

Inequality, Median Voters and Partisan Politics in Industrialized Democracies

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Inequality has emerged as a major theme in the comparative studies of advanced capitalist political economies over the last decade. Much of the literature to date treats inequality as a “dependent variable,” addressing questions like the following: Why has wage inequality increased more in some countries than in others (Wallerstein 1999, Rueda and Pontusson 2000)? How do wage inequality trends and changes in the distribution of employment jointly affect the distribution of income among households (Kenworthy and Pontusson 2005)? And to what extent have welfare states compensated for rising market inequality (Bradley et al 2003, Kenworthy and Pontusson 2005)? In addressing such questions, political scientists typically invoke political institutions and government partisanship as explanatory variables. In this paper, we seek to break new ground by turning things around, i.e., by exploring the consequence of changes in income distribution for politics—specifically, for party politics and electoral competition.

To the extent that students of comparative political economy have broached the question of the political consequences of inequality, they have done so through the prism of median-voter theory. The standard prediction of median-voter theory is that rising inequality makes the median voter more prone to support redistributive policies and that rising inequality will therefore be associated with more redistribution (Romer 1975, Meltzer and Richard 1980). Several recent contributions (notably Moene and Wallerstein 2001, Iversen and Soskice 2001) have observed that the predicted association between inequality and redistribution does not hold cross-nationally, at least not among OECD countries, and have offered alternative models of how inequality affects aggregate demand for social insurance and redistribution.

The policy preferences of the median voter play an important role in what follows, but our analysis focuses on how inequality affects the preferences of core constituencies of parties of the Left and the Right and, as a result, the policy positions adopted by parties of the Left and Right. We adopt many of the basic arguments concerning the link between inequality and redistribution espoused by the median voter framework, but we adapt this framework by

emphasizing the existence of partisan differences. In posing the question of the political consequences of inequality in this manner, we build on and extend the comparative political economy literature on partisan effects on social spending and macro-economic policy (e.g., Hibbs 1987, Garrett 1998). Our approach also connects to McCarty, Poole and Rosenthal's (2004) analysis of the recent polarization of American politics. McCarty, Poole and Rosenthal document that partisanship in congressional roll-call voting declined in the 1950s, held steady through most of the 1960s and 1970s, and then increased sharply from the late 1970s onwards. This pattern parallels trends in income distribution in a very striking manner. Our goal is to determine whether a similar pattern of association between income inequality and partisan polarization holds for other OECD countries as well and to explore causal mechanisms that might account for such a pattern.

Most of the comparative literature on partisan effects focuses on the question of what parties do when they are in government. Our analysis instead measures partisanship by the platforms on which parties compete in elections--what they promise to do if they are elected. Using the Party Manifesto Dataset, we measure the positions in the Left-Right dimension of the main Left and the main Right parties. We then define polarization as the distance (or difference) between the positions of the main Left and the main Right parties. We are interested, however, not only in how inequality affects the spread of party positions on the Left-Right dimension, but also in how it affects the positions of parties of the Left and the Right. By measuring it as the ideological distance between Left and Right, polarization might increase because parties move in opposite directions. However, we would also observe increased polarization if all parties move to the Right so long as the parties located on the Right move more sharply to the Right than parties located on the Left. To explore the effects of inequality on party positions, we also analyze the effects of inequality on the positions in the Left-Right dimension of parties classified as "the main party of the Left" and "the main party of the Right."

In estimating the effects of inequality on polarization and party positions, we use two alternative definitions of inequality. One is a measure of wage inequality and the other one of household disposable income inequality. We also control for a battery of other variables that might plausibly influence these outcomes. To anticipate, our main finding is that wage inequality is associated with what we call symmetric polarization while, for reasons we explain in more detail below, household income inequality is associated with asymmetric polarization. By this we mean that wage inequality is associated with more leftist Left parties and more rightist Right parties. In contrast increasing levels of household income inequality is associated with more rightist Right parties, but bears no relationship to the position of Left parties. In the following pages, we elaborate theoretical reasons why these results make sense.

1. Analytical Framework: Inequality and Partisan Competition

As indicated above, the analytical framework underpinning our inquiry can be represented as a partisan version of the median-voter framework. Median-voter models assume that parties are more or less entirely motivated by winning elections and have no enduring commitment to particular policies (or constituencies). In a two-party system, winning elections requires winning the support of the median voter. Thus parties should converge on the redistributive preferences of the median voter, in their election manifestos as well as their actual behavior in government. Although this logic may be less pronounced in multi-party systems, the median-voter framework posits that the effects of inequality on the policies advocated and pursued by parties operates through the policy preferences of the median voter.

According to the well-known model elaborated by Meltzer and Richard (1981), the amount of income redistribution preferred by the median voter is a function of the distance between the income of the median voter and the average income (cf. also Romer 1975). Because

a small number of individuals have very large incomes, the distribution of income in capitalist societies is invariably skewed, such that the average income is higher than the median income. The distribution of income is skewed in all industrialized democracies, but the degree of skewness and therefore the distance between the median and the mean varies. Figure 1 illustrates this point with reference to two hypothetical countries. Country B has a more inegalitarian income distribution than country A and, as a result, the distance between the mean and the median income is greater. (Note that the mean income is the same in the two countries). In both countries, the median income earner would like the government to undertake redistributive measures that would bring his or her income to the mean, but the amount of redistribution demanded by the median voter in countries A and B is different. The amount of redistribution is given by the distance between the median and the mean (d_1 and d_2). The farther the median is from the mean, the more there is to gain from redistribution. By this logic, we would expect the median income earner to want more redistribution in country B than in country A ($d_2 > d_1$).

[Figure 1]

The use of the term “median income earner” in the preceding paragraph should be noted. Quite explicitly, the Meltzer-Richard prediction that inequality is associated with more redistribution rests on the assumptions that (a) all income earners vote, (b) redistribution is the main issue determining voter choice, and (c) the outcome of elections determines what governments do. Regarding the first assumption, we should not confuse the income of the median voter and the median income (Nelson 1999). The discrepancy between the two is particularly pronounced in the US not only because of low voter turnout, but also because many low-income earners are not citizens (McCarty, Poole and Rosenthal 2004). With reference to Figure 1, the point here is the following. Everything else being equal, the Meltzer-Richard model predicts that a shift from the income distribution of country A to that of country B will generate more redistribution. Yet it could well be the case that such an increase in income inequality is associated with an increase in the inequality of voting. If low-income earners drop out of the

political process, increased income inequality will not necessarily translate into an increase in the distance between the median voter and the mean income.

Our own analytical framework shares some of the core assumptions (and limitations) of the Meltzer-Richard model. In the first instance, we depart from the Meltzer-Richard model by positing that parties of the Left and the Right have core constituencies to which they are historically and ideologically committed as well as organizationally tied. More or less formal union-party ties render Left parties particularly responsive to the interests of low-income earners. On the other hand, Right parties are particularly responsive to high-income earners by virtue of their traditional ties to business associations and professional organizations.

In emphasizing core constituencies, we build and extend the comparative political economy on partisan effects on macro-economic policy and social spending (most notably Hibbs 1987 and Garrett 1998). We also draw on the literature on electoral competition and political behavior. As Powell (1982:116) argues, the existence of a relationship between “strong, continuing expectations about parties and the interests of social groups not only creates easily identifiable choices for citizens, it also makes it easier for parties to seek out their probable supporters and mobilize them at election time.” In a similar vein, Aldrich (1983, 1995) argues convincingly that parties need party activists and that the parties’ median voter may be equally or more influential than the median voter in the electorate as whole.

There is every reason to suppose that the income of the median voter in the Left-party constituency is lower than the mean income and that the income of the median voter in the Right-party constituency is higher than the mean income in all of the countries included in our analysis. Illustrated by Figure 2, a partisan version of the Meltzer-Richard model thus readily suggests itself. In this model, the preferences for redistribution of the Left-party and Right-party constituencies are determined by the distance between their income and the mean income. Taken to its extreme, redistribution means moving everyone to the mean. The further the income of the median Left-party voter is from the mean, the more he or she stands to gain from redistribution.

On the other hand, the further the income of the median Right-party voter is from the mean, the more he or she stands to lose from redistribution. This logic leads us to expect that greater inequality, illustrated by the shift from country A to country B in Figure 2, will generate partisan polarization over redistributive policy.

[Figure 2]

We do not mean to suggest that parties are oblivious to the preferences of the median voter in the electorate as a whole. Following Strom (1990), among others, we assume that parties are motivated by winning elections and, at the same time, by serving the interests of their core constituencies. In government, parties can be expected to pursue partisan distributive objectives so long as these policies do not threaten their prospects of re-election.

All the empirical models we present below include the position of the median voter, as measured by Kim and Fording (2002, 2003), as well as some measure of income inequality on the right-hand side of the regression equation. Using the Party Manifesto Dataset, Kim and Fording compute the position of the median voter on the Left-Right dimension based on the partisan distribution of the electorate. The upshot of this exercise is a measure that ranges from 0 (Left) to 100 (Right). Averaging across the twelve countries included in our analysis, Figure 3 traces the evolution of the position of median voter on the Left-Right dimension, as measured by Kim and Fording, over the last three decades of the twentieth century. After an initial dip in the early 1970s, when the median voter became more Left-leaning, we observe a steady increase in the conservatism of the median voter. The median voter goes from a position close to 40 in the early 1980s to one close to 60 in the late 1990s.

[Figure 3]

Considering that income inequality increased in virtually all OECD countries in the 1980s and 1990s (see Rueda and Pontusson 2000, Kenworthy and Pontusson 2005), the pattern shown in Figure 3 raises questions about the standard Meltzer-Richard argument. More importantly for our present purposes, this evidence suggests that Left and Right parties have

faced very different situations since 1980. Our argument about the interests of core constituencies holds that rising inequality put pressure on Left parties to adopt a more redistributive orientation while it put pressure on Right parties to adopt a less redistributive orientation. At the same time, the preferences of the median voter became distinctly less redistributive, for reasons that appear to be, for the most part, unrelated to changes in the distribution of income. For Right parties, the need to maintain support among core constituencies and the need to appeal to the median voter pointed in the same (rightward) direction. By contrast, Left parties have found themselves in a more contradictory situation as the preferences of their core constituencies and the preferences of the median voter appear to have moved apart.

It is easy to criticize the Meltzer-Richard model as being based on an overly simplistic view of politics. By focusing on core constituencies, our partisan version of the Meltzer-Richard model adds a new layer of complexity and, arguably, better approximates the “real world” of politics. Also, we should underscore that the dependent variables in our analysis pertain to the platforms that parties present to the electorate and, more specifically, to a Left-Right summary of these party platforms. For our purposes, it is not necessary to assume that elections are only about redistributive policy. Nor is it necessary to assume that the policies actually carried out by parties in government are essentially a function of the redistributive preferences of their core constituencies. Still, our model, like that of Meltzer and Richard, does assume that voters derive well-defined preferences over redistribution from their position in the distribution of income. This in turn implies that voters know a good deal about the distribution of income and about how their own income compares to that of others.

There are good reasons to be skeptical about these assumptions. To clarify, we do not believe that our partisan version of the Meltzer-Richard model provides the only basis for understanding the politics of redistribution. The question we are interested in is whether this model sheds some light on the politics of redistribution in the context of other relevant considerations. Our claim is that redistributive preferences of core constituencies constitute an

important determinant of the policy positions adopted by parties, not that this is the only determinant. Similarly, our model posits that the redistributive preferences of core constituencies respond to changes in the distribution of income, but it does not exclude the possibility that ideology and other political or organizational variables also influence these preferences.

As noted already, the estimates of the effects of inequality on party positions presented below take account of the effects of the position of the median voter. Along with a number of other “control variables,” the models we estimate also include voter turnout as an explanatory variable. Like the position of the median voter, voter turnout is an integral part of our analytical framework and therefore deserves special mention. (The other control variables will be presented very briefly in the next section). For our purposes, the significance of voter turnout has to do with the influence of income on the probability of voting. At the level of individuals, income is positively correlated with propensity to vote not only in the US, but in other industrialized countries as well (references to be added: EJPR ms, also Anderson and Beramendi). At the level of countries, it is a truism that income differences in voting decline as aggregate turnout approaches 100%. We have already alluded to the implications of this for the Meltzer-Richard model. To clarify further, consider two hypothetical countries with identical distributions of income, but voter turnout being 50% in one country and 90% in the other. The distribution of voting by income is sure to be more skewed in favor of high-income earners in the country with lower turnout and, as a result, the distance between the income of the median voter and the mean income will be smaller. Quite plausibly, the Meltzer-Richard model predicts that government will be less redistributive in the country with lower turnout.

The implications of voter turnout for the redistributive preferences of the median Left-party voter are the same as the implications for the redistributive preferences of the median voter in the electorate as a whole. Everything else being equal, higher turnout means that low-income earners constitute a larger share of the electorate and this in turn means that the income of the median Left party voter will be farther from the mean income. Thus we expect turnout to be

associated with Left parties being more leftist. For Right parties, however, the standard Meltzer-Richard model and our partisan version yield different predictions for the effects of voter turnout. According to the standard Meltzer-Richard model, higher turnout should be associated with Right parties adopted more redistributive policy positions (reflecting the preferences of the median voter in the electorate as a whole). Our partisan version, by contrast, implies that higher turnout should be associated with less redistributive Right parties.

As noted at the outset, our analysis deploys two different measures of income inequality. One is a measure of inequality in gross earnings among full-time employees, the other is a measure of disposable income inequality among households (including households without any employed members). To the extent that voters think about their position in the income distribution as they form policy preferences, do they think primarily in terms of the wages that receive or do they think primarily in terms of the disposable income of the household unity of which they are a part? This is a thorny question that lies well beyond the ambitions of our paper. From a rationalist perspective, it is tempting to argue that individuals should care about disposable household income. However, wage differentials are arguably more visible and, in many countries, more politicized. Also, it may be the case, as Iversen and Rosenbluth (2004) suggest, that households have become less relevant to preference formation as marital instability has increased in the industrialized countries.

It seems likely that different forms of inequality matter to different individuals. Along these lines, we hypothesize that wage inequality is particularly salient to the core constituencies of Left parties. The core constituencies of these parties are wage-earners and typically union members as well. Earnings from employment constitute the lion's share of their income and, arguably, unions prime these voters to notice changes in relative wages. Elsewhere, Rueda (2001, 2006) has shown that Left parties have strong incentives to promote the interests of insiders (defined as workers with stable jobs with generous levels of protection and benefits). His analysis about the influence of insider-outsider differences on the strategies of Left parties are

compatible with our expectations here. An emphasis on insiders would mean that Left parties may care more about wage inequality (our measure is limited to insiders) than about household income inequality. The implications of these arguments are less obviously in the case of Right parties. Thus, while we expect wage inequality to have more pronounced effects on the positions of Left parties than disposable household inequality, we do not expect differential effects for the positions of Right parties.

2. Other Factors Affecting Partisan Politics

Again, we do not mean to suggest that the distribution of income and the redistributive preferences of core constituencies are the only thing that matters to the policy positions adopted by political parties. A number of economic and political conditions have arguably constrained the ability of governments to pursue redistributive policies since the late 1970s and there is every reason to believe that parties of the Left, in particular, have adapted their programs accordingly. To begin with, one might well argue that redistributive welfare states have grown to their limits. Especially in the context of slow economic growth, tax fatigue among middle-income voters appears to have become an increasingly potent constraint on further expansion of redistributive spending. To take these dynamics into account, our models include social security transfers (in percent of GDP) and GDP growth as control variables. We expect social security transfers to be associated with more “rightist” (less pro-redistributive) policy positions held by Left and Right parties alike and we expect GDP growth to be associated with more “leftist” (more pro-redistributive) positions across the political spectrum.

Secondly, pressures associated with globalization might be said to represent constraints on redistributive policy. There are two contradictory accounts of the effects of internationalization on partisan politics. Generally, as argued by Wood (1994), some dimensions

of international openness are believed to promote inequality in industrialized democracies. The connection with partisan politics, however, is more contentious. There is first a large literature suggesting that growing levels of international openness, integration and interdependence result in a blurring of partisan differences caused by the inability of social democratic parties to produce policies that do not conform to market forces (see, for example, Iversen 1996 and Scharpf 1991). Then there are some authors who argue either that international forces do not affect some partisan differences (like Boix 1998 and Garrett and Lange 1991) or that they actually have strengthened the influence of partisanship on policies and economic outcomes (Garrett 1998).

It is clear then that the extent to which globalization in fact constrains redistributive policy has been a topic of considerable debate among students of comparative political economy, but there can be little doubt that politicians of the Left and the Right alike perceive globalization as a constraint. The liberalization of rules governing cross-border capital mobility would appear to be particularly germane in this context and is therefore included among our control variables. We expect capital liberalization to be associated with more “rightist” policy positions by Left and Right parties alike.

Thirdly, it seems plausible to argue that declining union membership and the decreasing mobilizational capacity of labor has created fewer incentives for the Left to move to the Left. If we assume that low-income workers transmit their preferences to parties of the Left through organized labor, we would expect their influence to have decreased significantly during the last two decades. Thus we expect union density to be associated with more Left-leaning Left parties and to be a source of partisan polarization over redistributive policy.

Finally, we recognize that there are both centripetal and centrifugal forces at work in electoral competition and that the relative magnitude of these centripetal and centrifugal forces varies across types of electoral and party systems (see, for example, Cox 1990 and Grofman, 1993). The number of parties in a system shapes the incentives for either centripetal patterns of competition (where parties have strong incentives to move to the center of the ideological

spectrum) or centrifugal ones (where parties have more flexibility in their choice of strategies). In estimating the effects of inequality on party positions on the Left-Right dimensions, therefore, our empirical models control for the effective number of parties.

3. Measuring Party Positions and Partisan Polarization

Our measures of the ideological positions of parties and the degree of partisan polarization in any given country-year are based on the Left-Right index developed by the Comparative Manifestos Project. The CMP codes the policy emphases of election programs under a large number of separate categories. Twenty-six of these categories are summarized in a Left-Right index, ranging from the extreme Left, -100, to the extreme Right, +100. As documented by Gabel and Huber (2000), the index values generated by this procedure correlate reasonably well with various party classification schemes based on expert surveys (see also McDonald and Kim n.d.). Moreover, several of studies (e.g., Powell 2000) have shown that the Left-Right dimension is a good summary of what parties stand for in elections and that it is a meaningful factor for voters. There is also some evidence supporting the correlation between Left-Right positions as measured by CMP and what parties indeed do when they come to power in terms of policy outcomes (e.g., Budge and Hofferbert 1990).³

Using the Left-Right dimension of the CMP as the basis for testing the arguments set out in the previous section obvious assumes that preferences over redistribution constitute a core component of the Left-Right dimension. This strikes us as a rather reasonable assumption.⁴ Relative to party placements based on expert judgments, the big advantage of manifesto-based party placements is that they change over time, which is obviously essential our present purposes.

³ For more information about the CMP data, see Budge *et al* 1987 and Laver and Budge 1992.

⁴ A new dimension could be created to capture the emphasis on redistribution in different manifestos. The problem with this variable would be, however, that there are no studies exploring how the redistribution

As we mentioned at the outset, we measure political polarization as the distance between the main party of the Right and the main party of the Left on the Left-Right dimension. In addition to being interested in the determinants of polarization as an aggregate measure, we want to explore the specific effects of inequality on the positions of the main parties of the Left and the Right. Again, polarization as measured by the distance between parties might be the result of several different party movement scenarios. We are particularly interested in exploring the proposition that Left parties have been more constrained than Right parties in responding to changes in the redistributive preferences of their core constituencies. To assess the validity of this proposition, we analyze the determinants of the positions on the Left-Right dimension for the main parties of the Left and the main parties of the Right. It is important to keep in mind that *for both our position measures*, i.e., for Left as well as Right parties, higher values represents more conservative (rightist) positions.

We define the main party of the Left (and the main party of the Right) as the Left (Right) party that won the most votes of any Left (Right) party in the most elections over the period 1970-2000. This coding criterion yields a set of parties that reasonable captures long-term dominance in the Left and the Right parties. Our codes are as follows:

Australia: Left = Labour, Right = Liberals.

Austria: Left = SPÖ, Right = ÖVP.

Belgium: Left = Socialist Party, Right = Christian Democrats.

Canada: Left = Liberals, Right = Conservatives.

Denmark: Left = Social Democrats, Right = Conservatives.

Finland: Left = Social Democrats, Right = Conservatives.

France: Left = Socialist Party, Right = Gaullists/RPR.

Germany: Left = SPD, Right = CDU/CSU.

Italy: Left = PCI/PDS, Right = CD.

dimension correlates with expert judgements or its relevance for policy outcomes. For these reasons, we

Japan: Left = Socialists, Right = LDP.

Netherlands: Left = Labor, Right = CD.

New Zealand: Left = Labour, Right = Conservatives.

Norway: Left = (DNA) Labour, Right = (H) Conservatives.

Sweden: Left = (SAP) Social Democrats, Right = Conservatives.

Switzerland: Left = Social Democrats, Right = Radical Democrats.

UK: Left = Labour, Right = Conservatives.

USA: Left = Democrats, Right = Republicans.

Figure 3 shows the yearly averages for the polarization data as well as for the ideology positions of Left and Right parties since 1970. The green line represents polarization (measured as the distance between the positions of the Right and the Left). The red line is the position in the Left-Right dimension of the Right. The blue line is the position of the Right. A reminder: the Left and Right variables are ideological positions going from -100 (extreme Left) to +100 (extreme Right).

[Figure 3]

Figure 3 makes clear that there has been no OECD-wide secular increase in polarization. The polarization variable exhibits a high degree of variation through time. As for the yearly mean positions of parties, Figure 3 indicates that there has been a general movement to the right by both Right and Left parties (this is particularly strong in the second half of the 1990s). We must keep in mind, however, that these are averages for all OECD countries. Country-specific graphs (not presented but available from the authors) show that there is a wide degree of variation across countries with respect to party movements on the Left-Right continuum as well as partisan polarization. The more systematic analysis to be developed in the following pages will allow us to ascertain whether these developments are related to changes in the levels of inequality.

prefer to use the Left-Right dimension as our proxy for preferences with respect to redistribution.

3. Measuring inequality

There are two main data sources on income inequality in OECD countries: the Luxemburg Income Study (LIS), which pertains to the earnings/income of households, and the OECD dataset on relative wages among full-time employees. The distribution of income among households may be argued by some to be more relevant to the political preferences of voters than the distribution of wages among individuals. We have explained above some of the reasons why wages may be more politically influential than household income. In addition, the LIS data on income inequality are far more fragmentary than the OECD data on wage inequality. For disposable income inequality (after taxes and transfers), LIS yields a total of about 54 country-year observations that we can use for our analysis.

The LIS data takes the form of five-year “waves” with observations pertaining to different years for different countries. In what follows, we match LIS observations of household income inequality with observations of party manifestos for the first election after each LIS observation. Thus wage inequality in non-election years is “matched” with partisanship in the subsequent election.⁵ With these limitations, our analyses of the influence of household disposable income inequality is based on 55 observations covering 14 countries over the period from 1980 to 1998. The countries included in the sample are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Italy, the Netherlands, Norway, Sweden, the UK and the US. The number of elections covered vary depending on the country. The maximum number is 6 elections while the minimum is only 2. The average number of elections for all countries in our sample is 4.

⁵ For example, in the case of Australia the LIS observation of household income inequality in 1981 is matched with manifesto data for the election of 1983, the LIS observation for 1985 is matched with the election of 1987, and the LIS observation for 1994 is matched with the election of 1996.

Our results are complemented by an analysis using the OECD dataset on relative wages. More specifically, our measure of wage inequality is the 90-10 ratio, i.e., the ratio of earnings at the 90th percentile to earnings at the 10th percentile of the wage distribution. A measure of the distance between two points, the 90-10 ratio certainly does not tell us everything that we would want to know about the overall shape of the distribution, but it is a commonly used measure and easy to interpret. Higher values signify greater levels of inequality. The reader should keep in mind that our inequality measure ignores important sources of income, such as self-employment, income from capital, and government transfers. It also ignores the distributive effects of taxation and income pooling within households. Moreover, the OECD dataset on which we rely is restricted to full-time employees (except in the case of Austria). What follows, then, must not be confused with an analysis of the overall distribution of income in OECD countries. This said, income from employment accounts for the lion's share of income in all OECD countries and the distribution of income from employment, as measured by 90-10 ratios, correlates quite closely with broader measures of income distribution on a cross-national basis (see OECD 1995, Gottschalk and Smeeding 1997, Kenworthy and Pontusson 2005).

Because of the availability of annual wage inequality data, this part of our analysis is not as restricted as the one focusing on household inequality. We do still face the limitations related to the nature of the dependent variable (polarization measured in elections), but the OECD data allow us to lag the effects of inequality for partisan politics. To this end, we created a 5-year averages from annual wage inequality figures. In this part of the analysis, therefore, we explore the relationship between partisan polarization (at the time of an election) and the wage inequality average of the present and the previous four years.

Our analysis of the influence of wage inequality on party positions is based on 62 observations covering 11 countries over the period from 1970 to 1998. The countries included in the sample are: Australia, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands,

Sweden, the UK and the US. The maximum number of elections covered in any country is 9 and the minimum is 3. The average number of elections for all countries in our sample is close to 6.

5. Control Variables and Methodology

We have explained in the sections above that there are a number of factors we need to control for in our analysis. Let us briefly explain how we measure these factors.

Effective number of parties: we use the measure developed by Laakso and Taagapera (1979) and coded by Armingeon *et al* (2004).

GDP growth: measure provided by Armingeon *et al* (2004).

Financial Openness: the sum of several indexes for financial restrictions (for details, see Armingeon, Beyeler and Menegale 2004).

Union density: the union density measure used in this paper represents employed union members as a percentage of employed labor force. The figures were taken from Ebbinghaus and Visser (2000) except for Australia, Japan, the UK and the US (pre-1990 figures were taken from Visser 1996 and post-1990 figures provided by Bernhard Ebbinghaus).

Social Security Transfers: we introduce a measure of social security transfers as a percentage of GDP into our analysis. This variable consists of benefits for sickness, old-age, family allowances, etc., social assistance grants and welfare benefits paid by general government. (For details, see Armingeon, Beyeler and Menegale 2004).

Median voter: measure provided by Kim and Fording (2002 and 2003).

Voter Turnout: measure provided by Armingeon, Beyeler and Menegale (2004).

It is also important to point out here that, because of the nature of the dependent variable, we created 5-year averages for all the control variables. Since the position of parties is only

available in an election, we wanted to take into account the influence of these variables in the immediately previous years. Averages were calculated from the present and 4 previous years.

Summary statistics for all the variables in the analyses below are presented in an appendix. The appendix contains two tables, one summarizing the variables in the analysis of wage inequality and the other for the analysis of household income inequality. We will briefly describe the main characteristics of some of the variables of interest. The appendix indicates that the wage inequality variable has a mean equal to 2.895. On average in our sample, therefore, the wage at the 90th percentile is more than 2.8 times the wage at the 10th percentile. The minimum for this variable is around 2 and the maximum around 4.5. The second table in the appendix shows that the household income Gini has a mean of .273 in our sample, with a minimum of .197 and a maximum of .355. The rest of the summary statistics do not vary much whether we look at the analysis of wage inequality or that of household income inequality. Voter turnout has a mean around 78% in both samples, and similar minimums (around 43%) and maxima (around 95%). The position of the median voter has a mean of around 47 points in the Kim and Fording scale, ranging from a minimum of around 25 points to a maximum of around 65. Finally, union density has mean around 41% in both samples, with a minimum around 9% and a maximum around 87%.

For the empirical analysis, the model specification is as follows:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \dots + \beta_n X_{nit} + \varepsilon_{it}$$

where β_0 represents a general intercept, X_1 to X_n are the explanatory variables, β_1 to β_n are the slopes of the explanatory variables, and ε_{it} denotes the errors. Given the potential relation of partisan observations within the same countries, we estimate clustered robust standard errors.

6. Results

Let us first look at the relationship between wage inequality and polarization. Table 1 presents our results.

[Table 1]

Table 1 makes clear that wage inequality is a highly significant determinant of polarization (significant, in fact, at better than the 99% level of confidence). A one-unit increase in the 90-10 ratio is associated with an increase in polarization (measured as the distance between the Right and the Left) that equals about 41 ideology units. The estimated effect of wage inequality on polarization would appear to be very significant from a substantive as well as a statistical point of view.

Table 1 also reports the estimated effects of the control variables included in our model. Only two variables (union density and voter turnout) are significant determinants of polarization in the OECD. According to these results, neither sluggish growth nor some of the limitations of globalization affect the ideological differences among parties. This is also the case with the number of effective parties, social security transfers and the position of the median voter. The nature of the party system, the levels of the welfare state, and the conservatism of the median voter are all insignificant as determinants of party polarization. More powerful unions, on the other hand, are associated with more polarized parties. Each percentage increase in union density is associated with an increase of half a point in the ideological difference between the Left and the Right. Higher levels of voter turnout also contribute to party polarization, according to the results in Table 1. Each percentage increase in voter turnout is associated with about a 1 point increase in the ideological distance between Left and Right. We will explore below whether these variables affect the Left and the Right equally (or if the effects are in fact asymmetric).

As noted above, increased polarization might be a result of several different combinations of movements by Left and Right parties in the Left-Right dimension. In Table 2, we present the results for the analysis of the relationship between wage inequality and party positions. There are two different models in Table 2: one for the position of the Left parties and one for the position of Right parties.

[Table 2]

The first thing to note about Table 2 is that the effects of wage inequality on polarization are quite symmetrical. Increasing levels of wage inequality are significantly associated with both Left parties that are more to the left and Right parties that are more to the right. These relationships are significant at better than the traditional 95% confidence level. A one-unit increase in the 90-10 ratio is associated with Left parties that are more liberal by more than 22 ideology points to the left. The same increase is associated with Right parties that are more conservative by more than 19 ideology points to the right.

If we go on to analyze the determinants of Left party positions, it is also clear that very few variables are significant. According to our analysis, only the position of median voter clears the 95% confidence threshold as a determinant of Left party positions. The relationship between these variables is the one expected, more conservative median voters push the Left to the right. This, as we mentioned above, is one of the factors that makes a movement to the left by Left parties a particularly complicated proposition. The table also shows, moreover, that voter turnout is a significant variable at the 90% level of confidence. As we hypothesized, higher levels of voter turnout seem to be associated with higher levels of political participation by those in the lowest income strata. Their influence pushes the left to the Left (each additional percentage point in voter turnout is associated with almost half a point to the left in the Left-Right position of parties).

Table 2 is equally telling when we look at the relationship between the control variables and the position of Right parties. In this case, union density and the position of the median voter

are the two factors that reach significance at more than the 95% level. As expected, the median voter has effects that are similar to those in the analysis of Left parties. When the median voter becomes more conservative, Right parties mirror their movement to the right. In this case, we hypothesize that the median voter is reinforcing a strategy already promoted by the core constituency of the Right party. The table also shows that increasing levels of union density are associated with more conservative Right parties. An increase of 1 percent in union density promotes a movement to the right by Right parties equal to more than half an ideology point in the Left-Right variable. This is a surprising result, we hypothesized that the power of unions to mobilize low-income workers would move Left parties to the left. While the effects of union density on Left parties was insignificant, we find them to be significant on Right parties.

Table 2 also shows that GDP growth and voter turnout are significant determinants of Right party positions, but only at the 90% level of confidence. As we explained, it seems that higher growth makes Right parties more likely to favour redistribution. Conversely, slow growth is associated with more conservative Right parties. The results for voter turnout are consistent with those with obtained in the Left party analysis. As we hypothesized, higher levels of voter turnout seem to be associated with more rightist Right parties (we argue that this is the result of higher levels of political participation by low income voters).

Let us now turn to the analysis of the relationship between household disposable income inequality and party positions. We present in Tables 3 and 4 a parallel analysis to the ones explained in Tables 1 and 2.⁶

[Table 3]

The most important thing emerging from the results in Table 3 is the lack of significance of the variable picking up inequality. Table 3 shows that household disposable income inequality (measured as a GINI coefficient) is not a significant determinant of polarization. We

⁶ In a preliminary analysis, the LIS observation corresponding to the UK election of 1997 was identified as an outlier (i.e., the LIS observation for 1995, with an extreme inequality value that distorted the results). We eliminated from this observation from the sample.

hypothesized above why this may be the case (income inequality not affecting Left parties). We will be able to see below whether this is the result of differential effects on Left and Right parties. Otherwise, there is little we can say about the effects of other variables over polarization. Only one variable reaches significance at the 95% level (the effective number of parties). The results suggest that more parties are associated with a significant decrease in polarization (each additional party promotes a decrease equal to more than 3 and a half ideology points in the distance between the Left and the Right). The influence of union density is significant, but only at the 90% confidence level. As was the case in Table 1, more powerful unions are associated with higher levels of polarization.

[Table 4]

The most important finding in Table 4 reflects the asymmetric influence of income inequality on party positions. As we hypothesized above, the effects of household income inequality are significant for the positions of Right parties, but not for those of Left parties. Finding that income inequality is not a significant contributor to party polarization (in Table 3) is entirely the product of this asymmetry. While Right parties move to the right as a result of higher levels of household income inequality, Left parties do not respond in a significant manner.

The intriguing nature of the relationship between household income inequality and the ideology positions of Left parties warrants more attention. As noted at the outset, many reasons have been cited to suggest that the room for redistributive politics has diminished since the 1970s. Among other things, the options available to Left parties appear to have been constrained by lower economic growth, skills-biased technological change, production changes, the emergence of post-Fordism, increasing internationalization, competition from industrializing countries, and the increasing importance of insider-outsider differences. We have tried to control for some of these constraints. One way to interpret the lack of an association between inequality and Left party positions would be that our control variables do not fully capture the extent to which the political climate has become less favorable to redistribution.

Looking at the results for the rest of our variables, the figures in Table 4 illuminate some of the findings in Table 3. Table 4 shows that the effect of the effective number of parties is channelled entirely through the positions of Right parties. The effective number of parties is not a significant determinant of the positions of Left parties, but a higher number of parties in a political system makes Right parties less conservatives. Table 4 also shows that union density has the same effect for the Left and the Right. Increasing levels of union density are associated with a move to the right by both kinds of parties (although this effect is two times as strong in the case of Right parties). Finally, as expected, the position of the median voter is very important for both the Left and the Right. Both kinds of parties mirror the position of the median voter.

7. Conclusion

Consistent with a good deal of conventional wisdom, our results indicate that parties of the Right tend to be more “rightist” (anti-redistributive) in more inegalitarian countries. Our results are also consistent with the observation that rising inequality in the 1980s and 1990s have been accompanied by a sharp turn to the right (against redistribution) by parties of the Right and suggest that these developments are causally related to each other. The partisan version of the Meltzer-Richard model elaborated in this paper provides a plausible explanation for these patterns of association, but we readily admit that causality might run in the opposite direction as well (cf. McCarty, Poole and Rosenthal 2004). To the extent that Right parties have been electorally successful, and therefore able to set government policy, their turn to the Right might well be invoked to explain rising inequality (see Bartels 2004).

For Left parties, the political implications of inequality appear to be more ambiguous. In part, this is so because rising inequality in the 1980s and 1990s has been accompanied by a number of political-economic constraints on the ability of Left parties to pursue redistributive

policies. The upshot of these developments has been that the center of political gravity, measured by the position of the “median voter,” has shifted in most if not all countries. Controlling for the position of the median voter, we do observe that wage inequality is associated with more “leftist” (pro-redistributive) Left, but we do not observe any association between disposable household inequality and the policy orientation of Left parties. In contrast to the association between inequality and rightist Right parties, the association between wage inequality and leftist Left parties can hardly be explained in terms of reverse causality. The latter association could be a result of low-income workers in countries with historically high levels of wage inequality (most obviously the US) looking to Left parties to engage in compensatory policies. It could also be a response to rising wage inequality in countries with historically low levels of wage inequality (most obviously Sweden). Whether one or the other of these scenarios dominates our results is a question that we plan to pursue in the next iteration of this paper.

Our emphasis on organized core constituencies provides a plausible explanation of why Left parties appear to be more responsive to wage inequality than to disposable household income inequality. This represents another line of empirical inquiry that we plan to pursue. Relatedly, we believe that the analytical framework presented above might be fruitfully developed by articulating the connections between inequality, voter turnout and union strength.

Table 1**The Relationship Between Wage Inequality (90-10 Ratio) and Polarization:**

VARIABLE	COEFFICIENTS (STANDARD ERRORS) <i>P-VALUES</i>
Constant	-146.746 (62.478) .041
Wage Inequality (90-10 Ratio)	40.703 (12.359) .008
Effective Number of Parties	-3.792 (5.519) .508
GDP Growth	-3.798 (2.434) .150
Internationalization (Openness)	-.531 (2.165) .811
Union Density	.541 (.229) .039
Social Security Transfers	1.080 (1.371) .449
Position of the Median Voter	-.431 (.306) .189
Voter Turnout	.920 (.390) .040
N	62
R ²	.26

Notes: Results from OLS regression with robust standard errors. *P*-values are two-sided.

Table 2**The Relationship Between Wage Inequality (90-10 Ratio) and Party Positions:**

VARIABLE	LEFT	RIGHT
Constant	5.221 (39.857) .898	-141.525 (33.882) .002
Wage Inequality (90-10 Ratio)	-21.284 (8.134) .026	19.418 (6.136) .010
Effective Number of Parties	1.016 (2.486) .691	-2.776 (3.585) .457
GDP Growth	1.426 (2.588) .594	-2.372 (1.222) .081
Internationalization (Openness)	.907 (.884) .329	.376 (1.662) .826
Union Density	.006 (.099) .954	.547 (.159) .006
Social Security Transfers	-.442 (.682) .532	.638 (.862) .476
Position of the Median Voter	1.327 (.149) .000	.896 (.312) .017
Voter Turnout	-.406 (.196) .066	.514 (.244) .062
N	62	62
R ²	.48	.53

Notes: Results from OLS regression with robust standard errors. *P*-values are two-sided.

Table 3**The Relationship Between Household Disposable Income Inequality and Polarization:**

VARIABLE	COEFFICIENTS (STANDARD ERRORS) <i>P</i> -VALUES
Constant	18.116 (42.095) .674
Household Disposable Income GINI	140.412 (93.242) .156
Effective Number of Parties	-3.639 (1.633) .044
GDP Growth	-2.379 (2.572) .372
Internationalization (Openness)	-.589 (2.195) .793
Union Density	.300 (.154) .074
Social Security Transfers	-.003 (1.017) .998
Position of the Median Voter	-.322 (.238) .200
Voter Turnout	.024 (.176) .892
N	55
R ²	.21

Notes: Results from OLS regression with robust standard errors. *P*-values are two-sided.

Table 4**The Relationship Between Household Disposable Income Inequality and Party Positions:**

VARIABLE	LEFT	RIGHT
Constant	-101.246 (29.144) .004	-83.130 (24.194) .004
Household Disposable Income GINI	96.537 (70.650) .195	236.949 (47.233) .000
Effective Number of Parties	.113 (1.286) .931	-3.527 (.968) .003
GDP Growth	.095 (2.301) .968	-2.284 (1.622) .182
Internationalization (Openness)	.292 (1.355) .833	-.296 (1.439) .840
Union Density	.231 (.087) .020	.531 (.108) .000
Social Security Transfers	.653 (.547) .254	.650 (.701) .371
Position of the Median Voter	.818 (.215) .002	.496 (.121) .001
Voter Turnout	-.005 (.096) .963	.020 (.105) .853
N	55	55
R ²	.40	.54

Notes: Results from OLS regression with robust standard errors. *P*-values are two-sided.

Figure 1:

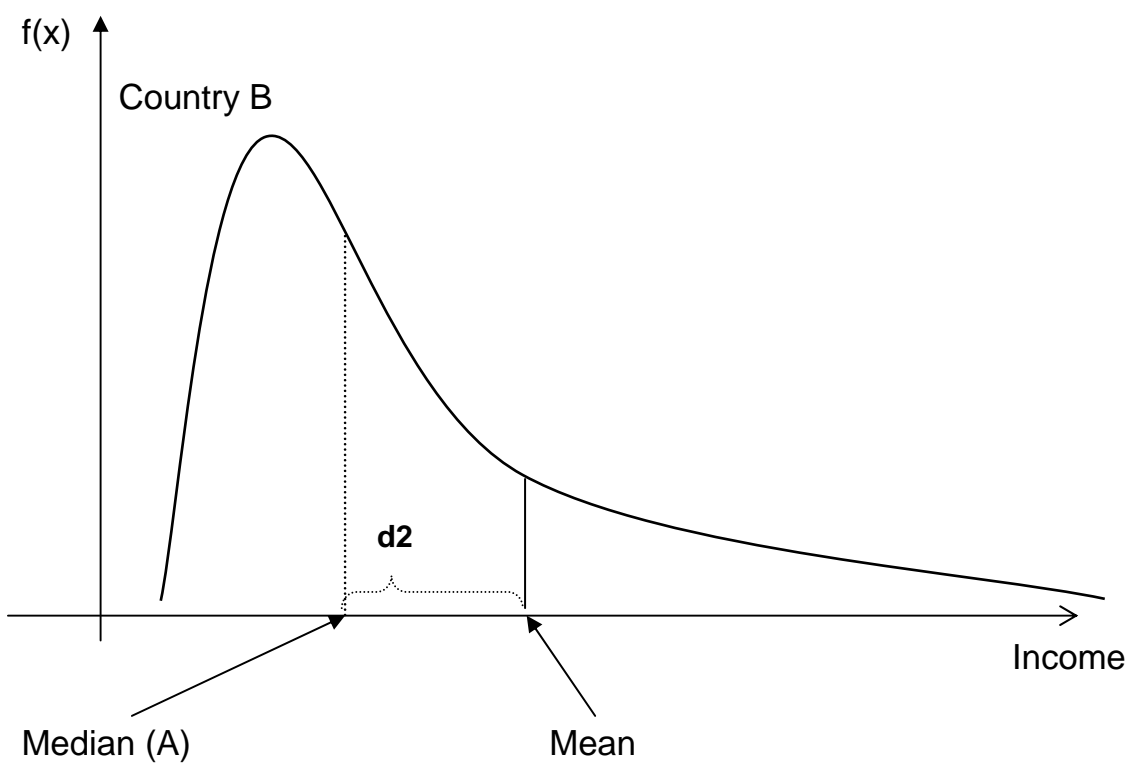
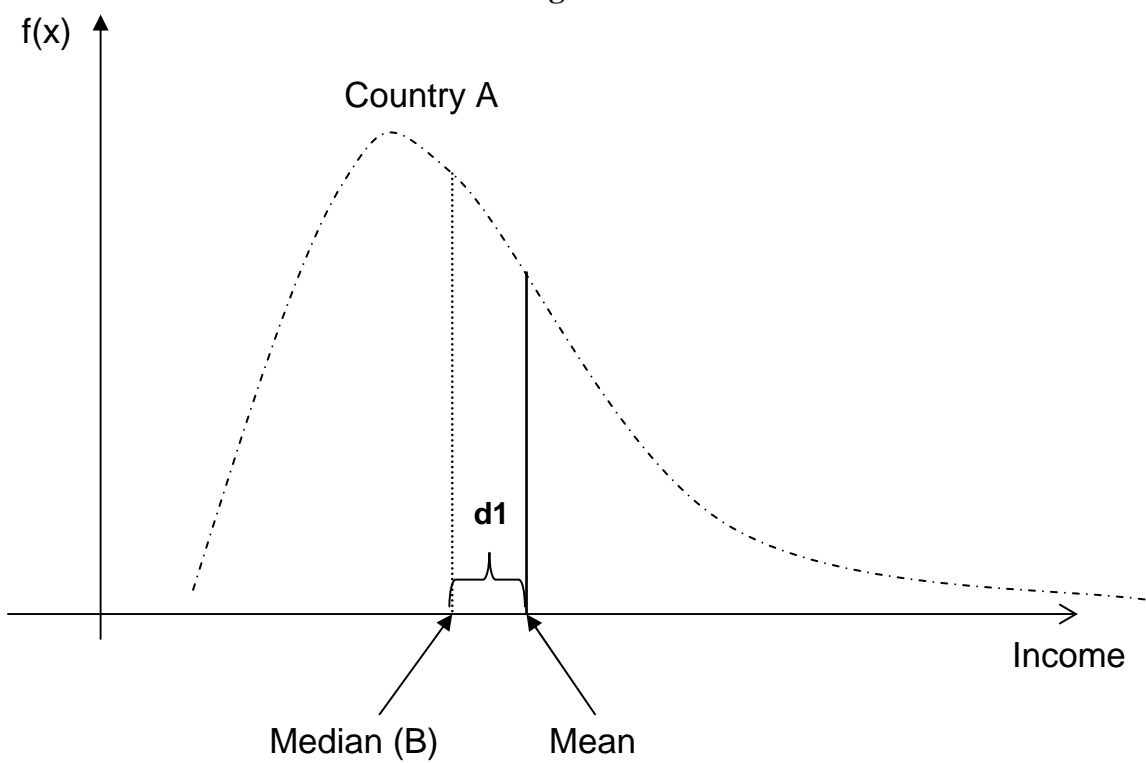


Figure 2:

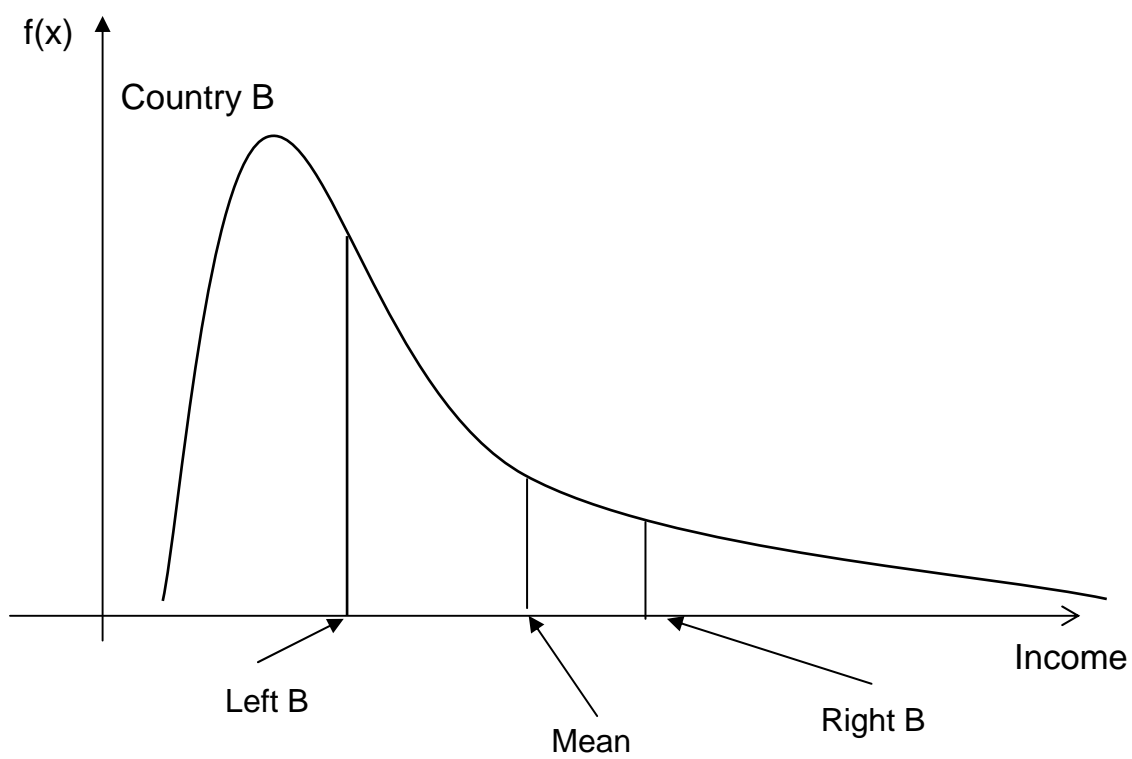
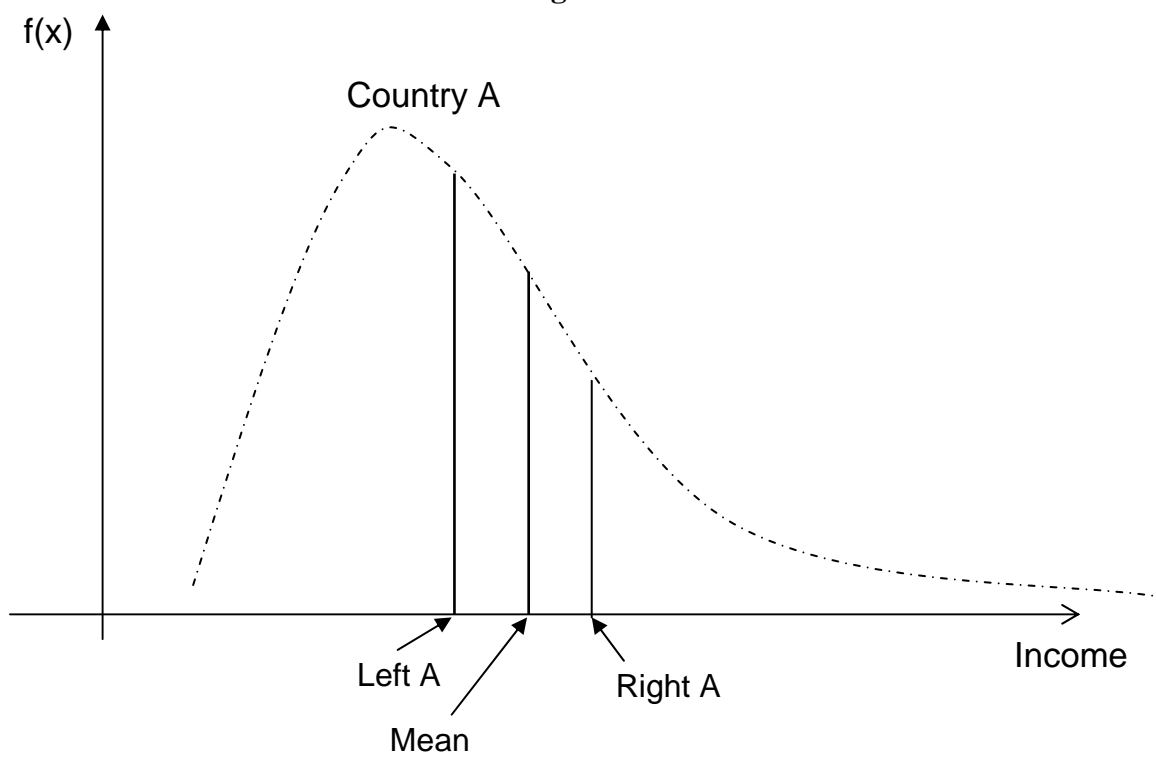


Figure 3:
Ideological Position of the Median Voter (Average for all OECD Countries)

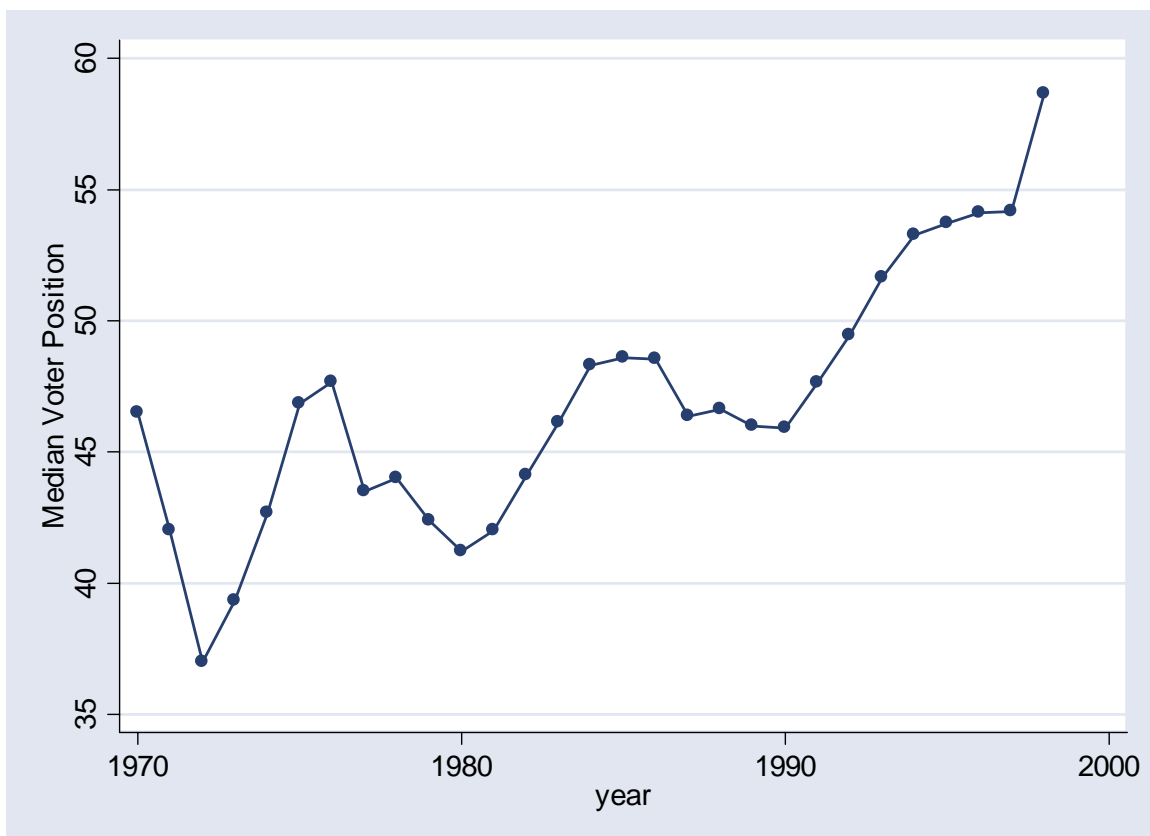
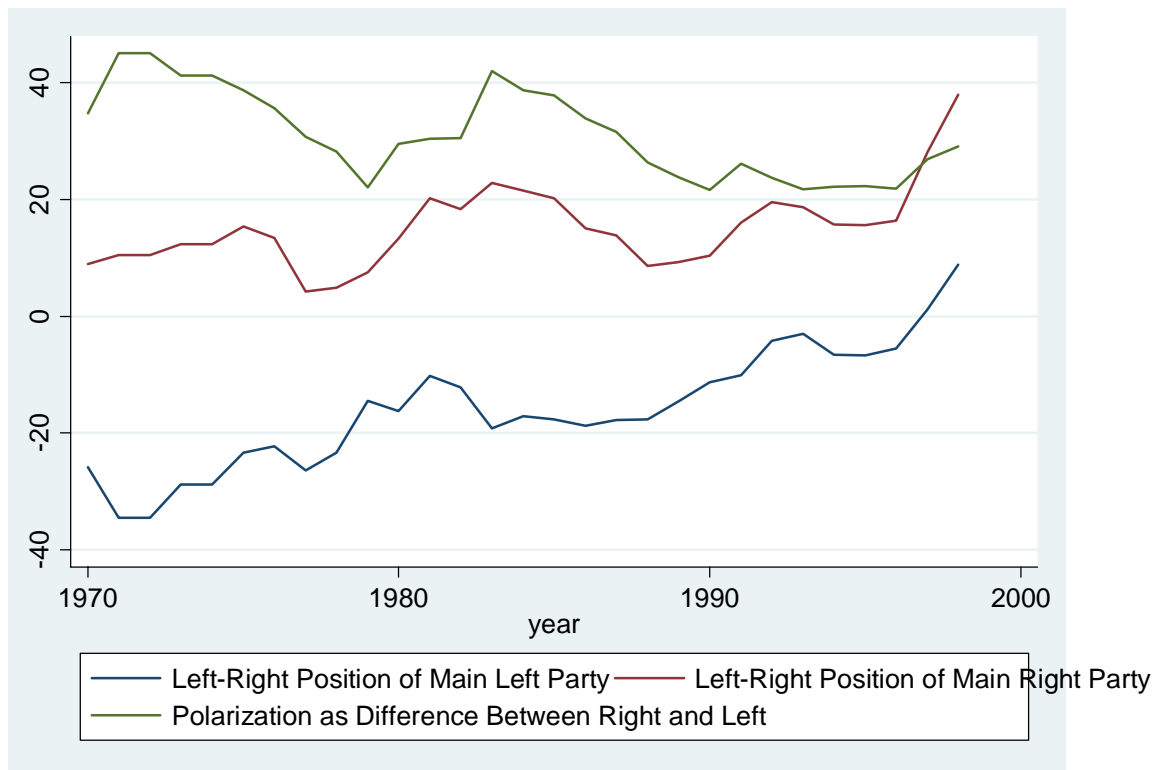


Figure 2:
Polarization and Ideological Positions of Left and Right Parties
(Average for all OECD Countries)



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Appendix

Summary Statistics for Wage Inequality Analysis				
VARIABLE	MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
Wage Inequality (90-10 Ratio)	2.895	.602	2.017	4.506
Effective Number of Parties	4.051	1.223	2.020	7.130
GDP Growth	2.628	1.272	-0.580	5.460
Internationalization (Openness)	11.756	1.710	7.800	14.000
Union Density	41.000	23.466	8.900	86.600
Social Security Transfers	15.473	5.184	7.760	27.340
Position of the Median Voter	46.993	11.118	26.400	67.400
Voter Turnout	78.279	13.088	43.780	95.700

Summary Statistics for Household Income Inequality Analysis

VARIABLE	MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
Household Disposable Income GINI	0.273	0.038	0.197	0.355
Effective Number of Parties	4.107	1.685	2.016	9.776
GDP Growth	2.459	1.144	-0.580	4.980
Internationalization (Openness)	12.469	1.579	8.100	14.000
Union Density	41.464	20.712	8.900	86.600
Social Security Transfers	15.935	4.578	7.760	27.340
Position of the Median Voter	48.865	10.537	23.370	64.700
Voter Turnout	79.341	13.373	43.780	95.700