

RISKS AT WORK: THE DEMAND AND SUPPLY SIDES OF GOVERNMENT REDISTRIBUTION

THOMAS CUSACK

Social Science Research Center Berlin (WZB)

TORBEN IVERSEN

Department of Government, Harvard University

PHILIPP REHM

Social Science Research Center Berlin (WZB) and Department of Political Science, Duke University¹

To comprehend how the welfare state adjusts to economic shocks it is important to get a handle on both the genesis of popular preferences and the institutional incentives for governments to respond to these preferences. This paper attempts to do both, using a general theoretical framework and detailed data at both the individual and national levels. In a first step, we focus on how risk exposure and income are related to preferences for redistribution. To test our hypotheses, we extract detailed risk-exposure measures from labour-force surveys and marry them to cross-national opinion survey data. Results from analysis of these data attest to the great importance of risks within the labour market in shaping popular preferences for redistributive efforts by governments. In a second step, we turn our attention to the supply side of government redistribution. Institutions, we argue, mediate governments' reactions to redistributive demands following economic shocks. Using time-series cross-country data, we demonstrate how national training systems, and electoral institutions, as well as partisanship, shape government responses.

I. INTRODUCTION

Conventional wisdom has it that both the welfare state and the Left's effectiveness in implementing its preferred policies have eroded over the past

several decades. These retreats putatively stem from globalization, technological change, and other transforming forces. In part, these forces are assumed to be the sources of alteration in *demand* for the net benefits that flow from the welfare state and

¹ E-mail addresses: tom@wz-berlin.de; iversen@fas.harvard.edu; pr9@duke.edu

The web appendix to this article is available on Iversen's website at http://www.people.fas.harvard.edu/~iversen/data/RisksAtWork_web-appendix.pdf

the policies championed by the Left; in part they are assumed to reduce their *supply*. But while it is common to assume that class politics is on the decline and that social policies are converging across countries, very little is, in fact, known about the structure of political preferences and how economic shocks affect policies across different institutional settings.

This paper provides a systematic account of the interaction between exogenous shocks, popular demand for compensation, and government responsiveness to such demand. Whereas the bulk of evidence in the existing literature is at the macro level and relies on cross-sectional evidence—or fixed-effect regressions that ignore the role of political institutions—our paper uses a new data set that combines micro-level information about preferences and employment risks (across several decades) with macro-level data on institutions and government policies. Contrary to popular beliefs, our analysis shows that preferences for redistribution continue to be closely related to people's positions in the economy, and that governments respond very differently to economic shocks depending on the institutional and political context that they are embedded in. The paper makes three contributions.

First, it provides strong support for political economy explanations of redistributive politics. Recently, such explanations have been challenged by a number of papers which argue that religion, race, or ethnic diversity are the main sources of people's preferences for social protection. We find little support for these non-economic arguments. Instead, what matters at the individual level is exposure to labour-market risks, especially as reflected in actual or threatened unemployment. Job loss and the risk of job loss have important effects. The first is that such exposure reduces income and adds to the ranks of those at the bottom end of the income distribution, who have a self-interest in redistribution. Second, it raises the demand for redistribution among employed workers, since redistributive spending serves as an insurance against the risk of future income loss. The latter, in turn, depends on the portability of workers' skills, and hence their ability to navigate successfully through the labour market as the tides of employment opportunities ebb and flow. We show that exposure to risk and relative income are remarkably strong predictors of redistributive preferences.

The second contribution of this paper is to provide strong evidence for a tight linkage between redistributive preferences, partisan support, and government policies. Policies cannot be directly inferred from individual preferences. These depend on the two additional factors: first, the distribution of risks and how they are linked to salient political cleavages and, second, the impact of institutions on interest aggregation, particularly the manner in which institutions allocate influence to workers with different levels of risk exposure. Assuming that redistribution of income is the main axis of political competition and vote choice, the effects of government partisanship on responses to shocks will depend on the distribution of shocks across the income scale. Economic cleavages and government partisanship, it turns out, continue to matter a great deal for public policies.

Third, we show the continued importance of national institutions in mediating government responses to shocks. Using a method devised by Blanchard and Wolfers (2000), the analysis focuses on the role of national training systems and electoral systems. The training system shapes the composition of skills in the labour force, which in turn affects the level of demand for social insurance. Second, proportional representation (PR) tends to advantage the Centre-left, whereas majoritarian systems do the opposite. PR also facilitates the ability of political parties to make long-term social policy commitments. Our evidence clearly shows that these institutional differences, as well as government partisanship, affect how aggressively governments respond to economic shocks. There is no indication in our data of convergence in policies across political-institutional settings.

The remainder of the paper is organized into three sections. Section II presents a simple organizing model with testable implications for both the structure of individual level preferences and for the way these preferences are aggregated into actual policies. Section III has two parts. In the first part, we use a new data set that combines public opinion and labour-force survey data to test the individual-level hypotheses; in the second part, we explore how national institutions and partisanship condition the transmission of preferences into policy outcomes. The last section discusses the implications of our findings and points out possible extensions to this work.

II. PREFERENCES, SHOCKS, AND POLICIES

This section introduces the general structure of our political-economy account of individual preferences and government policies. Section II(i) highlights the importance of risks in labour markets for shaping redistributive preferences, which is contrasted to recent arguments emphasizing race and religion. Section II(ii) illuminates how the supply of redistribution is affected by institutions, especially national training systems, electoral systems, and the partisan governments that tend to accompany them.

(i) The Demand for Redistribution

In the standard Meltzer–Richard model (1981), a flat-rate benefit R paid through a proportional tax means that those below the mean will prefer redistributive spending up to the point where the benefit to them is exactly outweighed by the efficiency cost of taxation (assuming a typical right-skewed distribution of income). This implies that income is negatively related to support for redistribution. However, redistributive spending also serves insurance purposes by cushioning the effects of income losses, and this will affect the shape of the relationship between income and preferences. If those with higher incomes are also exposed to risks, they will demand some redistributive spending for insurance purposes.²

We argue that there are two main sources of insecurity (or risk) in the labour market. One source is the risk of unemployment and the consequent loss of future income. Another source of insecurity is the potential devaluation of workers' skills. This arises because workers may have to accept re-employment in jobs where their skills are not used to the full.

Rising *unemployment risks* will induce individuals to demand higher protection against future income loss. One of the clearest signals of exposure to the loss of employment occurs when others with similar occupations become unemployed. As these numbers rise, so too will the individual's insecurity and

fear that he or she will be forced to take a job at lower pay or become unemployed. Therefore, individuals in occupations with high unemployment rates will demand greater insurance against these risks. One form this insurance takes is redistributive policies, manifested in income redistribution by the government.

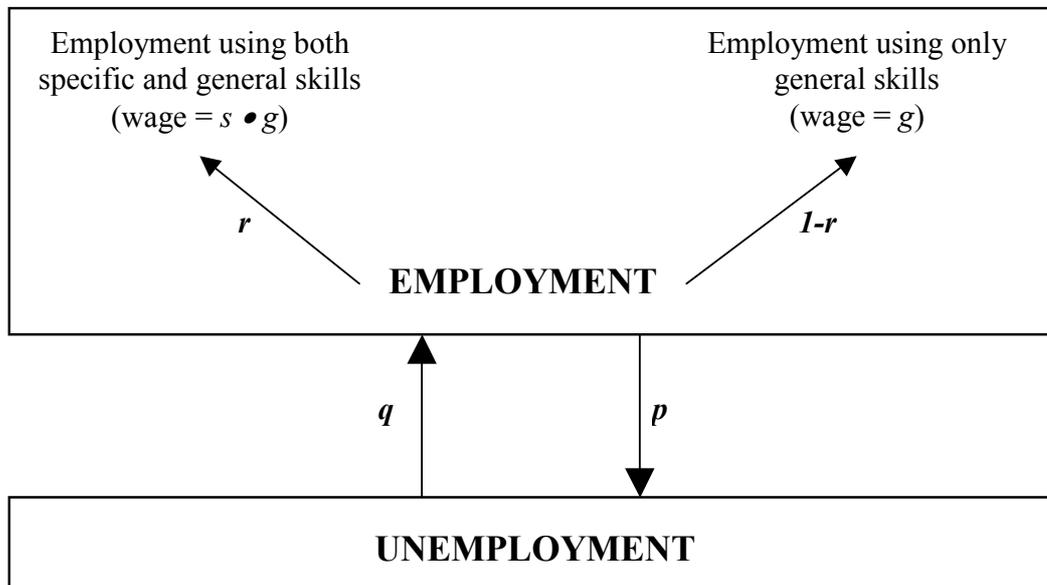
The more *specific* workers' skills are to a job or firm, the less portable they are. Individuals with specific skills, therefore, are more sensitive to adverse conditions in labour markets: they may have to accept re-employment in jobs where their skills are not used fully and, therefore, suffer significant income loss. In order to insure against these risks, workers with specific skills will be more predisposed to support redistributive policies (Estevez-Abe *et al.*, 2000; Iversen and Soskice, 2001).

The basic logic of the latter point is illustrated in Figure 1. Those in employment derive income from their general (g) and specific (s) skills. The former are assumed to be fully portable across firms, industries, and occupations, and there is an economy-wide market wage for these skills. In a perfectly competitive (neoclassical) labour market with only general skills, risks are minimal because the loss of one job is always matched by the availability of another at exactly the same wage (g). Specific skills, by contrast, are employable only in a particular firm, industry, or occupation, and losing a job therefore presents a serious risk if another job in the same firm, industry, or occupation is unavailable. Regardless of levels of unemployment—even in your own occupation—specificity of skills limits your re-employment potential. As a consequence, there is a potential loss of income which risk-averse individuals will try to insure against by demanding income protection through public policies.

If the risk of unemployment is denoted p , the probability of re-employment q , and the probability of re-employment into a job using a worker's combined specific and general skills $r \cdot q$, the long-term probabilities of being in different labour-market situations (unemployment and good or bad jobs) will

² Indeed, if risk-aversion is sufficiently high it is possible for those with higher incomes to prefer *more* spending because they have more to lose (Moene and Wallerstein, 2001). However, in the empirical section below we show that the relationship between income and preference for redistribution is negative.

Figure 1
Transition between Different Labour-market Situations



be determined by the combination of these parameters, and so will expected income.³ If the government taxes income and spends it on a flat-rate benefit, R (as in the Meltzer–Richard model), workers’ levels of demand for redistributive spending will depend on their locations in the income distribution and their exposures to risk.

Figure 2 shows the level of R that maximizes the current value of income from both wages and redistributive spending for workers with different incomes. Unless risk-aversion is very high, the relationship between income and preferences for redistribution is downward-sloping. Our focus is on how the effects of a shock to the economy expose some workers to risks and reduce the income of others because of loss of employment and income. While declining income will increase support for redistribution, greater exposure to risk will raise demand for insurance regardless of income. R captures both the redistributive and insurance aspects of spending.

At the micro-level this paper now puts forward the following causal chain, reflecting a materialist political-economy account. First, individual level prefer-

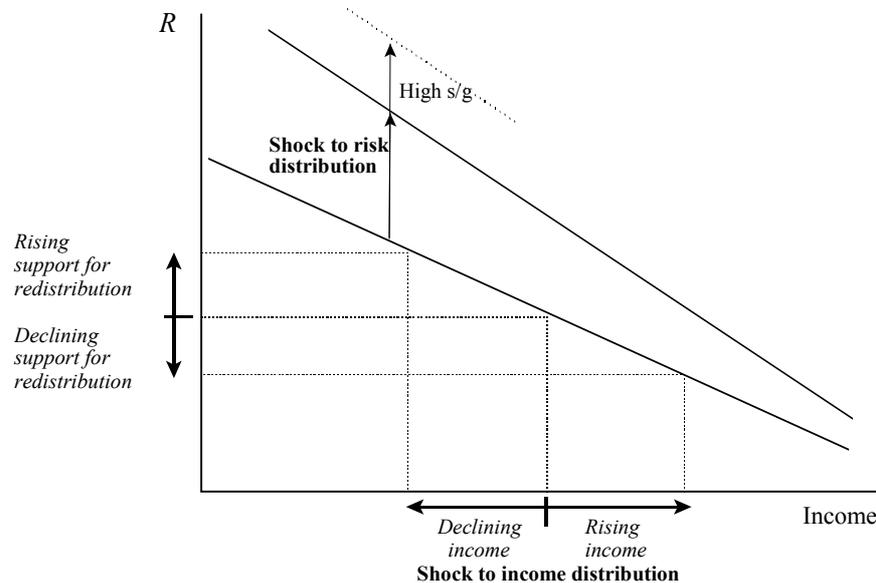
ences over redistribution are influenced by an individual’s income and the risk he or she faces in the labour market. Second, individuals objectively exposed to risk will (subjectively) perceive themselves as being exposed to risks. Third, preferences for or against redistribution will shape partisan preferences: all else equal, individuals in favour of redistribution support parties on the Left, while individuals opposed to redistribution affiliate with parties on the Right. In section III, each of these claims is tested empirically.⁴

Our account of preferences for redistribution stands in contrast to some recent, and increasingly influential, explanations emphasizing non-economic factors. One asserts the importance of ethnicity and ethnic–racial heterogeneity (Alesina *et al.*, 2001; Alesina and Glaeser, 2004). In this account, people disfavour redistribution to those of different ethnic or racial groups, and when minorities are over-represented among the poor, as is often the case, redistribution declines. In the view of Alesina and Glaeser this is a main cause of lower redistribution in the United States compared to Western Europe.

³ Specifically, the long-term probability of unemployment is $p/(p+q)$, the probability of employment in jobs using both the specific and general skills of a worker is $(r \cdot q)/(p+q)$, and the probability of employment in jobs using only a worker’s general skills is $[(1 - r) \cdot q]/[(p+q)]$.

⁴ Note that we focus exclusively on individuals in the labour market and the forces that affect them. Those not directly participating in this market may also vary in their preferences—an issue we address briefly in section III.

Figure 2
Support for Redistribution as a Function of Income and Risk



At the individual level, an implication of the argument is that those in the majority will prefer less redistributive spending. But, if minorities are over-represented among the poor, there is of course a simple alternative, namely that the insurance motive for supporting redistribution is lower among those in the majority. Insurance-motivated workers will rationally support less spending if their risk of income loss is lower.⁵

(ii) The Supply of Redistribution

There is no Say's Law in politics. But, while demand and supply are unlikely to accord perfectly, in democracies they should at least co-vary. The extent of covariation is likely to be shaped by institutions that mediate the translation of redistributive demand into redistributive supply.

Following our micro argument, if there are differences in the *composition of skills* across countries, the demand for—and hence supply of—protection should vary in response to a given shock. Systems of production and training that emphasize specific

skills should be associated with a stronger reaction by governments to shocks than from governments in systems that emphasize general skills. In particular, it is plausible to assume that economies with extensive vocational training systems, as opposed to economies relying more on general education, tend to produce more people with highly specific skills. Insofar as such skills are associated with greater demand for insurance, systems with extensive vocational training should produce higher aggregate demand for redistribution. Correspondingly, the rise in demand for such redistribution in response to adverse economic shocks should be greater in specific-skills systems where they may expose workers to a longer spell of unemployment or a permanent drop in income.

The effects of demand on supply also depend on the *distribution* of risk, how closely tied the latter is with the main cleavage of party competition, and how political institutions shape the aggregation of preferences. Specifically, if the main axis of political competition is over redistribution of income, the effect of shocks on policies will depend on the

⁵ In the web appendix to this paper we control for whether ethnic minorities are in low-paid jobs or risky occupations. While it is not straightforward to generalize the ethnicity argument beyond the USA, we do not generally find that minorities are more likely to support redistributive spending than those in the majority who are in similar labour-market situations. Minorities in the USA, however, are notably more likely to support redistributive spending. We discuss and evaluate another alternative explanation focusing on religion (see Scheve and Stasavage, 2005) in the web appendix (section 5).

distribution of risks across income, as well as on the segment of the income distribution the government represents. We have assumed above, and show empirically below, that risk exposure is decreasing in income (i.e. the effect of a shock is greater at lower income levels). Whether this is true is an empirical question, but if income and risk *are* related, then government responses to shocks should depend on partisanship. Governments on the Left representing lower-income workers should respond with greater increases in transfers than governments on the Right.⁶

The partisan logic also suggests a role for *electoral institutions* because PR has been associated with more left-leaning governments, and majoritarian institutions with more right-leaning governments (Crepaz, 1998; Powell, 2002; Iversen and Soskice, 2006). Because left-wing parties tend to represent voters who are at greater risk, the preferences of these voters will be better represented in coalition bargaining. PR may also increase the sensitivity of governments to popular demands for protection because political parties are better able to make long-term commitments when they do not have to concern themselves exclusively with winning the next election (as under majoritarian institutions). Capacity for commitment matters because those who are currently affected by shocks (say, the unemployed) are rarely the ‘decisive’ voters in electoral politics. If these are, instead, employed middle-class voters (roughly synonymous with the ‘median voter’ in a unidimensional space), the only motive these voters have for supporting more spending is insurance, not redistribution. Yet, if parties can barely credibly commit government policies for one electoral term, the only effect of spending is redistribution. Having programmatic and responsible parties capable of making commitments beyond the next election—which is a quality often associated with multiparty PR systems—is therefore an important determinant of government responsiveness to economic shocks.

In sum, we expect Left partisanship and PR to amplify policy responses to exogenous shocks provided that (i) political competition is organized around

income redistribution, (ii) exposure to risks is declining in income, and (iii) individual preferences for redistribution are determined by income and exposure to risk. The last should depend on the composition of workers’ skills, which also implies that the structure of national training systems will matter for how responsive policies are to exogenous shocks.

III. EVIDENCE

The empirical analysis in this paper has two parts. The first focuses on the demand side and examines the relationship between our political economy variables (risk exposure and income) and redistributive preferences, as well as the joint distribution of income and exposure to risks. Here we also examine the relationship between objective and subjective measures of risk, as well as the linkage between redistributive and partisan preferences. The second part focuses on the supply side and tests whether shocks lead to different government responses depending on national training systems, partisanship, and electoral institutions.

(i) Micro-level Evidence

Statistical model and data

In order to examine the relationship between exposure to risks and preferences for redistribution, we specify and estimate a model of redistribution preferences based on objective measures of risk exposure plus a set of controls. The following ordered logit model is estimated using country and year dummies:

$$RD_{i,t} = \alpha + \beta_1 SS_{i,t} + \beta_2 OUR_{i,t} + \beta_3 U_{i,t} + \beta_4 I_{i,t} + \sum \gamma_j X_{i,t} + \varepsilon_{i,t}, \quad (1)$$

where RD are individual-level preferences or demand for redistribution, SS is skill specificity, OUR is exposure to unemployment risks as measured by occupational unemployment rates (we also include a variable for those who are unemployed, U), and I is income; i indexes individuals and t time periods. The regressions include a vector of controls, X .⁷

⁶ In the end, of course, whether risk-exposure and income are related is an empirical matter that we explicitly test below.

⁷ All variables included in the equation are described briefly below and defined in the web appendix (see http://www.people.fas.harvard.edu/~iversen/RisksAtWork_web-appendix.doc).

We rely on a new data set that combines public opinion and labour-force survey data from a variety of national and international sources. The public-opinion data are from several waves of the ‘International Social Survey Programme’ (ISSP),⁸ which asks people directly about their preferences for redistribution. Specifically, a large number of the ISSP surveys contain two similar questions about government and income redistribution.⁹

The key political economy variables are measures of risks and income. For the former, we use three indicators: skill specificity, exposure to unemployment risk, and what we may call realized risk, namely whether or not the individual is currently unemployed. Skill specificity and exposure to unemployment risk both rely on occupational data based on the International Standard Classification of Occupations (1988) (ISCO88). As in Iversen and Soskice (2001), we calculated an absolute measure of *skill specificity* for an individual’s occupation by dividing (*a*), the share of occupational groups in the broadest ISCO occupational class to which that occupation belongs, by (*b*), the share of the labour force in that class. This absolute measure needs to be weighted by an individual’s education in order to derive a relative index of skill specificity. We therefore divide the absolute skill specificity measure by the International Labour Organization (ILO)’s measure of occupational skill level¹⁰ and by an individual’s reported level of education, respectively.¹¹ The measure used in this paper is Iversen and Soskice’s composite indicator, which is the average of these two relative scores. Skill specificity is high if an individual is in a very specialized occupation, but has relatively low levels of education or skills. It is low if the occupation is not very specialized, while the level of education or skills is high.

Second, we extracted information from labour-force surveys that allow for the calculation of *occupational unemployment rates* (Rehm, 2005).¹² Such a rate is analogous to national unemployment rates, but is specific to an occupational category. The rate is calculated in the following way: the number of unemployed in an ISCO category is taken as a percentage of the sum of the employed and unemployed in that ISCO category. If possible, this is done for women and men separately. In the optimal case, this results in a measure that distinguishes among 52 occupational unemployment rates per country-year (26 occupations—at the ISCO88 two-digit level—for each of the two genders).

Making the two risk-exposure measures consistent over time and across countries presented some challenges. Different country investigative teams employ different occupational classifications, and some teams have changed the classes they use over time.¹³ Some countries, therefore, had to be dropped from the analyses. But for other countries we were able to piece together a data set that translates the different occupational classifications into ISCO88. This translation data set draws on existing concordance tables¹⁴ as well as tables that we constructed with the help of national statistical offices. These were also used to standardize the labour-force data, allowing the occupational unemployment data to be merged with the ISSP survey data.

Our measure of *realized risk* corresponds closely to one of our risk-exposure variables: it is simply a dummy equalling one for unemployed individuals (zero otherwise). Finally, we include *income* to capture the Meltzer–Richard logic, in which those with incomes above the mean will oppose governmental

⁸ See <http://www.issp.org/data.htm> for details on the original data.

⁹ One of these questions contained five possible answers, including one neutral response; the other contained four possible answers with no neutral response permitted. The wording of the question for the five-answer variant is: ‘It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes.’ The wording for the four-answer variant is: ‘On the whole, do you think it should be or should not be the government’s responsibility to: Reduce income differences between the rich and poor?’

¹⁰ The skill levels are assigned by the ILO. A mapping of ISCO88 one-digit codes and skill levels can be found at <http://www2.warwick.ac.uk/fac/soc/ier/research/isco88/english/s2>. We assign ‘Legislators, senior officials and managers’ (ISCO88 major group 1) the highest skill level, while the ILO does not assign any skill level for that group.

¹¹ See the web appendix for details on the educational variable.

¹² The occupational unemployment risk variable we employ below combines the most detailed data we have for each country. This ranges from ISCO88 two-digit by gender to ISCO88 one-digit by gender. See the web appendix and Rehm (2005) for details.

¹³ By way of example, the principal investigators of Italy as well as Japan resisted the temptation to make their occupational variables internationally comparable.

¹⁴ Concordance tables are sometimes also known as crosswalks.

redistribution, while others will support it. The income variable used has nine quantiles.

In addition to these political-economy variables we control for a large set of economic and demographic characteristics that might also influence an individual's preferences regarding governmental redistributive policies.¹⁵ The two demographic variables are age and gender. *Age* plays a role in structuring preferences because should they lose their current jobs older workers are disadvantaged in seeking re-employment. This puts them at greater risk than younger workers, and we should correspondingly expect a higher predisposition for favouring redistribution. Similarly, *gender* should influence redistributive preferences because women tend to be the primary care-givers in the family unit. This puts them in a disadvantaged position within the labour market compared to men. This is particularly true in the event of divorce, where transfers from the state are often the only income source. Correspondingly, we should expect women to be more supportive of redistribution by the government.

Six economic control variables are generally employed. These all have something to do with the individual's connection to the labour market. First, *students* are often the direct as well as indirect beneficiaries of governmental redistribution. As such, it is in their interest to embrace such policies. On the other hand, their preferences might be determined in part by expected future earnings. Second, the *retired* are beneficiaries of government redistributive policies. It seems only natural, then, to anticipate that these individuals will favour income redistribution. Third, the *self-employed* depend on flexible labour markets and frequently rely on hiring relatively low-paid labour. They would stand to lose from most governmental redistributive efforts. As a result, we would expect these individuals to oppose most redistributive policies. Fourth, the *non-employed* represents a residual category in-

tended to pick up any effects of not being in the labour market that are not captured by the student, retired, and unemployed variables. Since the group is heterogeneous there are no clear expectations regarding the effect of this variable on redistributive preferences. The fifth and sixth economic control variables deal with *public employment* and *union membership*.¹⁶ There are multiple arguments about why the *publicly employed* would favour governmental redistributive policies. For example, Blais *et al.* (1990) report public-opinion studies showing a general tendency for public employees to be more supportive of larger governments than are private-sector employees. As argued by Knutsen (2005, pp. 593–4), public-sector employment 'can be a significant political cleavage'. For example, 'the public employee has clear self-interests connected to large public budgets [and] a well-developed welfare state'. Hence, the publicly employed would be in favour of redistribution by the government. Finally, *union membership*, particularly where joining a union is a matter of choice, is likely to arise because an individual is concerned about the security of his or her job and income. Such worries should prompt support for redistribution.

Findings for redistributive preferences

Table 1 displays the results of two ordered logit regressions on the dependent variable with five answer categories.¹⁷ Note that model (2) in the table expands the list of control variables, but, because of missing data for some country-years, we lose about 15–20 per cent of the observations included in model (1). There are no indications from the summary statistics that the models should be rejected. Our general expectations with respect to control variables are borne out. The only exception to this is age, where in the narrower specification the variable's coefficient is not statistically significant. We should note that, with respect to the non-employed variable, for which we had no a priori expectation, the coefficient is consistently positive and statistically significant.

¹⁵ Because it is used for the operationalization of skill specificity, we do not control for education.

¹⁶ Because of many missing values, we carried out the regression analyses both including and excluding the control variables public employment and union membership.

¹⁷ Table A8 in the web appendix reproduces these results along with those for two alternative specifications intended to evaluate the relative importance of the religious hypothesis from Scheve and Stasavage (2005) as well as the ethnicity/minority hypothesis of Alesina and Glaser (2004). With regard to the latter, the reader should note that the ISSP data-sets have rather sparse information on respondents' ethnic backgrounds. As a consequence, we lose about 60 per cent of the observations compared to model (1) and the remaining observations are rather restrictive in terms of cross-national coverage. Also included in the appendix is the analogous table (A9) employing the dependent variable with the four answer categories.

Table 1
Determinants of Preferences for Redistribution

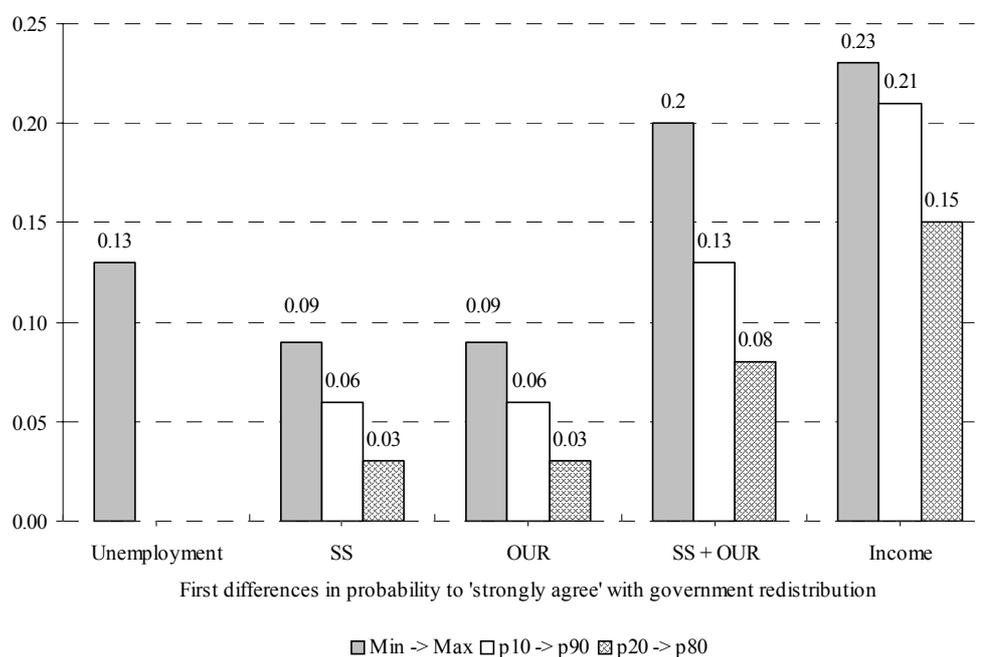
	(1)	(2)
	Pro-redistribution (five answer categories)	
Risks:		
Occupational unemployment rate	0.020*** [0.003]	0.019*** [0.004]
Skill specificity	0.130*** [0.018]	0.141*** [0.020]
Realized risk:		
Unemployed	0.568*** [0.055]	0.670*** [0.062]
Controls:		
Income	-0.144*** [0.004]	-0.144*** [0.005]
Age	0.001 [0.001]	0.002* [0.001]
Gender (female)	0.167*** [0.020]	0.162*** [0.022]
Non-employed	0.288*** [0.042]	0.422*** [0.050]
Student	0.251*** [0.056]	0.401*** [0.063]
Retired	0.276*** [0.048]	0.389*** [0.055]
Self-employed	-0.342*** [0.034]	-0.206*** [0.038]
Publicly employed	—	0.156*** [0.029]
Union membership	—	0.279*** [0.029]
Country dummies	yes	yes
Year dummies	yes	yes
Observations	48,334	41,712
Pseudo-R ²	0.07	0.06
Logpseudo-likelihood	-68,253	-58,339
Wald χ^2 (degrees of freedom)	7,368 (36)	5,452 (36)

Notes: Ordered logit regressions, using weights (design weights \times sample weights). Robust standard errors in brackets. * Significant at 10 per cent; ** significant at 5 per cent; *** significant at 1 per cent. See web appendix for details on variable descriptions.

Our primary emphasis has been on the political-economy variables (risk exposure, realized risk, and income) and their impact on redistributive preferences. There one can see that all of the estimated coefficients are statistically significant

and take on the predicted signs. The greater the risk an individual experiences in the labour market, and the lower his or her income, the more supportive of government redistribution that individual is.

Figure 3
Changes in Extreme Redistributive Preferences as a Function of Income and Risk Variables



Note: Figure displays first differences in the probability that one ‘strongly agrees’ with government redistribution, simulating the difference between:

- unemployment—being unemployed and employed;
 - *SS*—having specific as opposed to general skills;
 - *OUR*—being in an occupation with a high as opposed to a low unemployment rate;
 - *SS + OUR*—having specific skills in an occupation with a high unemployment rate as opposed to having general skills in an occupation with a low unemployment rate;
 - Income—being in the lowest income quantile as opposed to being in the highest income quantile.
- Simulations based on model (1) in Table 1.

But how important are these variables in substantive terms? In terms of model (1) we rely on simulations to answer this question (see Figure 3).¹⁸ These simulations reveal how the probability of falling into a certain answer category (viz., ‘strongly agreeing’ that government should redistribute to reduce income differences) changes, depending on values of an independent variable, holding everything else constant.¹⁹ The contrast between being employed and unemployed, the latter being a ‘realized’ risk, is a good benchmark for assessing the effects of

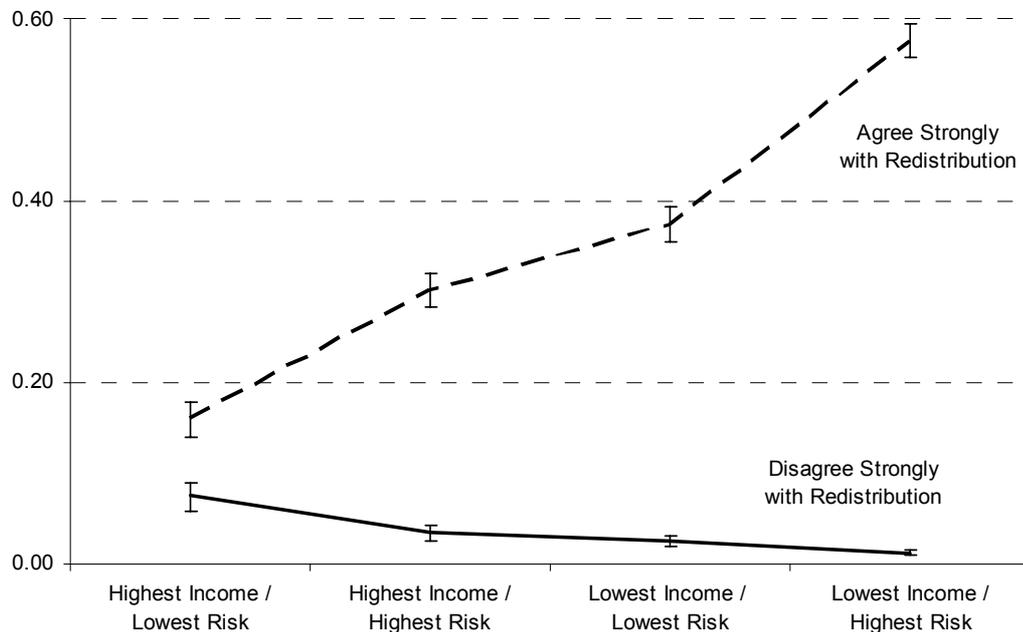
exposure to risks—our central independent variables. The second bar in Figure 3 presents the simulation results connected to skill specificity, one of our postulated risk factors, and preferences regarding redistribution. Using the variable’s entire (as well as shorter) ranges, the difference between having general and having very specific skills (shown in the second bar displayed in Figure 3) is not much smaller in its impact on redistributive preferences than the effect of moving from being employed and being unemployed.²⁰

¹⁸ All simulations were performed with *SPost*, a Stata ado-file written by Scott Long (<http://www.indiana.edu/~jslsoc/spost.htm>). See also Long and Freese (2001). Note that Figures 3–6 display probabilities (or changes therein) on the *y*-axis.

¹⁹ For instance, in terms of the control variables, the effects of being a female as opposed to a male, *increases* the likelihood of strongly agreeing with redistribution by 0.04. The corresponding effects of being retired, a student, or non-employed, each *heightens* that likelihood by 0.06, while the effect of being self-employed as opposed to having some other status in the labour market is to *lower* the likelihood of strongly agreeing with redistribution by 0.07.

²⁰ Simulations involving continuous independent variables of interest display changes from the variable’s minimum to maximum value (or 95th percentile) as well as the 90/10 and 80/20 ranges. In the text, we discuss the extreme range.

Figure 4
Redistributive Preferences as a Function of Different Combinations of
Income and Risk Exposure



Notes: Combinations of extreme values in risk-exposure measures. Simulations based on model (1) in Table 1. Confidence intervals (95 per cent) computed by the delta method.

Likewise, simply being highly exposed to the risk of unemployment has an impact nearly as great as actually being unemployed (see the third set of bars in Figure 3). While being unemployed increases the probability of strongly agreeing with government redistribution by 0.13, a high risk of unemployment elevates this probability at a slightly lower rate, i.e. 0.09. Similarly, individuals with high skill specificity have an 0.09 higher chance of strongly supporting government redistribution than do individuals with general skills. When taken together, these two elements of risk exposure in the labour markets exert an even more powerful impact on individuals' preferences for redistribution. The fourth group of bars in Figure 3 plots the combined simulated effects of moving from a situation in which an individual is not exposed to risk on both the skill specificity and the unemployment dimensions to a situation of maximal exposure to risk. The effect is sharply to increase the likelihood (*viz.*, 0.20) that an individual will strongly agree with government redistribution.

Finally, the last group of bars in Figure 3 contrasts the differences in preferences for redistribution between those well below the mean income and those well above it. According to the Meltzer-

Richard argument, the former are far more supportive of egalitarian redistribution by the government than the latter. This is indeed the case when one examines the results produced in Table 1. Substantively, one can observe marked differences in redistributive preferences between individuals with very low and very high incomes.

Our results indicate that preferences for redistribution are very much in line with what we would expect from peoples' 'objective' economic positions. Poor people as well as individuals exposed to high risks favour governmental redistribution, while the rich and those in secure labour-market positions tend to be less supportive of such policies. Figure 4 shows that, together, income and risk exposure leave a strong imprint on redistributive preferences. Simulations with combinations of the extremes on these variables reveal that individuals have markedly different preference profiles, depending on their exposure to risk and their earnings. As a group, individuals with both high income and low risk are relatively ambivalent in their redistributive preferences. The likelihood that such an individual would strongly support redistribution is 0.16, while the corresponding chance that he or she would

strongly oppose it is 0.07. There is an 0.19 chance that such an individual would express indifference on this issue. Alternatively, those unfortunate enough to be both at high risk in the labour market and poor in terms of income would have an overwhelming chance of strongly favouring redistribution (the likelihood being 0.58), with only an 0.01 chance of strongly opposing redistribution and an 0.06 chance of expressing indifference. It is hard to imagine clearer evidence that economic interests are critical in explaining redistributive policy preferences. Though some people may be ‘rationally ignorant’ about their interests, most are not.

In this section, our principal concern has been with factors shaping popular demands for redistributive efforts on the part of government. Let us pause for a moment here to reflect on the implications of some of these factors for future pressures on the welfare state. We focus exclusively on the independent variables at the core of our model, and ignore the control variables.

Using national labour-force data it is possible to trace the evolution of the average economy-wide skill specificity for about nine countries from 1970 to 2000. Over these three decades, this aggregate measure declined by about 16 per cent, reflecting a changing labour-force structure that became more concentrated in occupations requiring less specific skills. This transformation reflects the decline in manufacturing employment and growth in service occupations, both the professional and semi-professional sorts. While the rate of deindustrialization may slow in the near to medium-term future, it seems likely to continue. As it does, it will produce new labour-market insecurities, but also a decline in overall skill specificity that will lessen demand for redistribution when the occupational structure stabilizes.

It is difficult to say that there are clear and predictable trends for future levels of either general unemployment or occupation-specific unemployment. If anything, one might anticipate both cyclical movements and random shocks with respect to both. This should imply little change over previous levels of

aggregate popular demand for government redistribution.

Within the OECD there has been fairly widespread growth in the inequality of market income across households. A number of factors have contributed to this. However, there are few signs of abatement in the growth of wage inequality. It is unlikely as well that the prominence of financial markets and their inegalitarian distribution of rewards is likely to be reversed. Finally, the retirement age population is set to continue expanding and, with that, market income inequality will rise. All of this would suggest that income inequality will grow and with it the level of popular demand for government redistributive efforts will increase.

The relationship between objective and subjective measures of risk

The conclusion that individuals form their redistributive preferences based on their objective position in the economy can be strengthened by exploring the linkage between objective and subjective measures of job security. While it is unsurprising that preferences over redistribution are related to people’s expressed insecurity, it is not obvious that people have a good idea about their actual exposure to risk. If not, the politics of redistribution may still in large measure be a politics of values. It turns out, however, that subjective insecurity is closely related to objective insecurity when we regress a measure of the former on the objective risk measures employed in this paper. The dependent variable, the expression of ‘subjective insecurity’, is based on the following ISSP survey question:²¹ ‘show how much you agree or disagree that [the statement] applies to your [main] job. *My job is secure.*’

The possible response categories range from 1 (‘agree strongly’) to 5 (‘disagree strongly’). High values on this categorical dependent variable indicate high perceived job insecurity and we should observe a positive correlation between the objective risk exposure measures and this measure. Table 2 shows that this is clearly the case.²² When regressing the subjective risk-exposure measure on the objective risk-exposure measures, plus a set of

²¹ There is no single ISSP survey that includes both the perceived insecurity question and one or the other of our redistributive preferences variables. The perceived insecurity question was posed in the 1989 and the 1997 surveys.

²² Note that the sample in Table 2 is restricted to employed people only. The dependent variable—perceived job insecurity—hardly makes sense for people outside the labour market.

Table 2
Determinants of Perceived Job Insecurity (employed only)

	(1) Perceived insecurity (ordered logit, five categories)	(2) Perceived insecurity (logit)
Occupational unemployment rate	0.035*** [0.008]	0.030** [0.010]
Skill specificity	0.123*** [0.035]	0.100** [0.048]
Income	-0.087*** [0.011]	-0.096*** [0.016]
Age	-0.007*** [0.002]	-0.004 [0.003]
Gender (female)	-0.035 [0.047]	-0.031 [0.070]
Self-employed	0.054 [0.080]	0.115 [0.106]
Country dummies	yes	yes
Year dummies	yes	yes
Constant	—	-1.306*** [0.313]
Observations	7,783	7,783
Pseudo-R ²	0.03	0.04
Logpseudo-likelihood	-10,777	-3,519
Wald χ^2 (degrees of freedom)	463 (17)	247 (17)

Notes: (Ordered) logit regressions, using weights (design weights \times sample weights). Robust standard errors in brackets. * Significant at 10 per cent; ** significant at 5 per cent; *** significant at 1 per cent. See web appendix for details on variable descriptions.

Sources: Based on ISSP surveys from 1989 (USA, Ireland) and 1997 (USA, Canada, Switzerland, Spain, Portugal, West Germany, East Germany, Norway, Denmark, New Zealand).

controls, one finds that occupational unemployment rates as well as skill specificity are statistically significant predictors of perceived job insecurity.

The objective risk exposure measures employed in this paper are not only statistically, but also substantively important predictors of the expression of perceived job insecurity. Figure 5 displays the differences in predicted probabilities for ‘disagreeing’ or ‘strongly disagreeing’ with the statement that one’s job is secure. Changing an individual’s occupational unemployment rate from its minimum to its

maximum value increases this individual’s probability of subjectively feeling insecure by 0.09. Skill specificity exerts lesser, but still a substantially important, influence on subjective risk exposure. In terms of substantial impact, income decreases an individual’s perceived risk exposure.²³

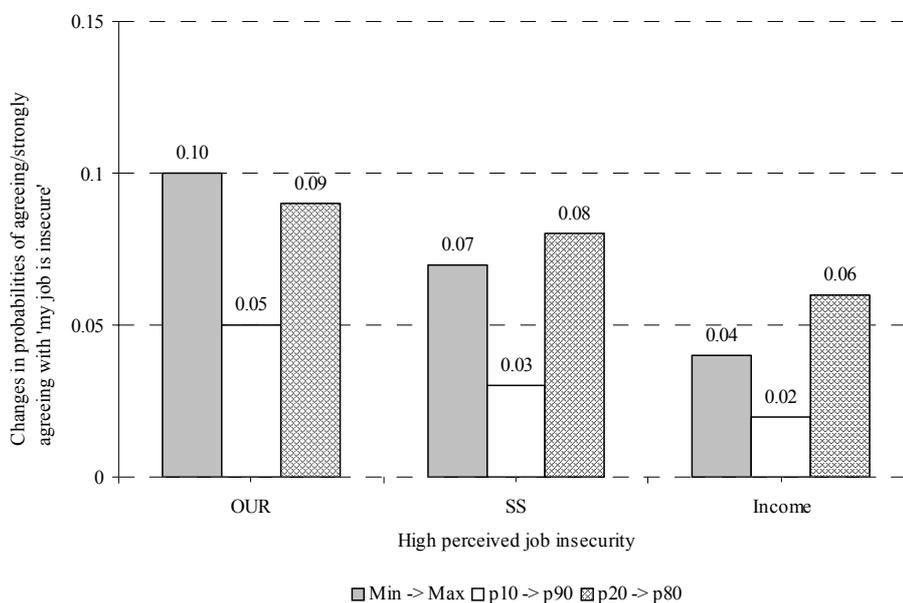
The relationship between redistributive and partisan preferences

There is one final micro-level causal link in our story: redistributive preferences should strongly influence individuals’ partisan preferences.²⁴ Table 3

²³ The bar in Figure 5 representing the first-difference effect for income is inverted. It shows how moving from a high income to a low income increases one’s expression of job insecurity.

²⁴ This is the causal link our model suggests. Therefore, we choose not to include control variables in the two regressions reported here.

Figure 5
Changes in Subjective Job Insecurity as a Function of Changes in Occupational Unemployment Rates, Skill Specificity, Income



Notes: Figure displays first differences in predicted probabilities of ‘disagreeing’ or ‘strongly disagreeing’ with the statement ‘my job is secure’, simulating the difference between:

- *OUR*—being in an occupation with a high as opposed to a low unemployment rate;
- *SS*—having specific as opposed to general skills;
- *Income*—being in the lowest income quantile as opposed to being in the highest income quantile.

Simulations based on model (2) in Table 2.

shows that they do. In the first model of Table 3, the dependent variable is individuals’ partisan affiliation on a variable ranging from 1 (‘far right’) to 5 (‘far left’). We placed each party in our sample in one of these categories.²⁵ Model (2) of Table 3 repeats the analyses for a binary dependent variable. There, ‘far left’ and ‘left’ parties are coded as a one (1), and the remaining parties as a zero (0).²⁶

The results show that redistributive preferences are excellent predictors of partisan affiliation, and the magnitudes of the predicted probabilities, i.e. the variables’ substantive effects, are very impressive. Figure 6 displays the predicted probabilities of revealing a right (i.e. far right, right, or centre) or left (i.e. far left and left) partisan affiliation, contingent on the individual’s revealed preference for income redistribution. The left-hand set of bars in the figure

shows the likelihoods that the individual affiliates with the Right and Left, respectively, in the case where that individual reveals a preference strongly opposing redistribution (i.e. 1 on the five-category scale). This individual’s probability of affiliating with the Right is 0.76, while the probability of affiliating with the Left is only 0.24. Conversely, as shown on the right-hand set in the figure, individuals with revealed preferences strongly in favour of redistribution (i.e. 5 on the five-category scale) over-proportionally affiliate with the Left. These individuals have an 0.65 chance of preferring a party on the Left and only an 0.35 chance of expressing a preference for a centrist or rightist party. Individuals who are indifferent regarding income redistribution (i.e. 3 on the five-category scale) are also relatively ambivalent in their expressions of partisan preferences (see middle set).

²⁵ We added the category ‘other’ for parties that are particularly difficult to place. These are not included in the analyses. For details on the classification choices, see the web appendix (Table A5).

²⁶ We performed identical analyses with another variable of redistributive preferences, containing four answer categories. The results are the same (see web appendix, Table A7).

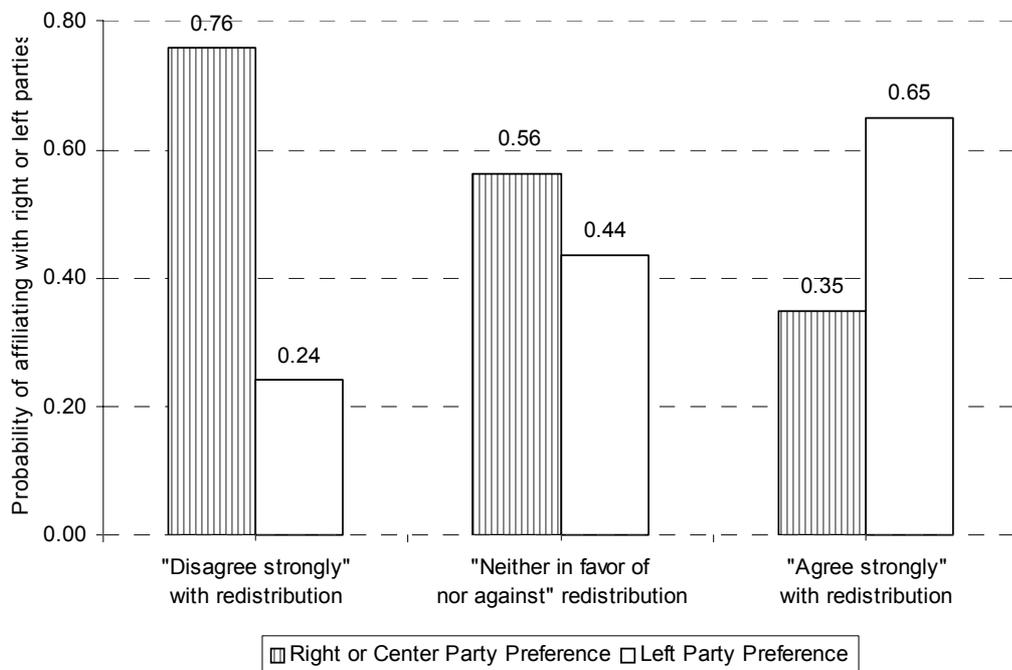
Table 3
Determinants of Partisan Preferences

	(1) Right–Left partisan affiliation (ordered logit, five categories)	(2) Left partisan affiliation (logit)
Pro-redistribution (five categories)	0.423*** [0.007]	0.440*** [0.008]
Country dummies	yes	yes
Year dummies	yes	yes
Constant	—	–1.527*** [0.135]
Observations	73,522	73,522
Pseudo R ²	0.05	0.08
Logpseudo-likelihood	–87,460	–46,831
Wald χ^2 (degrees of freedom)	7,023 (32)	5,255 (32)

Notes: (Ordered) logit regressions, using weights (design weights \times sample weights). Robust standard errors in brackets. * Significant at 10 per cent; ** significant at 5 per cent; *** significant at 1 per cent. See web appendix for details on variable descriptions.

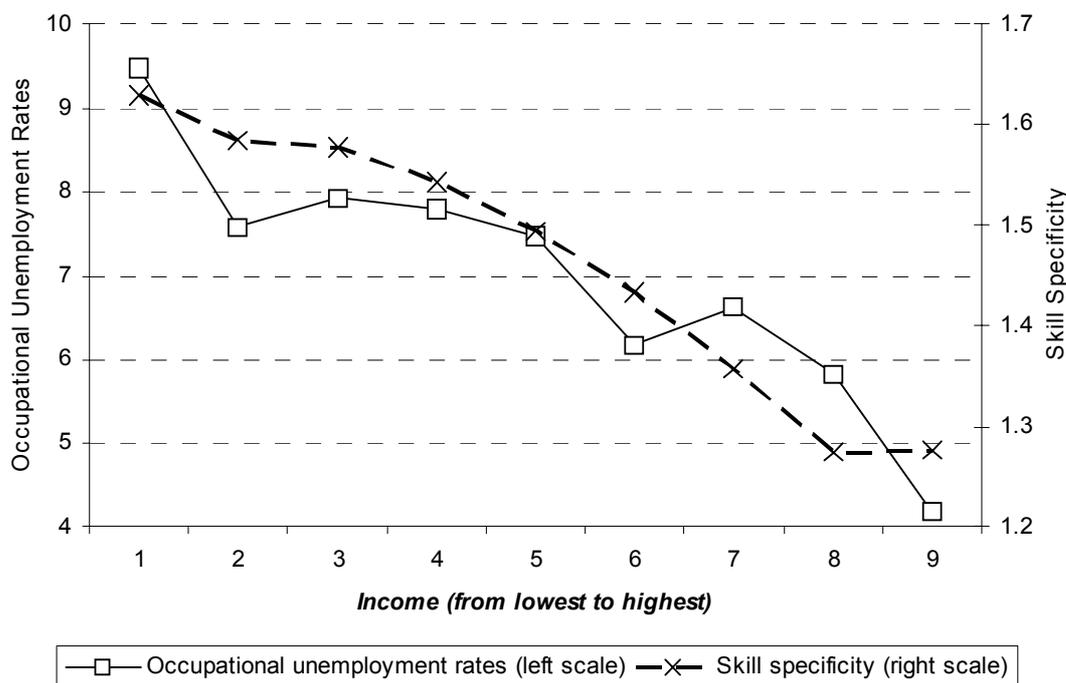
Source: Based on ISSP data for USA, Canada, United Kingdom, Ireland, Netherlands, France, Switzerland, Spain, Portugal, West Germany, East Germany, Austria, Finland, Sweden, Norway, Denmark, Australia, New Zealand.

Figure 6
Predicted Probabilities for Partisan Affiliation as a Function of Redistributive Preferences



Note: Predicted probabilities for affiliating with the Left (left or very left) or Right (centre, right, or very right) as a function of different redistributive preferences. Simulations based on model (2) in Table 3.

Figure 7
Relationship between Income and Risk Exposure



The salience of these preferences for partisan politics depends on their association with electoral cleavages. Many political economists follow the lead of Downs, Hibbs, and Meltzer and Richard in assuming that income redistribution is the principal dimension of partisan competition. Our results on redistributive preferences and partisan affiliation at the individual level support this claim. But preferences for redistribution are themselves a function of income and risk exposure. If the poor are also exposed to high labour-market risks, one would expect that shocks to the labour market would produce different responses by governments dominated by left or by right parties. Risk exposure, in this scenario, reinforces the demand for redistribution owing to income differences. However, whether risk exposure and income are reinforcing or cross-cutting cleavages is, of course, an empirical question.

One way to answer this question is simply to correlate income and risk exposure at the individual level within the data-set. The Pearson product-moment correlation coefficient between income and skill specificity at this level is -0.16 ($N=105,577$);

the one between income and occupational category unemployment rates is -0.23 ($N=76,875$). Because of the large sample sizes both correlations are highly statistically significant, but they may appear quite low. In fact, when using individual-level data-sets, correlations at this magnitude between conceptually distinct variables are quite rare (Gelissen, 2002, pp. 159–60). They indicate very strong systematic relationships, which become clearer when we look at the relationship between income and risk exposure for different income groups.

Figure 7 depicts the relationship between income and the risk-exposure measures for each income group. At this level of aggregation, it becomes quite apparent that our risk measures are highly correlated with income. The correlation coefficient between income and skill specificity (occupational unemployment rates) is -0.98 (-0.93). This strongly suggests that risks in the labour market and income are reinforcing and not cross-cutting cleavages. In light of these findings, we should expect marked partisan differences in government reactions to labour-market shocks. Showing this is the remaining task, which is addressed in the next section.

(ii) Macro-level Evidence

Statistical model and data

The estimation strategy at the macro-level follows the approach in Blanchard and Wolfers (2000). They propose that political-institutional variables be included in the regressions as interactions with proxies for external shocks.²⁷ The idea is that shocks, whatever they are, have effects on spending that vary across countries depending on institutions and government partisanship. As in the micro-analysis, we are not primarily interested in the sources of shocks, but rather in the policy effects of these shocks and how they vary across countries.²⁸ The question we want to answer in this section is whether shocks to the employment or income structure are translated into actual policy outcomes, and whether the effects of shocks are larger in countries where production relies more on specific skills and where electoral institutions facilitate long-term commitments in social policy. Since the micro-level section found that policy preferences are reflected in party preferences, we also examine whether government partisanship affects policy responses.

Blanchard and Wolfers propose two versions of the statistical model, and we estimate both. The first assumes that countries are exposed to uniform, and unobservable, exogenous shocks. These ‘shocks’ can be thought of very broadly to include deindustrialization (see Iversen and Cusack, 2000), union militancy and civil unrest (Eichengreen, 1997), the integration of international financial markets (Garrett, 1998), the two oil shocks (Goldthorpe, 1985), technological change (Freeman, 1995), the slowdown of productivity (Pierson, 2001), and even broad ideological changes (Hall, 1993). Pierson (1996) distinguishes an expansionary period until around 1980, where governments were exposed to pressure for more spending, and a subsequent period of austerity where most political-economic changes generated pressure for retrenchment. We consider both separately, but the predictions are the same for the political-economic variables across the two periods.

Since the nature of the shocks is left unspecified in the first version, the purpose is simply to determine whether countries with certain political-institutional conditions—extensive vocational training, PR, and left-wing governments—respond more aggressively to shocks. The shocks are proxied by a set of year dummies (D_t) that are interacted with the j political-institutional variables (I_j):

$$RS_{i,t} = \lambda \cdot RS_{i,t-1} + \left(\sum \delta_t \cdot D_t \right) \cdot (1 + \beta^j \cdot I_j) + \sum \gamma^k X_{i,t}^k + \alpha_i + \varepsilon_{i,t}. \quad (2)$$

where RS refers to government transfers (or ‘redistributional supply’), and i indexes countries, t time, and k a set of control variables ($X_{i,t}^k$). The common unobserved shocks in this formulation are captured by the parameters on the time dummies, and the political-institutional effects by the parameters β^j . If β is zero it means that the effects of the shocks are identical across political-institutional configurations. If it is positive (negative) it means that the relevant institutional feature magnifies (reduces) the effect of the common shocks. Note that the model uses country-specific intercepts so that differences observed between countries can be attributed solely to differences in institutionally mediated policy responses. This also means that the (invariant) institutional variables cannot be included as independent controls (X variables).²⁹ Unlike most work on the effects of national institutions—which relies on the cross-national variance while omitting country-specific intercepts—this approach tests whether economic, institutional, and political conditions are associated with differences in government policy responses. In Blanchard and Wolfers, it is assumed that $\lambda = 0$, which makes the results very easy to interpret. But since serial correlation is a problem, we also show the results when a lagged dependent variable is included.

The second formulation identifies the nature of (some of) the shocks, and allows them to vary across countries. The shock variables, $S_{i,t}$, are simply added to the time dummies in the first model:

²⁷ The dependent variable in the analysis of Blanchard and Wolfers is unemployment.

²⁸ Persson and Tabellini (2005, ch. 8) use the same setup to explain changes in the size of government transfers from the early 1960s.

²⁹ The exception is partisanship, since it varies both across space and time.

$$RS_{i,t} = \lambda \cdot RS_{i,t-1} + \left(\sum \delta_t \cdot D_t + S_{i,t} \right) \cdot (1 + \beta^J \cdot I_i) + \sum \gamma^k X_{i,t}^k + \alpha_i + \varepsilon_{i,t}. \quad (3)$$

As argued in Iversen and Cusack (2000) a persistent source of demand for government transfers since the early 1960s is deindustrialization, because it forces some workers to find jobs outside the sector for which their skills were originally developed. It can be seen as a summary measure of job losses owing to technological change. Another, related, shock variable is (changes in) unemployment, which corresponds directly to one of our individual-level risk measures.³⁰ Like deindustrialization, unemployment is not simply a cyclical problem, but rose from a low of less than 2 per cent in the mid-1960s to a high of almost 9 per cent in the early 1990s (with a temporary trough of 5.8 per cent in 1990).

The data for the estimations of the two models are from 16 OECD countries over a 36-year period from 1960 to 1995.³¹ The following describes the variables we used.

Government transfers. The dependent spending variable is proxied by total government transfers to private households as a share of GDP. The data are described in Iversen and Cusack (2000) and are drawn mainly from OECD, *National Accounts, Part II: Detailed Tables* (various years).

Shock variables. As explained, in one specification of the model we use time dummies as proxies for the (unidentified) shocks. In another we use unemployment and deindustrialization. Unemployment is measured by unemployment rates as a percentage of the labour force, while deindustrialization is defined as first differences in the value of 100 minus the sum of manufacturing and agricultural employment as a percentage of the working-age population (higher numbers mean higher job losses). The raw data for constructing these variables are drawn from OECD, *Labour Force Statistics* (various years).

Political-institutional variables. The political-institutional variables are government partisanship, the electoral system, and the training system; they are defined in the following way. In terms of *partisanship*, we use a measure based on the notion of an ideological *government centre of gravity*, which is the average of three expert surveys of the left–right position of parties, weighted by the share of parties’ cabinet seats in government.³² Since transfers are largely a measure of the level of public insurance, it is not a type of spending that tends to divide left and centre parties, especially of the Christian democratic variety (see Huber and Stephens, 2001). The (neo-liberal) Right, on the other hand, should favour private insurance and oppose government spending. We therefore defined a *right government* variable, which is a dummy that codes as right those 25 per cent of governments that are the farthest to the right on the centre-of-gravity measure. We use this dummy as a relatively invariant ‘institutional’ *I* variable. But because partisanship can also be treated a ‘conjunctural’ independent variable, *X*, we included the centre-of-gravity variable (standardized to have a range of 1 and a mean of 0) as a control throughout.³³

The second institutional term, dealing with *electoral systems*, is a simple dichotomous variable with majoritarian systems coded as zero and proportional systems as one. The categorization is based on Lijphart’s (1994) analysis of democratic institutions. Since this variable does not change over time, it is treated as a conditioning institutional variable.

The final institutional element deals with *vocational training systems*. The training system is measured as the share of an age cohort going through a vocational training, assuming that vocational training is a measure of specific skills acquisition. The data is taken from UNESCO, *Statistical Yearbook* (1999). This measure, which starts in the 1980s, is in principle annual, but it exhibits little meaningful variation over time and is treated here as an

³⁰ The correlation between unemployment and deindustrialization is 0.37.

³¹ The countries are: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Federal Republic of Germany, Italy, Japan, Netherlands, Norway, Sweden, Switzerland, United Kingdom, and United States.

³² This measure is described in Cusack (1997). For details on the data used and its construction, see Cusack and Engelhardt (2002).

³³ The results are substantively the same if we use the right government dummy as a control, but multicollinearity is less of a problem using the centre of gravity variable.

invariant institutional variable. We simply extrapolated it back in time to cover earlier periods.

Controls. Note that by having a full set of country dummies we take into account all cross-national differences in institutional and other invariant factors. In addition, we control for *union density* since the strength of unions changes over time and might account for differences in the demand for spending. Also, it may be supposed that *unexpected growth* will cause spending as a percentage of GDP to change ‘automatically’ since it produces a windfall that has not been forecast in the budget. Following Roubini and Sachs (1998), it is defined as real GDP per capita growth at time t minus average real per capita growth in the preceding 3 years.

Another influence is to be seen in what can be called ‘automatic’ transfers. These result from changes in the *size of the dependent population*, those who are unemployed and retired, because replacement rates cannot be easily changed in the short term. The variable is defined as the sum of unemployed and people over the age of 64 as a percentage of the total population. The source for the population figures is OECD, *Labour Force Statistics* (various years).

Findings

Table 4 shows the results of estimating the regression equation (2), using non-linear least squares.³⁴ The first line is the total time effect, or the total effect of the exogenous shocks. It is calculated by taking the difference between the parameter on the 1995 time dummy and the parameter on the 1960 time dummy after all variables have been calculated as deviations from their cross-country means. By defining independent variables as deviations from their means, the effect of the time dummies will capture the change over time. Each estimated dummy parameter, which is not shown in the table, is a measure of the exogenous forces, or shocks, which occurred that year. Most are above zero and exhibit no distinct pattern until the early 1980s, when the changes from the previous year are systematically negative. In the 1990s growth resumes. It is tempting to view the trough in the 1980s as a result of a broad ideological shift to the Right, but we do not

seek here to account for the exogenous forces that cause long-term trends in spending.

Instead, what we want to know is whether governments in countries with strong vocational training systems, PR electoral systems, and left-wing governments react differently to shocks than governments in countries with weak vocational training systems, majoritarian institutions, and right-wing governments. Again, the parameter β on the interaction terms provides the answer. When positive, it means that shocks cause spending to increase *more* in countries with high values on the political-institutional variables.

It is possible to get a very intuitive measure of the substantive impact of shocks by distinguishing the spending effects of these in countries with extreme values on the institutional variables. These impacts are found by adding to and subtracting from the time effect (6.63 in the case of the PR regression) the product between this effect and the estimated parameter β (0.72 in the case of PR) *times* the minimum and maximum values on the institutional variables (−0.62 and 0.38, respectively). For example, model (1) in Table 4 shows that the effect on transfers of the exogenous shocks that occurred between 1960 and 1995 has been to raise spending as a percentage of GDP by 3.7 per cent in a country with majoritarian institutions ($6.63 - 6.63 \times 0.72 \times 0.62$), but by nearly 8.5 per cent in a country with PR electoral institutions ($6.63 + 6.63 \times 0.72 \times 0.38$). These numbers are referred to as the ‘minimum’ and the ‘maximum’ near the bottom of the table. What is labelled the ‘institutional effect’ is the difference between the two. This number can be read as a summary measure of the impact of an institution on any particular spending variable. In the case of the electoral system this effect is 4.75 per cent without the lagged dependent variable (and easily significant at an 0.01 level). This effect is reduced to 3.54 when the lagged dependent variable is added to the model (column 2), but this is still a little more than half the total time effect, and significant at a 5 per cent level.

Countries with strong vocational training systems (Table 4, column 3) also responded to shocks by

³⁴ It is necessary to use non-linear least squares (the *nl* procedure in Stata) to estimate the model because the functional form of the interaction between the time dummies and the institutional variable is unknown *ex ante*. Only non-linear estimation will yield a single parameter for each institutional variable, β^j , in equation (2).

Table 4
Common Shocks, National Institutions, and Government Transfers (equation (2))
(dependent variable: transfers)

	(1)	(2)	(3)	(4)	(5)	(6)
Time effect	6.63*** [0.87]	—	6.34*** [0.87]	—	6.48*** [0.97]	—
PR*time dummies	0.72*** [0.12]	0.45** [0.21]	—	—	—	—
Voc. training × time dummies	—	—	0.015*** [0.003]	0.013** [0.006]	—	—
Right gov'n't × time dummies	—	—	—	—	-0.40*** [0.09]	-0.62*** [0.23]
Government partisanship	0.77** [0.39]	0.09 [0.16]	0.89** [0.39]	0.09 [0.16]	2.73*** [0.51]	0.35 [0.22]
Unionization	-0.05*** [0.01]	0.01** [0.01]	-0.03** [0.01]	0.01** [0.01]	-0.03** [0.01]	0.01** [0.01]
Unexpected growth	-0.02 [0.03]	-0.11*** [0.01]	-0.01 [0.03]	-0.11*** [0.01]	-0.01 [0.03]	-0.11*** [0.01]
Dependency ratio	0.71*** [0.08]	0.13*** [0.03]	0.63*** [0.08]	0.14*** [0.03]	0.65*** [0.08]	0.11*** [0.03]
Transfers	—	0.93*** [0.02]	—	0.94*** [0.02]	—	0.92*** [0.02]
Minimum	3.67	4.44	4.19	4.69	7.02	7.48
Maximum	8.44	7.98	10.98	10.81	4.54	3.49
<i>Institutional effect</i>	4.75	3.54	6.79	6.11	-2.58	-4.01
Adjusted R ²	0.93	0.99	0.92	0.99	0.99	0.99
N	548	548	548	548	548	548

Notes: Significance levels: * < 0.10; ** < 0.05; *** < 0.01. The results for country and time dummies are not shown.

increasing spending more than countries with weak vocational training systems. The effect is about 6–7 per cent whether or not the lagged dependent variable is included. The impact of right partisanship (Table 4, columns 5 and 6) is more complicated because right governments actually spend more on transfers than left governments when there are no shocks, yet right governments respond to shocks by increasing spending less than left and centre governments (though the effect is not significant in the model with a lagged dependent variable).³⁵ If we focus only on the responses to shocks, the effect of having a left government is roughly the same as having PR (3–4 per cent). One plausible interpretation of this pattern is that there are transfers, such as pensions, that are

not necessarily redistributive and for which demand is high among right-party constituencies, whereas transfers that respond to labour-market shocks tend primarily to affect centre- and left-party constituencies. Recall that the individual level results referred to risks and preferences for *redistributive* spending. The results for the two partisanship variables can reasonably be seen as reflecting this combination.

Among the control variables it is not surprising that the size of the dependent population has a strong positive effect on spending. This is essentially an automatic fiscal response, since replacement rates are fixed in the short run.³⁶ It is more puzzling that the sign on the unionization variable is sometimes

³⁵ This is a partisan pattern that Cusack (2001) also finds for fiscal policies.

³⁶ Since unemployment can also be seen as a shock variable, we consider below whether the effect differs across countries.

negative. This may in part be because the variable picks up some of the effect of the lagged dependent variable when it is excluded, and it must also be recalled that we are looking at a period when the traditional industrial working class is in decline, while the welfare state is expanding. The forces that undermine unions in some countries, especially deindustrialization, at the same time propel demands for social insurance.³⁷

The results in Table 4 strongly suggest that countries with different economic and political institutions respond differently to shocks. But it is also possible that countries were exposed to different levels of shocks and that this variance, not institutional differences, explains the observed pattern across institutional settings. Knowing the effects of identifiable shocks—specifically rising unemployment and deindustrialization—is also of independent interest.³⁸ Rising unemployment and loss of manufacturing jobs both relate to labour shedding, and are clearly related to the individual-level risk variables. Considering the effects of labour-market risks on the demand for insurance, we should expect these risks also to affect the supply. To make sure that these variables pick up the effects of other, unmeasured, shocks, we retain the time dummies in the model, which is equivalent to equation (3). The results are shown in Table 5.

The table is organized so that the estimated institutional effects (the β s) are shown in the first row of the table, first for PR and then for vocational training and right partisanship. The results are otherwise directly comparable to those in Table 4, except that the institutional effects are measured using the average change in unemployment and deindustrialization from their minimums in the early 1960s to their peaks in the mid-1990s as the measure of the total ‘shock’. In the case of unemployment this difference is nearly 7 per cent, while for deindustrialization it is almost 18 per cent.

Note first that while both unemployment and deindustrialization matter independently for the level of spending, the parameters on the institutional and partisan variables (β s) are almost identical to those in Table 4. It is therefore not the case that the differences in government responses are attenuated when the nationally specific sources of shocks are taken into account. Countries with PR and developed vocational training systems tend to raise spending in response to shocks much more than countries with majoritarian elections and weak vocational training systems. And, like before, right governments raise spending less than centre and left governments. The political-institutional effects range between 0.7 and 2.3 per cent, and together the two variables account for roughly half of the total institutional effect that we estimated in Table 4 (the rest is accounted for by unobserved shocks).³⁹ The direct effect of unemployment is somewhat larger than for deindustrialization, but some of the effect of deindustrialization goes through unemployment since the two are related ($r = 0.37$).

The smallest recorded effect, of only borderline significance, is the partisan response to deindustrialization. The reason may be that deindustrialization affects workers across the income scale, and therefore does not sharply differentiate left and right constituencies. This interpretation is consistent with the results in Iversen and Cusack (2000), but leaves open the possibility that left governments are more ideologically inclined to expand public-sector employment, which is not captured by our dependent transfer variable. In fact, *if* we use government spending on goods and services as the response variable, it turns out that left governments raise spending significantly more than right governments in response to deindustrialization. This is again consistent with the findings in Iversen and Cusack (2000).

Did governments respond differently to the changing economic environment during the 1980s and

³⁷ Also, if we include unionization as a conditional variable, countries with strong unions respond more aggressively to shocks than countries with weak unions.

³⁸ Globalization is also a frequently mentioned force of change, but if the effects of globalization do not go through the above variables it is hard to see that the nature of globalization would be radically different across countries. Globalization is almost by definition a common external shock, and increased trade volumes as well as international capital-market liberalization did, indeed, occur pretty much simultaneously across developed democracies. We are not arguing here that globalization is unimportant, but that it is a common, rather than a nationally specific, type of shock.

³⁹ Note that unemployment and deindustrialization also have direct effects, so the fact that they vary across countries will mean that some of the observed cross-national differences in spending patterns will be due to the direct effects of these variables. The point here is simply that this does not reduce the effects of the institutional variables.

Table 5
Shocks, National Institutions, and Government Transfers (equation (3))
(dependent variable: transfers)

	(1) PR	(2) Vocational training	(3) Right government
Institutional/partisan variable (β)	0.47*** [0.15]	0.015*** [0.005]	-0.54*** [0.15]
Shock variables:			
Unemployment	0.31*** [0.04]	0.30*** [0.04]	0.33*** [0.04]
Deindustrialization	0.08** [0.03]	0.08** [0.03]	0.05* [0.03]
Controls:			
Government partisanship	0.03 [0.15]	0.05 [0.15]	0.31 [0.19]
Unionization	0.01 [0.00]	0.01 [0.00]	0.01 [0.01]
Unexpected growth	-0.08*** [0.01]	-0.08*** [0.01]	-0.07*** [0.01]
Dependency ratio	0.08*** [0.03]	0.09*** [0.03]	0.08*** [0.03]
Transfers	0.92*** [0.02]	0.93*** [0.02]	0.91*** [0.02]
Institutional effects:			
Unemployment	1.02	2.27	-1.24
Deindustrialization	0.65	1.55	-0.47
Adjusted R ²	0.99	0.99	0.99
N	548	548	548

Notes: Significance levels: * < 0.10; ** < 0.05; *** < 0.01. The results for country and time dummies (also used as shock variables) are omitted.

1990s than they did during the 1960s and 1970s? Or more specifically: are there any signs of convergence in government responses as globalization and other forces of change make ‘big government’ solutions impractical? To answer this question, Table 6 reports the regression results by period, omitting the findings for the controls and the lagged dependent variable.

The pattern is clear and revealing. Although the time effects in the second period are less than one-half of the first period, possibly reflecting tighter fiscal constraints (as a result of Maastricht, etc.), the estimated parameters for the political-institutional variables give no indication that the distinctiveness of government responses has diminished. To the contrary, the parameters are *larger* in the second

period (even the total partisan effect is larger), although the results are so imprecisely estimated that we cannot be confident that there are real differences. Uncertainty aside, there is no indication that the distinctiveness of government responses to shocks has declined, even as we cannot exclude the possibility that governments have less scope to respond to such shocks.

Viewed in combination, the results in Tables 4–6 paint a very clear picture that is entirely consistent with the micro evidence. Exogenous economic shocks lead to greater government spending, but the effects are conditioned by government partisanship and domestic institutions in a pattern that is consistent with their predicted effects on the formation and political expression of individual preferences. If one

Table 6
Shocks and Government Transfers in Two Sub-periods

		1960–79	1980–95
PR	Time effect	5.88	2.79
	Institutional parameter (β)	0.30	0.47
	Institutional effect	1.76	1.31
Vocational training	Time effect	6.64	2.73
	Institutional parameter (β)	0.007	0.013
	Institutional effect	3.29	2.52
Right government	Time effect	4.96	2.83
	Institutional parameter (β)	-0.15	-0.52
	Institutional effect	-0.74	-1.47

Notes: Estimated with lagged dependent variable. Effects of controls not shown.

looks at the summary measures of the institutional effects at the bottom of Tables 4 and 5, governments (especially those not ideologically committed to markets) respond much more forcefully to exogenous shocks in countries with PR and strong vocational training systems.

IV. CONCLUSION

It is increasingly popular to argue that the politics of redistribution is about non-economic matters, such as religion or ethnicity. It is also a widespread view that people are uninformed about their economic interests and that globalization and other forces of change have caused convergence in government policies. We find little support for these views. Instead, we find a clear structure to popular preferences, party competition, and government policies that is firmly rooted in economic self-interest and stable institutional differences. The poor favour redistribution and individuals respond to the risks of losing future employment or income—measured by occupational unemployment rates and specific skills—with increased demands for redistribution and support for the Left. In so far as they affect the level of risk exposure, differences in institutions lead to different intensities of redistribution demands across countries. Vocational training systems (and the variation in economies' skill compositions they produce) are such institutions.

Institutions not only mould aggregate demand for redistribution, they also shape the supply of redistri-

bution. Electoral systems affect governments' responses to economic shocks if the main axis of political competition is redistribution and if income and risk exposure are related. This is so because PR systems tend to produce Left–Centre coalitions—representing the poor and middle class—while majoritarian systems tend to produce Centre–Right governments—representing the rich and the middle class. The paper shows that income and risk exposure are strongly negatively related, which leads left governments to react more aggressively than right governments to economic shocks.

Our findings have several implications. To begin with, the paper clearly shows that objective economic conditions play an important and predictable role in shaping redistribution preferences. While this is often assumed by some scholars and denied by others, we shed light on this—ultimately empirical—question. Second, all the evidence suggests that adverse economic shocks increase the level of government protection. Insofar as globalization is a source of such shocks, it raises the demand for redistribution and thus shores up support for the welfare state. On the supply side, the paper's findings also imply that the globalization literature makes claims that are not supported by the data: there is no evidence for convergence; there is no evidence for the end of old (redistribution) politics; and there is no evidence for decreased differences between governments of different colours.

We also think our analysis shows the advantage of combining the micro and macro levels in explaining

how governments react to economic shocks. Yet we were not able to examine every assumption about the interaction between the two levels. For example, this paper operationalizes risk exposure at the individual level and economic shocks at the country level. But we have not gone very far in terms of identifying the nature of the shocks and how they affect individual-level risks. Exposure to competition from low-wage countries, technological change, deindustrialization, and so on, affect different groups differently, and that in turn shapes

the politics of compensation. Some changes spread risks broadly while others concentrate them. In addition, we have only considered the effects of a small number of institutions. In particular, it may prove fruitful to investigate whether institutions that are often argued to inhibit change, such as federalism and bicameralism, affect the speed with which governments respond to shocks. A more refined institutional model may also have implications for the structure of individual-level cleavages over policies.

REFERENCES

- Alesina, A., and Glaeser, E. L. (2004), *Fighting Poverty in the Us and Europe: A World of Difference*, Cambridge, MA, Cambridge University Press.
- — Sacerdote, B. (2001), 'Why Doesn't the United States Have a European-style Welfare State?', *Brookings Papers on Economic Activity*, 2, 187–254.
- Blais, A., Blake, D., and Dion, S. (1990), 'The Public/Private Sector Cleavage in North America', *Comparative Political Studies*, 23(3), 381–403.
- Blanchard, O., and Wolfers, J. (2000), 'The Role of Shocks and Institutions in the Rise of European Unemployment: The Aggregate Evidence', *The Economic Journal*, 110, C1–33.
- Crepaz, M. M. L. (1998), 'Inclusion versus Exclusion—Political Institutions and Welfare Expenditures', *Comparative Politics*, 31(1).
- Cusack, T. R. (1997), 'Partisan Politics and Public Finance', *Public Choice*, 91(3–4), 375–95.
- (2001), 'Partisanship in the Setting and Coordination of Fiscal and Monetary Policies', *European Journal of Political Research*, 40(1), 93–115.
- Engelhardt, L. (2002), 'The PGL File Collection: File Structures and Procedures', Wissenschaftszentrum Berlin für Sozialforschung.
- Eichengreen, B. (1997), 'Institutions and Economic Growth: Europe after World War II', in N. Crafts and G. Toniolo (eds), *Economic Growth in Europe since 1945*, Cambridge, Cambridge University Press.
- Estevez-Abe, M., Iversen, T., and Soskice, D. (2000), 'Social Protection and the Formation of Skills: A Reinterpretation of the Welfare State', in P. A. Hall and D. Soskice (eds), *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, Oxford, Oxford University Press.
- Freeman, R. (1995), 'Are Your Wages Set in Beijing?', *Journal of Economic Perspectives*, 9.
- Garrett, G. (1998), *Partisan Politics in the Global Economy*, Cambridge, Cambridge University Press.
- Gelissen, J. (2002), *Worlds of Welfare, Worlds of Consent? Public Opinion on the Welfare State*, Brill.
- Goldthorpe, J. (1985), *Order and Conflict in Contemporary Capitalism*, Oxford, Oxford University Press.
- Hall, P. A. (1993), 'Policy Paradigms, Social Learning and the State', *Comparative Politics*.
- Huber, E., and Stephens, J. D. (2001), *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*, Chicago, IL, University of Chicago Press.
- Iversen, T., and Cusack, T. R. (2000), 'The Causes of Welfare State Expansion: Deindustrialization or Globalization?', *World Politics*, 52(3), 313–49.
- Soskice, D. (2001), 'An Asset Theory of Social Policy Preferences', *American Political Science Review*, 95(4), 875–93.
- (2006), 'Electoral Institutions and the Politics of Coalitions: Why Some Democracies Redistribute More Than Others', *American Political Science Review*, 100(2), 165–81.
- Knutsen, O. (2005), 'The Impact of Sector Employment on Party Choice: A Comparative Study of Eight Western European Countries', *European Journal of Political Research*, 44, 593–621.
- Lijphart, A. (1994), *Electoral Systems and Party Systems: A Study of Twenty-seven Democracies, 1945–90*, New York, Oxford University Press.
- Long, S. J., and Freese, J. (2001), *Regression Models for Categorical Dependent Variables*, Texas, Stata Corporation.

- Meltzer, A. H., and Richard, S. F. (1981), 'A Rational Theory of the Size of Government', *Journal of Political Economy*, **89**(5), 914–27.
- Moene, K. O., and Wallerstein, M. (2001), 'Inequality, Social Insurance and Redistribution', *American Political Science Review*, **95**(4), 859–74.
- OECD (various years), *OECD Labour Force Statistics*, Paris, Organization for Economic Cooperation and Development.
- (various years), *OECD National Accounts*, Paris, Organization for Economic Cooperation and Development.
- Persson, T., and Tabellini, G. (2005), *The Economic Effects of Constitutions*, Cambridge, MA, MIT Press.
- Pierson, P. (1996), 'The New Politics of the Welfare State', *World Politics*, **48**(2), 143–79.
- (2001), 'Introduction', in P. Pierson (ed.), *The New Politics of the Welfare State*, Oxford, Oxford University Press.
- Powell, G. B., Jr (2002), 'PR, the Median Voter, and Economic Policy: An Exploration', paper presented at the Annual Meeting of the American Political Science Association.
- Rehm, P. (2005), 'Citizen Support for the Welfare State: Determinants of Preferences for Income Redistribution', WZB Discussion Paper.
- Roubini, N., and Sachs, J. D. (1998), 'Political and Economic Determinants of Budget Deficits in the Industrial Democracies', *European Economic Review*, **33**(5).
- Scheve, K., and Stasavage, D. (2005), 'Religion and Preferences for Social Insurance', University of Michigan/LSE Working Paper.
- UNESCO (1999), *UNESCO Statistical Yearbook*, Paris, UNESCO.