforms made possible by the declining power of unions. The same holds for reforms of unemployment reforms.

[9] The 90-10 ratio is the ratio of the earnings of someone in the 90th percentile of the earnings distribution to the earnings of someone in the 10th percentile. The OECD data for France refer to net rather than gross earnings (i.e., after-tax earnings): therefore I do not include France in this analysis.

[10] Since Figure 2 includes more countries than Figure 1, the bivariate regression results cannot be directly compared, but the point about increased dispersion still holds if the analysis of 2009 data is restricted to the 10 countries included in Figure 1 (coefficient= -.020, t= -2.52, R^2= .443).

[11] In contrast to some of the existing literature (including Kenworthy and Pontusson 2005), the measure used here includes the elderly population. This allows me to include more countries and look at data for a single year.

[12] Similarly, Bradley *et al* (2003) demonstrate that unionization is a significant determinant of working-age household income inequality before taxes and transfers.

[13] Elsewhere, I have argued that unionization and voter turnout condition the extent to which Left parties differentiate themselves from other parties with respect to social spending and redistribution (Kwon and Pontusson 2010, Pontusson and Rueda 2010). More important for present purposes, I want to acknowledge that Barnes' (2013) careful comparative analysis of state-level voter turnout and welfare spending in the US runs counter to the argument suggested here. Barnes finds no consistent effect of turnout on welfare spending and also shows that the distance between the median voter's income and the mean income is not very different from the distance between the median and the mean income. There are two main reasons why her results do not necessarily call into question the cross-national argument. First, federal transfers finance a large part of welfare spending by US states, which arguably weakens the link between turnout and spending. Second, voter turnout across US states ranges between 33% and 56% (2010 mid-term elections), as compared to the cross-national range of 46% to 86% shown in Figure 5. As Barnes notes, the correlation between aggregate voter turnout and income bias in turnout may well be weaker at lower levels of aggregate turnout.

[14] While Mosimann and Pontusson (2013) fail to find a significant effect of interacting union membership and income, Kerrissey and Schofer's (2013) report a significant effect of interacting union membership with education: it is primarily among US survey respondents with low levels of education that union membership is associated with higher turnout in elections. On union membership as a variable that conditions class voting, see Oesch (2006) and Rennwald (2013).

[15] Australia, Belgium and Greece have been dropped from Figure 5 on account of mandatory voting (in the Greek case, until the early 2000s). The French and US turnout figures include both legislative and presidential elections.

[16] Note that for Japan Figure 6 measures the change in voter turnout to the 2003 election rather than the 2005 election (the one and only exception to the "most recent pre-2008 election" rule). According to the Armingeon dataset, Japanese voter turnout was 59% in

1996, 62.5% in 2000, and 59.9% in 2003 and then jumped to 67.5% in 2005. The 2003 election appears to be more representative of "pre-crisis conditions" than the 2005 election.

[17] Franklin's (2004) account of declining voter turnout emphasizes changing dynamics of electoral competition while downplaying changing characteristics of voters. Franklin repeatedly asserts that unionization does not add much, if any, explanatory power to his empirical models, but the analysis behind these assertions is not entirely transparent. Curiously, Franklin states (p. 18, footnote 10) that "outside the United States, union density has declined less—by under 2 percent on average across eighteen advanced democracies… so this is not likely to be a variable that could account for widespread turnout decline."

[18] Again, France is not included in Figures 7-9 because the OECD data for France refers to net earnings. If France were included, it would be a major outlier in all three figures, characterized, much like Japan, by a dramatic decline in union density combined with stability or decline of earnings inequality. All existing studies seem to agree that minimum-wage legislation is the main reason for the significant compression French wage differentials that occurred between 1980 and 2000 (see, e.g., Charnoz, Coudin and Gaini 2011).

[19] The analysis includes 20 of the 22 countries listed in Table 1: Greece and South Korea are missing for lack of data on redistribution in the 1980s.

[20] In contrast to Visser's, our measure of union density includes the unemployed (in the numerator as well as the denominator), but this makes very little differences for purposes of cross-national comparison: the correlation between our ESS-based estimates of aggregate union density and Visser's net density figures for 2008 figures is .971 (p= .000).

[21] Together with Lucio Baccaro and Ruya Kocer, I have begun to explore using data from World Values Surveys and the International Social Survey Program to track changes in the composition of union membership since the mid-1980s.

[22] Lucio Baccaro kindly helped me produce Figure 10. We are currently working on a paper that seeks to explain the evolution of inter-sectoral earnings differentials since 1970 (see Baccaro and Pontusson 2013).

[23] Needless to say, the 16-country averages presented in Figure 10 hide a good deal of cross-national variation, but this variation primarily pertains to the ability of public-sector workers to keep up with manufacturing wages. Ireland is the only case in which low-end services did not fall behind in a big way between 1990 and 2007.

References

Armingeon, Klaus *et al*. 2012. "Comparative Political Data Set I 1960-2010," http://www.ipw.unibe.ch/content/team/klaus_armingeon/comparative_political_data_sets/index_ger.html.

Baccaro, Lucio. 2011. "Labor, globalization and inequality." In *Research in the Sociology of Work,* v. 22B, edited by David Brady (London: Emerald Press, 2011), 213-285.

Baccaro, Lucio and Jonas Pontusson. 2013. "Coordinated wage bargaining and inter-sectoral differentials in a Baumolian world." Paper presented to the annual conference of the Society for the Advancement of Socio-Economics, Milan, June 27-29.

Barnes, Lucy. 2013. "Does median voter income matter?," *Political Studies* 61(1): 82-100.

Bartolini, Stefano. 2000. *The Political Mobilization of the European Left, 1860-1980.* Cambridge: Cambridge University Press.

Becher, Michael and Jonas Pontusson. 2011. "Whose interests do unions represent?" In *Research in the Sociology of Work,* v. 22B, edited by David Brady (London: Emerald Press, 2011), 181-211.

Böckerman, Petri and Roope Uusitalo. 2006. "Erosion of the Ghent System and Union Membership Decline," *British Journal of Industrial Relations* 44(2):283-303.

Bradley, David et al. 2003. "Distribution and redistribution in postindustrial democracies," *World Politics* 55:193–228.

Cecchi, Daniele; Jelle Visser and Herman G. van de Werfhorst. 2010. "Inequality and union membership," *British Journal of Industrial Relations* 48: 84-108.

Charnoz, Pauline; Elise Coudin, and Mathilde Gaini. 2011. "Decreasing wage inequality in France 1976-2004." INSEE working paper.

Ebbinghaus, Bernhard; Claudia Göbel and Sebastian Koos. 2011. "Social capital, 'Ghent' and workplace context matter," *European Journal of Industrial Relations* 17:107-124.

Emmenegger, Patrick *et al* (eds.). 2012. *The Age of Dualization.* Oxford: Oxford University Press.

Finseeras, Henning. 2009. "Income inequality and demand for redistribution." *Scandinavian Political Studies* 32(1):94-119.

Franklin, Mark. 2004. *Voter Turnout and the Dynamics of Electoral Competition in Established Democracies since 1945.* Cambridge: Cambridge University Press.

Freeman, Richard. 1980. "Unionism and the dispersion of wages," *Industrial and Labor Relations Review* 34: 3-23.

Golden, Miriam and Michael Wallerstein. 2011. "Domestic and international causes of the rise of pay inequality in OECD nations between 1980 and 2000." In *Research in the Sociology of Work,* v. 22A, edited by David Brady (London: Emerald Press, 2011), 209-249.

Goldfield, Michael. 1987. *The Decline of Organized Labor in the United States.* Chicago: University of Chicago Press.

Hassel, Anke. 2013. "Trade unions and the future of democratic capitalism." Paper presented to the 20th International Conference of Europeanists, Amsterdam, June 25-27.

Iversen, Torben and David Soskice. 2009. "Distribution and redistribution," *World Politics* 61(3):438-486.

Iversen, Torben and David Soskice. 2006. "Electoral institutions and politics of coalitions," *American Political Science Review* 100(2):165-181.

Kenworthy, Lane and Jonas Pontusson. 2005. "Rising inequality and the politics of redistribution in affluent countries," *Perspectives on Politics* 3: 449-471.

Kerrissey, Jasmine and Evan Schofer. 2013. "Union membership and political participation in the US." *Social Forces* 91(3):895-928.

King, Desmond and David Rueda. 2008. "Cheap labor," *Perspectives on Politics* 6:279-297.

Kjellberg, Anders. 2011. "The decline in Swedish union density since 2007," *Nordic Journal of Working Life Studies* 1:67-93.

Korpi, Walter. 1983. *The Democratic Class Struggle*. London: Routledge and Kegan Paul.

Korpi, Walter. 2006. "Power resources and employer-centered approaches in explanations of welfare states and varieties of capitalism," *World Politics* 58: 167–206.

Kwon, Hyeok Yong and Jonas Pontusson. 2010. "Globalization, labour power and partisan politics revisited." *Socio-Economic Review* 8(2):251-281

Lange, Peter and Lyle Scruggs. 2002. "Where have all the members gone?" *Journal of Politics*. 64:126-53.

Lee, Cheol-Sung. 2005. "International Migration, Deindustrialization and Union Decline in 16 Affluent Countries," *Social Forces* 84(1):71-88.

Lindert, Peter. 2004. *Growing Public*. Cambridge: Cambridge University Press.

Lupu, Noam and Jonas Pontusson. 2012. "The structure of inequality and the politics of redistribution," *American Political Science Review* 105(2): 316-336.

Mahler, Vincent. 2008. "Electoral turnout and income redistribution by the state," *European Journal of Political Research* 47: 161-183.

Mosimann, Nadja and Jonas Pontusson. 2013. "Union membership: electoral mobilization and preferences for redistribution." Paper presented to the 20th International Conference of Europeanists, Amsterdam, June 25-27.

OECD. 2011. *Divided We Stand.* Paris: OECD Publishing.

OECD. 2013. "Distribution of gross earnings of full-time employees," http://www.oecd.org/employment/employmentpoliciesanddata/onlineoecdemploymentdatabase.htm.

Oesch, Daniel. 2006. *Redrawing the Class Map.* New York: Palgrave MacMillan.

Pinto, Sanjay and Jason Beckfield. 2011. "Organized labor in European countries, 1960-2006. In *Research in the Sociology of Work,* vol. 22B, edited by David Brady (London: Emerald Press, 2011), 153-179.

Pontusson, Jonas. 1995. "Explaining the decline of European social democracy," *World Politics*, 47(4):495-533.

Pontusson, Jonas; David Rueda and Christopher Way. 2002. "Comparative political economy of wage distribution," *British Journal of Political Science* 32: 281-303.

Radcliff, Benjamin and Patricia Davis. 2000. "Labor organization and electoral participation in industrial democracies." *American Journal of Political Science* 44 (1): 132–41.

Rennwald, Line. 2013. "Partis socialistes et classe ouvrière." PhD thesis, Department of Political Science, University of Geneva.

Rueda, David. 2012. "Food comes first, then morals?" Paper presented at conference on "The Political Economy of Skills and Inequality," University of Konstanz, July 26-27.

Rueda, David. 2007. *Social Democracy Inside Out.* Oxford: Oxford University Press.

Rueda, David and Jonas Pontusson. 2000. "Wage inequality and varieties of capitalism," *World Politics* 52(April): 350-383.

Rueda, David and Jonas Pontusson. 2010. "The politics of inequality," *Comparative Political Studies* 43(6): 675-705.

Schäfer, Armin. 2011. "Republican liberty and compulsory voting." Max-Planck Institute for the Study of Societies, Cologne, Discussion Paper 11/17.

Schäfer, Armin and Wolfgang Streeck. 2013. "Introduction: Politics in the age of austerity." In Schäfer and Streeck, eds., *Politics in the age of austerity* (London: Polity Press).

Scheve, Kenneth and David Stasavage. 2009. "Institutions, partisanship and inequality in the long run," *World Politics* 61(2): 215-253.

Scruggs, Lyle. 2002. "The Ghent system and union membership in Europe, 1970-1996," *Political Studies Quarterly* 55:275-297.

Schnabel, Claus. 2012. "Union Membership and Density." Institute for the Study of Labor (IZA), Bonn, Discussion Paper No. 6792.

Solt, Frederick. 2011. "Standardized World Income Inequality Database," version 3.1, http://myweb.uiowa.edu/fsolt/swiid/swiid.html.

Visser, Jelle. 2013. "Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts," version 4.0, www.uva-aias.net/207.

Wallerstein, Michael. 1989. "Union organization in advanced industrial democracies," *American Political Science Review* 83:481-501.

Western, Bruce. 1999. *Between Class and Market.* Princeton: Princeton University Press.

Table 1: Union decline, 1960-2010

	peak year (or earlier)	peak	2010	%change since peak	rank
USA (US)	1960	30.9	11.4	-63.1	5
Austria (AT).	1960	67.9	28.4	-56.8	6
Netherlands (NL).	1960	40.0	19.3	-50.8	7
Switzerland (CH)	1960	36.1	17.2	-52.4	8
Norway (NO).	1961	60.8	54.8	-9.9	21
Japan (JP).	1964	35.5	18.4	-48.2	9
France (FR).	1969	22.2	7.9	-64.4	2
Australia (AU).	1976	50.2	18.0	-64.1	4
Italy (IT).	1976	50.5	35.5	-29.7	15
United Kingdom (UK)	1978	51.8	27.1	-47.7	11
Ireland (IE).	1978	64.0	36.6	-42.8	13
New Zealand (NZ).	1980	69.1	20.8	-69.9	1
Portugal (PT).	1980	54.8	19.3	-64.8	3
Greece (GR)	1980	39.0	25.4	-34.9	14
Spain (ES).	1980	18.7	15.6	-16.6	19
Denmark (DK).	1983	80.8	68.5	-24.8	16
Canada (CN).	1984	35.9	30.0	-16.4	18
South Korea (SK).	1989	18.6	9.7	-47.8	12
Germany (DE).	1991	36.0	18.6	-48.3	10
Finland (FI).	1993	80.7	70.0	-13.3	20
Sweden (SE)	1994	87.4	68.9	-21.2	17
Belgium (BE).	1995	55.7	50.6	-9.2	22

Source: Visser (2013).

Table 2: Union density by sector, various years.

	public sector			manufacturing			commerce		
	earliest	recent	%change	earliest	recent	%change	earliest	recent	%change
Australia (1982-2009)	73.0	46.3	-36.6	54.0	21.0	-61.1	22.0	12.7	-42.3
Austria (1980-98)	67.5	60.6	-10.2	67.6	56.5	-16.4	26.4	14.7	-44.3
Belgium (1980-92)				79.8	92.9	+16.4	32.2	37.9	+17.7
Canada (1984-2008)	71.8	70.6	+1.7	45.0	26.4	-41.3	11.0	12.5	+13.6
Denmark (1980-2008)	69.2	83.4	+20.5	98.0	78.4	-20.0	53.0	55.0	+3.8
Finland (1991-2008)	85.0	86.0	+1.2	80.0	72.0	-10.0	62.0	53.0	-14.5
Ireland (2001-09)	56.3	66.6	+18.3	41.9	29.3	-30.1	21.2	15.5	-26.9
Italy (1980-97)	59.6			55.9	39.2	-29.9	22.1	23.1	+4.5
Netherlands (1980-2007)	59.7	28.0	-53.1	42.8	25.0	-41.6	9.6	12.0	+25.5
Norway (1980-2008)	74.3	80.0	+7.1	81.0	57.0	-29.6	15.0	25.0	+66.7
Sweden (1980-2008)	81.1	84.0	+3.6	95.0	79.0	-16.8	46.0	57.0	+23.9
UK (1995-2009)	61.3	56.6	-7.7	32.3	20.8	-35.6	11.0	12.4	+12.7
US (1980-2009)	34.8	37.4	+8.6	35.0	10.9	-68.9	8.7	4.8	-44.8
France (2003)		12.5			7.5			2.5	
Germany (1985)		50.4			50.0			14.0	
Greece (2003)		63.8							
Japan (1988)		23.3			32.0			9.0	
New Zealand (2008)					37.5			3.7	
Portugal (1989)		45.0							
South Korea (2006)		34.3							
Switzerland (1985)		70.6			33.0			11.0	

Source: Visser (2013).

Table 3: Determinants of change in redistribution.

	1980-1995	1995-2010
change in Gini for market income	.950***	.430**
	(.288)	(.180)
initial level of redistribution	-.354**	-.088
	(.132)	(.086)
change in union density	.347***	-.121
	(.119)	(.178)
constant	13.632**	1.219
	(5.487)	(3.340)
N	20	20
R^2	.702	.307

Standard errors in parentheses. *** p<.01, ** p<.05.

Data sources: Visser (2013), Solt (2013).

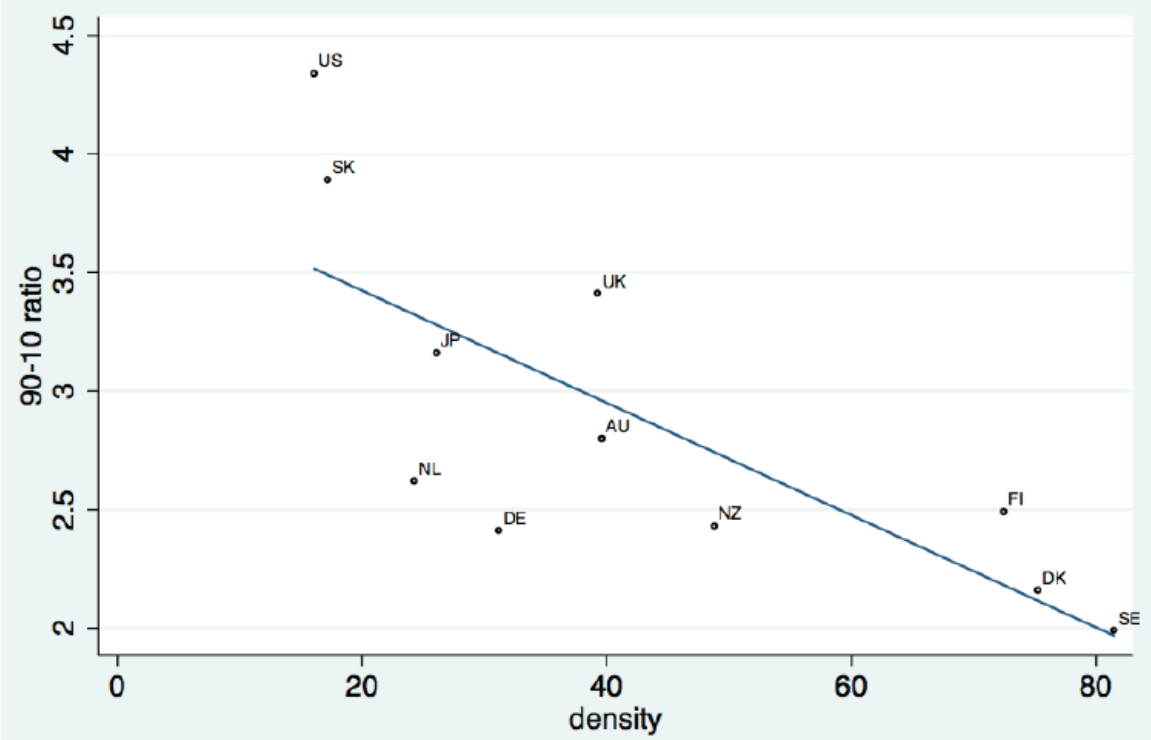
Table 4: Unionization by (household) income in Western Europe, 2006-08.

	Unionization by quintile					% union members with incomes below median
	bottom	second	Middle	fourth	top	
Denmark	76	87	92	89	92	47.8
Finland	70	84	75	78	77	50.8
Sweden	60	76	72	69	74	49.8
Norway	45	56	61	59	66	46.9
Belgium	55	58	61	46	39	51.0
Ireland	24	36	52	45	38	41.9
Austria	30	36	37	40	47	42.7
United Kingdom	13	25	33	35	28	39.9
Netherlands	19	24	24	30	20	45.0
Germany	12	20	17	24	24	40.6
Switzerland	15	19	17	15	16	51.4
Greece	5	8	10	13	30	22.9
Spain	11	9	14	12	16	46.5
France	8	10	10	10	14	42.0
Portugal	3	4	11	21	3	16.8

The figures for Austria, Belgium and Ireland are based on ESS 2006 while the figures for the other countries are based on ESS 2008. Austria and Ireland were not part of ESS 2008. For Belgium, our estimation method produces an exceptionally low rate of unionization in the middle quintile based on 2008 data (41%); otherwise, the results are virtually identical to those presented in Table 2 (see Becher and Pontusson 2011:194).

Source: European Social Survey, calculations by Michael Becher.

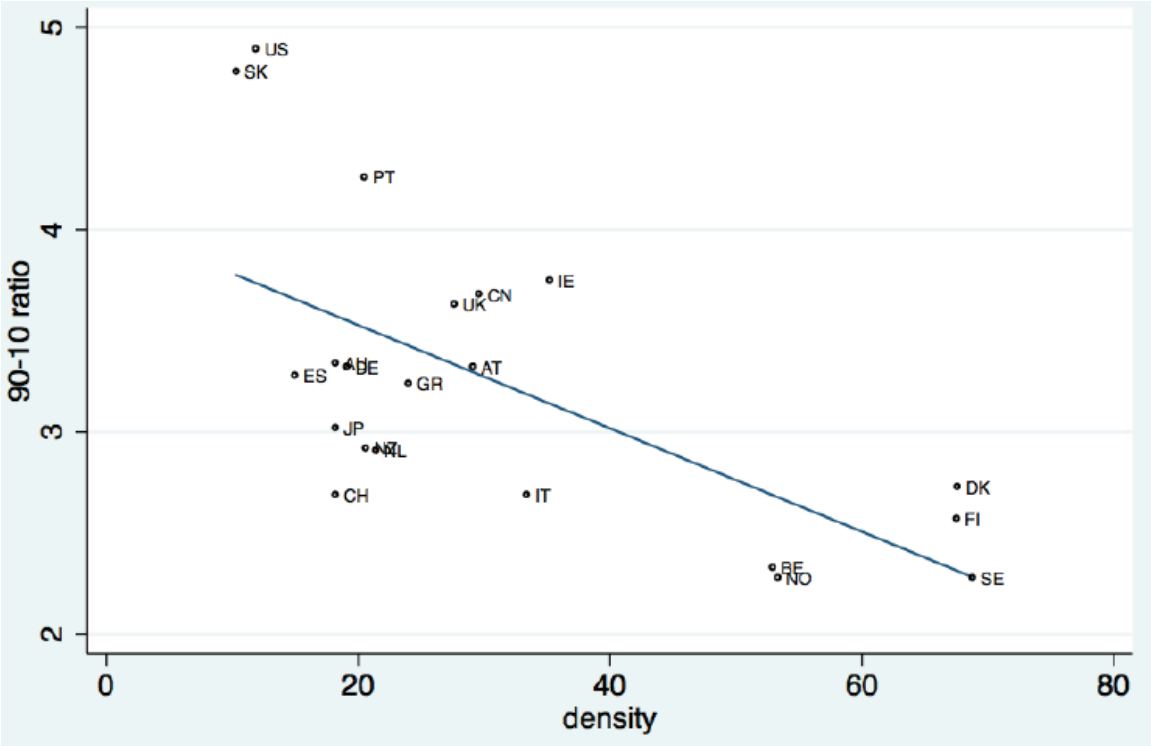
Figure 1: Earnings inequality (full-time employees) and union density, 1990.



Coefficient= -.024, t= -3.49, R^2= .575. Note: German data refer to West Germany.

Sources: OECD (2013), Visser (2013).

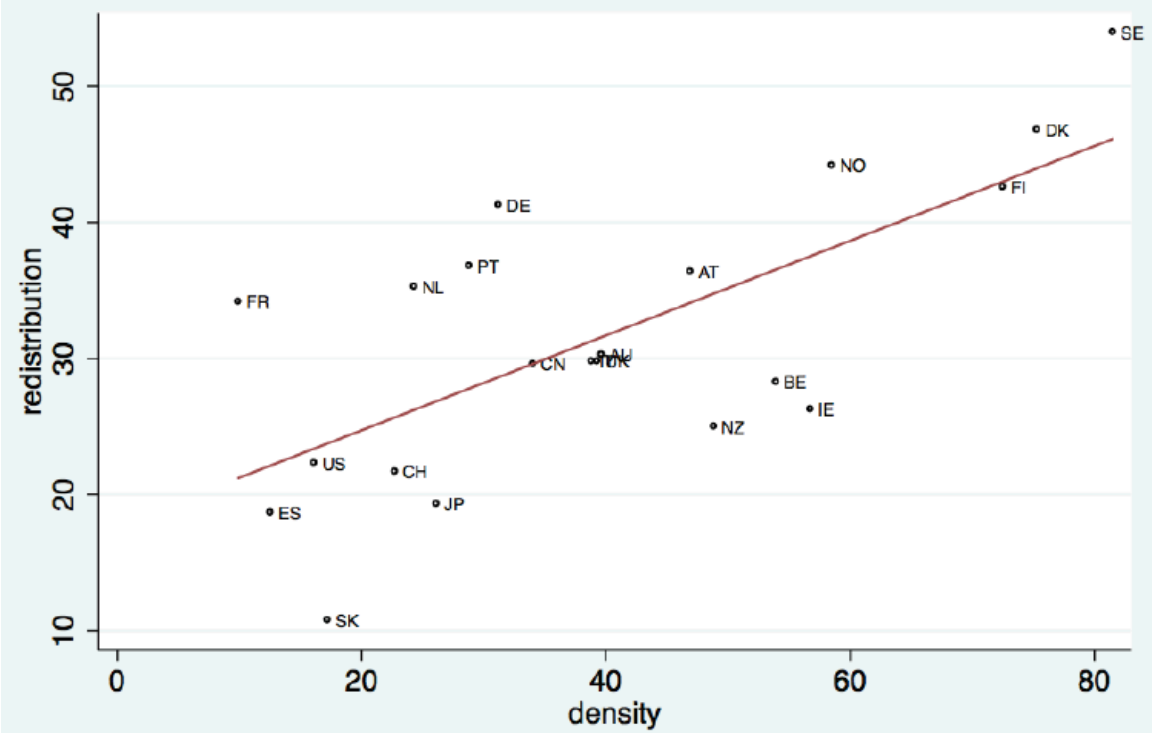
Figure 2: Earnings inequality (full-time employees) and union density, 2008.



Coefficient= -.026, t= -3.73, R^2= .423. Note: 2005 data for the Netherlands, 2007 data for Belgium.

Sources: same as Figure 1.

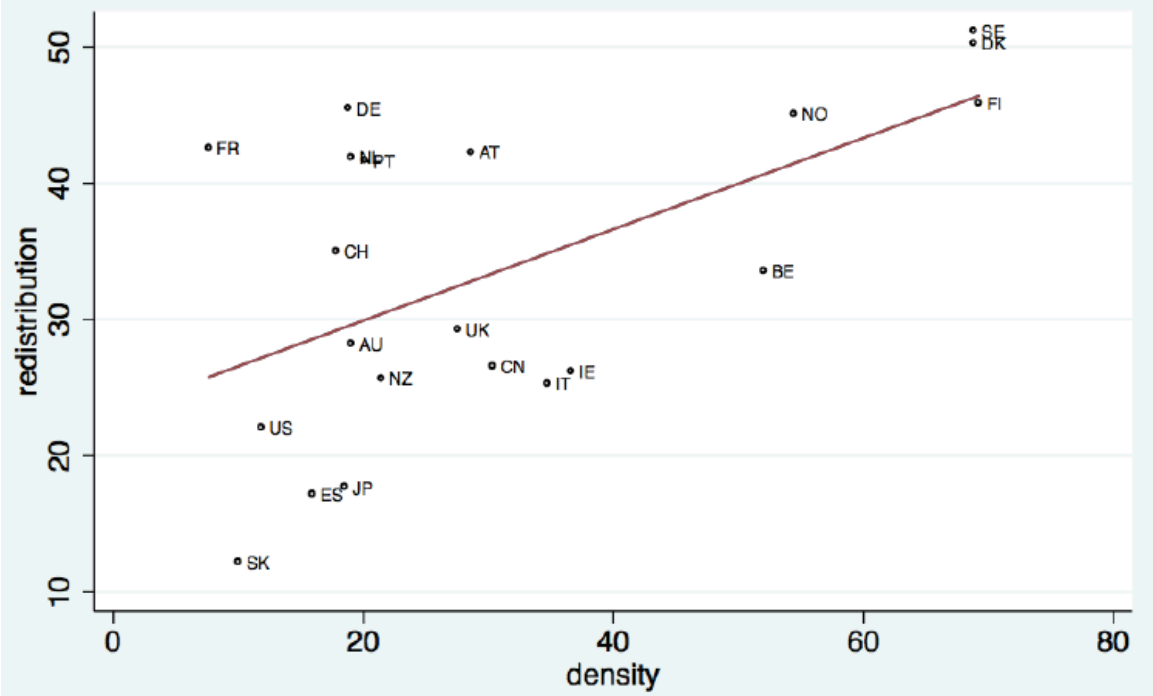
Figure 3: Redistribution and union density, 1990.



Coefficient= .348, t= 4.17, R^2= .478.

Sources: Solt (2011), Visser (2013).

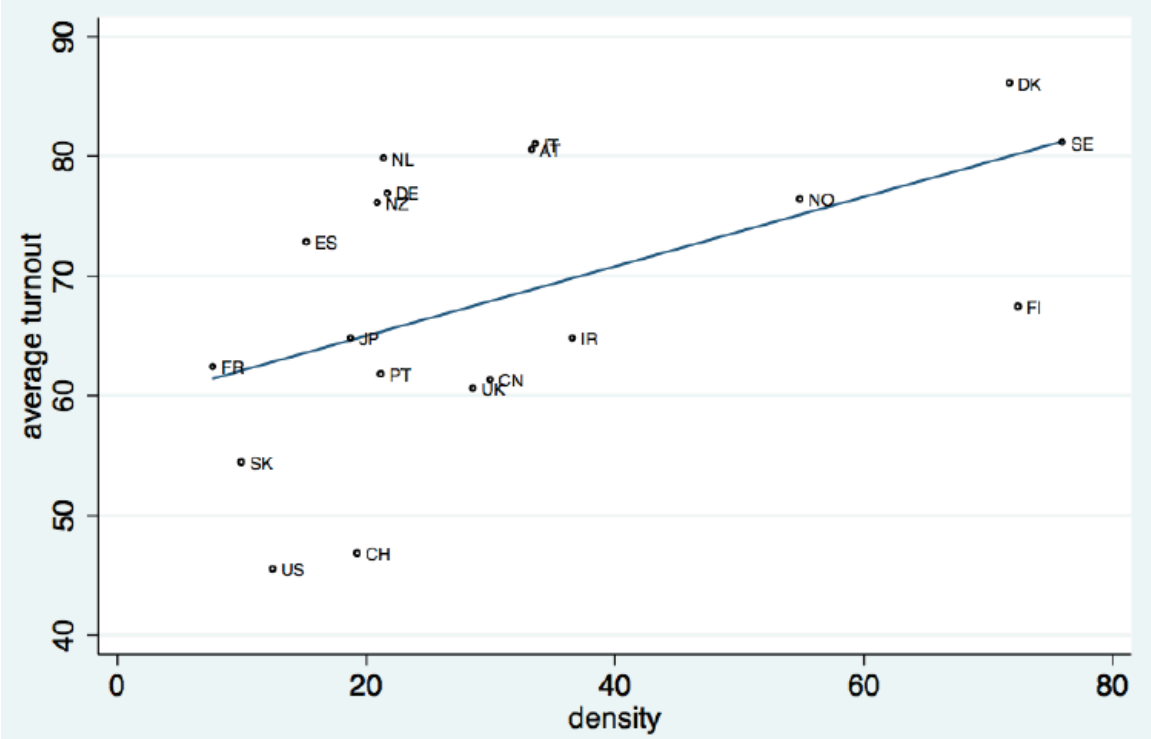
Figure 4: Redistribution and union density, 2010.



Coefficient= .335, t= 3.06, R^2= .330.

Sources: same as Figure 3.

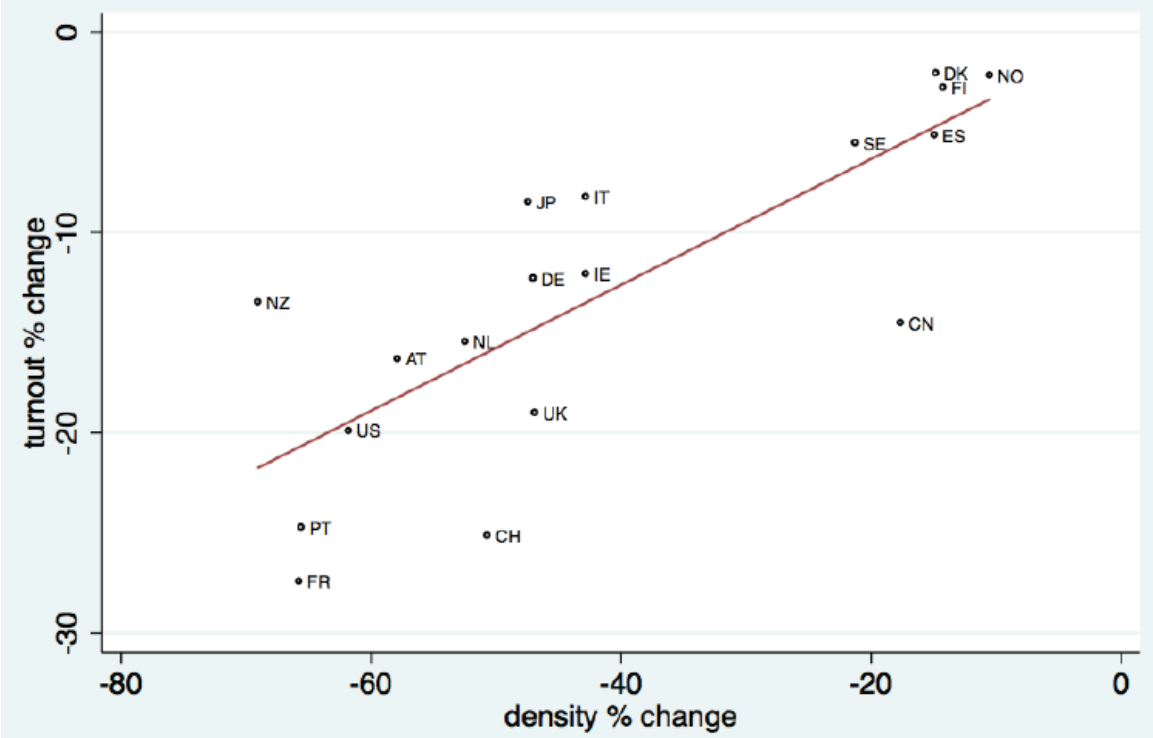
Figure 5: Average voter turnout in 2000-09 and union density in 2005.



Coefficient= .267, t= 2.23, R^2 = .238 (without Finland: coefficient= .351, t= 2.68, R^2 = .325).

Sources: Armingeon *et al* (2012), complemented by turnout data for Korea from International IDEA (http://www.idea.int); Visser (2013).

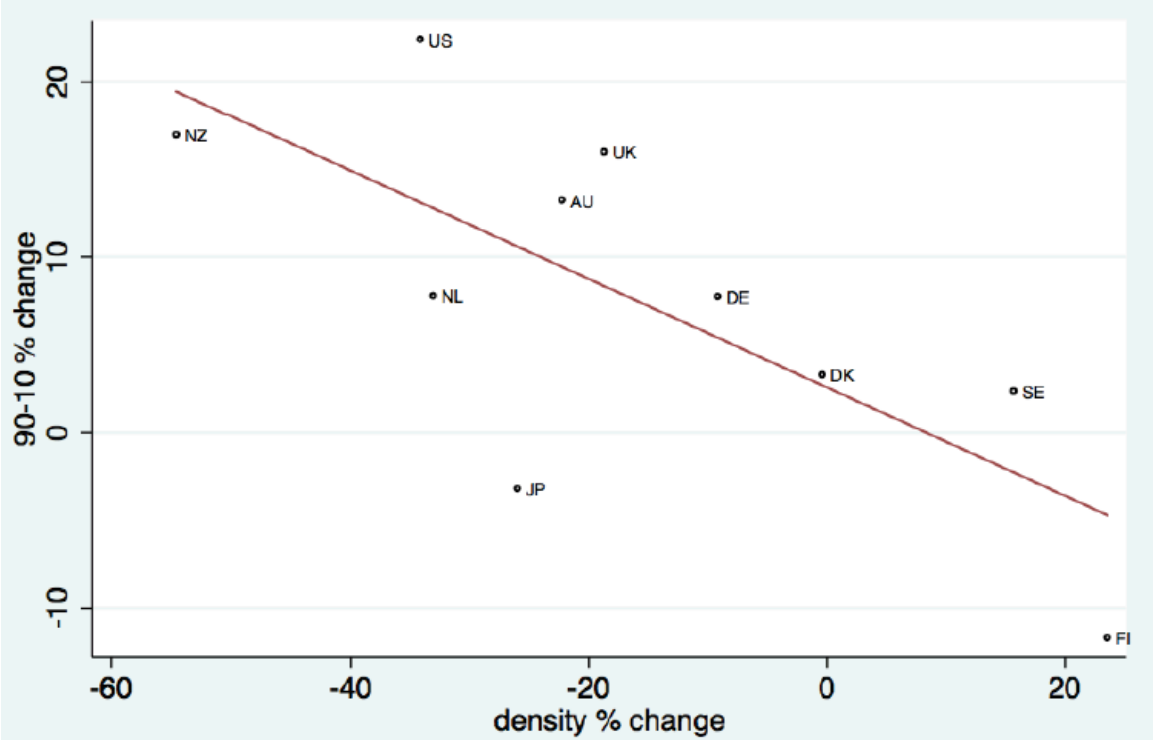
Figure 6: Percentage change in voter turnout and union density since union density peak.



Coefficient= .314, t= 5.21, R^2 = .630. See text for explanation.

Sources: same as Figure 5.

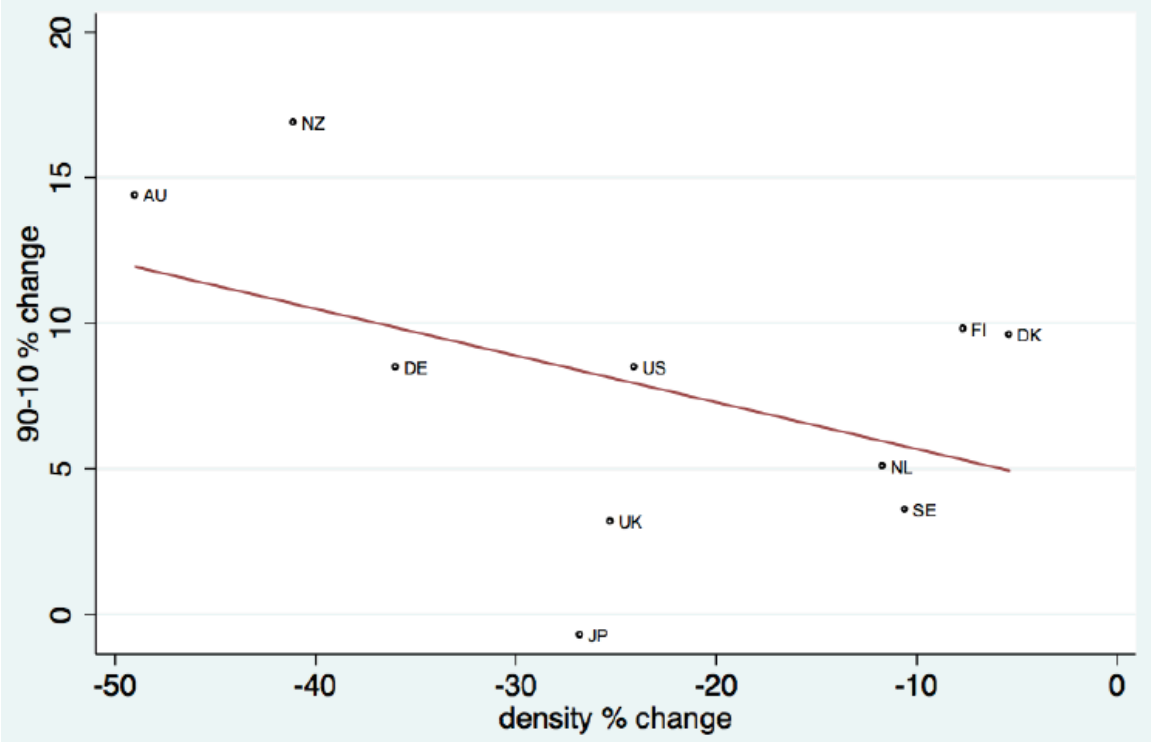
Figure 7: Percentage change in 90-10 earnings ratios and union density, 1975-95.



Coefficient= -.309, t= -2.92, R^2 = .517 (without Japan: coefficient= -.340, t= -4.10, R^2= .706). Note: the change in wage inequality is measured over the following time periods: 1984-95 for Germany, 1984-96 for New Zealand, 1980-95 for Denmark, 1977-95 for the Netherlands, and 1975-95 for the remaining countries. Changes in union density have been lagged by 3 years.

Sources: same as Figure 1.

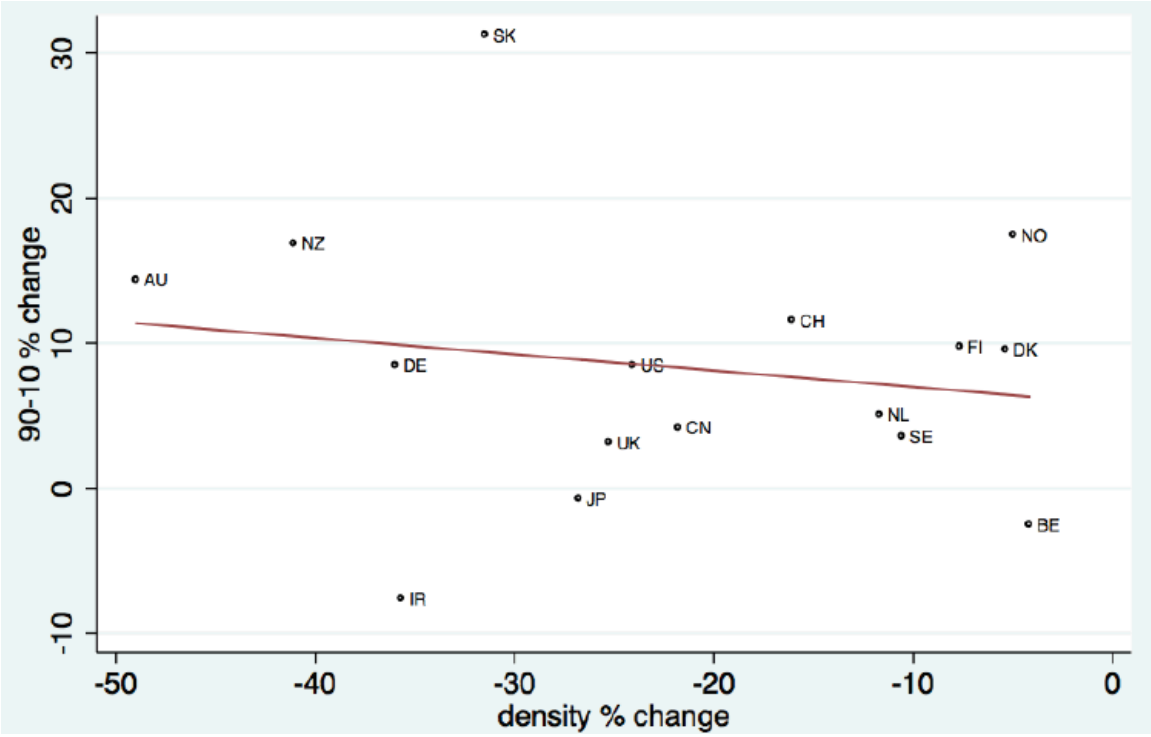
Figure 8: Percentage changes in 90-10 earnings ratios and union density (10 countries), 1995-2009.



Coefficient= -.160, t= -1.44, R^2= .205. See Figure 9 for time periods covered.

Sources: same as Figure 1.

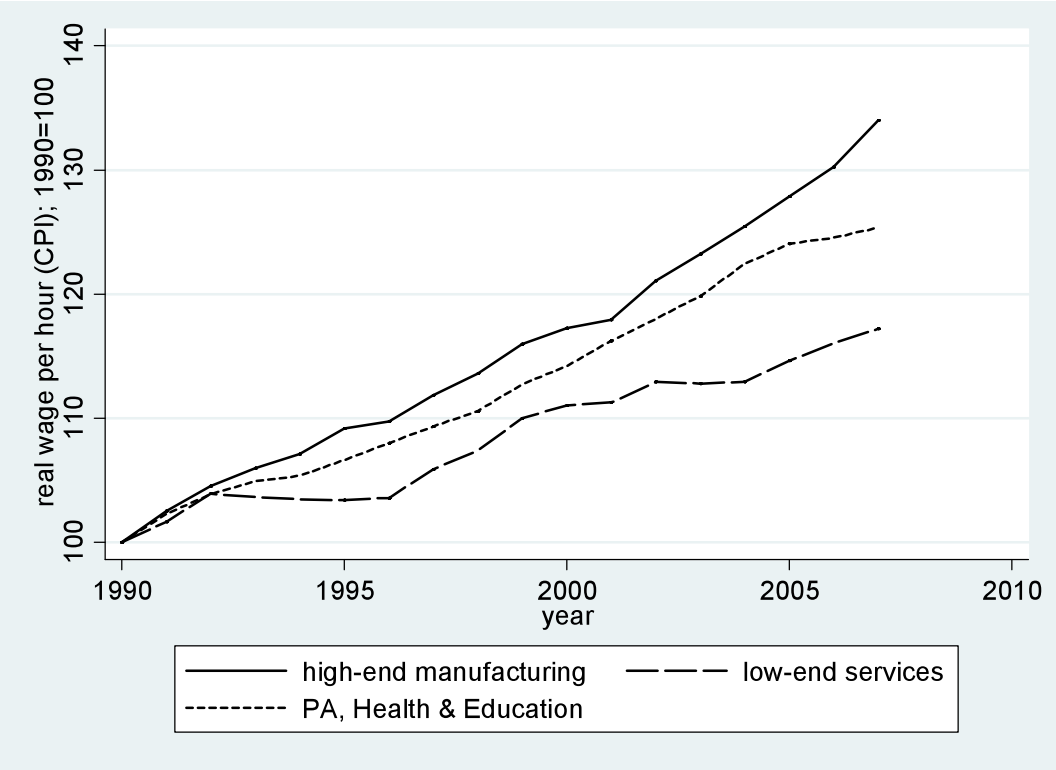
Figure 9: Percentage changes in 90-10 earnings ratios and union density (16 countries), 1995-2009.



Coefficient= -.113, t= -.65, R^2= .030. Time periods covered: 1994-2008 for IE; 1995-2009 for AU, JP, SK, NZ, UK and US; 1995-2008 for DK, FI, DE and SE; 1995-2005 for NL; 1996-2008 for CH; 1997-2009 for NO; and 1999-2007 for BE.

Sources: same as Figure 1.

Figure 10: Trajectory of average real hourly wages by sector in 16 OECD countries, 1990-2007.



"High-end manufacturing" includes sectors with NACE codes D21 through D37: paper and pulp, petroleum products, chemicals, rubber and plastics, non-metallic mineral products, metal products, machinery, electrical and optical equipment, transportation equipment, and manufacturing NEC. "Low-end services" include NACE codes G52 (retail trade) and H (hotels and restaurants). PA = public administration. Average wages for each sector take into account the employment of sub-sectors. The countries included are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, the Netherlands, Spain, Sweden, the UK and the US.

Source: EU KLEMS dataset (http://www.euklems.net/), calculations by Lucio Baccaro.