

Taxation and Credible Commitment

Left, Right, and Partisan Turnover

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Abstract Taxation is partly a game of credible commitment. Data for eighteen OECD countries show that partisan turnover systematically affects the long-run equilibrium mix of taxes and services. When partisan turnover is low, more right-wing influence permanently increases corporate tax revenue and the corporate share of pre-tax income; more left-wing influence, by contrast, permanently increases consumption tax revenue and social spending. When turnover is high, even powerful partisans do not increase taxes that disproportionately affect their supporters. When partisans tax their own supporters, they raise more revenue, even when we account for some plausible benefits. The theoretical conjectures are consistent with the pattern of partisan behavior within countries, not just between them.

“The art of taxation consists in so plucking the goose as to obtain the largest amount of feathers with the least amount of hissing.” Jean-Baptiste Colbert

The notions that long-term, left-wing power is associated with more progressive taxation and that taxation is essentially redistribution enjoy widespread support. But the idea that taxation is primarily about redistribution may rest on shaky foundations. Building on the fiscal contract literature and Colbert’s maxim that states have incentives to follow the fiscal path of least resistance, this article argues that taxation can be understood partly as a game of credible commitment: it is easier to tax people that benefit more from government services than those that benefit less.¹

Using data for eighteen OECD countries from 1970–1999, this article presents a partial mapping of taxes onto government services and the organization of interests.² It shows that the partisan composition of government and the level of partisan turnover systematically affect the tax mix and the stream of publicly derived benefits. In countries with low levels of partisan turnover, more right-wing influence permanently increases revenue from corporate taxes and corporations acquire a larger share of pre-tax national income; more left-wing rule, by contrast, permanently increases consumption taxes and social welfare spending. In countries with considerable partisan turnover, neither increased Left nor Right rule permanently increases the equilibrium level of

taxes or (potential) corresponding services—even when partisan control is high. When partisans tax their supporters, they raise more revenue even when we account for some plausible benefits—notably, the share of pre-tax corporate profits for the Right and social spending for the Left. In other words, neither the strength of the Left or Right alone (nor the size of the state) explains the equilibrium level of corporate or consumption taxes. Instead, tax revenues and rates depend on the interaction between partisan strength and partisan turnover.³

These results and the ancillary evidence suggest that the theoretical explanations for variations in the tax mix should be reconsidered. As detailed below, the existing literature provides some plausible explanations for cross-country variations in taxes and services, but these explanations are not entirely consistent with the behavior of parties within countries, especially the Right. Put bluntly, Right parties typically raise too much money from upper income groups to be consistent with these theories. Hence, this article presents a plausible alternative, based on the idea that taxation is partly a game a credible commitment, not merely coercion. Not only does viewing taxation as a credible commitment provide more leverage over the behavior of the Right, but it may also explain when partisans tax their supporters and when they do not.

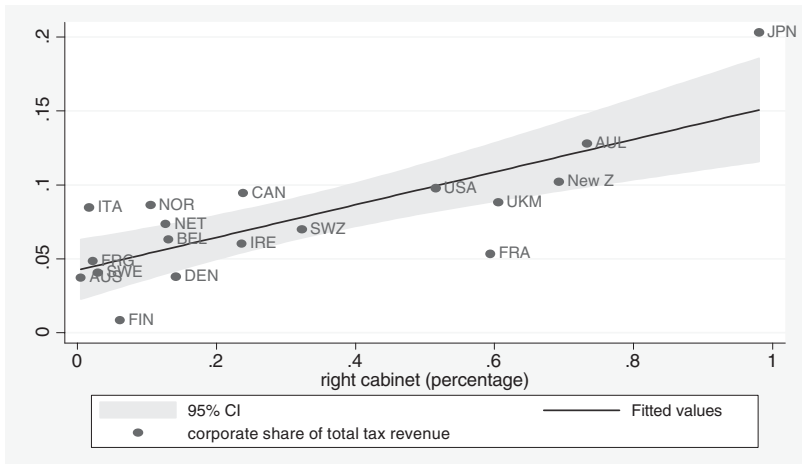
Parties, Taxes, and Spending

Over the past thirty years, social scientists from a variety of disciplines have made great headway explaining the rise, size, and variation in state activity. Perhaps no area of policymaking has garnered more attention than the welfare state, which is considered the *sine qua non* of redistribution. Proponents of the power resource theory, in particular, have linked the welfare state to the emergence of organized labor and left-wing political parties, claiming that the greater the long-term influence of the Left, the larger the welfare effort and the more progressive the tax system.⁴ Subsequent research has partially modified that view. Not only is there evidence that business supported the development of the welfare state, but Center and Christian Democratic parties are also thought to have been instrumental in its construction.⁵ The power resources theory has also drawn dissent from tax experts. Until recently most studies showing that the welfare state is primarily about redistribution assumed that spending is the equivalent of redistribution, with more spending (or a larger government) axiomatically signaling more redistribution.⁶ Such a presumption is a mistake. Whether and how much redistribution occurs also depends on who pays the taxes, not just who gets the benefits. Breaking down the distribution of the tax burden in the OECD into its regressive and progressive components reveals a striking paradox, as Steinmo points out.⁷ Because of its reliance on consumption and labor taxes and its generous deductions for investments, Sweden has a more regressive tax system than the United States even though it has generally had higher nominal tax rates on income and corporations. These findings have been echoed by Lindert, Kato, and others, all of whom have found that consumption and labor taxes correlate with welfare state spending.⁸

The recognition that regressive taxes accompany the welfare state has generated widespread interest in understanding the causes of the tax mix. Besides the credible commitment story sketched out below, there are at least two important alternatives. The first is that the tax mix represents the economically efficient solution. According to Przeworski and Wallerstein, for example, regressive taxes fund the welfare state because left-wing governments have self-enforcing incentives to limit the tax rate on upper income groups, specifically corporate profits, since economic growth (and hence long-run wages) depends on investment by firms.⁹ Perhaps nowhere is this self-limiting behavior better exemplified than in Scandinavia, where tax systems under left-wing governments were designed to foster investment.¹⁰ A second alternative is that the tax mix reflects pressures brought about by globalization.¹¹ Crudely speaking, globalization forces countries to compete for factors of production, notably capital. As a result of this competition, there should be no cross-country or partisan differences on (effective) capital taxation.¹² Hence, if governments desire a welfare state, they have to tax relatively immobile factors of production, notably consumption and labor.

One problem with these stories—at least as a general explanation for the tax mix—is not so much the tax structure under the Left, but the tax structure under the Right. Specifically, neither can explain why countries with long histories of

Figure 1 Right Rule and Corporate Tax Revenue as a Share of Total Tax Revenue (1970-99 ave.)

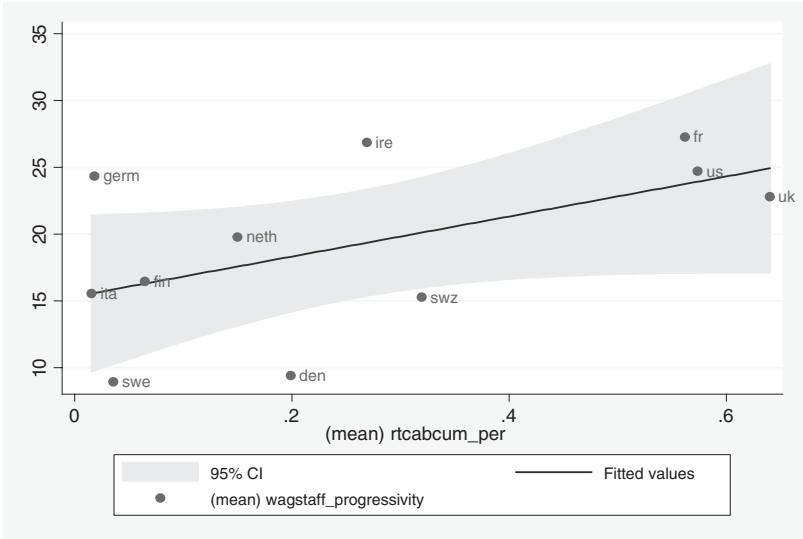


Notes: The X-axis shows the cumulative percentage of cabinet seats held by the Right. The Y-axis shows the share of corporate tax revenue as a percentage of total tax revenue, using average figures for 1970–1999. The pairwise correlation in Figure 1 is 0.78. Excluding Norway or France it is 0.86. Excluding Japan it falls to 0.65, but is still significant at the 1 percent confidence interval. Table 1 shows the strength of Right and Left parties vis-à-vis an alternative measure, taxes as a percent of GDP.

right-wing rule lean heavily on corporations and the super rich. Assuming that right-wing governments face the same constraints as left-wing parties in terms of efficiency, globalization, and the like, they should attempt to raise revenue by pushing more of the tax burden onto the poor. Yet they do not. Instead of taxing lower income groups intensely, Right parties frequently rely on their own supporters. To wit, corporate tax revenues as a share of total tax revenue (and as a share of GDP) are higher in countries dominated by the Right, as shown in Figure 1. Furthermore, micro-level studies of income tax progressivity compiled by Wagstaff and others indicate that countries with more Right rule have more progressive income taxes than countries with more Left rule, as shown in Figures 2 and 3.¹³ In the United States, for example, the top 0.05 percent of taxpayers accounted for 18–24 percent of total federal income tax revenue between 1986 and 1995, approximately 50 percent more than they accounted for before the Reagan “tax cuts” and double their share of adjusted gross national income.

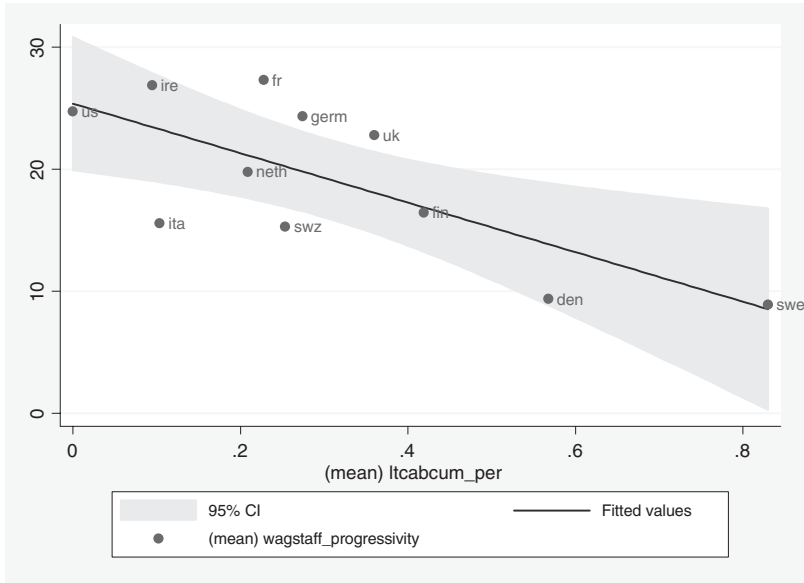
The final problem with extant explanations is that the relationship between partisan strength and the composition of taxes—highlighted here by Prezworski and Wallerstein and numerous others—disappears once unobserved country-specific factors are accounted

Figure 2 Income Tax Progressivity and the Right



Notes: The X-axis shows the cumulative percentage of cabinet seats held by the Right and Left respectively (1987–93 average). The Y-axis shows the Wagstaff et al. income tax progressivity index, which uses microdata to tabulate changes in the pre/post tax gini coefficient, taking into account income taxes paid (but not spending). Long-term Right rule and income tax progressivity are correlated at 0.54 (Figure 2), compared to -0.73 for the Left (Figure 3).

Figure 3 Income Tax Progressivity and the Left



for (shown in Table 1). In other words, sometimes dominant parties tax their supporters, sometimes they do not. When and why?

Taxation as a Credible Commitment

One possible way to make sense of the empirical record is to imagine that taxation is partly a game of credible commitment rather than a game of pure coercion, a point that has been formalized elsewhere.¹⁴ The key ideas can be summarized as follows. Taxation is a repeat game in which states have incentives to collect revenue without providing benefits, while citizens have incentives to collect benefits without paying taxes. With both states and citizens having incentives to get something for nothing, under fairly general conditions, the most efficient, sustainable means for states to acquire money is to trade services for revenue, rather than to club people and take their money. Reaching a deal hinges on the relative cost of enforcing compliance, the willingness of citizens to accept taxes commensurate with services, and the state's ability to prove to citizens that their dollars will be well spent. Assuming that states and taxpayers maximize net income, the minimum conditions for a bargain are: (1) over some range, collecting taxes is more costly than producing services; (2) revenues collected are sufficient to cover the

state's costs; and (3) services are worth more than taxes paid. In equilibrium, taxes and services move together, albeit with some stickiness.

The tax compliance literature consistently shows that many people pay taxes much of the time because they believe they are getting something in return, not merely (or perhaps even primarily) because of the threat of punishment. Specifically, microlevel evidence from laboratory and field experiments show that individuals accept higher tax burdens when they value the goods provided by government, when their share of government benefits increases, when they trust government, and when they have some say over the decision-making process.¹⁵ To the extent that states covet revenue and taxpayers engage in conditional (or "quasi-voluntary") compliance, governments have incentives to match the distribution of taxes with the distribution of benefits.¹⁶

Parties are important because they are typically the biggest bridge between different social groups and the state, serving as agents for different constituencies. Because of their control over policy, notably spending, parties can ensure that taxes will be spent as taxpayers' desire. Since Left parties are especially committed to providing social benefits for the poor, they should find it easier to raise more revenue from lower income groups. Raising money from the wealthy, by contrast, should be more difficult for governments with greater left-wing dominance because the range of mutually acceptable deals should be smaller. As a result, the Left generally cannot count on quasi-voluntary compliance from the rich; instead, they must rely primarily on the club. Governments with greater long-term, right-wing influence, on the other hand, cannot typically commit to spend as lower income taxpayers want. Instead of taxing the poor intensely (and providing social services), governments with more right wing influence should rely more on wealthy individuals and corporations (their natural constituency) to fund the state. In return, however, they should provide favorable policies to these groups.

The somewhat counterintuitive logic of taxes and spending perhaps can be best illustrated by Cuckierman and Tommasi's model of Nixon going to China.¹⁷ According to their model, when governments have better information than voters, left-wing governments have more credibility when they propose a policy shift to the right than right-wing governments (and vice versa) because voters are more likely to believe that such a policy is driven by necessity, rather than ideological concerns. By extension, governments with more Left influence can tax lower income groups more intensely precisely because they can credibly claim that taxes will fund benefits coveted by those groups. When the Left cannot credibly commit to social spending—because it does not control all veto gates, because it expects its rule to be transitory, or because of constraints on spending (say, large deficits or IMF programs)—left-wing parties may rationally oppose taxes on lower income groups, as they do in the United Kingdom. The same should be true of the Right.

The critical question then becomes when partisans can credibly commit to their supporters. While one could imagine a variety of credibility mechanisms, including the number and position of veto players, the macroeconomic situation, earmarking and spending mandates, we consider just one possibility—the extent of partisan swings. Specifically, in countries with relatively mild partisan swings, taxpayers might reasonably

expect that policies will remain relatively stable; hence the flow of benefits should continue and they should be willing to accept taxes. In countries with greater partisan swings, by contrast, partisans have few incentives to try to tax their supporters since they cannot make future commitments on spending. Furthermore, if quasi-voluntary compliance explains some tax behavior, then parties should harvest more revenue when they tax their supporters than when they attempt to tax other groups. While there are multiple ways of evaluating these claims, quantitative assessment allows us to examine a relative large number of cases over multiple years and control for other relevant factors.

Data and Analysis

Data sources for the following variables are provided in the Appendix.

Taxation The core theoretical idea of the fiscal contract literature is the exchange of benefits for revenue; hence, the primary measure of taxation is as a percentage of GDP, taken from the OECD, which controls for size of the economy and is available for all countries and years.¹⁸ Based on the OECD's classification scheme, government revenue is divided into six categories: revenue from personal income and wages, revenue from corporations, revenue from labor taxes (which combines social security and payroll taxes), revenue from property, revenue from consumption, and other revenue. Following standard incidence analysis, it is assumed that corporate taxes are borne by corporations and their shareholders and that consumption taxes are borne by consumers and labor taxes by workers. Broadly speaking, these assumptions imply that consumption and labor taxes are relatively regressive (that is, that lower income groups remit a higher percentage of their income), while corporate and personal income taxes are progressive.¹⁹ It is important to note that even with regressive taxes, the rich will typically pay more in dollars than the poor because they consume more (hence, if spending is per capita, there will be some redistribution on the spending side).

Partisanship The measures of partisanship are derived from the Comparative Welfare State Data Set, which classifies cabinet seats into Left, Right, Center, Christian Center, Catholic Center, Christian Right, and Catholic Right.²⁰ These measures are well-correlated with other potential measures and are favored because they separate out Christian Democrats from secular Right parties, who serve different constituencies.²¹ The first measure of partisanship is the cumulative percentage of cabinet seats held by different parties from 1946 to the year of observation, divided by the total percentage of cabinet seats to that date.²² This measure imbeds a considerable amount of history into the data; in effect, it asserts that the fact that Presidents Dwight Eisenhower and Ronald Reagan were Republicans matters for the long-run equilibrium level of taxes. The second measure is a ten-year moving average of the percentage of cabinet seats held by the respective parties. The third measure is simply the contemporaneous share of cabinet seats. Of the three measures, the first is favored. Theoretically, the best measure of

credibility is long-run partisan strength, which captures the iterated nature of taxation and the extent that parties have been institutionalized. From an empirical standpoint, taxes are sticky. In the United States, for example, the 1986 tax code still serves as the blueprint for corporate tax law.²³

Credibility Mechanisms Cusack's center of gravity (COG) measure is used to create a relatively straightforward measure of partisan swings. Using a 0-1 dummy, countries are divided into volatile and stable based on their degree of partisan turnover vis-à-vis the degree of partisan turnover in the entire sample. The top one-third—Australia, Denmark, France, Germany, the United Kingdom, and Norway—were coded as volatile, and the bottom two-thirds as stable.²⁴ The credible commitment hypothesis was tested with interaction variables (stable*left, volatile*left, etc.) along the lines of a Chow test, with the expectation that partisans will tax their supporters intensely in countries with low turnover.²⁵

Benefits Corporate welfare is measured as profits as a percentage of GDP, also known as gross operating surplus, taken from the OECD's national account database. Ideally, the dependent variable would be policy-based rather than outcome-based, but it is difficult to establish time-varying measures that capture the variety of policies that governments can undertake to benefit firms.²⁶ Social welfare is measured as total social spending as a percentage of GDP, taken from Lindert, as well as government consumption as a percentage of GDP. These measures are used as controls in the tax regressions. If tax patterns merely reflect the size of the (welfare) state or the extent of corporate profits, the relationship between taxes and parties should disappear once benefits are included.

Econometric Model

To tease out the relationships between taxes, parties, and spending, single equation specifications are employed (the first looking at parties and taxes, the second looking at parties and benefits) using an error-correction model (ECM). The model takes the following form:

$$\Delta DV_{it} = \alpha + \beta_1(DV_{it-1}) + \beta_2(\Delta X_{it}) + \beta_3(X_{it-1}) + \beta_4(\Delta Z_{it}) + \beta_5(Z_{it-1}) \\ + \beta_6(\delta_t) + \beta_7(\zeta_i)$$

+ ε_{it} , where

i and t index countries and years respectively;

X_{it} is a vector of parameters of interest (for example, parties);

Z_{it} is a vector of economic, demographic, social, and political control variables;

δ_t are fixed-effects for years;

ζ_i are fixed-effects for countries; and

ε is white noise with a mean of zero and constant variance.

The first-differences in the ECM capture the immediate effects of changes in partisanship on taxes and services, while the lagged levels capture the long-run equilibrium (our main interest); because the right-hand side includes the lagged dependent variable, the long-run multiplier is $-\beta_3/\beta_1$. The ECM does not readily allow for the calculation of the standard errors on the long-run multipliers; in models not shown, these were approximated using the Bewley transformation.²⁷ The right-hand side variables were generally estimated in both first-differences and lagged levels, but the first-differences were kept only when a compelling theoretical or empirical case for them could be made. Lagrange multiplier tests of serial correlation with the first differenced left-hand side variables reveal no more than marginal serial correlation for all the dependent variables.²⁸ Both panel corrected standard errors and clustered standard errors were employed.²⁹ The fixed-effects for units capture time-invariant features of countries, while the fixed-effects for years serve as a control for common systemic level-shocks, such as the 1986 tax reform in the United States. The models ask whether parties and volatility matter, once country-specific characteristics and elements common to a particular year have been factored out. Finally, the main threat with the model specified above is that the right-hand side variables are endogenous. While taxes and spending clearly affect the partisan composition of government in any given moment, it is reasonable to believe that the long-run measures of partisanship can be treated as exogenous. The regressions exclude one category (Left or Right), against which everything is compared.

Control Variables

Compelling theories explaining the main left-hand side variables—the compositions of taxes—are lacking, making it difficult to know exactly what belongs on the right-hand side. In an attempt to strike the appropriate balance between robustness and efficiency, the analysis incorporated a host of variables that could plausibly be linked to taxes and then tested down. The universe of variables included the following:

Economic Controls The log of per capita income (PPP adjusted), consumer price inflation, fuel exports (%GDP), economic growth, and industry-value added (%GDP), standardized unemployment (%), central government deficits (%GDP), and various measures of wage inequality (for example, the p90p50 and p50p10 wage ratios).

Demographic Controls Working-age population (pop1564, %), urban population (%), population 65+ (%), and total population (log).

Institutional Controls Voter turnout, veto players in the cabinet, and, for consumption taxes, EU membership.

Labor Influence Gross union membership and the Hicks-Kenworthy measure of neocorporatism.

Globalization Controls Kastner and Hiscox's recently updated measure of trade openness and Quinn's index of capital controls (0-4 scale; 4 indicates no controls).

Results

In addition to the results presented here, a larger appendix with additional figures, tables, and robustness check can be found at <http://allman.rhon.itam.mx/~jtimmons/index%20english.html>.

Table 1 shows the relationship between parties and the corporate tax/GDP ratio (Left is the excluded category). Model 1 presents the baseline model with a battery of economic controls. Model 2 presents the baseline model with a battery of political controls. Model 3 is the preferred specification, given the robustness of the controls. Model 4 presents the preferred specification with fixed effects. When considering the differences between countries, there is a (moderately) robust, positive difference between Right and Left (and the other partisan categories) in terms of corporate tax revenue. Countries with long histories of Right rule raise more revenue from corporate taxation. But because the country fixed-effects are significant ($F=0.0250$) and the coefficient flips sign, we know that even strong Right parties do not always tax their supporters. Models 5-8 turn to consumption taxes and the Left. Left parties are positive and significant at conventional levels vis-à-vis the Right; they are also nearly distinguishable from the other cabinet categories. Since inflation is the only control variable that is robust, Model 7 is preferred. Countries with long histories of Left rule clearly raise more revenue from consumption taxes. As with corporate tax revenue, however, the coefficient on the Left is insignificant once country fixed-effects are included; even strong Left parties do not always tax their supporters.

Interpreting the coefficients is tricky. The long-run multiplier for the error correction term is $-\beta_3/\beta_1$, but no country in the sample experiences a one-unit increase in Left or Right (with the long-run measures of partisanship); furthermore, the within-country variation is smaller than the cross-country variation, so the long-run coefficients in units would be outside of the realm of actual experience. To provide a more realistic estimate, we multiply the error-correction term by the sample's standard deviation without fixed-effects and by one-half of the sample's standard deviation with fixed-effects. (Summary statistics are available in Table 1A.) With the between-country estimates in Table 1, a one SD increase in Right ($SD=0.29$) vis-à-vis the same increase in Left implies 0.60-0.77 more in corporate tax revenue as a percentage of GDP. A one SD increase in Left (0.25) vis-à-vis the Right implies 2.38-2.78 more in consumption tax revenue. These figures correspond to roughly one-half of a SD for corporate taxes ($SD=1.28$) and two-thirds of a SD for consumption taxes ($SD=3.42$).

Table 1 Partisanship and Corporate and Consumption Taxes (% GDP)

	Corporate Taxes % GDP				Consumption Taxes % GDP			
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
DV _{t-1}	-0.108** (0.025)	-0.113** (0.026)	-0.110** (0.031)	-0.199** (0.052)	-0.020* (0.009)	-0.039** (0.013)	-0.039** (0.013)	-0.116** (0.039)
Right Cab_{t-1}	0.218* (0.104)	0.296 (0.167)	0.233* (0.146)	-0.492 (0.633)				
Left Cab_{t-1}					0.222 (0.134)	0.417* (0.189)	0.371** (0.179)	0.566 (0.608)
CD Cab _{t-1}	0.124 (0.107)	0.221 (0.170)	0.160 (0.128)	-0.427 (0.651)	0.035 (0.100)	-0.099 (0.114)	-0.094 (0.097)	1.105 (0.833)
Center Cab _{t-1}	-0.042 (0.078)	0.025 (0.111)	-0.025 (0.074)	-0.742 (0.732)	-0.050 (0.135)	0.175 (0.152)	0.150 (0.145)	2.381** (0.829)
Inflation Δ					0.053** (0.013)	0.043** (0.012)	0.043** (0.014)	0.039** (0.014)
Inflation _{t-1}	-0.017** (0.007)	-0.020** (0.007)	-0.018** (0.006)	-0.030** (0.008)	0.031** (0.008)	0.027** (0.008)	0.026*** (0.009)	0.023** (0.011)
E.growth _{t-1}	0.022** (0.006)	0.021** (0.006)	0.022** (0.006)	0.023*** (0.007)	-0.007 (0.007)			
Fuelex Δ	0.068** (0.019)	0.067** (0.019)	0.066** (0.024)	0.064*** (0.025)				
Fuelex _{t-1}	0.007* (0.003)	0.007 (0.003)	0.007 (0.004)	0.016 (0.009)	0.000 (0.003)			
Pop1564 _{t-1}	-0.005 (0.008)				0.006 (0.013)			
Trade _{t-1}	-0.001 (0.003)				0.003 (0.003)			
Capital _{t-1}	0.027 (0.036)				0.037 (0.042)			
Union _{t-1}		0.046 (0.169)				-0.087 (0.183)		
Veto _{t-1}		-0.017 (0.023)				0.041 (0.024)	0.038 (0.023)	0.046 (0.028)
Vturn _{t-1}		0.001 (0.002)				0.004 (0.002)	0.003 (0.002)	0.005 (0.006)
EU Mem _{t-3}						0.097 (0.068)	0.098 (0.071)	0.273* (0.127)
N, Groups	506, 18	501, 18	507, 18	507, 18	507, 18	516, 18	516, 18	516, 18
FE-year, units	yes, no	yes, no	yes, no	yes, yes	yes, no	yes, no	yes, no	yes, yes
R-squared	0.2480	0.2536	0.2470	0.2984	0.1712	0.1647	0.1644	0.2068
RT Long Run	0.60	0.77	0.62					
LT Long Run					2.78	2.68	2.38	
F RT=CD/ LT=CD	0.2961	0.5087	0.4260	0.9444	0.1531	0.0156	0.0126	0.4036
F RT=CN, LT=CN	0.0138	0.0175	0.0480	0.6893	0.0265	0.0708	0.0767	0.0502

Notes: OLS with PCSE in parenthesis. * P<0.05 ** P<0.01. We estimated with a constant and the residual cabinet category, which have been omitted for space reasons.

So far, the results have shown that more long-term rule by the Left and Right are, on average, strongly correlated with tax levels across countries. Theoretically, however, we would not always expect partisans to tax their supporters. Whether they do so should also depend on their ability to make credible commitments, proxied by partisan turnover: partisans will tax their supporters when turnover is low, and when partisans tax their supporters, they will raise more revenue than when they tax nonsupporters.

Table 2 shows a trimmed down set of results with corporate (Models 1–5) and consumption (Models 6–10) taxes as a function of volatility.³⁰ Models 1 and 6 contain a set of economic controls; Models 2 and 7 contain a series of political controls; Models 3 and 8 include a measure of wage inequality;³¹ and Models 4 and 9 include a measure of benefits. Models 5 and 10 represent the preferred specifications, containing only relatively robust controls and nearly all possible observations. In all cases the models reveal a consistent pattern. In countries with less partisan turnover (labeled Right Stable), the Right raises more revenue from corporate taxation vis-à-vis the Left (the excluded category), even when accounting for corporate profits (especially if we exclude Italy).³² In countries with greater partisan turnover (labeled Right Volatile), by contrast, the coefficient on Right flips signs and is typically significant; the Left raises more revenue from corporations in these countries. With consumption taxes, the opposite occurs. Left Stable is positive and significant, even with controls for government consumption (not shown) and total social spending (Model 9). Left Volatile, by contrast, is either negative or indistinguishable from the Right.

There are two take-home points. First, Wald tests (the F-statistic) show that the stable categories are clearly distinguishable from their volatile counterparts; and second, the absolute value of the point estimates for the stable categories are larger than the absolute value of the point estimates for the volatile ones.³³ In the long run, a one-half SD increase in Right Stable translates into a 0.87–4.83 increase in corporate tax revenue as a percentage of GDP—compared to the sample's standard deviation (SD=1.3). A one-half SD increase in Right Volatile, by contrast, equals a 0.71–1.40 decrease in corporate revenue. In the long run, a one-half standard deviation increase in Left Stable is associated with a 2.11–3.18 increase in consumption tax revenue, compared to the samples' standard deviation of 3.4.

One obvious question is whether these results are sensitive to particular countries, measures or econometric models. With the exception of Italy (noted above), the short answer is, not especially. Jackknifed results for Models 5 and 10 can be found in Table 2A in the web appendix. That appendix shows the complete table and additional results (for example, models with first-differences, clustered standard errors, additional controls, the Bewley Transformation, effective tax rates as the dependent variable and alternative measures of partisanship). In all cases—except for the annual measure of partisanship with effective corporate taxation—the evidence consistently supports the proposition that the Right and Left tax their supporters more intensely in countries with low levels of partisan turnover.³⁴

The remaining question is whether corporations and lower income groups get something for their money. Table 3 examines the relationship between long-run partisan

Table 2 Partisan Volatility and Corporate and Consumption Taxes (% GDP)

	Corporate Taxes %GDP					Consumption Taxes % GDP				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Mod. 10
Sample	All	All	All	All	No Italy	All	All	All	All	All
DV _{t-1}	-0.197 (0.043)**	-0.220 (0.045)**	-0.277 (0.066)**	-0.226 (0.039)**	-0.238 (0.042)**	-0.187 (0.037)**	-0.151 (0.034)**	-0.283 (0.057)**	-0.153 (0.042)**	-0.132 (0.031)**
RT Stable _{t-1}	2.470 (1.213)*	2.483 (1.113)*	10.782 (3.710)**	1.581 (1.091)	2.510 (1.092)*					
RT Vol _{t-1}	-2.288 (0.703)**	-1.782 (0.742)*	-2.367 (0.880)**	-1.395 (0.578)*	-1.397 (0.579)*					
LT Stable _{t-1}						3.344 (1.353)*	3.345 (1.426)*	7.226 (3.371)*	4.133 (1.757)*	3.205 (1.275)*
LT Vol _{t-1}						0.181 (0.818)	-0.062 (0.862)	-0.952 (1.056)	-0.124 (0.972)	-0.440 (0.649)
Inflation _{t-1}	-0.035 (0.009)**	-0.032 (0.008)**	-0.052 (0.013)**	-0.026 (0.008)**	-0.035 (0.008)**	0.021 (0.011)	0.021 (0.010)*	-0.005 (0.018)	0.022 (0.014)	0.022 (0.010)*
Egrowth _{t-1}	0.021 (0.006)**	0.020 (0.006)**	0.014 (0.007)*	0.014 (0.006)*	0.014 (0.006)*	-0.006 (0.007)				
Fuelex _{t-1}	0.014 (0.008)	0.020 (0.007)**	0.039 (0.014)**	0.017 (0.007)*	0.020 (0.007)**	-0.002 (0.006)				
Trade _{t-1}	0.012 (0.007)					0.020 (0.008)*	0.009 (0.008)	0.026 (0.012)*	0.002 (0.011)	
Capital _{t-1}	0.038 (0.060)					0.083 (0.070)				
Deficit _{t-1}	-0.013 (0.009)					-0.004 (0.009)				
Union _{t-1}		-0.169 (0.441)					0.440 (0.492)			
Veto _{t-1}		0.016 (0.030)					0.042 (0.030)			
Vturn _{t-1}		-0.009 (0.006)					0.010 (0.007)			
Inequality _{t-1}			0.853 (0.451)					-1.020 (0.491)*		
Corp. Profits _{t-1}				0.034 (0.009)**	0.027 (0.009)**					
EU Member _{t-3}							0.292 (0.130)*	0.311 (0.211)	-1.152 (1.050)	0.290 (0.123)*
Social Spend _{t-1}									0.011 (0.019)	
N. groups	465, 18	464, 18	288, 17	507, 18	478, 17	466, 18	476, 18	290, 17	378, 18	522, 18
Long Run	1.55	1.40	4.83	0.87	1.31					
RT St.										
Long Run	-1.40	-0.98	-1.03	-0.75	-0.71					
RT Vol.										
Long Run						2.11	2.61	3.01	3.19	2.87
LT St.										
F RT=RT/ LT=LT	0.0006	0.0011	0.0003	0.0157	0.0014	0.0433	0.0415	0.0175	0.0354	0.0128

Notes: OLS with PCSE in parenthesis. * P<0.05 ** P<0.01. All models estimated with a constant, full set of partisan interactions, and year and unit-fixed effects. To conserve space, they have been omitted. Several controls have also been removed from the table: inflation and fuel exports in first-differences, and the working age population (pop1564) and industry value-added in lagged levels. The web appendix shows the full table. The long run coefficients at the bottom have been multiplied by 0.5 of a SD.

Table 3 Partisan Volatility, Corporate Profits, and Social Spending (% GDP)

	Corporate Profits % GDP				Social Spending % GDP	
	Model 1	Model 2	Model 3		Model 4	Model 5
Sample	All	All	No Japan		All	All
DV _{t-1}	-0.211 (0.031)**	-0.194 (0.026)**	-0.187 (0.033)**		-0.173 (0.035)**	-0.218 (0.039)**
Right Stable Δ	16.419 (16.260)	21.831 (16.280)	22.018 (15.863)	Left Stable Δ	-11.203 (14.176)	-16.812 (14.379)
Right Stable _{t-1}	6.702* (3.747)	8.465** (3.757)	7.249** (3.540)	Left Stable _{t-1}	11.998 (3.932)**	11.397 (3.956)**
Right Volatile Δ	9.986 (8.961)	11.764 (8.801)	11.734 (8.554)	Left Volatile Δ	17.029 (7.086)*	16.289 (7.207)*
Right Volatile _{t-1}	-0.075 (2.121)	-0.679 (1.929)	-0.879 (1.823)	Left Volatile _{t-1}	-2.566 (1.300)*	-1.870 (1.307)
Fuelex Δ	0.210 (0.033)**	0.208 (0.033)**	0.205 (0.031)**			
Fuelex _{t-1}	0.038 (0.016)*	0.030 (0.011)**	0.027 (0.011)*		-0.020 (0.011)	-0.024 (0.011)*
E. growth Δ	0.115 (0.019)**	0.112 (0.018)**	0.111 (0.020)**			
E. growth _{t-1}	0.106 (0.027)**	0.086 (0.026)**	0.083 (0.028)**		-0.042 (0.015)**	-0.041 (0.015)**
Inflation _{t-1}	-0.012 (0.023)				0.053 (0.019)**	0.043 (0.019)*
Trade _{t-1}	0.000 (0.021)				0.008 (0.019)	0.011 (0.018)
Capital _{t-1}	0.165 (0.175)				0.225 (0.138)	0.245 (0.136)
Industry VA _{t-1}	-0.081 (0.045)					
Union _{t-1}		-1.643 (1.072)				4.079 (1.668)*
Veto _{t-1}		0.004 (0.072)				0.075 (0.063)
Vturn _{t-1}		-0.011 (0.016)				0.018 (0.016)
Pop65 _{t-1}					0.125 (0.083)	-0.009 (0.102)
N, Groups	453, 18	482, 18	460, 17		355, 18	353, 18
R-squared	0.4453	0.4595	0.4392		0.4082	0.4274
F RT Stab= RT Vol	0.1156	0.0296	0.0611	F LT Stab= LT Vol	0.0004	0.0013
Right Stable Long-Run	4.34	5.97	5.30	Left Stable Long Run	8.32	6.27

Notes: OLS with PCSE in parenthesis. * P<0.05 ** P<0.01. All models estimated with a constant, a full set of partisan interactions, and fixed-effects for years and units. For space reasons, they have been omitted. The web appendix shows the complete table. The long-run coefficients have been multiplied by 0.5 of a standard deviation.

influence and long-run corporate profits (Models 1–3) and long-run social spending (Models 4–6). With corporate profits/GDP, the first-differences on both Stable Right and Volatile Right are positive, but only the lagged levels of Right Stable are positive and significant, even without Japan (Model 3). With social spending/GDP, the first-difference on Left Volatile is positive and typically significant, but the lagged level is negative; the first-difference on Left Stable, by contrast, is indistinguishable from zero, while the lagged level is unambiguously positive and significant. In other words, higher levels of Right and Left translate into long-run benefits for their core constituents when partisan turnover is low; with high turnover, the effects of partisanship are ephemeral.

Conclusion

Building on the tax compliance literature, which shows that many people pay taxes much of the time because they value the services governments provide, taxation is partly a game of credible commitment. The data from eighteen OECD countries for roughly thirty years show that the greater the influence of the Right, the more revenue a state raises from corporate taxes; the greater the influence of the Left, the more the state raises from consumption taxes. In and of themselves, these findings are not novel. What may be novel is the fact that my theoretical conjecture coincides with the pattern of partisan behavior within countries (not just across them). Put succinctly, this article shows that one plausible measure of credibility—the extent of partisan turnover—predicts when parties will harvest more revenue from taxes that disproportionately affect their supporters. Both the Right and the Left tax their constituents intensely when they can permanently elevate the level of services coveted by those groups.

These findings reveal something important about parties and open the door for a rethinking of the relationship between citizens, taxes, and the state. Specifically, it is not implausible to think that taxation partially represents a bargain between citizens and the state, held together by mechanisms of representation, which provide credible commitments that states will do what taxpayers desire. Consider labor market organization and labor taxes. One could easily imagine that powerful labor unions and neocorporatism could serve as a credible commitment for labor, since both guarantee high levels of benefits for organized labor.³⁵ Table 4 uses the same econometric framework to map labor market institutions onto labor taxes in the OECD. Even with controls for parties (Model 2), there is a compelling relationship between the strength of organized labor and the long-run equilibrium level of labor taxes. When labor packs more punch, labor pays more dearly. A one SD increase in neocorporatism and/or union membership translates into a 0.25–0.5 SD increase in labor taxes as a percentage of GDP.

Likewise, consider the case of South Korea. Until the transition to democracy in 1987, labor was highly repressed; it had few benefits and paid few taxes. Democratization triggered an upswing in union density and activity, brought about substantial expansions

Table 4 Labor Taxes % GDP and Labor Market Institutions

	Labor Taxes %GDP			Jackknifed Model 3		
	Model 1	Model 2	Model 3	Excluded country	Neocorp	Union
DV _{t-1}	-0.159 (0.032)**	-0.155 (0.032)**	-0.214 (0.048)**	Australia	1.831 (0.916)*	2.569 (0.821)**
Neocorporatism _{t-1}	1.088 (0.591)	1.022 (0.623)	1.487 (0.798)	Austria	1.469 (0.798)	2.323 (0.830)**
Union _{t-1}	1.202 (0.547)*	1.105 (0.557)*	2.201 (0.789)**	Belgium	1.526 (0.810)	2.047 (0.855)*
Inflation _{t-1}	0.022 (0.009)*	0.025 (0.009)**	0.027 (0.011)*	Canada	1.486 (0.806)	2.254 (0.793)**
E. growth _{t-1}	0.005 (0.007)	0.007 (0.007)	0.002 (0.007)	Denmark	1.628 (0.871)	2.115 (0.945)*
Fuelex Δ	-0.057 (0.016)**	-0.060 (0.016)**	-0.044 (0.015)**	Finland	0.817 (0.753)	1.565 (0.789)*
Fuelex _{t-1}	-0.015 (0.006)*	-0.015 (0.007)*	-0.006 (0.008)	France	1.546 (0.808)	2.393 (0.839)**
Pop1564% _{t-1}	-0.018 (0.033)	-0.014 (0.043)	0.004 (0.038)	Germany	1.454 (0.805)	2.128 (0.788)**
Industry VA _{t-1}	0.009 (0.013)	0.005 (0.017)	0.006 (0.017)	Ireland	1.328 (0.872)	2.359 (0.800)**
Trade _{t-1}	-0.028 (0.007)**	-0.023 (0.007)**	-0.042 (0.009)**	Italy	2.182 (0.864)*	1.911 (0.817)*
Capital _{t-1}	-0.063 (0.063)	-0.064 (0.063)	-0.061 (0.073)	Japan	1.489 (0.814)	1.992 (0.798)*
CD Cabinet _{t-1}		0.501 (1.378)		Nether	1.411 (0.831)	2.322 (0.845)**
Center Cabinet _{t-1}		-1.477 (1.128)		NZ	1.857 (0.769)*	2.436 (0.751)**
Left Cabinet _{t-1}		0.822 (0.749)		Norway	1.412 (0.872)	2.364 (0.811)**
Social Spending _{t-1}			0.003 (0.021)	Sweden	0.265 (0.570)	1.550 (0.708)*
Veto _{t-1}			0.054 (0.042)	Switzer	1.449 (0.797)	2.268 (0.788)**
Vturn _{t-1}			-0.019 (0.008)*	UK	1.717 (0.829)*	2.174 (0.924)*
Constant	1.327 (2.106)	0.859 (2.558)	1.241 (2.656)	US	1.527 (0.802)	2.286 (0.806)**
N, Groups	395, 18	395, 18	330, 18			
FE years, units	yes, yes	yes, yes	yes, yes			
Long Run Neo (SD)	2.30	2.22	2.34			
Long Run Union (SD)	1.34	1.27	1.82			

Notes: OLS with PCSE in parenthesis. * P<0.05 ** P<0.01. All models estimated with the other residual cabinet category and fixed-effects for years and units; they have been excluded for space reasons. To conserve space, we present models with both neocorporatism and union density even though they are highly correlated (0.50); despite the inefficiencies, both are typically significant at the 10 percent level or higher. The DV includes both social security and payroll taxes; using social security alone yields similar results.

in unemployment insurances and pension coverage, and established more labor rights. Not surprisingly, perhaps, labor taxes shot from 4 percent of revenue in 1988 to 20 percent in 2003.³⁶

It is worthwhile considering the research agenda that might follow from this analysis. Theoretically, it would be useful to have a deductive model mapping out the strategic interaction between parties and their constituents, and a more thorough mapping of credibility mechanisms. While this article focuses on parties (and labor market institutions), one could imagine other mechanisms that tie taxes and services to citizens, notably earmarking and spending mandates. Empirically, it would be useful to validate these findings with case studies, to move beyond the OECD and to undertake analysis with microdata that include indirect taxes and high income taxation. Finally, a more specific focus on the causal mechanisms would be illuminating. This article focuses on revenue and rates, which capture how much taxation people will tolerate, but presumably these relationships should also be discernible in the legislative record. To a certain extent they are. Of the fifty-two democracies that adopted VATs between 1965 and 2000, twenty-seven countries had left-wing chief executives, compared to fifteen for the Right and ten for the Center.³⁷

While the full range of possibilities is not explored, the findings here point to a different conception of taxes, services, and the organization of interests. They suggest that parties (and labor market institutions) are the bridge connecting taxes and services: left-wing parties have a special capacity to tax lower income groups, while right-wing parties have a special capacity to tax corporations (and, arguably, the leisure class). But partisans only lean on their supporters when they can commit to provide services. Furthermore, when partisans tax their own, they raise more revenue. These conjectures are consistent with partisan behavior within countries, not just between them.

Appendix: Main Data Sources

Taxes as a percentage of GDP. OECD, *Revenue Statistics: 1965-2005*, 2006 Edition. (Paris: OECD, 2006).

Effective Tax Rates. OECD, *Tax Ratios: A Critical Survey*, (Paris: OECD, 2001).

Corporate Profits. OECD, *National Accounts of OECD Countries: Main Aggregates*, Volume I (Paris: OECD, 2006).

Total Social Spending. Peter H. Lindert, *Growing Public: Social Spending and Economic Growth since the Eighteenth Century* (Cambridge, UK: Cambridge University Press, 2004).

Partisanship, Voter Turnout, Veto Players, Inequality (p50p10 wage ratio shown), Gross Union Membership. Evelyne Huber, Charles Ragin, John D. Stephens, David Brady, and Jason Beckfield, *Comparative Welfare States Data Set* (Northwestern University, University of North Carolina, Duke University and Indiana University, 2004).

Center of Gravity. Thomas R. Cusack, "Center of Political Gravity Data Set," Nd.

Trade Openness. Michael J. Hiscox and Scott Kastner, “A General Measure of Trade Policy Orientations: Gravity-Model-Based Estimates for 82 Nations, 1960-1992,” mimeo (Cambridge, MA: Harvard University, Nd).

Capital Controls. Dennis Quinn, “The Correlates of Change in International Financial Regulation,” *American Political Science Review* 91 (June 1997), 531-551.

Neocorporatism. Lane Kenworthy, “Quantitative Indicators of Corporatism,” *International Journal of Sociology*, 33 (Fall 2003): 10-44.

Demographic Variables, Industry Value Added, Fuel Exports. World Bank, World Development Indicators, WDI online.

Inflation, Economic Growth, GDP. Alan Heston, Robert Summers and Bettina Aten, *Penn World Table Version 6.1* (Center for International Comparisons at the University of Pennsylvania, 2002).

Table 1A Summary Statistics, all countries all years

Variable	N	Mean	Standard Deviation	Minimum	Maximum
Social Spending % GDP	378	18.92	5.93	6.44	34.69
Corporate Profits %GDP	540	36.56	4.52	24.49	52.44
Cumulative Left Cabinet %	540	0.31	0.25	0	0.96
Cumulative Center Cabinet %	540	0.18	0.24	0	0.83
Cumulative Right Cabinet %	540	0.31	0.29	0	0.99
Cumulative Christian Democrat Cabinet %	540	0.18	0.26	0	0.85
Cumulative Other Cabinet %	540	0.01	0.02	-0.01	0.12
Right Stable Cumulative	540	0.19	0.27	0	0.98
Right Volatile Cumulative	540	0.16	0.27	0	0.85
Left Stable Cumulative	540	0.16	0.24	0	0.96
Left Volatile Cumulative	540	0.15	0.23	0	0.81
Center Stable Cumulative	540	0.15	0.25	0	0.83
Center Volatile Cumulative	540	0.03	0.07	0	0.29
CD Stable Cumulative	540	0.15	0.26	0	0.86
CD Volatile Cumulative	540	0.04	0.12	0	0.62
Right Stable Annual	540	0.20	0.31	0	1
Right Volatile Annual	540	0.14	0.32	0	1
Left Stable Annual	540	0.19	0.29	0	1
Left Volatile Annual	540	0.16	0.34	0	1
Corporate Taxes %GDP	540	2.57	1.28	0.02	7.40
Corporate Taxes Effective (log)	341	3.69	0.57	1.93	5.31
Consumption Taxes % GDP	540	10.63	3.42	3.61	17.57
Consumption Taxes Effective	486	13.90	4.43	5.53	22.69
Labor Taxes % GDP	540	8.91	5.45	0	20.05

NOTES

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1. For the redistribution hypothesis, see, for example, John D. Stephens, *The Transition from Capitalism to Socialism* (Urbana-Champaign: University of Illinois Press, 1979 [1986]); Walter W. Korpi, *The Democratic Class Struggle* (London: Routledge and Kegan Paul, 1983); Carles Boix, *Political Parties, Growth, and Equality: Conservative and Social Democratic Strategies in the World Economy* (New York: Cambridge University Press 1998); and Torben Iversen and David Soskice, "Electoral Institutions and the Politics of Coalitions: Why Some Democracies Redistribute More than Others," *American Political Science Review*, 100 (April 1006): 165–81. For the fiscal contract literature, see Robert H. Bates and Donald D. Lien, "A Note on Taxation, Development, and Representative Government," *Politics & Society*, 14 (1985): 53–70; Margaret Levi, *Of Rule and Revenue* (Berkeley: University of California Press, 1988); and Jeffrey F. Timmons, "The Fiscal Contract: States, Taxes and Public Services," *World Politics*, 57 (October 2005): 530–67.

2. The countries are Austria (AUS), Australia (AUL), Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Sweden (SWE), Switzerland (SWZ), United Kingdom, and the United States.

3. Readers may also remember Torben Iversen's (surprising?) finding that partisanship has no permanent effect on social spending within countries; the results herein show that parties matter once we account for turnover. Iversen, *Capitalism, Democracy and Welfare* (Cambridge, UK: Cambridge University Press, 2005).

4. Stephens, *Capitalism to Socialism*; Boix, *Political Parties*; and David Bradley et al., "Distribution and Redistribution in Post-industrial Democracies," *World Politics*, 55 (April 2003): 193–228.

5. Isabela Mares, *The Politics of Social Risk: Business and Welfare State Development* (New York: Cambridge University Press, 2003); Alexander Hicks and Duane Swank, "Politics, Institutions, and Welfare Spending in Industrialized Democracies, 1960–82," *American Political Science Review*, 86 (September 1992): 658–74.

6. One notable exception to the rule whereby spending is conflated with redistribution is Alexander Hicks and Duane Swank, "Governmental Redistribution in Rich Capitalist Democracies," *Policy Studies Journal*, 10 (December 1984): 264–87. Several recent studies (e.g. Iversen and Soskice and Bradley et al.) use micro-data from the Luxembourg Income Studies (LIS, <http://www.lisproject.org/keyfigures/methods.htm>) to make similar claims. Since LIS data are top-coded and do not include indirect taxes, they do not accurately capture taxes for top and bottom income groups. In the 2000 LIS survey for the United States, for example, the highest income tax paid by a household was roughly US\$400,000; in actuality, the top 15,000 taxpayers paid an average of US\$10M each in 1995 (my calculations using data from the Internal Revenue Service (IRS Data Book, FY 2002, Publication 55b, Washington, DC, 2002) and Daniel R. and James M. Poterba, "The Income and Tax Share of Very High Income Households, 1960–1995," (Cambridge, MA: National Bureau of Economic Research Working Paper 7525, 2000).

7. Sven Steinmo, *Taxation and Democracy: Swedish, British and American Approaches to Financing the Modern State* (New Haven, CT: Yale University Press, 1993).

8. Peter H. Lindert, *Growing Public: Social Spending and Economic Growth since the Eighteenth Century* (Cambridge, UK: Cambridge University Press, 2004); Junko Kato, *Regressive Taxation and the Welfare State* (Cambridge, UK: Cambridge University Press, 2003).

9. Adam Przeworski and Michael Wallerstein, "Structural Dependence of the State on Capital," *American Political Science Review*, 82 (March 1988): 11–29; also see Lindert, *Growing Public*.

10. Steinmo, *Taxation and Democracy*; and Lindert, *Growing Public*.

11. Kato, *Regressive Taxation*; and Scott J. Basinger and Mark S. Hallerberg, "Remodeling the Competition for Capital: How Domestic Politics Erases the Race to the Bottom," *American Political Science Review*, 98 (April 2002): 261–76.

12. The globalization literature finds that veto players retard convergence on tax policy. See Duane W. Swank and Sven Steinmo, "The New Political Economy of Taxation in Advanced Capitalist Democracies," *American Journal of Political Science*, 46 (June 2002): 642–55; and Basinger and Hallerberg, "Remodeling the Competition."

13. Adam Wagstaff et al., "Redistributive Effect, Progressivity and Differential Tax Treatment: Personal Income Taxes in Twelve OECD Countries," *Journal of Public Economics*, 72 (April 1999): 73–98.

14. Massimo Bordignon, "A Fairness Approach to Income Tax Evasion," *Journal of Public Economics*, 52 (October 1993): 345–62. Douglass North, *Growth and Structural Change* (New York: Norton, 1981). See also, Bates and Lein, "Note on Taxation"; and Levi, *Of Rule and Revenue*.

15. For summaries, see James Andreoni, Brian Erard, and Jonathan Feinstein, "Tax Compliance," *Journal of Economic Literature*, 36 (June 1998): 818–60; and James Alm, James G. McClelland, and William D. Schulze, "Why Do People Pay Taxes?" *Journal of Public Economics*, 48 (June 1992): 21–48.

16. The phrase "quasi-voluntary compliance" comes from Levi, *Of Rule and Revenue*.

17. Alex Cuckierman and Mariano Tommasi, "When Does It Take a Nixon to Go to China?" *The American Economic Review*, 88 (March 1998): 180–97.

18. Tax/GDP ratios are supplemented with average effective tax rates (AETR) on factor incomes using the OECD's revised series. For space reasons, those results, as well as a detailed discussion of the strengths and weakness of AETRs, have been confined to the web appendix.

19. A 10 percent VAT in the United States, for example, would take 12 percent of gross income from families earning US\$10,000, versus 4 percent for families earning US\$100,000, according to Edith Brashares, Janet Speyrer, and George Carlson, "Distributional Aspects of a Federal Value-Added Tax," *National Tax Journal*, 41 (June 1988): 155–74. See Don Fullerton and Gilbert E. Metcalf, "Tax Incidence," *NBER Working Paper No. 8829* (Cambridge, MA: NBER) for an overview.

20. Evelyn Huber, Charles Ragin, John D. Stephens, David Brady, and Jason Beckfield, *Comparative Welfare Data Set* (Northwestern University, University of North Carolina, Duke University, and Indiana University, 2004). Left parties include social democrats and communists. All religious parties are considered Christian Democrats.

21. Huber et al.'s measure of Left is correlated at 0.98 with Armingeon, Gerber, Leimgruber, Beyeler, and Menegale's measure. There are discrepancies with Right and Center since Christian Democratic parties are not separated out in the latter. Klaus Armingeon, Marlène Gerber, Philipp Leimgruber, Michelle Beyeler, and Sarah Menegale, *Comparative Political Data Set 1960–2005* (Institute of Political Science, University of Berne, 2007).

22. Since not all seats are classified every year, we create a residual category (other cabinet) for each of the aforementioned measures. The other cabinet category is meaningless since it also includes rounding error (associated with converting fractions to decimals). We estimate all models with the residual category, but exclude it from tables.

23. The three measures have the same minimums and similar means; including more history reduces the maximums and variance (Table 1A in the Appendix). The correlations between the long-run and annual measures are 0.73 for Right Stable; 0.67 for Right Volatile; 0.80 for Left Stable; and 0.60 for Left Volatile.

24. We initially divided the sample into thirds and created three binary dummies of volatility (most, least, intermediate). But the main identifiable break in the data is between the most volatile countries—approximately one standard deviation above the sample's standard deviation—and everyone else. Given the somewhat arbitrary cut-point, we present jackknifed results. Also note that Cusack's data does not include New Zealand. Rather than arbitrarily put it into either category, we coded it as neutral, weighing Left and Right by 0.5, rather than 0 or 1. A table showing the consequences of classifying New Zealand in various ways is available.

25. These tests are consistent with the pooled models in Robert J. Franzese and Cindy T. Kam, *Modeling and Interpreting Interactive Hypothesis in Regression Analysis* (Ann Arbor: University of Michigan Press, 2007), pp. 109–11.

26. Our main interest is taxes. We recognize that corporate share of pre-tax national income is imperfect because corporate profits and taxes could track each other under various circumstances. The implicit assumption is that governments manipulate tax bases, not just tax rates.

27. The Bewley Transformation employed is detailed in Suzanna De Boef and Luke Keele, "Taking Time Seriously: Dynamic Regression Models," mimeo (Penn State University, 2006).

28. The residual and lagged residuals are generally correlated at less than 0.1.

29. Neal Beck and Jonathan Katz, "Nuisance vs. Substance: Specifying and Estimating Time-Series—Cross-Section Models," *Political Analysis*, 6 (Winter 1996): 1–36. PCSE are shown; clustered SEs can be found in the appendix on the web.

30. We ran these models with interactions for all partisan categories, but have omitted them to keep the tables manageable. The full table is in the appendix on the web.

31. Including inequality dramatically drops the N, from approximately 500 to approximately 300. With inequality our coefficients and standard errors change dramatically, generally in ways that are favorable to our propositions, especially with corporate taxation. That said, dummy variable regressions (with data,

without data) indicate that the changes associated with inequality reflect changes in the sample as much as (if not more than) conditioning on inequality.

32. With the exception of Model 5, the corporate tax models shown include Christian Democrat dominated Italy. When Italy is included, our results are robust as long as corporate profits are not included as a control (i.e., Models 1-3). With Italy and corporate profits our results are rarely significant at conventional levels (Model 4). Italy's mean value for corporate profits/GDP more than two SDs above the OECD mean.

33. The absolute values of the confidence intervals overlap.

34. The main discrepancy between the different time frames of partisan influence is the magnitude of the coefficients (rather than their level of significance). More history translates into larger coefficients. We suspect the reason for this difference is that one year provides parties little time to enact policies for their constituents; multiple years, by contrast, allow parties to ramp up benefits.

35. Alexander Hicks and Lane Kenworthy, "Cooperation and Political Economic Performance in Affluent Democratic Capitalism," *American Journal of Sociology*, 103 (May 1998): 1631–72.

36. Soonman Kwon and Ian Holliday, "The Korean Welfare State: A Paradox of Expansion in an Era of Globalisation and Economic Crisis," *International Journal of Social Welfare*, 16 (July 2007): 242–48. OECD, *Revenue Statistics*.

37. Partisan data from Thorsten Beck et al., "New Tools in Comparative Political Economy: The Database of Political Institutions (2001/2003)," *World Bank Economic Review*, 15 (September 2001): 165–76. This is obviously not a scientific endeavor since we selected on the dependent variable, but it is worth noting that in terms of country-years there is a rough balance between Left and Right in the DPI data. Excluding the EU, the ratio of Left to Right VATs is 21 to 11 in favor of the Left. A table of countries can be found in the web appendix. VAT data from Liam P. Ebrill et al., *The Modern VAT* (Washington, DC: The International Monetary Fund, 2001).