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ABSTRACT*

Diverse Disparities: The Politics and Economics of Wage, Market and Disposable Income Inequalities

by Pablo Beramendi, Thomas R. Cusack

This paper analyzes the evolution of inequality and its determinants across different forms of income. A number of results emerge from this effort. First, OECD countries have been and continue to be much more diverse in their distributions of earnings and disposable income than they are in their distributions of market income. Second, the larger cross-national variation in the distributions of earnings and disposable income can be attributed to the role of political actors (such as unions and, more importantly, political parties) and economic institutions that allow actors to coordinate their activities. Third, the transmission of cross-national differences in wage inequality into market-based inequality appears to be muted relative to economic and demographic transformations that have gone on within the OECD countries. Fourth, the way in which political parties are able to pursue their goals varies across forms of income. Political parties' capacity to shape the distribution of earnings is contingent on the degree of wage bargaining coordination. Absent coordination between labor and capital, right-wing policy works to modestly increase inequality. Alternatively, the egalitarian efforts of left-wing parties have the undesired effect of raising earnings inequality. In contrast, when labor market actors are able to coordinate, left-wing policy reinforces the egalitarian effects of coordination whereas the impact of right-wing policy is institutionally constrained. In turn, political parties affect directly the distribution of disposable income through their choices about fiscal redistribution.

Keywords: *Income Inequality, Partisan Politics, Institutions, Varieties of Capitalism, Redistribution*

JEL Classification: E62, I3, J31, J38

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ZUSAMMENFASSUNG

Facetten der Ungleichheit: Politik und Ökonomie des Lohnes, des Marktes und der Ungleichheiten des verfügbaren Einkommens

In diesem Papier werden die Entwicklungen und die Determinanten der Ungleichheit verschiedener Einkommensarten untersucht. Als erstes Ergebnis lässt sicht feststellen, dass zwischen den OECD-Ländern größere Unterschiede in der Verteilung von Lohneinkommen und verfügbarem Einkommen als in der Verteilung von Markteinkommen bestanden und weiterhin bestehen. Zweitens kann die größere Variation der Einkommensverteilung über die Länder bezüglich Lohneinkommen und verfügbarem Einkommen der Rolle politischer Akteure, wie Gewerkschaften oder, noch wichtiger, politische Parteien, zugeschrieben werden. Auch ökonomische Institutionen, durch die die Akteure ihre Handlungen koordinieren, spielen eine Rolle. Drittens wird die Übertragung von Unterschieden in der Lohnungleichheit auf marktbasierte Ungleichheit von den ökonomischen und demografischen Transformationen verdeckt, denen die OECD-Länder unterliegen. Viertens variiert die Art und Weise, wie politische Parteien ihre Ziele verfolgen können zwischen den Einkommensarten. Die Möglichkeit, die Verteilung des Lohneinkommens zu beeinflussen, hängt vom Grad der Koordination der Lohnverhandlungen ab. Fehlt eine Koordination zwischen den Tarifparteien auf dem Arbeitsmarkt, resultiert aus konservativer Politik ein leichter Anstieg der Ungleichheit. Noch stärker tritt der unerwünschte Effekt, Lohnungleichheit zu erhöhen, bei den egalitären Bemühungen der linken Parteien auf. Im Gegensatz dazu verstärken in einer Situation mit koordinierten Arbeitsmarktstrukturen linke Politikmaßnahmen den egalitären Effekt der Koordination, während der Wirkung der Politikmaßnahmen rechter Parteien institutionell ein Riegel vorgeschoben ist. Die Verteilung des verfügbaren Einkommens wiederum wird von den politischen Parteien direkt durch ihre Wahl der fiskalischen Umverteilung bestimmt.

I. INTRODUCTION

One of the most important economic issues today is rising income inequality (Atkinson, 1999). In Atkinson's view there is a "transatlantic consensus" on the recent developments in economic inequality. This can be characterized as one where the steep rise in wage and income inequality seen in the principal Anglo-Saxon countries during the last decades has inevitably been followed by similar rises in most other economies. Wages and salaries have been shown to be growing ever more differentiated as the skill premium ineluctably increases (Nickell and Bell 1996; Gottschalk and Smeeding 1997). In turn, as capital reaps ever-greater rewards, those who depend on their own labor are losing out in both absolute and relative terms (Phillips, 2002). And, finally, with the retreat of government (Korpi and Palme, 2003), a trend that has been widespread over the last two decades, the dampening effect of the welfare state on the inequalities generated by the labor, financial and other markets has been weakened. In the context of these processes, a widely shared view of how income is distributed within the industrialized countries is an image of large and ever increasing inequality.

We join other scholars (Atkinson, 1999; 2000; Gottschalk and Smeeding, 2000; Kenworthy and Pontusson, 2002; Bradley et al., 2003; Iversen and Soskice, 2003) in taking the position that this "consensus" view is somewhat misleading. In particular, it exaggerates the uniformity in trends toward inegalitarian societies. The market and the state both shape the distribution of income. However, the strength of the roles they play differs across a variety of dimensions, including the type of income. The question today is not so much whether politics makes a difference for inequality but how political and institutional factors work their effects on inequality. While scholars in recent years have begun to pay greater attention to the question of income inequality, relatively little effort has yet been made to systematically work through the process by which inequalities in terms of different incomes are linked together (Atkinson and Brandolini, 2003). This

paper explores the sources of variation in the distribution of wages (i.e., dependent employment income), market income, and disposable income.

We do this in a series of steps. First, we examine the variation, both over time and across countries, in measures of the distribution of income in its different forms. Second, we then lay out an argument about how these different income distributions are shaped by both economic and non-economic forces. In this context, we pay particular attention to the role of government partisanship and economic institutions in shaping the distribution of income across OECD countries. The third step is to empirically evaluate the argument. We do this by specifying a model where the elements of the argument are included and estimating the parameters of the model. Thereafter, the implications of these parameter estimates are examined. Finally, we draw together our findings and discuss their implications.

A number of results emerge from this effort at examining the evolution of the distribution of income and its determinants. First, the patterns of cross-national variation are quite dissimilar across different forms of income. OECD countries have been and continue to be much more diverse in the distributions of earnings and disposable income than they are in the distribution of market income. Second, the larger cross-national variation in the distributions of earnings and disposable income can be attributed to the role of political actors (such as unions and, more importantly, political parties) and economic institutions that allow actors to coordinate their activities. However, these two sets of factors do not bear any influence on the distribution of market income other than the indirect effect they have through wage earnings. Third, the transmission of cross-national differences in wage inequality into market-based inequality appears to be muted relative to economic and demographic transformations that the OECD countries are undergoing. Fourth, the way in which political parties are able to pursue their goals varies across forms of income. While political parties are able to directly work their effect on the distribution of disposable income through their choices

about fiscal redistribution, their capacity to shape the distribution of earnings is contingent on the degree of wage bargaining coordination.

II. IS THERE GROWING ECONOMIC INEQUALITY WITHIN THE OECD COUNTRIES?

We focus on the distributions of three different forms of income. These include wages, market income, and disposable income. Wages are the monetary reward a person receives in exchange for the labor they provide an employer. Market income, of which wages are a component, is the broadest measure of the income an individual derives from the economic system exclusive of government transfers. Disposable income reflects the direct effects, after taxes and transfers, of government on how market income is ultimately distributed.

Let us turn first to the question of the distribution of wages. For our purposes, there are useful data on this variable for thirteen countries. We have aggregated these data into five-year period averages. These averages are displayed in terms of an index that is conventionally described as the 90/10 ratio (in other words, the ratio the earnings of the top 10 percent of wage earners to that of the lowest ten percent of wage earners).[1] These can be seen in Table 1.

The pattern in over-time wage inequality is mixed across the OECD countries over the period from the late 1970s to the late 1990s.[2] Some countries experienced greater inequality in wage dispersion and some witnessed declines. For example, in the United States and the United Kingdom, labor markets that were marked by already by high levels of wage inequality saw that inequality

[1] OECD (1996) describes the national sources and definitions for these data. Note, in line with the other two measures of income inequality used in this paper, relating to market and disposable income, we would have preferred to use data drawn from the Luxembourg Income Study (LIS) data sets. However, comparability problems on the wage data in LIS would have greatly reduced the number of observations that could be used. In addition, the wage data are only available in terms of inter-decile ratios and not in any other form, such as the Gini indices that we use in conjunction with the LIS-based data.

[2] For a detailed review of cross-national patterns in wage inequality and the forces driving it, see Gottschalk and Smeeding (1997).

surge upward through the 80s and 90s. In other countries, for example, France, Finland and Denmark (the latter two marked by initially low levels of inequality), experienced very little change in levels of wage inequality over the time periods for which we have data. Moreover, in other countries, such as Germany and Belgium, low levels of wage inequality shrank even further.

Table 1
Wage Inequality across the OECD Countries
(90/10 Ratio from OECD, 1996)

Per.	AUL	BEL	CAN	DEN	FIN	FRN	GER	ITA	NET	NOR	SWE	UK	US
1	2.83	----	4.02	2.15	2.47	3.23	----	----	2.52	2.07	2.03	3.03	3.80
2	2.84	2.42	4.45	2.19	2.48	3.14	2.91	2.26	2.48	2.11	2.05	3.20	4.14
3	2.85	2.33	4.33	2.17	2.46	3.25	2.73	2.34	2.60	1.98	2.09	3.39	4.35
4	2.88	2.25	4.28	----	2.33	3.11	2.79	2.37	2.72	----	2.19	3.42	4.56
5	2.95	----	----	----	2.42	3.05	----	----	----	----	2.22	3.42	4.58

Note on time periods and country labels: each period is five years in duration and follows the LIS wave dating convention with 1 = 1978-82; 2 = 1983-87; 3 = 1988-92; 4=1993-197; 5 = 1998-2002. AUL – Australia; BEL – Belgium; CAN – Canada; DEN – Denmark; FIN – Finland; FRN – France; GER – Germany; ITA – Italy; NET – Netherlands; NOR – Norway; SWE – Sweden; UK – United Kingdom; US – United States.

There is no gainsaying that wages are an important component of the income that individuals and households derive from the market. Still, however, they are only a part of total market-derived income.[3] Based on definitions of dependent labor and non-labor income in the household accounts derived from Mendoza, et al (1994), it is clear that non-dependent labor based income is also very important. A sense of this can be derived from Table 2. In this table we present three-decade averages of dependent labor income as a share of total household market based income and an additional measure of the income derived from other market sources. Across the 17 countries for which data are available, we can see wage earnings constitute slightly less than seventy percent of household

[3] A household's market income not only includes earnings from dependent employment, but those deriving from self-employment as well as interest, dividends, rents and any other income from non-state sources.

income on average. Correspondingly, the average of thirty percent of this income derived from sources other than dependent employment makes up a significant part of market income. On the face of it, such flows are likely to be distributed in far different ways than are wage earnings. The implications of this for the distribution of total market income are clear: this overall market-based distribution will be different from the earnings distribution and the forces shaping it will, at least in part, be different than those that shape the earnings distribution.

In contrast to the mixed picture on cross-national developments in wage earnings distributions, the pattern of change in the distribution of market income is uniform across the 11 OECD countries for which data are available (see Table 3 below). Regardless of the wage leveling forces in national economies and the redistributive character of national taxation and spending regimes, market income inequality has been high across these countries and has surged to even higher levels over the last two decades. One way to think of the Gini indices presented in this table is that each represents the share of total market income generated within the economy that would have to be redistributed in order to achieve equality across all households in terms of the amount each receives.[4] One sees, for example, that in the United States nearly half of all income would need to be redistributed to achieve equality in market outcomes. Even in an egalitarian society such as Sweden, the level of inequality in market outcomes is extremely high and, at times, has exceeded the levels of inequality seen in the United States and the United Kingdom.[5]

[4] In providing a summary measure of the distribution of income the Gini coefficient has the disadvantage of potentially obscuring processes taking place in different parts of the distribution (Atkinson and Brandolini, 2003). Note, however, that the arguments throughout the paper are concerned with the overall degree of dispersion across forms of income.

[5] A colleague of ours, John Stephens, has suggested that our analysis is misleading because it includes pensioners. The concern is that pre-tax inequality in countries with "comprehensive" public pensions systems (i.e, the Nordic countries) would be "artificially" high because pensioners in these countries make no provisions for retirement outside the public system. Since our concern is with society-wide income inequality, it seems inappropriate to consider only "one variant of the working-age population". We do not deny that the welfare state has as one of its primary clients those in retirement age. Indeed the failure of some welfare states to adequately support those of pensionable age is a major problem and should not be pushed aside nor relegated to the status of a nuisance. Stephens and his co-authors (Bradley et al., 2003: 224-225)

In addition, we have data on the distribution of disposable income for 13 OECD countries. These are displayed in Table 4. Again, we use the Gini index to describe the character of the distributions. Recall that disposable income is equal to market income plus government transfers and less taxes. Across all of the OECD countries the Gini measures on disposable income are far lower than those for market income, thus signifying that direct government intervention produces a far more equitable distribution of income. Of course, the scope of this intervention varies and with that the breadth of the reduction in inequality. Thus, for example in the last period reported (1998-2000), the effective level of redistribution varied dramatically between states such as Sweden (18 percent of total income) and the United States (8 percent of total income). In terms of changes in the overall levels of inequality in disposable income one observes that in most of the countries for which we have data the pattern over the last two decades has been one that involved a modest increase in the overall level of inequality or basically no change (as in the cases of France and the Netherlands). Three countries do stand out in terms of the levels of increase in the degree of inequality. These include two of the usual suspects, the United Kingdom and the United States, as well as the traditional ideal typical welfare state, Sweden, which experienced a significant amount of growth in the level of inequality in disposable income.

"demonstrate that the assertion that the welfare state merely redistributes income across generations is wrong." We do not deny their contribution nor the fact that the welfare state does more than engage in intergenerational redistribution. However, in showing that redistribution is not simply across generations, there is no gainsaying that the intergenerational redistribution aspect of the welfare state is important to a significant proportion of the citizenry inside the OECD countries. In addition, a good deal of cross-class redistribution occurs inside OECD pension systems. Most pension systems are not guided exclusively by insurance principles. Finally, as we point out later (footnotes 22 and 24), the findings that we will present hold regardless of the demographic base used for our income distribution measures.

Table 2
Shares of Household Market Income Derived from Dependent Employment and other Sources in Selected OECD Countries, National Averages for 1965-95

	Percent from Dependent Employment	Percent from Other Market Sources
Australia	68.8	31.2
Austria	66.6	33.4
Belgium	65.3	34.7
Canada	70.4	29.6
Denmark	77.4	22.6
Finland	69.8	30.2
France	67.9	32.1
Germany	70.7	29.3
Ireland	61.2	38.8
Italy	55.3	44.7
Japan	68.7	31.3
Netherlands	66.5	33.5
Norway	76.0	24.0
Sweden	78.8	21.2
Switzerland	71.2	28.8
United Kingdom	74.5	25.5
United States	71.9	28.1
Average	69.5	30.5

Source: Own calculations using formulae developed by Mendoza, et al (1994) and based on data drawn from the OECD's National Accounts Statistics, Vol. II (various years), its Labour Force Statistics (various years), and the United Nations Yearbook of National Accounts Statistics (various years).

Still, the direct workings of state fiscal systems revealed by combining the figures in Tables 3 and 4 are clearly large even if they differ across nations. Thus, in states with modest welfare regimes such as Australia, the United Kingdom, and the United States, the net amount of total income being redistributed amounted anywhere from eight to twelve percent of total income. In Sweden, nearly a quarter of this income was redistributed in some periods. The redistribution amounted to huge sums in a relative sense with on average around 20 percent in the United States and nearly 50 percent in Sweden.[6] And while in a number of countries, for example, the United States and Sweden, the redistributive effects of state fiscal systems declined over time, they rose sharply in other countries, such as France and Germany.

Table 3
Market Income Inequality across the OECD Countries
(Gini index on household market income* based on LIS data)

Per.	AUL	BEL	CAN	DEN	FIN	FRN	GER	ITA	NET	NOR	SWE	UK	US
1	0.37	----	0.36	----	----	0.34	0.31	----	----	0.35	0.39	0.37	0.39
2	0.40	----	0.37	0.39	0.33	0.37	0.40	----	0.36	0.33	0.43	0.42	0.42
3	0.41	----	0.39	0.42	0.34	0.39	0.41	----	0.38	0.37	0.46	0.44	0.42
4	0.41	----	0.39	0.43	0.38	0.47	0.40	----	0.39	0.41	0.45	0.45	0.45
5	----	----	0.41	----	0.37	----	0.44	----	----	0.42	0.44	0.46	0.46

*Note that income is adjusted for household size using the LIS equivalence scale.

[6] In passing, we might note that Alesina and Glazer's recent (2004) book on the differences between the United States and Europe in terms of both poverty and the efforts of the state to relieve it is somewhat misleading in its portrayal of trans-Atlantic differences in market income distribution. It proceeds under the assumption that the gulf in the level of inequality between the Americans and Europeans is very wide before taxes and redistribution (pp. 3, 56, 58), indeed far wider than it really is, and the authors thereby infer that the European welfare state systems are less redistributive than then actually are. A cursory examination of Tables 3 and 4 would show how inaccurate Alesina and Glazer's portrayal is.

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Table 4
Disposable Income Inequality across the OECD Countries
(Gini index on household disposable income based on LIS data)

Per.	AUL	BEL	CAN	DEN	FIN	FRN	GER	ITA	NET	NOR	SWE	UK	US
1	0.28	----	0.28	----	----	0.29	0.24		----	0.22	0.20	0.27	0.30
2	0.29	0.23	0.28	0.25	0.21	0.30	0.26	0.31	0.26	0.23	0.22	0.30	0.34
3	0.30	0.23	0.28	0.24	0.21	0.29	0.25	0.29	0.27	0.23	0.23	0.34	0.34
4	0.31	0.25	0.29	0.26	0.23	0.29	0.26	0.34	0.26	0.24	0.22	0.35	0.36
5	----	----	0.31	----	0.25	----	0.26	0.35	----	0.26	0.26	0.35	0.38

*Note that income is adjusted for household size using the LIS equivalence scale.

In sum, there are significant differences in the incidence of inequality across OECD countries, but the range of these differences vary across different income concepts. More importantly, these differences have not changed dramatically over time. Table 5 displays the coefficients of variation in the level of inequality for the three forms of income during the first and last periods of the sample. These figures help summarize the two main points emerging from the more detailed analyses presented in this section. First, the OECD countries have been much more diverse in their distributions of earnings and disposable income than they were in their distributions of market income. Second, these patterns have remained unaltered through the end of the century. If anything, cross-national differences in terms of disposable income inequality have increased slightly over the last twenty-five years. In the next section we lay out an argument to identify the factors at work behind these developments.

Table 5
Cross National Differences* across Measurements of Inequality

	Earnings Inequality	Market Income Inequality	Disposable Income Inequality
Wave 1	0.24	0.07	0.15
Wave 2	0.25	0.09	0.15
Wave 3	0.26	0.08	0.15
Wave 4	0.25	0.07	0.16
Wave 5	0.24	0.07	0.17

* Differences over time and across income measures are present in terms of coefficients of variation.

III. POLITICAL PARTIES, INSTITUTIONS AND INEQUALITY

A variety of factors shape the distributions of income within society. Not all of these are economic. Politics also plays a role. We assume that the role politics plays is very central and immediate in the case of the wage distribution and the final (i.e., disposable) income distribution. In contrast we assume its role in shaping the distribution of market income to be very indirect and subtle. Included in government's repertoire of policy instruments are tools that allow it to shape distribution in the labor market and disposable income. These instruments include regulations, taxes and transfers.

Regulations such as minimum wage laws affect the distribution of earnings. Taxes and transfers are obvious and sometimes powerful determinants of the distribution of disposable income. But these instruments of government policy also affect pre-fiscal income through the anticipatory behavioural responses on the parts of labor and capital (Beramendi 2001). Labor responses come in the form of labor supply decisions. Capital responds by

adjusting its investment decisions and levels of labor demand. Consequently, their impact on pre-fiscal income should be primarily reflected in the distribution of earnings in the labor market. Government is much more constrained in its actions in other markets, for example finance. These volatile markets are sensitive to government intervention and thereby deter governments from seeking to directly influence the shape of the distribution of overall market income. In the rest of this section we set out to analyze the role of political factors in shaping the distribution of income.

The role of politics can be understood in terms of institutions and the ideological preferences of governments. There is a long tradition in political science that sees partisanship as having a central role in the creation of public policy (Hibbs 1977, 1987, 1992). Parties are seen as agents of different economic interests. Parties on the left are viewed as representing the interests of labor. Parties on the right are held to be agents of more affluent classes. Thus, left-wing governments are expected to tax, spend and regulate more with the aim of achieving an equitable society.[7] Analogously, parties on the right are expected to implement public policies that preserve inequitable outcomes deriving from the workings of the market.

A second tradition in political science, one that also has its advocates in economics, has highlighted the importance of labor market institutions in shaping the distribution of wage income (Wallerstein, 1999; Iversen and Wren, 1998). The effects of labor market institutions are both direct and indirect. The direct effects can be seen in the constraints imposed on the behaviour of labor and capital. Indirect effects are found in the way in which these institutions filter the impact of other determinants of inequality, most prominently government partisanship (Rueda and Pontusson, 2000). In

[7] There is a fairly large literature on aspects of this, including Hibbs and Dennis (1988), Bartels (2003), Hicks and Swank (1984), Mahler (2001), Bradley et al. (2003), and Iversen and Soskice (2003).

what follows, we lay out an argument in which the effects highlighted by these two traditions can be understood.

Left-wing policy aims at reducing income inequality. This goal is achieved in a variety of ways. In the case of wage equality these paths include higher minimum wages, higher levels of benefit generosity and higher labor income tax rates. Higher minimum wages raise the wage floor directly. Higher levels of generosity raise the wage floor indirectly, by increasing the reservation wage.[8] Both compress the earnings distribution from the bottom. In turn, higher tax rates on labor income reduce the incentives for wage increases in the upper half of the distribution, compressing the distribution from the top. Taken together, all three policies have the effect of reducing wage inequality. Left-wing parties also reduce the inequality of disposable income by setting higher levels of taxes and transfers.

Alternatively, non-left-wing governments pursue a different type of policy. These governments can be either from a Christian Democratic or from a more liberal tradition. Christian Democratic regimes are associated with entitlements based on the insurance principle, the maintenance of status differences and the subsidiary correction of market outcomes (Esping-Andersen, 1990; Kersbergen, 1995; Huber and Stephens, 2001). In implementing these principles Christian Democratic governments combine medium levels of tax burdens with a heavy reliance on social security contributions and public transfers. While there is no reason to anticipate that this policy reduces wage inequality, a certain degree of income redistribution is to be expected. The egalitarian impact of this policy, however, is likely to be smaller than that of policy of a left-wing government. In turn, right-wing liberal policy is anchored in the tenet that the market should be the dominating mechanism of resource allocation in society. Taxes, transfers and regulations are minimized and, as a result, the

[8] This is the wage rate at which a person is exactly indifferent between working and not working.

expected redistributive effect of government policy is at its lowest level. Therefore, liberal policies are expected to lead to higher levels of both earnings and income inequality.

Political parties are not the only actors shaping the distribution of income. Trade unions and employers' associations also play a significant role. Let us turn our attention first to unions. Their impact is to be seen in both wage inequality and redistribution. Unions have an aversion to wage inequality. The stronger the union movement the greater this aversion; to the extent that this greater strength rests on the inclusion of low wage earners, the aversion is heightened (Freeman, 1980). The power resources approach to the welfare state (Esping-Andersen, 1990; Korpi, 1983; and Stephens, 1979) emphasizes the strength of the working class. The extent to which it is organized, for example in unions, enhances its abilities to influence government policy. With this influence, the working class is able to push for and achieve a greater redistributive effort on the part of government and thereby reduce the level of inequality in disposable income.

Accounts of redistribution and inequality based on the power of the working class tend to see employers as passive agents endorsing a unitary opposition to state intervention and redistribution. Yet employers' preferences about state regulations and redistribution vary, among other things, according to the size, the sector of production and the skill intensity of the firms (Mares, 2003). Moreover, they are far from being mere spectators. The control by employers of the levels of private investment and labor demand gives employers associations a great deal of leverage over government policy. More specifically the potential reaction by employers may operate as a veto against particular forms of taxes, transfers and regulations. This implies that both unions and employers' associations have an input into the politics of inequality. As a result, an important part of the explanation of government policy and its distributive

effects lies in the way in which the interplay between unions, employers and the incumbent party is institutionalized. This brings us to the issue of coordination within the economy.

The degree of wage coordination between capital and labor is conventionally regarded as a crucial aspect of the difference between Liberal (LME) and Coordinated (CME) Market Economies (Hall and Soskice, 2001). Let us consider briefly the nature of such differences and their implications for the politics of inequality. In LMEs, firms coordinate their activities via competitive market arrangements. Relations between capital and labor are organized by individuals and not by associations. Capitalists value their capacity to adjust to market fluctuations; and so too does labor by investing in portable, general skills. Neither has an incentive to coordinate outside the market. Alternatively, markets are organized very differently in CMEs. Firms find incentives to coordinate with unions and the government around a fundamental "non-market based" equilibrium between capital and labor. An equilibrium such as this becomes politically effective via the wage coordination compromise between capital, labor and the government.

By virtue of this compromise labor agrees to restrain wage demands, thereby contributing to lower inflation and better economic conditions, but most importantly for itself, gains a degree of income insurance for workers. [9] Government uses fiscal policy to compensate labor for its sacrifice and thereby reduces the costs of the compromise. It does this through a large welfare state that provides labor with an insurance system that guarantees both a good income level in periods of economic downturns and longer-term earnings (pensions). In addition, labor unions obtain higher leverage in wage negotiations and greater political control over the implementation of a

[9] For a detailed characterization of the nature of this compromise see Cameron (1984), Regini (1984), Wallerstein, Golden and Lange (1997), and Wallerstein and Golden (2000).

large number of public policies (Coe and Snower, 1997; Swenson and Pontusson, 2000).

This compromise between capital and labor is only one facet of the overall level of non-market-based coordination in CMEs that distinguish them from LMEs. The institutional arrangements of corporate governance and their interplay with the workings of labor markets are also part of the picture. Firms within CMEs rely more on bank-based than on equity-based sources of corporate finance and display higher levels of cross-shareholding. By virtue of these arrangements, investors privilege long-term performance and firms pool risks. This institutional setup creates the conditions for long-term investments both by firms and employees (specific skills). As a result the pressure on companies and workers to maintain continuous levels of profitability is reduced. This, in turn, facilitates the sustainability of the compromise within the labor market (Gingerich and Hall, 2000).

This way of organizing the economy generates a number of distributive effects. Within the labor market the institutional position of unions is enhanced. Therefore, unions are better positioned to push for their preferred egalitarian wage distribution, which should be reflected in lower levels of wage inequality (Wallerstein, 1999). The distributive consequences of coordination go beyond the labor market.[10] By making firms' decisions less responsive to expected short-term profits, corporate governance arrangements in CMEs create the conditions for employers to accept a large welfare state. This acceptance facilitates income redistribution and, other things being equal, should be reflected in lower levels of disposable income inequality.

[10] In the empirical analysis of the paper we incorporate this distinction between two different types of coordination. When we analyze the impact of coordination on wage inequality (Table 9) we restrict our measure of coordination to wage bargaining processes within the labor market. Alternatively, in the case of disposable income inequality (Table 11), we use a broader measure, one that captures the overall coordination within the economy (Gingerich and Hall, 2002).

In addition to these direct effects, the degree of coordination matters because of its interaction with partisan politics. According to one view in the literature (Pontusson, Rueda and Way, 2002; Rueda and Pontusson, 2002), high levels of coordination between capital and labor constrain the impact of parties on public policy and therefore mute the impact of partisanship on the distribution of income. The intuition behind this argument is that collective agreements generally incorporate all workers in a company or sector regardless of union membership status and that wage developments across firms and industries are at least indirectly tied to one another. Given these conditions it is difficult to entertain the notion that government can significantly influence these autonomous bargaining agreements and thus influence wage distribution (Pontusson, Rueda and Way, 2002). Stated in more abstract terms, high levels of wage bargaining coordination have the effect of muting partisan effects on wage inequality.

Our view on how the interplay between political parties and labor market institutions affects income inequality is different. We contend that high levels of wage bargaining coordination facilitate the implementation of left-wing policy and constrain the implementation of policies favored by the right. In contrast, the absence of coordination between capital and labor facilitates the implementation of right-wing preferences and constraints the egalitarian effects of left-wing policy. Let us elaborate on why this position seems more plausible than that held by Pontusson, Rueda and Way (2002).

Coordination reduces the resistance of employers to a generous welfare state and constrains the economic costs of redistribution by ensuring the agreement of unions to wage moderation. In addition, the agreement between capital and labor facilitates the adoption of significantly higher taxes on labor income (Cusack and Beramendi, 2003). Thus, in such institutional context left-wing parties are free to use the main tools at their

disposal to reduce wage inequality without incurring in negative economic externalities. In this sense left-wing incumbency and wage bargaining coordination reinforce each other's egalitarian effects on the wage distribution. As a result, we would expect wage inequality to be at its lowest levels in those countries where coordination is high and left-wing parties are in power. In addition, left-wing parties will be able to develop a large and very generous welfare state (among other reasons to compensate unions for wage moderation), leading to a greater reduction in disposable income inequality.

In contrast, strong coordination creates a hostile environment for the implementation of right-wing policy. High levels of coordination imply that both employers and unions enjoy a certain degree of veto power over government policy. While in coordinated economies employers may be divided about a left-wing policy, unions will certainly oppose any attempt at market flexibilization and welfare state reduction put forward by right-wing parties. Therefore, these parties will see that their actual policy is much further away from their initial position than it would be in the case of a social democratic government. As a result, if right-wing parties hold office in highly coordinated environments, earnings and disposable income inequality are likely to reach intermediate levels.

The picture changes in the absence of coordination. Under such conditions, right-wing parties receive the full support of employers and leave unions with far less institutional leverage. A right-wing party's capacity to let the market work as freely as possible is not constrained and, therefore, one would expect inequality to be higher across all forms of income.

The absence of coordination also has implications for the capacity of left-wing parties to promote their distributional goals. While these parties retain their capacity to compress the distribution of disposable income through

fiscal redistribution, their leverage to affect wage inequality is much more limited. In coordinated contexts, the government uses fiscal policy as a mean to influence the behaviour of labor and capital within wage agreements. In the absence of coordination, the signals sent by government through its fiscal policy are less effective in shaping union behaviour. Unions have no guarantee that the government and the employers will agree to the development of a large public insurance system. Hence, unions have no incentive to agree to wage moderation. Additionally, there is no enticement for them to accept the burden of higher taxes on labor needed so as to sustain a generous welfare state (Cusack and Beramendi, 2003). Rather, unions will demand large levels of redistribution while still pressing for nominal increases to sustain real wages. Under such conditions, governments lack the capacity to trade income insurance for wage moderation and high taxes on labor. As a result, there is no reason to expect that left-wing parties are able to compress significantly the shape of wage distribution.

Table 6
Political Parties, Wage Bargaining Coordination and Wage Inequality

POLITICAL AND INSTITUTIONAL CONDITIONS	POLICY CHOICES	POLITICAL PROCESS	EXPECTED LEVELS OF WAGE INEQUALITY
High levels of Wage Bargaining Coordination/Left-Wing Incumbency	Union wage moderation High welfare state generosity High taxes on labor	Left-wing policy and coordination reinforce each other	Low
High Levels of Wage Bargaining Coordination/Right-Wing Incumbency	Union wage moderation Medium welfare state generosity Medium levels taxes on labor	Coordination constrains right-wing policy	Medium
Low Levels of Wage Bargaining Coordination/Left-Wing Incumbency	No union wage moderation High welfare state generosity Medium levels taxes on labor	Lack of coordination constrains left-wing policy	High
Low Levels of Wage Bargaining Coordination/Right-Wing Incumbency	No union wage moderation Low welfare state generosity Low levels taxes on labor	Right-wing policy is facilitated by lack of coordination	High

Table 7
Political Parties, Economic Institutions and Disposable Income Inequality

POLITICAL AND INSTITUTIONAL CONDITIONS	POLICY CHOICES	POLITICAL PROCESS	EXPECTED LEVELS OF DISPOSABLE INCOME INEQUALITY
High Overall Coordination in the Economy /Left- Wing Incumbency	Union wage moderation High welfare state generosity High taxes on labor	Left-wing parties and unions promote redistribution Coordination facilitates redistribution	Low
High Overall Coordination in the Economy /Right-Wing Incumbency	Union wage moderation Medium welfare state generosity Medium levels taxes on labor	Right-wing parties oppose redistribution Coordination facilitated by redistribution	Medium
Low Overall Coordination in the Economy /Left- Wing Incumbency	No union wage moderation High welfare state generosity Medium levels taxes on labor	Left-wing parties and unions promote redistribution Non-coordination limits redistribution	Medium
Low Overall Coordination in the Economy /Right-Wing Incumbency	No union wage moderation Low welfare state generosity Low levels taxes on labor	Right-wing parties oppose redistribution Non-coordination limits redistribution	High

In sum, this section has outlined the process by which political parties and institutions shape the distribution of income. Table 6 summarizes the expected relationships between different political and institutional conditions and the levels of wage inequality. As we have argued above, the effect of government partisanship is contingent on the level of wage bargaining coordination. For the reasons presented, we expect to observe partisan effects only when the level of wage bargaining coordination is high. Alternatively, in the absence of

coordination, the egalitarian effects of left- wing policy are muted and no partisan differences are expected. In addition, Table 7 recapitulates the expected relationships between political parties, economic institutions and disposable income inequality. Here the anticipated pattern is different. Partisan differences with respect to the welfare state and redistribution are expected at all levels of coordination of the economy. In the next two sections of this paper we turn to an empirical assessment of these arguments.

IV. MODEL SPECIFICATION AND ESTIMATION

The empirical evaluation of the arguments contained in the previous section requires one to assess the impact of political and institutional factors as well as other conditioning factors on the distribution of income. Moreover, in conformity with the arguments, it demands that three different forms of income be treated as the objects of explanation. We accomplish all of this by specifying and estimating the system of three equations detailed below:

$$WI_{it} = \alpha_1 + \beta_1 ME_{it} + \beta_2 TWI_{it} + \beta_3 FP_{it} + \beta_4 UD_{it} + \beta_5 LG_{it} + \beta_6 WBC_{it} + \beta_7 LG_{it} * WBC_{it} + \varepsilon_1 \quad (1)$$

$$MI_{it} = \alpha_2 + \beta_8 WI_{it} + \beta_9 SMC_{it} + \beta_{10} OP_{it} + \varepsilon_2 \quad (2)$$

$$DI_{it} = \alpha_3 + \beta_{11} MI_{it} + \beta_{12} EC_{it} + \beta_{13} UD_{it} + \beta_{14} LG_{it} + \varepsilon_3 \quad (3)$$

Wage inequality (*WI*), market income inequality (*MI*), and disposable income inequality (*DI*) are the dependent variables in this system.[11] The interdependence across the equations is restricted. This can be seen in the fact that the dependent variable of the first equation, *WI,* is independent of the other two

[11] The variable *WI* is the ratio of the 90th percentile to the 10th percentile of the distribution of earnings of full time employees. Sources include the OECD's *Employment Outlook* from 1996 and data provided to us by Lane Kenworthy of Emory University. *MI* is the Gini index for market income. This household based measure is corrected for variations in household size using the LIS equivalence scale. *DI* is the Gini index for household disposable income. It, too, is corrected for variations in household size using the LIS equivalence scale. Both *MI* and *DI* have been calculated using the LIS data accessed over the Internet.

equations' dependent variables, while the second, *MI,* depends on a set of exogenous variables plus the dependent variable of the first equation, *WI,* and the third dependent variable, *DI*, is a function of the second, *MI,* and another set of exogenous variables.

A system of equations such as this has a variety of labels including recursive, triangular, and hierarchic. Whatever one wishes to call it, such a system can be consistently estimated with equation by equation Ordinary Least Squares (Green, 2000). We have employed a number of different estimation techniques in this effort. In one, a less conservative strategy, we employed single equation techniques. Two alternative methods were used here, OLS with robust standard errors and OLS with panel corrected standard errors (pcse). The results are practically identical and so we report only the estimates based on the robust standard errors. [12] In the second, more conservative tack, we employed two stage least squares, a technique that takes into account the limited interdependence across the equations.

Each observation represents a five-year average. The five-year periods conform to the LIS aggregation convention (see note to Table 1) and, as in the tables presented earlier, the series extends from 1978-82 through 1998-2002. As evident in some of the tables in the second section of the paper, limited data on income inequality restrict the number of observations available. Compounding this restriction, a number of cases are lost because of missing observations on the independent variables used in our analysis. At any rate, using a panel design, there are 41 cases where all the income inequality data plus data on the independent variables are available. The countries included in this restricted sample are: Australia, Canada, Denmark, Finland, France, Germany, the Netherlands, Norway, Sweden, the United Kingdom and the United States. For

[12] We do not report the results based on pcse estimates because of the small number of time units in our data set. As Wallerstein and Moene (2003) point out, panel corrected standard errors may be less accurate under such a condition. Nevertheless, the pcse-based results are almost identical to those results deriving from OLS with robust standard errors as reported in the next section. The results using pcse's are available from the authors.

some countries we have as many as five observations. The sample is smaller for other countries, sometimes having as few as two cases.

Turning to the substantive content of the equations, let us outline the reasoning that stands behind the forms specified. We first address the wage inequality equation (1). The first three terms included on the right hand side of this equation represent a variety of factors that are meant to control for important transformations going on inside the labor market of all of the OECD economies that can be expected to have significant effects on the distribution of wages.

First, *ME* is the number of manufacturing workers expressed as a percentage of the working age population. This term is meant to represent the effects of deindustrialization and its inegalitarian impact as people lose jobs in the relatively high-paying manufacturing sector and need to take on lower paying positions in services (Esping-Andersen, 1990). Both the sectoral employment and age cohort variables come from various annual issues of the OECD's *Labour Force Statistics*. We would anticipate that the sign on this variable's parameter (β_1) will be negative. In effect, as the manufacturing sector employs a greater share of the working age population, the level of wage inequality declines. Alternatively, as the share of employment in this relatively high paying sector declines, the level of wage inequality should increase.

The second economic variable included is *TWI*, which stands for imports from the Third World. This variable is expressed as a percentage of GDP. The trade data derive from various annual issues of the IMF's *Directory of Trade Statistics*. The GDP data come from the IMF *Financial Statistics* cd-rom. *TWI*'s inclusion is justified by the need to control for the effects of third world competition on wage levels in the manufacturing sector and their implications for the overall distribution of wages (Wood, 1995; Gustafsson and Johansson, 1999; Mahler et al., 1999; and Alderson and Nielsen, 2002). Our expectation is that the effect of

this variable, captured in the parameter β_2, is positive; in other words, higher levels of Third World imports raise the level of wage inequality.

The last of the three economic controls is the female labor force participation rate, *FP*. This factor has been introduced in order to control for the inegalitarian consequence of high numbers of women being employed in the labor market. This distributional effect derives mainly from the wage discrimination practiced against women (Blau and Kahn, 2000).[13] In operational terms, *FP* is the number of women working expressed as a percentage of the female working age population. The sources for these data are various annual issues of the OECD's *Labour Force Statistics*. Note that the expectation is that the parameter (β_3) capturing the effect of this variable is positive; higher levels of female labor force participation increase the level of overall wage inequality in the distribution of labor market earnings.

In addition to this set of economic controls, equation 1 includes a group of political and institutional terms reflecting the arguments presented in the last section. A compressing effect on the distribution of wage earnings can be seen in the level of union density measure, UD_{it}. This term is meant to capture the strength of the labor movement and its capacity to achieve a valued goal of egalitarian wage structure.[14] The anticipation here is that the parameter (β_4) on this term would take on a negative value.

This brings us to the cluster of variables dealing with government partisanship (*LG*) and wage bargaining coordination (*WBC*). We need not rehearse here the

[13] Clearly there are other dimensions of female labor force participation that affect wage inequality, such as the greater likelihood of women taking part time jobs because of competing family burdens (Esping-Andersen, 2002). Note, however, that the wage inequality data used in this paper refer only to full time workers.

[14] Union density is a measure of labor strength. It is expressed as the percentage of the total labor force that holds membership in one or another labor union. These data were generously provided by Michael Wallerstein.

lengthy argument about why these two variables, alone and in interaction with each other, have been introduced into the equation. This argument was laid out extensively in section 3. The partisan term used is based on a long-term measure, and is labeled *left government inheritance.* It represents the average of the last twenty years of a government ideology term.[15] We assume that the effects of the ideological position of government are not all immediate and, indeed, many are likely to slowly work their effect through time. Recall that in the absence of wage bargaining coordination, we do not anticipate that this variable has a discernable effect. Thus the parameter (β_5) for the partisan inheritance is not expected to be significantly different from zero. A more straightforward effect for the wage bargaining coordination variable is expected. Thus, the parameter (β_6) on that variable is anticipated to be negative. That is, as the degree of coordination in wage bargaining rises, the level of wage inequality declines. The wage bargaining coordination variable ranges in value from zero, absence of coordination, to 4, the highest level of coordination. [16] Finally, the parameter (B_7) on the interaction between these two terms, partisan inheritance and wage bargaining coordination, is predicted to be negative, which is in keeping with our argument that coordination in the labor market facilitates the egalitarian effect of left-wing government policy.

In the second equation, that for market income, there are three variables on the right hand side. The first is wage inequality, *WI*. Since an appreciable amount of market income derives from dependent labor, it is clear that the level of inequality in the former is necessarily dependent on the degree of inequality in wages.

[15] This variable is a measure of the center of political gravity that characterizes the cabinet. The ideology measure is based on the relative strength of the parties in the cabinet and a composite of terms describing the parties' positions on the role of the state in the economy (as reflected in the content analysis based measures of the Comparative Manifesto Project). Documentation on the data is to be found in Cusack and Engelhardt (2002).

[16] The wage coordination index, *WBC*, used has been developed by Lane Kenworthy. He describes the logic behind the scale in his 2002 *World Politics* article. The data set and documentation is available on his web page, http://www. emory.edu/SOC/lkenworthy

Thus, we the expectation is that the sign on B_8 will be positive. The second variable expected to directly influence the level of market income inequality is that degree of stock market capitalization, *SMC*.[17] We anticipate that this variable has an inegalitarian effect in that only those with some degree of wealth and/or high incomes can afford to take advantage of the opportunity to earn even more income. Thus, expect that B_9 will have a positive and statistically significant sign. Finally, to capture the inequality heightening effect on market income of a growing pension-age population, we include a demographic measure, OP, which has been operationalized as the percentage of the total population in retirement age, i.e., 65 and older.[18] Again, the expectation on the parameter (B_{10}) for this variable is that it will be positive.[19]

The final equation deals with the inequality in disposable income. Our equation concentrates on the political and institutional determinants of fiscal redistribution which, given the distribution of market income, ultimately raises or lowers that distributional measure. We use as a control variable the current level of market income inequality. This allows us to isolate the effect of the variables of interest from all other determinants of the distribution of disposable income (Beramendi 2001). In line with our argument, for a given level of market income inequality, the level of inequality in disposable income is specified as a function of union density (*UD*), the overall degree of coordination within the economy (*CE*) and government partisanship (*LG*). While in the wage inequality equation it was appropriate to restrict the measurement of coordination to the wage bargaining agreements between employers and employees, here we employ a more

[17] *SMC* represents stock market capitalization expressed as a percentage of GDP. The data are drawn from the World Bank's *Database on Financial Structure and Economic Development.* This is available on the World Bank web page, http://www.worldbank.org/research/projects/finstructure/database.htm.

[18] The sources for these data are various annual issues of the OECD's *Labour Force Statistics*.

[19] Note that for this equation we employed two different estimation techniques and both are reported below. The first is the simple OLS with robust standard errors. The second is two-stage least squares (TSLS).

encompassing indicator of the level of coordination within the economy (Hall and Gingerich 2002:12-16). The Hall and Gingerich measure captures other dimensions of coordination, such as the structure of corporate governance, as well as the existing complementarities between corporate governance and the labor relations system.[20] Our expectations regarding the parameters in this equation are that, aside from that for the positive effect of the market income inequality variable, all of the others take on negative signs. That is to say, the institutional and partisan terms act to reduce inequality. Finally, note that the estimation techniques employed are similar to the ones implemented in the case of market income inequality. We turn now to discuss our empirical findings.

The estimation results for wage inequality equation are based on OLS with robust standard errors. The results are reported in Table 8. Let us first comment on the set of control variables, those meant to capture the social and economic transformations in OECD labor markets. The anticipated inegalitarian effect of deindustrialization (β_1) on wage inequality is not observed. Nor is the impact of wage competition through the increase in imports from the third world (β_2) as expected. The estimated parameters for these two control variables are indistinguishable from zero. However, the anticipated distributive impact of increasing female participation in labor force (β_3>0) receives support. The levels of wage dispersion are significantly higher as more women enter the labor force in OECD countries. Fixing the value of all other independent variables, a significant increase, that is one standard deviation or 8.6 %, in the female labor force participation rates would lead wage inequality to grow by 14%.

[20] *EC* is a measure of economy wide coordination. We have used Hall and Gingerich's index of economic coordination. The source for these data is Daniel W. Gingerich and Peter A. Hall's (2002) paper "Varieties of Capitalism and Institutional Complementarities in the Political Economy*:* An Empirical Analysis."

Table 8 Estimation Results for the Wage Inequality Equation (Equation # 1)

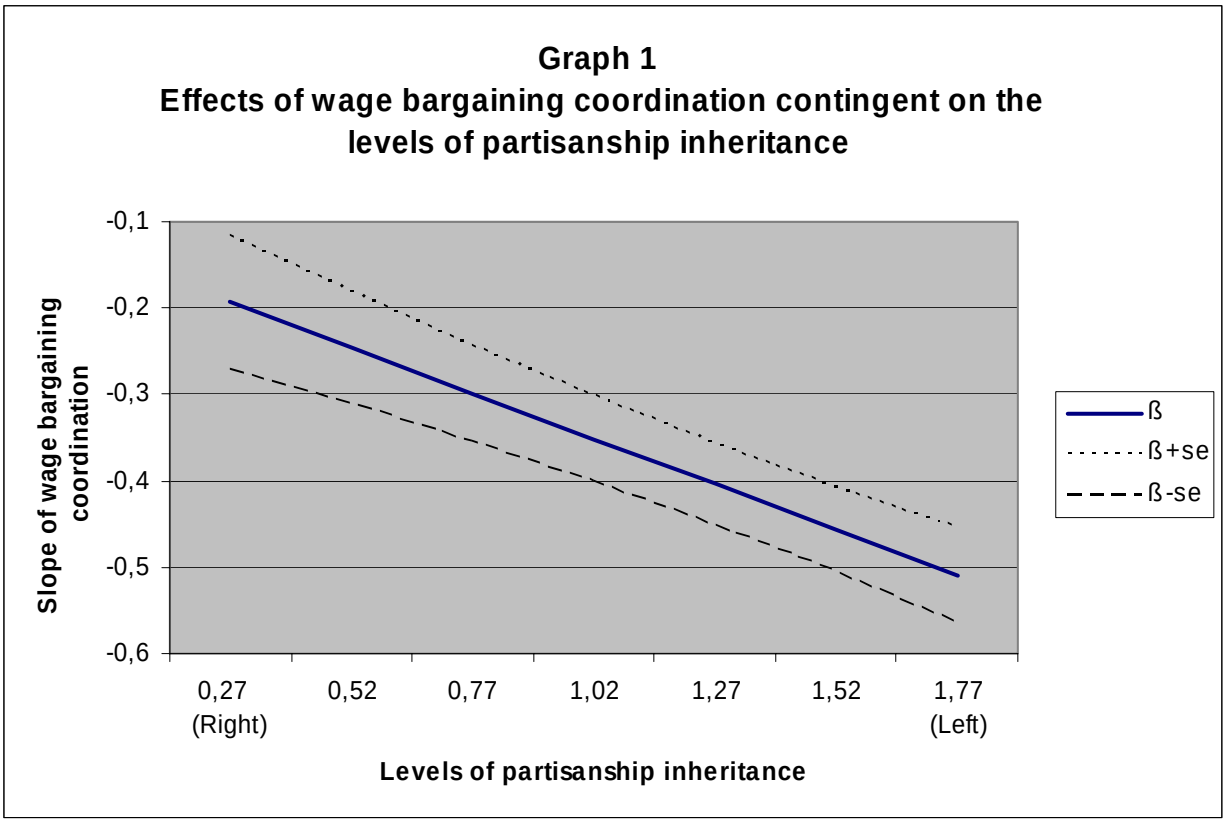
	OLS (robust se)
Manufacturing Employment	.012 (.020)
Imports from Third World	-.013 (.838)
Female L. Force Participation Rate	.018** (.008)
Union Density	-.017*** (.004)
Left Government Inheritance	.533 *** (.193)
Wage Bargaining Coordination	-.137 (.09)
Left Government Inheritance*Wage Coordination	-.209*** (.062)
Constant	2.53 *** (.657)
	$\overline{R}^2$=.86 n = 41

*** p<.01, ** p < .05, * p < .10

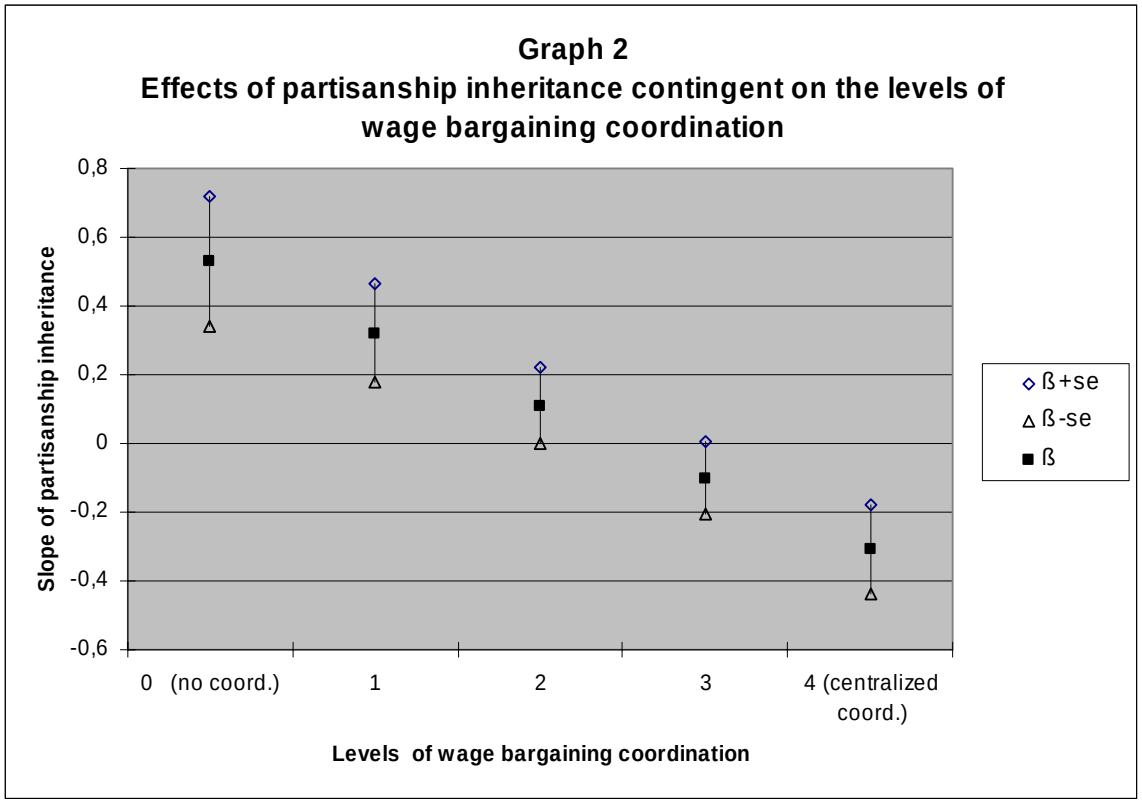
The strength of the union movement displays the anticipated egalitarian effect on the wage distribution. The coefficient for union density (β_4) is both negative and statistically significant. Ceteris paribus, a 5% increase in the level of union density would reduce the level of wage inequality by 6.5%. Thus, countries with strong and encompassing unions will be marked by much lower levels of wage inequality than societies where no such unions exist.

Examining the estimates on the institutional and partisan variables (β_5 to β_7) allows one to portray how the interplay between government partisanship and wage bargaining coordination shapes wage inequality. A useful approach to analyze the impact of these two terms is to present their conditional coefficients and standard errors. Graph 1 displays how the effect of wage bargaining coordination is contingent on different values of government partisanship. In turn, Graph 2 presents the slope of government partisanship on wage inequality given different levels of wage bargaining coordination.

The reader should focus on two central features of Graph 1. The first is brought into relief by noting that the values on the vertical dimension are all negative. In essence, this is telling us that the effect of wage coordination is to always reduce wage inequality. The second feature is the amplifying effect of leftist partisan inheritance. Wage coordination's egalitarian impact rises as the level of left partisan inheritance increases. This result suggests the existence, highlighted by our argument, of a mutually reinforcing effect between high levels of wage bargaining coordination and a long history of government dominated by the left.



Just as partisanship moderates the impact of wage coordination, so, too, is the impact of partisan inheritance conditional upon the levels of wage bargaining coordination (see Graph 2). For example, where one has little or no wage coordination a right-wing partisan inheritance will modestly elevate the levels of wage inequality, while a left-wing partisan inheritance will have the perverse effect of increasing that inequality to even greater levels. On the other hand, when one has a completely centralized wage bargaining coordination environment, the left finds itself in a favorable situation; the greater the level of leftist partisan inheritance, the higher the egalitarian effect on wage distribution.



This point is conveyed by Table 9 where the predicted levels of wage inequality under different partisan and institutional conditions are reported.[21] In non-coordinated environments, left-wing policy is not only incapable of creating wage equality (as anticipated by our argument); it also seems to be the source of a number of behavioural responses by market actors that drive wage inequality in a direction opposite that intended by the government. Alternatively, an institutional environment with high levels of coordination constrains the inegalitarian effects of right-wing policies. In sum, our conception of the relationship between partisan politics, wage bargaining coordination and wage inequality receives a good deal of empirical support.

[21] High coordination refers to the maximum value of the wage bargaining coordination index in our data set, which is 4. The lack of coordination implies fragmented wage bargaining (0). The partisan inheritance values are the same values reported on the horizontal axis of Graph 1. A value of 0.27 represents right-wing partisan inheritance, whereas a value of 1.77 captures the far left partisan inheritance.

Table 9
Predicted Values of Wage Inequality *

	High Wage Bargaining Coordination	No Wage Bargaining Coordination
Left-Wing Government	2.16	4.09
Right-Wing Government	2.51	3.29

*Predictions based on parameter estimates in Table 9. All other variables are at their mean values.

Turning now to the equation on market-based income inequality two sets of estimation results are presented in Table 10. The goodness of fit measures are the same across the two techniques used, namely OLS with robust standard errors and two-stage least squares. All the parameter estimates obtained (β_8 to β_{10}) display the expected signs and are statistically significant. Substantively, the estimated effects are of similar size with the exception of the parameter (β_8) on wage inequality. This parameter has a significant and positive effect in both estimations. However, it is nearly twice as high in the two stage least squares results. Depending upon the estimate used, if we keep the other variables in the equation at their mean and allow wage inequality to change from its minimum (2.00) to its maximum (4.6) value, then the relative increase in the size of the Gini index for market-based inequality would be seven percent in the case of OLS estimates and seventeen percent in the case of two stage least squares estimates. The transmission of cross-national differences in wage inequality to market-based income inequality appears to be muted in comparison to other factors.[22] Clearly other elements not related to the labor market are also at work in shaping the distribution of market income.

[22] The reader should note that these results hold even when we adjust our analysis to take into account the suggestions by John Stephens (see footnote 5). As Stephens points out, if his criticisms holds, the impact of the wage dispersion term on market-based income inequality should be much stronger than the results we report. We examined this possibility. First, we calculated the Ginis of market based inequality for the more restricted population group Bradley

Table 10: Estimation Results for the Market-Based Income Inequality Equation (Equation # 2)

	OLS (robust se)	TSLS (se)
Wage Earnings Inequality	.015* (.008)	.027 ** (.011)
Stock Market Capitalization	.025*** (.007)	.021 *** (.006)
Pension Age Population	.009*** (.002)	.011*** (.003)
Constant	.250*** (.060)	.176** (.085)
	$\overline{R}^2$=.58 n = 41	$\overline{R}^2$=.58 n = 41

*** p<.01, ** p < .05, * p < .10

The degree of stock market capitalization is one of these. As anticipated, the estimated parameter (β_9) is positive and statistically significant. This is consistent with the notion that in countries where participation in the stock market is heavily regulated by the government the ability of wealthy families to increase their income is constrained. Alternatively, countries with unregulated stock markets provide wealthy families with an opportunity to profit from their assets,

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et al. (2003) employ. Second, we replaced the variable measuring the share of pension age population with the unemployment rate. We then estimated the equation using both OLS with robust standard errors and two stage least squares. The estimates obtained are similar to those reported in Table 11. The parameter estimate using OLS on these data is .018 as opposed to .015. In turn, the parameter estimate using TSLS on these data is .041 as opposed to .027. The complete results for the two estimated equations are available from the authors upon request. We do not see the fact that these parameters are slightly larger as undermining our argument. We address this issue again when discussing the results on the estimates for the disposable income inequality model in footnote 24.

thereby broadening the distribution of market-based income. In addition, the parameter (B_{10}) capturing the effect of the share of pension age population displays the expected sign and is significantly different from zero. This result supports the expectation that as the share of population that has completed the transition from the labor market into retirement increases, market-based inequality also increases as these people lose their principal market-based income, wages and salaries from employment.

Finally, Table 11 reports parameter estimates on the determinants of disposable income inequality. As in the case of market-based inequality, OLS with robust standard errors and two-stage least squares are the two techniques being used. Both of the estimated equations show the same goodness of fit. Once again all the parameter estimates display the expected signs and are statistically significant. They are also very similar in the magnitude of their effects with the exception of the parameter (β_{11}) on market-based income inequality. Its effect is the largest in the two-stage least squares estimation. In both equations, however, the expectation that a positive relationship prevails between market-based and disposable income inequality is confirmed.

We turn now to the factors outlined in our argument early that will alter a one to one duplication of market income distribution in the distribution of disposable income. These three factors included the overall levels of coordination, the degree of unionization of the labor force, and the government's partisan inheritance.[23] All three of these factors' parameters (β_{12} to β_{14}) take on the expected negative values and are statistically significant. What are the implications of these values? First, in those societies where there is little or non-

[23] Some scholars have argued that any specification including both union density and partisan inheritance would be inappropriate precisely due to the presence of high levels of multicollinearity (Bradley et al., 2002). In our view, however, even if these three factors may partially co-vary, the causal logic linking each of these three factors to inequality is sufficiently independent to grant their individual inclusion in the model. In addition, from a statistical point of view, there are no compelling reasons to exclude any of these variables. None of the variables included in the model has a *variance inflation factor* higher than 1.3. Thus, there is no multicollinearity problem.

existing coordination, employers have no incentive to accept redistribution through the welfare state. Alternatively, in those societies where firms pool risks through cross-shareholding and coordinate with labor, employers concede higher levels of redistribution. In other words, economic coordination brings down the level of inequality in disposable income.

Table 11: Estimation Results for the Disposable Income Inequality Equation (Equation # 3)

	OLS (robust se)	TSLS (se)
Market-Based Income Inequality	.326*** (.069)	.444*** (.093)
Coordinated Market Economy	-.042*** (.005)	-.039*** (.008)
Union Density	-.0009*** (.0001)	-.0008*** (.0004)
Left Government Inheritance	-.019*** (.005)	-.017*** (.007)
Constant	.242*** (.032)	.190*** (.042)
	$\overline{R}^2$=.87 n = 41	$\overline{R}^2$=.87 n = 41

*** p<.01, ** p < .05, * p < .10

Our findings on the role of union density conform to results previously developed by other scholars (Huber and Stephens, 2001 and Bradley et al., 2002). In those societies where larger shares of workers are unionized, governments need to be more responsive to labor's demand for insurance and redistribution. Therefore,

ceteris paribus, larger unions imply more compressed distributions of disposable income. Finally, left-wing partisan inheritance reduces inequality through the long-term institutionalization of higher levels of redistribution.[24] This result is consistent with the recent findings by Iversen and Soskice (2003) about the cumulative impact of government partisanship on poverty reduction.

Table 12: Disposable Income Inequality
(predicted values based on Table 12, OLS)

	Low overall coordination		**High overall coordination**	
	Low union density	*High union density*	*Low union density*	*High union density*
Left-wing partisanship inheritance	0.31	0.24	0.27	0.20
Right-wing partisanship inheritance	0.34	0.27	0.30	0.23

The magnitudes of the effects of interest are analyzed in Table 12, where the predicted values of the Gini coefficient for disposable income inequality based on the OLS model in Table 11 are presented. The values in Table 12 are the predicted levels of disposable income inequality under different combinations of partisanship, union density and economic coordination.[25] Market-based income

[24] Our results are in no way dependent on the use of either the total population or the "working-age population" that Bradley et al. (2003) employ. The parameter estimates and the associated statistics are practically the same as those found in Table 12. As in footnote 22, the results are available from the authors.

[25] In calculating the predictions for Table 12 "low" and "high" refer, respectively, to the minimum and the maximum values in the sample. As it was the case in Table 10, high coordination refers to the maximum value of the wage bargaining coordination index in our data set, which is a value of four. No coordination means fragmented wage bargaining (0). In the case of union density a low value means that only 10% of the labor force is unionized, whereas a high value implies that this percentage rises up to 87.9%. Finally, a low value (0.27) represents right-wing partisan inheritance, whereas a value of 1.77 captures the far left partisan inheritance.

inequality is set at its mean value (0.39). This exercise reveals that union density can reduce the Gini coefficient of disposable income inequality by up to seven points. This implies that in countries with strong unions the amount of redistribution necessary to achieve a perfectly egalitarian society is nearly seven points lower. In turn, overall economic coordination and partisanship inheritance reduce such amount by four and three points respectively.

An alternative way of reading the results reported in Table 12 would be the following: holding all other variables constant, a change from the minimum to the maximum observed level of union density (see previous footnote) implies a 22 % proportional reduction in the value of the Gini coefficient. With similar kinds of changes in the levels of overall economic coordination (that is from 0 to 0.95) and partisan inheritance (that is from 1.27 to 2.78), proportional reductions in the level of disposable income inequality equal to 13% and 9% respectively would be brought about.

Even if independent from each other, the effects of union density, economic coordination and partisan inheritance combine very differently in the real world. In some countries, such as the Scandinavian nations, all three factors will be very high, thus reducing disposable income inequality to its lowest observed levels. In some other countries, the situation is reversed: coordination, union density and partisan inheritance are very low and, as a result, disposable income inequality reaches its maximum levels. These patterns may lead the reader to wonder about the existence of complementarities between some of these elements, for instance left-wing parties and overall economic coordination. This being the case, an interaction effect between these two factors should be observed. If left-wing parties facilitate the existence of wage bargaining agreements and depend upon them to create an egalitarian wage distribution, should the capacity of left-wing parties to shape the distribution of disposable income not be contingent as well upon the overall degree of coordination in the economy? The answer is that no such complementarity is in place, as confirmed by the re-estimation, including

interaction terms, of the models presented in Table 11.[26] And the reason for this lies in how directly governments are able to shape the distribution of disposable income inequality as opposed to the distribution of earnings. As argued above, government's effects on wage inequality are indirect in that they are contingent on the agreement of unions to wage moderation and high taxes on labor. Such agreement only takes place under conditions of high wage bargaining coordination, thereby producing the observed interaction effects. Alternatively, an increase in fiscal redistribution reduces inequality of disposable income directly, i.e., without any other actors taking part in shaping the final outcome. Thus, for a given value of market income inequality, left-wing governments can make use of fiscal redistribution to reduce inequality regardless of the institutional position of any other actor. As a result, no interaction effect is to be observed.

CONCLUSION

How will inequality evolve in the future? The answer to this question depends in part of what we can expect in terms of the factors examined in the paper. Consider first demographic and economic trends. In spite of significant cross-national differences, female labor participation rates have uniformly expanded over the last few decades (Jaumotte, 2003). There is no reason to anticipate that they will not continue to expand even further. However, a countervailing tendency needs to be considered. The discrepancy between male and female wage rates has begun to decrease recently across the OECD countries (Blau and Kahn, 2000). If this tendency continues, the inegalitarian effects associated with the increasing participation of women in the labor force will be muted. Should this tendency not continue, one would expect a further increase in the levels of wage inequality and subsequently, according to our model, a modest increase in the levels of market-based inequality.

[26] Results are available from the authors upon request.

OECD population structures have been steadily aging over the last few decades and the prospects are that they will continue to do so. Recent projections for the United Kingdom indicate that the ratio of the elderly (population over 65 years of age) to the working population (that between 20 and 64 years of age) will rise from 24% in the year 2000 to 43% in 2040. Increases of similar or even higher magnitude are projected for other OECD nations (Visco, 2001). Our analysis suggests that if these forecasts materialize, further increases in market-based income inequality can be expected. In addition, the changing structure of financial markets adds new grounds for concern about the evolution of market-based inequality. Becks et al. ' s (1999) study reveals that levels of stock market capitalization have been increasing throughout the OECD and other countries during the last few decades. In the absence of any change in this widespread trend, we can only conclude that market income inequality is likely to grow even more.[27]

Whether these trends toward higher market inequalities carry over to the final disposable income will depend upon the future leverage of political actors and economic institutions. The levels of union density are generally declining (Western, 1997; Checchi and Visser, 2001). If this tendency continues, one can anticipate a reduction in unions' capacity to promote an egalitarian wage distribution and high levels of fiscal redistribution. However, as this very line of research has also pointed out, not all countries share in the decline. As a result, the levels of cross-national variation have actually increased. Thus, the varying fortunes of labor movements across advanced industrial societies will continue to foster cross-national variations in earnings and disposable income inequality. Contrary to the convergence school, a similar pattern of increasing variation is to be found in the evolution of economic institutions. While the pillars of social partnership are said to be crumbling in some coordinated market economies such as Germany (Streeck and Hassel, 2003), broader cross-national

[27] The Japanese case during the nineties provides an example of shifting trends in the levels of stock market capitalization. Were this to become widespread, our expectation would need to be modified.

comparisons have failed to detect a consistent pattern of decline either in the levels of wage bargaining coordination or in the relations between organized labor and organized capital (Wallerstein and Golden, 2000). Finally, there seems to be no reason to expect partisan inheritance traditions to converge to the right in the medium run. In sum, the sources for divergence in distributive outcomes among advanced capitalist societies identified in this paper seem as if they will continue to remain in place, keeping the realities of inequality as distant from the "transatlantic consensus" as they are today.

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