

Privatization in Europe: Left-Wing Power Resources and Productive Efficiency

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Preliminary Draft: October 2, 2008

Abstract

I present a theoretical account of the politics of privatization that leads to predictions regarding the effect of partisanship that are contingent on the strength of traditionally left-leaning interest groups. However, in marked contrast to predictions derived from a traditional interest group approach, my claim is that stronger left-leaning interest groups will make it *more* likely that left-wing parties will engage in privatization programmes that are likely to be at least partially detrimental to those interest groups. At root, left-wing parties face a trade-off between protecting their traditional allies and enhancing macro-economic performance. The balance of this trade-off varies based on the prevailing strength of those allies. Estimates from Bayesian Tobit models for data from 14 Western European countries over the period 1980–2004 support this theoretical claim.

*I am very grateful to Dave Armstrong, Steve Haptonstahl, Simon Jackman, David Rueda, and David Soskice for extremely helpful suggestions; and to Nuffield College for providing financial assistance.

1 Introduction

Privatization, “broadly defined as the deliberate sale by a government of state-owned enterprises (SOEs) or assets to private economic agents” (Megginson and Netter, 2001, 321) is a phenomenon that has swept much of the world in the past quarter of a century. The process has been particularly striking across the so-called ‘developed democracies’ which have seen a post-war consensus regarding the benefits of state ownership erode sharply (Boix, 1997; Clifton, Comin and Diaz Fuentes, 2006). Between 1977 and 2004, privatization revenues across 11 West European countries totalled around \$380 billion¹. Beyond this limited sample, Zohlnhöfer and Obinger (2006, 30) cite OECD data suggesting that “total privatization proceeds in more than 150 countries amounted to \$937 billion”.

Privatization, then, is a large and important political phenomenon that merits scholarly research in and of itself. The major theoretical point that I make in this paper, though, goes beyond the confines of privatization politics. It gets to the heart of issues of agency that revolve around the question of partisanship, on the one hand, and interest group politics, on the other.² While those two theoretical approaches are not necessarily direct competitors, the case argued for and supported empirically below goes some way towards tilting the emphasis back towards political parties as the more relevant agents.

I present a theoretical account of privatization that leads to predictions as to the effect of partisanship that are contingent on the strength of traditionally left-leaning interest groups. However, in marked contrast to what would be expected of a traditional interest group approach, the theoretical claim is that stronger left-leaning interest groups will make it *more* likely that left-wing parties in government will engage in privatization programmes that are likely to be at least partially detrimental to those interest groups. At root, left-wing parties face a trade-off between protecting their traditional allies and enhancing macro-economic performance. The balance of this trade-off varies based on the prevailing strength of those allies.

2 The Literature

Several other scholars have analysed political issues surrounding privatization. Feigenbaum and Henig (1994) proposed a three-state typology of the underlying reasoning for privatizations. ‘Pragmatic’ privatizations are held to be essentially bureaucratic, technocratic, apolitical exercises that are employed to remedy a particular administrative problem. ‘Tactical’ privatizations, on the other hand, are explicitly political. They “are advocated to achieve the short-term political goals of particular parties, politicians, or interest groups”. Finally,

¹Author’s calculation based on data provided by *Privatization Barometer*. Included countries are: Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, Netherlands, Sweden, and the UK.

²See Hibbs (1977) and Becker (1983) for classic accounts of both schools of thought, respectively.

‘systemic’ privatization programmes “are intended to reshape the entire society by fundamentally altering economic and political institutions and by transforming economic and political interests” (Feigenbaum and Henig, 1994, 192). However, while this typology is attractive in the abstract, it provides very little in the way of predictive theoretical traction. Typologies of outcomes are useful as a first step, but it is desirable to go beyond this.

Boix (1997) was among the first to do just that. In an influential article, he provided theory and evidence that partisanship mattered in the decision over whether to privatize. Taking country-governments (as opposed to country-years) as his unit of analysis, he found that left-wing parties were less likely to engage in privatization programmes for a sample of OECD countries from 1979–1993. Further, he found that the fragmentation of the governing coalition had a constraining effect on privatization levels. More divided governments appeared to suffer from ‘moderation’ and ‘gridlock’ effects the tendency for them to be more centrist and to have more internal veto players were the highlighted mechanisms.

A series of papers picked up from where Boix left off. Zohlnhöfer and Obinger (2006) and Zohlnhofer, Obinger and Wolf (2008) found evidence that partisanship effects on privatization are conditional on the state of the economy. They also claimed to identify the broad trend towards ‘liberalization’, as well as globalization, as causal factors in the adoption of privatization programmes. However, their findings are limited by the cross-sectional nature of their quantitative empirical work.

Bortolotti, Fantini and Siniscalco (2003) offer a more satisfactory empirical approach by analysing panel data for privatization revenues with country-years as the unit of analysis. Pooling across 34 OECD and developing countries, they find that national wealth, public debt, the size and liquidity of national stock markets, and prevailing legal regimes are all of relevance to the size of privatization programmes. Interestingly, they find little evidence for the importance of partisanship.

Schneider, Fink and Tenbucken (2005) and Schneider and Häge (2008) focus on utility privatizations. Analysing levels of public ownership in the telecommunications, electricity, and aviation sectors for a panel of OECD countries, again, they find no influence from partisanship. They do, however, find that liberalization of capital markets is an important factor in encouraging privatizations. They claim that EU membership is an important aspect of this process, as is a perceived ideological shift from 1970s to the 1990s and beyond. Clifton, Comin and Diaz Fuentes (2006) lend support to the thesis that the EU was an important driver for privatizations; especially in the utilities sectors.

There has been some work, both theoretical and empirical, that studied the tactical and strategic logics underpinning privatization programmes. Perotti (1995) proposed a theory of “credible privatization” in which governments may be either “committed” to the policy or “populist” and therefore unable to refrain from *ex post* policy actions that redistribute away from privatized companies and their shareholders. In his framework, partial privatization of

companies and deliberate under-pricing³ provides a way for governments signal their commitment not to engage in subsequent redistribution. The “committed” and “populist” types can plausibly be seen to map onto right- and left-wing parties, respectively. Biais and Perotti (2002) offer a theory in which right-wing governments are seen to use privatizations as a way of coopting an otherwise left-leaning middle class. By earmarking shares for members of that class and under-pricing — i.e. subsidising — share issue prices, middle class voters come to have their economic interests more closely aligned with the rest of the right-wing constituency. They will have more to fear from a left-wing government that is perceived to be unfriendly to private business. Jones et al. (1999) find empirical support for these theoretical accounts.

XXX[Finally, Megginson and Netter (2001) provide a survey of the issues relating to privatization — of which the political aspects are but one part.]

3 Theoretical Preliminaries

The theory presented here rests largely on two empirical supports. First, that privatization has, or at least has been seen to have, non-trivial economic benefits in terms of increased productivity. Second, these benefits are very often at the cost of dismantling portions of organized labour that are traditionally supportive of left-wing parties. Before proceeding with the details of how these two stylised facts can lead to predictions as to when (left-wing) parties will seek to privatize, I begin by briefly surveying the literature supporting these two claims.

3.1 Economic Benefits from Privatization

In reviewing the empirical literature, I focus mainly on those studies relating to ‘developed democracies’ as it is these countries that will form the focus of the subsequent theoretical and empirical claims.⁴

Papers by Boardman and Vining (1989) and Vining and Boardman (1992) provided early empirical support to the notion that ownership matters to the efficiency of firms. Analysing samples of large firms from around the world and within Canada, they find that SOEs and mixed enterprises (MEs) are both less efficient and less profitable than the privately owned firms for which they have data.

Ehrlich et al. (1994) study the performance of airlines across countries. Using panel data, they are able to estimate both short- and long-run effects from state ownership. Their findings

³In a purely economic sense.

⁴There is, however, a voluminous privatization literature outside of these countries. If anything, the findings are even more favourable to the claim that privatization improves efficiency with support found in ‘transition economies’ (Frydman et al., 1999; Harper, 2002) and ‘developing economies’ (Majumdar, 1998; Bartel and Harrison, 2005; Boubakri, Cosset and Guedhami, 2005).

support the view that private ownership enhances productivity, but only in the long-run. In the light of subsequent research that failed to find effects from privatization over short-run periods, this finding is telling.

D'Souza and Megginson (1999) analyse a sample of 85 companies spread across industrialised and non-industrialised countries from 1990 to 1996. Assessing profitability, output, operating efficiency, and dividend payments, they find statistically significant increases in all for post-privatization firms. This pattern is broadly supported in all sub-sample partitions representing competitive versus non-competitive firms, 'control' versus 'revenue' privatizations,⁵ firms from industrialised versus non-industrialised countries, and firms that did or did not experience two types of management change post-privatization.

Dewenter and Malatesta (2001) adopt empirical approaches of both the cross-sectional sort pioneered by Boardman and Vining (1989) and the time-series sort akin to Ehrlich et al. (1994). Their findings from the former approach are that privatized firms do perform better. However, when employing the time-series approach, some of those performance gains appear to have been realised in the years *before* the actual privatization occurred. They conclude that, while private firms appear more profitable, the evidence that the act of privatization improves performance is far weaker.

González-Páramo and Cos (2005) study a panel of Spanish manufacturing firms for the period 1983–1996. They find that both private ownership and competition have positive effects on firm performance, although the result for private ownership may be conditional on a level of competition within the market place. In that light, the weaker findings from Dewenter and Malatesta (2001) may well be explained by a failure to control for the competitiveness of the market in which newly privatized firms are operating.

In addition to the positive findings with respect to private ownership and privatization, there have also been some negative results. Studying Spanish privatizations, Cabeza García and Gómez Ansón (2007) find little evidence of effects on efficiency and the like. This appears in marked contrast to the findings in González-Páramo and Cos (2005), although the discrepancy may well be explained by the lack of control for competition. This interpretation accords with Alexandre and Charreaux (2004), who find that what efficiency benefits that there were following privatizations in France stem from changes in the environment within which the firms operated pre- and post-privatization.

Finally, using a novel data set of firms that were nationalised in the USA as a result of 'enemy' ownership during World War II, Kole and Mulherin (1997) find no effect from government ownership. Despite the plausibly exogenous nature of the nationalization decision, the authors themselves acknowledge that it is difficult to generalise their findings due to the limited number of cases that they study. Their limited degrees of freedom also prohibits them from studying the importance of market competition to the issue of ownership.

⁵The latter being where governments sell shares but retain control of firms.

In conclusion, there appears to be fairly strong evidence that privatization yields efficiency increases in firm performance, although this may be somewhat conditional on the competitiveness of the market within which firms operate — a finding that Vickers and Yarrow (1991, 113) perceived from their early survey of the literature. In a more recent and highly influential survey, Megginson and Netter (2001, 356) find that the empirical work they cover “offer[s] at least limited support for the proposition that privatization is associated with improvements in the operating and financial performance of divested firms”.

3.2 Labour ‘Costs’ from Privatization

With respect to the effect of privatization on labour, there is, again, theoretical and empirical reason to believe that it will be negative for those employed in privatized firms.

A common theme in the theoretical literature is that politicians will tend to have a greater concern for employment levels than is economically efficient. Notably, several authors touch on the idea that this tendency may vary across governments. That is, partisanship should count. Pint (1991) analyses a principal–agent model in a monopolistic setup. She focuses on how information asymmetry between a firm manager (agent) and either a government minister or shareholders (principals). Based on the assumption that governments care more about employment than do private shareholders, her model shows that the optimal design of contracts for the manager leads to a relatively lower capital-labour ratio with a government principal than with private shareholders in that role.

Boycko, Shleifer and Vishny (1996) share the view that governments care about employment. They claim that privatization increases economic efficiency as it makes it more costly for a government to induce inefficiently high employment levels in a firm. Plausibly, this claim is founded on the idea that it is politically easier for a politician to forgo potential profits from a nationalised firm than it is to raise taxes and then directly subsidise a private firm.

Finally, Robinson and Torvik (2005) and Henisz and Zelner (2006) make theoretical claims regarding the construction of ‘white elephants’ that are socially inefficient, but politically useful. At root, the claims stem from the idea that particular constituencies will gain employment to operate these ‘white elephants’. As such, the theories can be seen as claims as to overly large employment when investment decisions are controlled by a government.

There is a large body of empirical literature concerned with the effects of privatization on employment. Again, I focus on those studies that have analysed ‘developed’ democracies, despite numerous findings as to the negative effect of privatization on employment in other contexts.⁶

⁶For evidence for the post-communist transition economies, see Barberis et al. (1996) and Frydman et al. (1999). For ‘developing’ countries, see La Porta and Lopez-De-Silanes (1999) and Belser and Rama (2001).

Based on the theoretical work discussed above, and on the body of empirical findings that private ownership and privatization increase firm efficiency, it is unsurprising that the pattern of empirical results with respect to privatization's effect on employment is fairly consistently negative — albeit coming from a less voluminous literature.

Commensurate with their rather equivocal findings for the effect of privatization on firm efficiency in France, Alexandre and Charreaux (2004) find only tentative evidence that the process has led to labour reductions. However, the efficiency findings by Dewenter and Malatesta (2001) are not matched when they analyse the labour effect. There, they *do* find that privatization reduces labour input in a significant way. Likewise, D'Souza and Megginson (1999) find that labour decreases significantly, albeit only in industrialised countries. Finally, in their study of the Spanish case, González-Páramo and Cos (2005) provide evidence that employment falls post-privatization.

3.3 Disincentives for Left-Wing Parties to Privatize

Given the general empirical regularity of employment costs from privatization, it is a short step to see why left-wing parties would perceive a disincentive to engaging in the process of SOE sell-offs. As already noted above, the theoretical economics literature has somewhat tangentially addressed the idea that different types of government may have different preferences over employment levels (Pint, 1991; Boycko, Shleifer and Vishny, 1996). More political science oriented theories ballast to this idea.

First, Hibbs (1977) claimed that left-wing parties tend to represent those sections of a society that earn their income disproportionately from labour. As such, unemployment is a particularly pernicious social problem, as perceived from the Left, as it cuts markedly into total income for those who have few other sources of financial support. In that light, the sort of redundancies that are part and parcel of privatization programmes are likely to exert discomfort on the sort of lower income wage earners that form the core of left-wing support. Economic theory suggests that this should be a largely short-run effect, however, as the efficiency benefits of the economic restructuring filter back into macro-economic gains.

Building on this first position, a second prominent theory claims that left-wing parties perform better electorally when they benefit from the 'power resources' of organised labour (Stephens, 1979; Korpi and Shalev, 1979; Cameron, 1984). Greater union density and coordination provides for greater financial and human resources with which to perform political campaigns. More advertisements. More street-level campaigning. Better information on the electorate. Stronger unions may also help to increase turnout, which tends to be lower amongst lower income groups, and as such shifts the median *voter* to the left.

If the power resources of organised labour are a boon for left-wing political parties, then privatization should be even more distasteful to them. Initial redundancies from privatized

firms will clearly reduce the strength of unions that represented those former employees. Even if they maintain their membership, fewer will be in work and therefore in a position to contribute to the financial viability of the unions.

But the down-side is even greater than that. Union density is markedly higher in the public sector than it is in the private sector — a pattern that holds across nearly all developed democracies. Freeman (1986) passed an early commentary on how “unionism comes to the public sector”. He noted the rise of public sector unionism in the USA over the post war era to the early 1980s. Also focusing on the USA, Farber (2005) presents data suggesting that since the mid 1970s, when both public and private sector union density stood at around 25%, the two sectors have diverged dramatically. By 2004, the private sector figure had shrunk to only around 8% while the public sector figure had swollen to around 35%. Draper (2000) presents evidence that this trend is far from particular to the USA. His data shows that across 12 OECD countries, while aggregate union density figures have fallen in most countries between the 1970s and the 1990s, the proportion of union membership being composed of public sector workers has risen — markedly so in several cases. The evidence suggests, then, that while private sector unionism has been on the decline across most of the OECD countries (Ebbinghaus and Visser, 1999; Visser, 2006), public sector unionism has, in both relative and absolute terms, been thriving.

It appears that the public sector offers a particularly conducive environment to labour organisation. As such, the shift of large sections of the workforce into the private sector is likely to herald a reduction in the organising capacity of the union movement, in aggregate. Privatization, then, is a recipe for the reduction of left-wing power resources. In that light, it is far from surprising that the trend towards privatization that has been witnessed across the ‘developed’ world has coincided with notable falls in union density.

4 A Theory of Conditional Partisanship for the Privatization Decision

The preceding theoretical claims are now formalised to make more explicit the nature of the relationships that are being proposed. In formalising the claims, the primary hypothesis of left-wing incentives to privatize being conditional on the prevailing strength of organised labour is derived.

Consider two political parties, indexed by $i \in \{L, R\}$, in electoral competition to control the government (g) such that $g \in \{L, R\}$. The utility for these parties is a function of their electoral success. This need not be seen as a strict claim that parties are *purely* office seekers. The assumption is compatible with the notion that parties seek office for purely instrumental means — i.e. so that they can pursue a range of policies that benefit them and their constituencies. While parties are taken to derive utility from office, their actions can

only influence their *probability* of holding office in subsequent periods. It is this probability is taken to be a proxy for party utility and thus is the objective function that they seek to maximise.

There is a large literature studying the determinants of electoral success in democracies. Perhaps the most frequent finding is that better macro-economic performance provides an electoral boost for whichever governing parties are held to be responsible for it. As noted above, the power resources theory has also consistently found empirical support.

Based on these two broadly accepted findings, I take the probability of left-wing electoral success to be a function of two conceptual variables: left-wing ‘power resources’ (λ) and the strength of the economy (γ). Specifically,

$$P(g_{t+1} = L|g_t = L) = f(\alpha \cdot \lambda + (1 - \alpha) \cdot \gamma) , \quad (1)$$

where $P(g_{t+1} = L|g_t = L)$ denotes the probability of the government in period $t+1$ being left-wing *conditional* on the government in the current period (t) being left-wing. The probability is modelled in this way so as to account for electoral success being an increasing function of economic success for *both* left- and right-wing parties.⁷ $f(\cdot)$ is a monotonically increasing function and the parameter $\alpha \in [0, 1]$ captures the relative importance of the two variables on $P(g_{t+1} = L|g_t = L)$.

An equivalent expression can be presented for right-wing electoral success. In this case, left-wing power resources are clearly a drag on right-wing electoral prospects. This could be modelled in any number of ways, but one simple specification is given by,

$$P(g_{t+1} = R|g_t = R) = f(\alpha \cdot (1 - \lambda) + (1 - \alpha) \cdot \gamma) , \quad (2)$$

where a normalization such that $\lambda \in [0, 1]$ has been imposed.

What determines the level of λ and γ , respectively? I claim that they are both functions of the size of the state-owned enterprise (SOE) sector and denote this conceptual variable by s — implying $\lambda = \lambda(s)$ and $\gamma = \gamma(s)$.⁸ Furthermore, the functions are such that,

$$\frac{d\lambda(s)}{ds} > 0 \quad (3)$$

$$\frac{d\gamma(s)}{ds} < 0 . \quad (4)$$

That is, an increase in s increases left-wing power resources, but decreases economic performance. Both of these assumptions are based on the theoretical and empirical work discussed

⁷It also eases the subsequent application of the theory to data as predictions are explicitly for what each party will do when they are in power — which is the only thing observed.

⁸Abusing notation somewhat by converting variable names into function names.

in *Section 3.1* and *Section 3.2*. (1) can now be written as,

$$P(g = L) = f(\alpha \cdot \lambda(s) + (1 - \alpha) \cdot \gamma(s)) . \quad (5)$$

The size of the SOE sector, s , is a variable that it is in the power of the government to change — by privatization or nationalization. The question is, then, whether left-wing and right-wing parties, respectively, will wish to increase, decrease, or maintain the level of s . Differentiating $P(g_{t+1} = x|g_t = x)$ with respect to s brings this decision into focus. For right-wing parties,

$$\frac{\partial P(g_{t+1} = R|g_t = R)}{\partial s} = f' \left[-\alpha \cdot \frac{d\lambda(s)}{ds} + (1 - \alpha) \cdot \frac{d\gamma(s)}{ds} \right] . \quad (6)$$

By assumption, f' is unambiguously positive, while the term in parentheses is unambiguously negative. Clearly, then, right-wing parties will always prefer privatization — that is, a reduction in s . It allows them to achieve greater economic performance *and* to reduce the power resources of the Left.

The decision for left-wing parties is rather more nuanced:

$$\frac{\partial P(g = L)}{\partial s} = f' \left[\alpha \cdot \frac{d\lambda(s)}{ds} + (1 - \alpha) \cdot \frac{d\gamma(s)}{ds} \right] . \quad (7)$$

When does (7) imply that a left-wing party would favour a privatization programme? The question boils down to the relationship between the two terms within parentheses. From (7), the condition for a left-wing party to wish to engage in a privatization programme is given by,

$$\alpha \cdot \frac{d\lambda(s)}{ds} < -(1 - \alpha) \cdot \frac{d\gamma(s)}{ds} . \quad (8)$$

In words, left-wing parties will have incentive to privatize when the electoral benefits of a marginal change in power resources are out-weighed by the electoral benefits of a marginal change in the strength of the economy. A more intuitive interpretation of (8) is, therefore, that left-wing parties face a trade-off between maintaining the strength of their own constituency and improving the efficiency of the macro-economy.

What can be said about the likelihood that this condition for the existence of a left-wing privatization programme will be met? Trivially, it is clear that it depends on the value of α . It may be plausible to endogenise α to a degree by making it dependent on prevailing economic strength. That is, the importance of left-wing power resources may become relatively lower when left-wing parties preside over an exceedingly strong economy. For now, though, I assume that α is fixed exogenously and explore the more interesting nature of the relationship between the two derivatives given in (4) and (4).

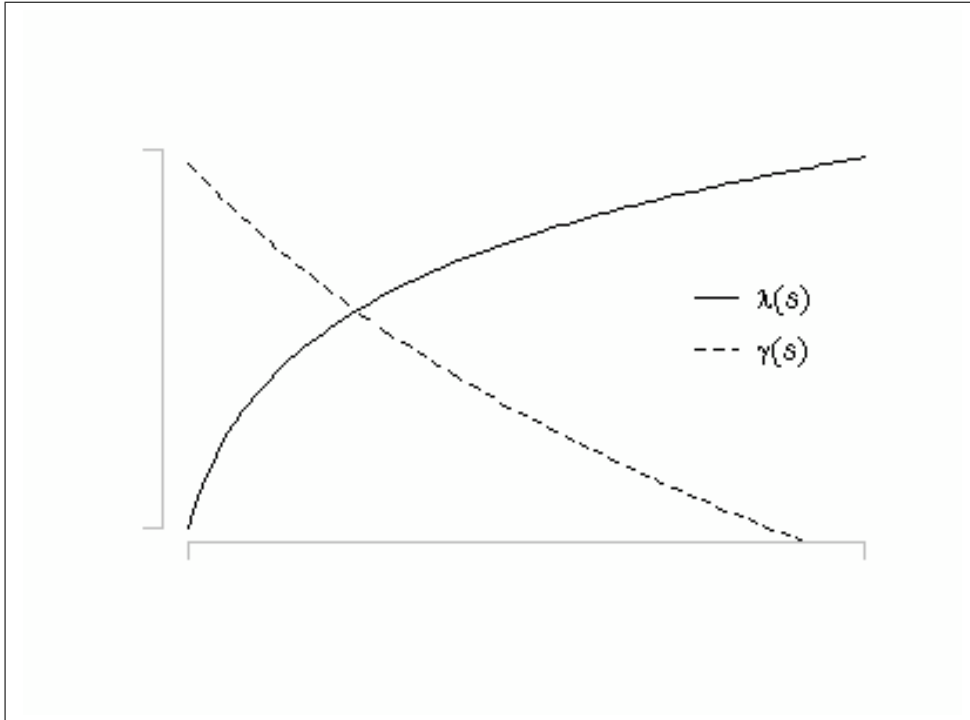


Figure 1: Example of left-wing power resources (λ) and economic performance (γ) as a function of the size of the state-owned enterprise sector (s).

Clearly, inequality (8) can hold (or not hold), for all values of s . In those cases, left-wing parties will always pursue privatization (or not). The interesting scenario is where the inequality only holds for some levels of s . For that to be the case, a necessary (but not sufficient) condition is that,

$$0 > \frac{d^2 \lambda(s)}{ds^2} > -\frac{d^2 \gamma(s)}{ds^2}. \quad (9)$$

Loosely, this states that the concavity of $\lambda(s)$ is sharper than the convexity of $\gamma(s)$. An example makes this clearer. *Figure 1* depicts functional forms for both $\lambda(s)$ and $\gamma(s)$ that cause the condition given by (8) to hold at high levels of s , but not at low levels.

By plotting the derivatives of the two functions⁹ it can be seen that left-wing parties will prefer privatization for values of $s > s^*$ and nationalization for $s < s^*$.

Where there is such a critical point, s^* , the theory outlined here implies that privatization should be a partisan act in some cases, but not in others. While right-wing parties will always prefer privatization, left-wing parties will agree with them for suitably large prevailing levels of λ , but disagree with them at lower levels. It is this claim that I now take to the data.

⁹With that for $\gamma(s)$ mirrored along the x-axis as it is the negative value that is of interest.

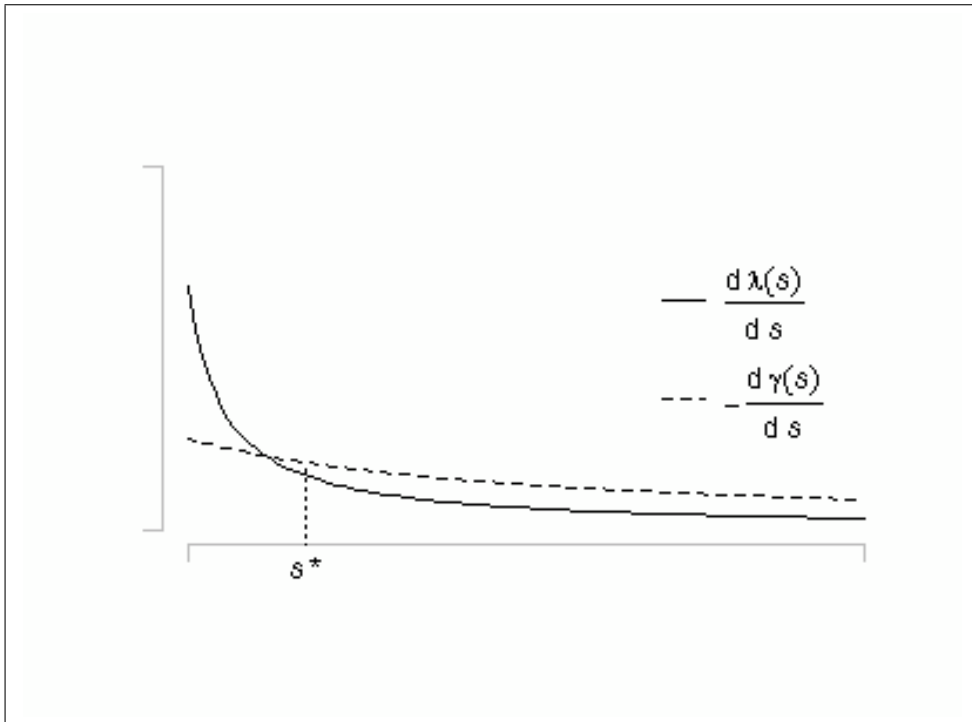


Figure 2: Example of the rate of change of left-wing power resources (λ) and economic performance (γ), respectively, as functions of the size of the state-owned enterprise sector (s).

5 Empirical Evidence

5.1 A First Look

How does the theory set out above hold up to an initial look at the data? The answer is: rather well. *Table 5.1* details the privatization story for two prominent low union density countries, Spain and France, and for two high union density countries, Sweden and Denmark. As predicted, there is evidence of a marked partisanship pattern in the former countries where left-wing parties appear to have been considerably more reticent about engaging in privatization than right-wing parties. By contrast, in the high union density countries, left-wing parties have actually tended to raise marginally *more* in privatization revenues than their right-wing counterparts.

Table 5.1 also indicates another factor that is of relevance. By looking at the alternation between left- and right-wing governments across two cycles (i.e. two of each), it becomes clear that while each left-wing government privatized at a slower rate than its immediate right-wing predecessor, there has also been an upward trend in privatization revenues through the period under study. I return to this finding in the multivariate analysis below.

5.2 The Dependent Variable

My dependent variable in all estimated models is the annual per capita privatization revenues for a country ($PrivRevPC_{i,t}$). This measure should be considered one of ‘privatization effort’ in that it directly controls for country size, thus avoiding the problem of large privatizations in large countries dominating the analysis. Bortolotti, Fantini and Siniscalco (2003, 313), instead, use privatization revenue as a percentage of GDP. However, their study pools across both ‘developed’ and ‘developing’ countries, meaning that there is a very wide range of GDP levels to account for. With my focus on fairly homogeneous (with respect to GDP per capita) countries, I choose the per capita measure as it makes it more natural to include GDP as an explanatory variable, where necessary.

The data is drawn from the *Privatization Barometer* database¹⁰ and is denominated in \$US for all countries.

5.3 Explanatory Variables

The theory advanced above implies the inclusion of two variables, together with their interaction. Being a story about partisanship, I include the share of cabinet seats held by left-wing parties ($LeftGovt_{i,t}$) using data from Armingeon et al. (2007).

For union density ($UnionDensity_{i,t-1}$), I use data from Swank (2007). Note that this variable is lagged one period. The reason being that my theory suggests that privatization

¹⁰<http://www.privatizationbarometer.com/>

will be accompanied by a reduction in union density. Using the contemporaneous measure may, therefore, bias results as the density figures may have been arrived at *after* any number of privatizations that occurred in any given year. Lagging the variable avoids this problem.

The interaction of these two variables is, then, also employed ($LeftGovt_{i,t} \cdot UnionDensity_{i,t-1}$). To be clear, the expectation is of a positive and statistically significant interaction effect.

It is possible that union density is not the best proxy for the strength of organised labour. As an alternative, I also employ the level at which wage bargaining occurs in a country ($BargLevel_{i,t}$). This ranges from the firm level to the national, encompassing, level, with several stages in between. The data is drawn from Golden, Wallerstein and Lange (2007). As with *UnionDensity*, the expectation is of a positive interaction effect with *LeftGovt*. However, it should be noted that the use of *BargLevel* as an interval variable akin to *UnionDensity* is problematic. A straight interaction effect of the form $LeftGovt \times BargLevel$ contains an implicit assumption that each unit change in *BargLevel* has the same impact on the effect of *LeftGovt*. By construction, though, *BargLevel* is only an ordinal variable, so such an assumption may well be too strong. The way to avoid this issue would be to convert *BargLevel* into a series of dummy variables for each level and then interact each of these with *LeftGovt*. Unfortunately, this is not possible as there is insufficient variation in *BargLevel* within several countries, leading the coefficients for *BargLevel* to be unidentified in the presence of country fixed effects — which *Section 5.4*, below, shows are a necessary part of a correctly specified model. As such, the results from estimating models using *BargLevel* must be assessed with caution. It is possible that influences from an interaction effect at one level of *BargLevel* will contaminate the estimate for that at other levels as the linearity assumption bites.

Of course, there is reason to believe that a number of other factors will have played an important role in determining how privatization has developed across countries. Most of those indicated below are drawn from the previous work in this area, although the use of others are innovations to this paper. The controls can be usefully divided into three broad categories: economic, contextual, and political. Full details of sources are given below in 2.

5.3.1 Economic Controls

Taking the economic factors first, unemployment would seem to be an obvious variable to control for, albeit one ignored by the literature so far. From the theoretical stance of this paper, there are reasons to suspect both positive and negative effects on privatization effort. On the one hand, higher unemployment indicates a worse performing economy, and thus one, perhaps, more in need of the productivity increases associated with privatization. On the other hand, higher unemployment may make privatization less politically desirable as the

process may well lead to even higher unemployment levels as previously public-sector labour is shed. Thus, I employ the control, $Unemployment_{i,t-1}$, without firm predictions as to the sign of its coefficient.

It is common in comparative political economy to consider that per capita GDP may have an influence on policy making. In the specific case of privatization, it is plausible to suggest that lower levels of per capita GDP may induce greater privatization effort. Indeed, Boix (1997) implies just this in his justification for including a variable capturing mean growth rates over the period 1961–1979. In place of that time-invariant measure, and following Bortolotti, Fantini and Siniscalco (2003), I simply employ the log of per capita GDP ($LogGDPPC_{i,t-1}$).¹¹

Obviously, related to GDP levels is GDP growth ($GDPGrowth_{i,t-1}$), and I include it for similar reasons, again following Bortolotti, Fantini and Siniscalco (2003). Short-run economic difficulties captured by lower growth rates may prompt governments to privatize in order to rejuvenate their economies (Zohlnhöfer and Obinger, 2006, 36).

Openness ($Openness_{i,t-1}$), defined as the sum of exports and imports as a percentage of GDP has also been considered of relevance to the privatization issue. Zohlnhöfer and Obinger (2006, 39) employ this measure as a control and discuss the idea that increased “internationalization of markets” may lead to greater privatization due to “conditions of high capital mobility”. While they focus on the consequent need “to switch to orthodox economic policies” (i.e. privatization), there is at least the implication that it is enhanced competitive pressures that are the root cause. However, such logic is potentially problematic. If openness is a proxy for competitive pressure in a country, then we may expect that more open countries will have tended to develop a smaller SOE sector. The consequence being that there would be less to privatize and, thus, lower privatization revenues. Nonetheless, including the control would appear to be valid, in the first instance.

Finally, public finances have been held to be relevant to privatization decisions. A poor financial situation, in the form of high public debt (Bortolotti, Fantini and Siniscalco, 2003) levels and/or high budget deficits (Zohlnhöfer and Obinger, 2006), can potentially be rectified by the revenues of a privatization programme. Thus, I employ the $PublicDebt_{i,t-1}$ and $PublicDeficit_{i,t-1}$ variables.

All economic controls are lagged by one period so as to avoid picking up any potential effect that privatization may have had on them.

5.3.2 Contextual Controls

In this category, I include four non-economic variables that have been considered to impinge upon a government’s desire and/or ability to engage in privatization.

¹¹Logged, as is standard in the comparative political economy literature, to capture the assumption that the influence of income has a diminishing marginal effect on privatization.

One difficulty with the modelling process is that it would be highly desirable to employ a variable capturing the size of the SOE sector available for privatization. Low privatization levels are hardly news if there is nothing to privatize. Logically, this situation could arise for two reasons. First, that most or all of the SOE sector has already been privatized by previous governments. Second, that the SOE sector was never very large. As there is no reliable time series data for the size of SOE sectors, it is, unfortunately, not possible to control for the latter case.¹² In order to control for the former case, I employ a variable that is the cumulative total of (per capita) privatization revenues in a country up to the previous year ($CumPrivRevPC_{i,t-1}$).¹³ The expectation is, then, that the coefficient on this variable will be negative as higher values indicate smaller sizes of the remaining SOE sector.

I noted above, in *Section 5.1*, that there appears to be some *prima facie* evidence that the propensity toward privatization increased throughout the period, regardless of party ideology. Indeed, Zohlnhofer, Obinger and Wolf (2008, 116) present data suggesting that there have indeed been shifts in party positions when comparing the 1980s to the 1990s. In order to capture this development, I employ a count variable simply equal to the year of each observation ($Year_t$).

Clifton, Comin and Diaz Fuentes (2006) argue that the European Union has had a significant impact; leading member countries to privatize in order to comply with ‘single market’ provisions and increased cross-border competition. In this light, they place great weight on the ratification of the Maastricht Treaty. To assess the importance of this, I include a dummy variable ($Maastricht_{i,t}$) equal to 1 after 1993, and 0 before.¹⁴

In terms of a government’s ability to privatize, Bortolotti, Fantini and Siniscalco (2003) suggest that a “deep and liquid stock market” is an important consideration. As large portions of privatization programmes across many countries have been pursued by public offerings on stock markets, the capacity of those markets to provide the required capital is likely to have been an important constraining consideration for governments. To control for this, I employ a variable corresponding to the total stock market capitalization within a country, per capita ($StockMktCapPC_{t-1}$). The measure is per capita so as to avoid the issue of larger countries having larger stock market capitalizations, but correspondingly larger capital requirements for their privatization programmes. As with the previous economic controls, the variable is lagged to avoid it being spuriously correlated with the dependent variable.

In conformity with the theoretical thrust of this paper, Zohlnhöfer and Obinger (2006, 39) suggest that,

¹²Zohlnhöfer and Obinger (2006) and (Zohlnhofer, Obinger and Wolf, 2008) employ a measure capturing the size of the public sector, but it is only available at very few points in time, and is rather imprecise, anyway. For these reasons, it is difficult to employ it in a TSCS setting.

¹³Bortolotti, Fantini and Siniscalco (2003) actually use a variable of this sort as dependent variable, making their reasoning for its use rather different.

¹⁴While signed in December 1991, the treaty entered into force in November 1993.

labor unions, particularly those of affected employees, are likely to oppose privatizations. This is because employees of SOEs enjoyed particularly safe and well paid jobs along with exemplary working conditions

In order to operationalize this idea, they employ a variable capturing the number of working days lost to strikes per 1000 workers. In the context of their simple cross-sectional model, this is rather a problematic variable to employ. That is, the degree of militancy of unions is likely to be endogenous to the degree to which privatization programmes are pursued. In that light, the theoretical prediction made by Zohlnhöfer and Obinger (2006) of greater militancy being associated with reduced privatization due to the labour movement being more effective at pursuing its interests is likely to be misguided. Instead, we may expect greater militancy to be associated with *more* privatization as the latter causes the former.

With the TSCS approach adopted here, this difficulty can be partly circumvented by lagging the control variable by one period. Thus, I employ the same measure of union militancy, albeit in a more credibly exogenous form ($Strikes_{i,t-1}$).¹⁵

5.3.3 Political Controls

It is prudent to employ a selection of explicitly political explanatory variables. Boix (1997) suggests controlling for minority government ($MinorityGovt_{i,t}$) and government fractionalization ($GovtFrac_{i,t}$). The former operationalized as a dummy variable equal to one if the governing parties do not command a majority in parliament. The latter being the probability of two randomly selected MPs from the governing parties being from the same party. The logic for inclusion of these two variables is that divided and legislatively weaker governments will be less able to pursue privatization programmes as the chance of them being blocked from doing so would be higher.

5.4 Modelling Techniques and Issues

One innovation for this paper is to employ a different estimation technique to the existing privatization literature. There are several reasons for this, mostly relating to differences in data structure and resultant units of observation. Zohlnhöfer and Obinger (2006) and Zohlnhofer, Obinger and Wolf (2008) are purely cross-sectional studies, pooling data for each country across a period of around 10 years, and thus constraining the size of their sample to around 20. Based on this data, models were estimated with OLS.

¹⁵Of course, there are potential difficulties even with the lagged variable. If privatization programmes are pursued over a number of years, or simply if unions have enough foresight to predict attempts to privatize in the future, then $Strikes_{i,t-1}$ will still appear to be causally correlated with privatization revenues. However, (unreported) longer lags leave the results stable so this does not appear to be an important issue.

(Boix, 1997) brings to bear slightly more data on the issue by using country-governments as his unit of analysis, as opposed to just countries. This leaves him with around 50 observations. He then estimates two types of model: one for the volume of privatization revenues (by OLS) and one for a more subjective measure of what he terms “policies towards state-owned companies”, which amounts to an ordered variable capturing essentially the same information as the interval variable.¹⁶ With an ordered dependent variable, Boix then estimates these latter models as ordered probits.

The data employed by Bortolotti, Fantini and Siniscalco (2003) is commensurate with that in this paper — i.e. taking country-years as the unit of observation. Their approach is to utilize a two-stage empirical analysis by first estimating the probability of privatization occurring in a given country-year (using a probit model), and then estimating the determinants of the level of privatization revenues in those country-years that did experience privatization (by OLS).

This approach is problematic on two accounts. First, by estimating a simple probit model in the first stage, Bortolotti, Fantini and Siniscalco (2003) effectively throw out data by treating small and large privatizations as identical. To that extent, the results for such an analysis are of lower relevance than a more appropriate model. Second, by estimating a model in the second stage for only those country years that experienced privatization, they are biasing their results to the case where privatization does occur. They acknowledge this themselves, noting that, “we simply admit that we are estimating conditional expectations, and suggest the reader [sic] some caution in the causal interpretation of our reported coefficients” (Bortolotti, Fantini and Siniscalco, 2003, 325).

To avoid these problems, I estimate tobit models which account for the censored nature of the dependent variable in a single model. Doing so takes account of the fact that a value of 0 for the $PrivRevPC_{i,t}$ variable can correspond to a government being only very marginally against privatization and one being overwhelmingly against it — i.e. the censored nature of the variable.

Nonetheless, there are some difficulties with this estimation approach. This can be seen by considering what would be the preferred equation to be estimated:

$$PrivRev_{i,t} = \beta_0 + \beta_1 SOE_{i,t-1} + \beta \mathbf{X} + \epsilon_{i,t} , \quad (10)$$

where $SOE_{i,t-1}$ is the lagged size of the SOE sector for each country and $\beta \mathbf{X}$ denotes vectors of other parameters and variables. The problem is that there is no reliable TSCS data for this variable. Noting that the current size of the SOE sector in a country depends on the

¹⁶In addition to privatization revenues, some information on nationalizations is also included in this latter approach.

‘initial’ size of it and the amount that has be privatized already:¹⁷

$$SOE_{i,t} \approx SOE_{i,0} - \sum_{\tau=0}^t PrivRev_{i,t} , \quad (11)$$

and denoting $\sum_{\tau=0}^t PrivRev_{i,t}$ as $CumPrivRev_{i,t-1}$, this can then be substituted into (10) to yield,¹⁸

$$PrivRev_{i,t} = \beta_0 + \beta_1 (SOE_0 - CumPrivRev_{i,t-1}) + \beta \mathbf{X} + \epsilon_{i,t} . \quad (12)$$

This form has lower data requirements but not quite low enough as there is, again, no reliable data on the size of the SOE sector, even for an early point in time, that is commensurate *PrivRev*. To avoid this problem, I estimate equations of the form:

$$PrivRev_{i,t} = \beta_0 + \alpha_i - \beta_1 CumPrivRev_{i,t-1} + \beta \mathbf{X} + \epsilon_{i,t} , \quad (13)$$

where α_i denotes country fixed effects, which have replaced the initial *SOE* levels. This equation is not perfect as the fixed effects are likely to pick up other time invariant factors that affect privatization revenues. Given the data constraints, such a compromise is necessary.¹⁹

However, the tobit models, being estimated by maximum likelihood, suffer from the ‘incidental parameters problem’ first highlighted by Neyman and Scott (1948). The result is that the use of fixed effects in tobit models yields inconsistent parameter estimates.²⁰ In this light, in a ‘frequentist’ world, random effects becomes the only option for (partially) controlling for country specific factors. Of course, the distributional assumption as to the ‘effects’ that random effects forces are unlikely to be valid in the case of circa 20 developed democracies — as shown by the fact that the comparative political economy literature nearly universally employs fixed rather than random effects.

In order to mitigate the incidental parameters problem, I turn to Bayesian estimation procedures. XXX[Need to explain why this mitigates things. Use Lancaster (2000). Mention that the Bayesian approach gives me philosophical comfort — especially for comparative politics (Western and Jackman, 1994).]

¹⁷The relationship expressed in (11) is only approximate as *PrivRev* is only an approximation of the ‘true’ size of the SOE sector that is privatized in a given year. There is some variability on the valuation placed on privatized enterprises based on market conditions and other stochastic factors.

¹⁸Lagging (11).

¹⁹However, as will be discussed below, it is possible to partially mitigate this problem with the Bayesian estimation technique that I employ.

²⁰For a recent discussion of the issue, see Greene (2004b) and Greene (2004a).

Models are estimated as with the standard tobit setup, with a censored dependent variable and errors assumed to be normally distributed, with variance σ^2 (Tobin, 1958). In addition, standard, semi-conjugate priors are assumed for the estimated main parameters $\beta \sim N(\mu, \sigma_\beta^2)$ and $\sigma^{-2} \sim \Gamma(\phi_1, \phi_2)$. Uninformative priors of, $\mu = 0, \dots, 0$, $\sigma_\beta^2 = 0, \dots, 0$, $\phi_1 = 0.0005$, and $\phi_2 = 0.0005$ are used.

All models are estimated by Markov Chain Monte Carlo (MCMC) methods, using a Gibbs sampler.²¹

5.5 Results

The posterior samples from estimating two models are displayed in *Figures 3* and *5*. Model 1 uses *UnionDensity* as the measure of labour strength, whilst model 2 uses *BargLevel*, instead.

First, it is noteworthy that the densities for the *CumPrivRevPC* parameter in both models are significantly negative. Higher levels of privatization in the past are seen to reduce privatization in any given period. This suggests that, in combination with the fixed effects, the variable is indeed controlling for the remaining size of the SOE sector. If it were to pick up some kind of serial correlation in which more privatization-prone countries were to consistently privatize more, the parameter would be expected to be positive.

Taking the economic control variables first, for *Unemployment*, the evidence from model 1 is that there is a fairly statistically significant positive effect on privatization effort. This relationship appears to be statistically weaker, although similarly signed, in model 2. Across both models, there is no evidence of any effect from *GDPGrowth* but, in contrast to Boix (1997), there is some evidence that *higher* levels of GDP are associated with higher privatization effort. However, this latter result is only supported in model 1, so it would be unwise to place too much emphasis on it.

In keeping with the discussion of ambiguous theoretical effects of *Openness*, there is no support for a significantly signed coefficient across any of the models. *PublicDebt*, however, does perform as expected, with all models suggesting that higher levels of *PublicDebt* are associated with higher privatization effort — presumably as a means of reducing borrowing levels to more manageable or expedient levels. All debt dynamics appear to operate through the ‘stock’ of debt, though, as *PublicDeficit* appears to be insignificantly signed across all models — albeit with the expected positive sign. The, perhaps unsurprising, conclusion is that governments did not tend to respond to short-run debt difficulties with the sale of assets.

Moving on to the contextual controls, the largely positive density estimates across all models for *Year* suggest that privatization did indeed grow to be more important as time passed. To even the lay observer, this is hardly likely to be surprising. More interesting is

²¹Estimation used the `MCMCtobit` command from `MCMCpack`.

that in the presence of *Year*, the Maastricht dummy appears to be insignificant and actually negatively signed. This may not be conclusive evidence against the impact of the EU on privatization policies across member states, but it surely casts some doubt on the thesis.

Both models provide strong evidence that higher levels of *StockMktCapPC* lead to higher levels of privatization effort. This is in accordance with the findings of Bortolotti, Fantini and Siniscalco (2003). However, the models are not able to distinguish between two possible interpretations of the positive coefficient. Bortolotti, Fantini and Siniscalco (2003) emphasise the enabling nature of “deep and liquid stock markets” in that they allow governments to tap into capital markets more readily, especially when related to extremely large enterprises such as utility monopolies. With respect to *Strikes*, there is little evidence that union protest of this sort had any impact on the privatization process.

The political controls advocated by Boix (1997) perform notably poorly. Neither *MinorityGovt* nor *GovtFrac* appear to have any effect on privatization.

On the evidence relevant to the theoretical claim of this paper, the evidence is fairly strong. *Figures 4* and *6* plot the estimated interaction effects between *LeftGovt* and the two proxies for union strength, *UnionDensity* and *BargLevel*, together with 90% and 95% credible intervals. As expected, the sign of the interaction effect is consistently positive, indicating that more left-wing governments privatize more readily in the presence of stronger union movements. The relationship is present for both *UnionDensity* and *BargLevel* models, although the statistical significance of the relationship is stronger with the latter proxy for labour movement strength.

The results from model 1 suggest that there is a little over a 90% chance that the effect of left-wing cabinet strength is different when union density is varies from its sample minimum to its sample maximum. The evidence is strong that left-wing parties, in the presence of low levels of union density, reduce privatization effort. Taking the best point estimate, model 1 suggests that, in the presence of union density at its sample minimum, a change from left-wing cabinet presence from 0% to 100% would *reduce* privatization effort by around ²² \$130,000 per person per year — substantively, a large effect. At high levels of union density, left-wing parties become statistically indistinguishable from right-wing parties.

The results from model 2 are even stronger with respect to the conditional partisanship effect. The interaction effect easily passes the 95% significance level. Low levels of union strength, measured as firm-level wage bargaining, are associated with lower privatization effort by left-wing governments, with the size of the effect of a similar order to those outlined for model 1. Interestingly, the model also distinguishes between left-wing and right-wing governments at the two highest levels of wage bargaining. There, left-wing parties are actually found to be *more* likely to engage in larger privatization programmes.

²²Calculated as $0.0013 \times 100 \times \$1,000,000$.

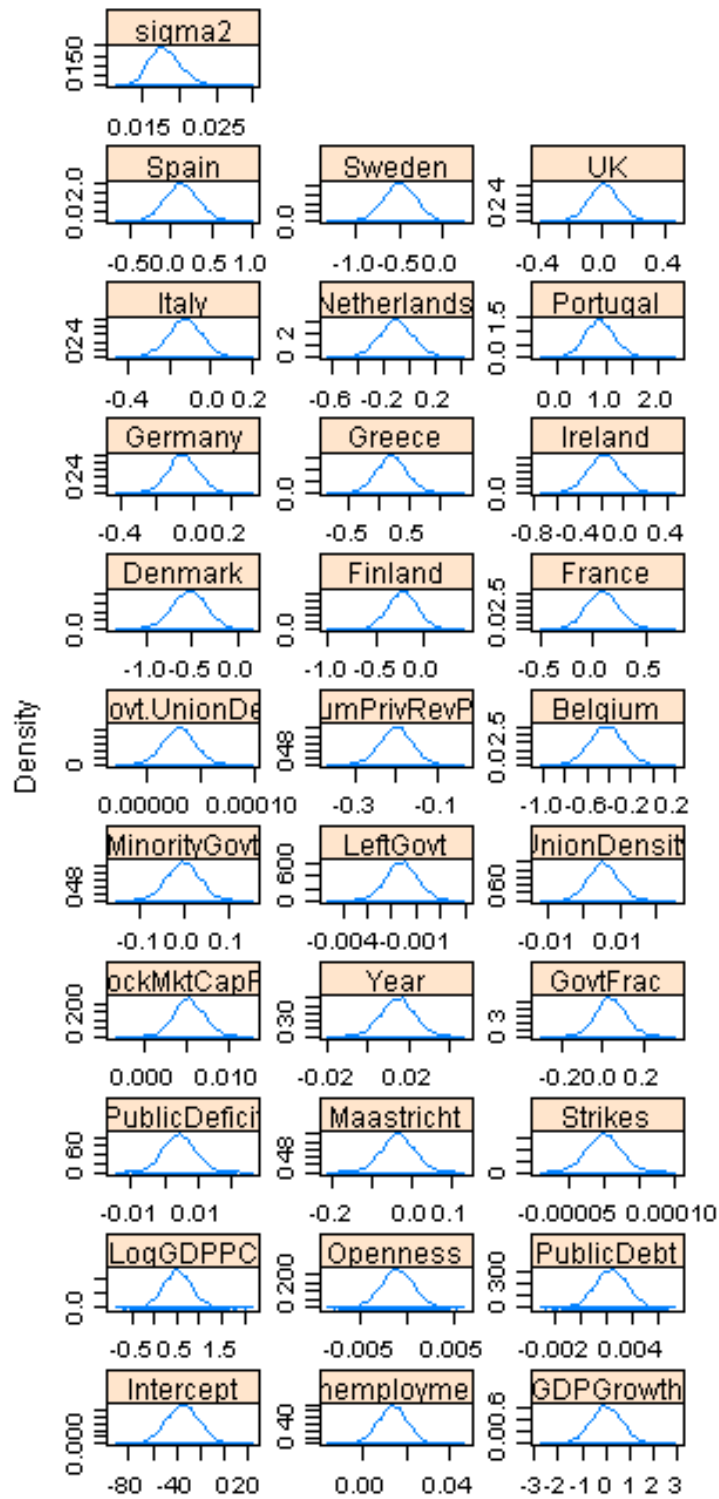


Figure 3: Results from Model 1 - Union density with uninformative fixed effect priors.

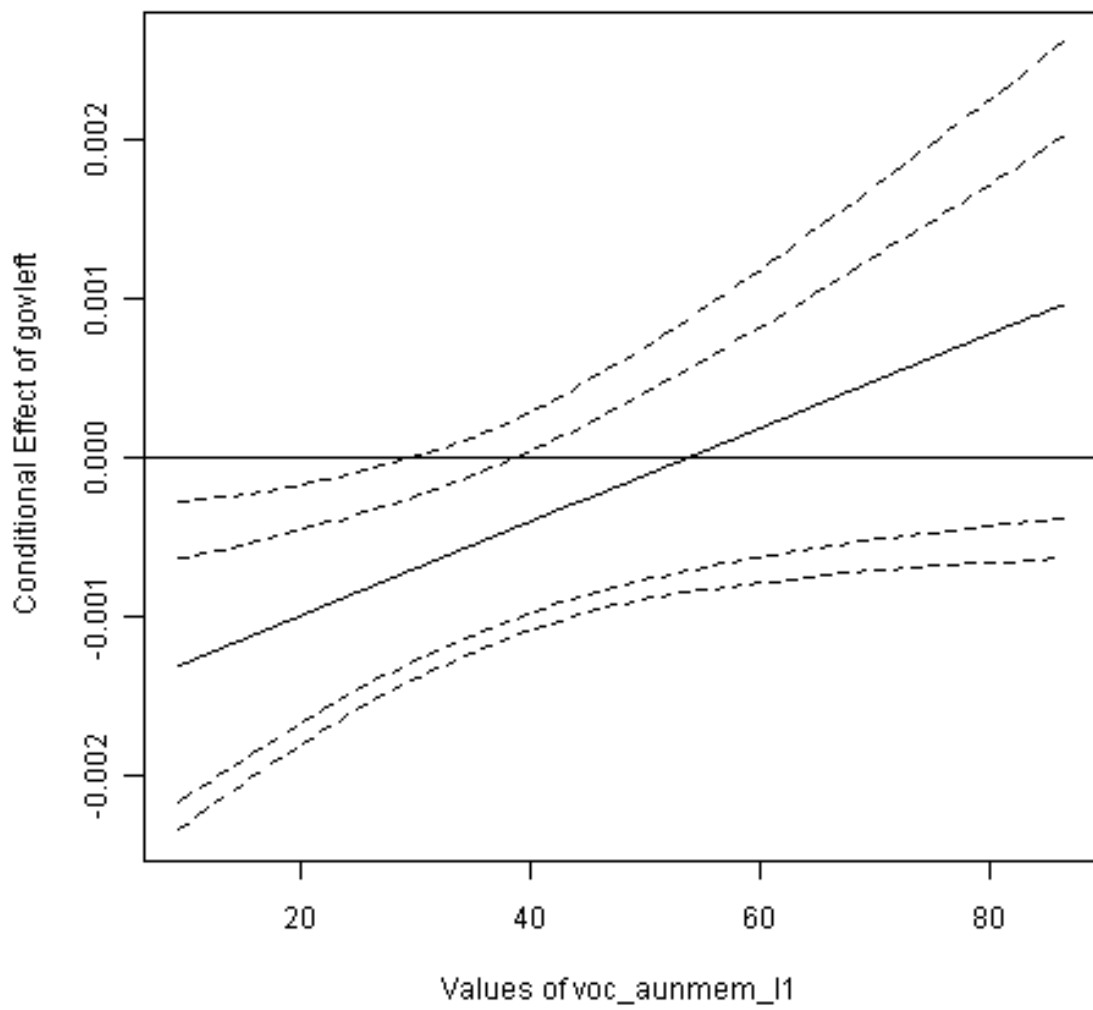


Figure 4: Effect of $LeftGovt_{i,t}$ on $PrivRevPC_{i,t}$, conditional on $UnionDensity_{i,t}$.

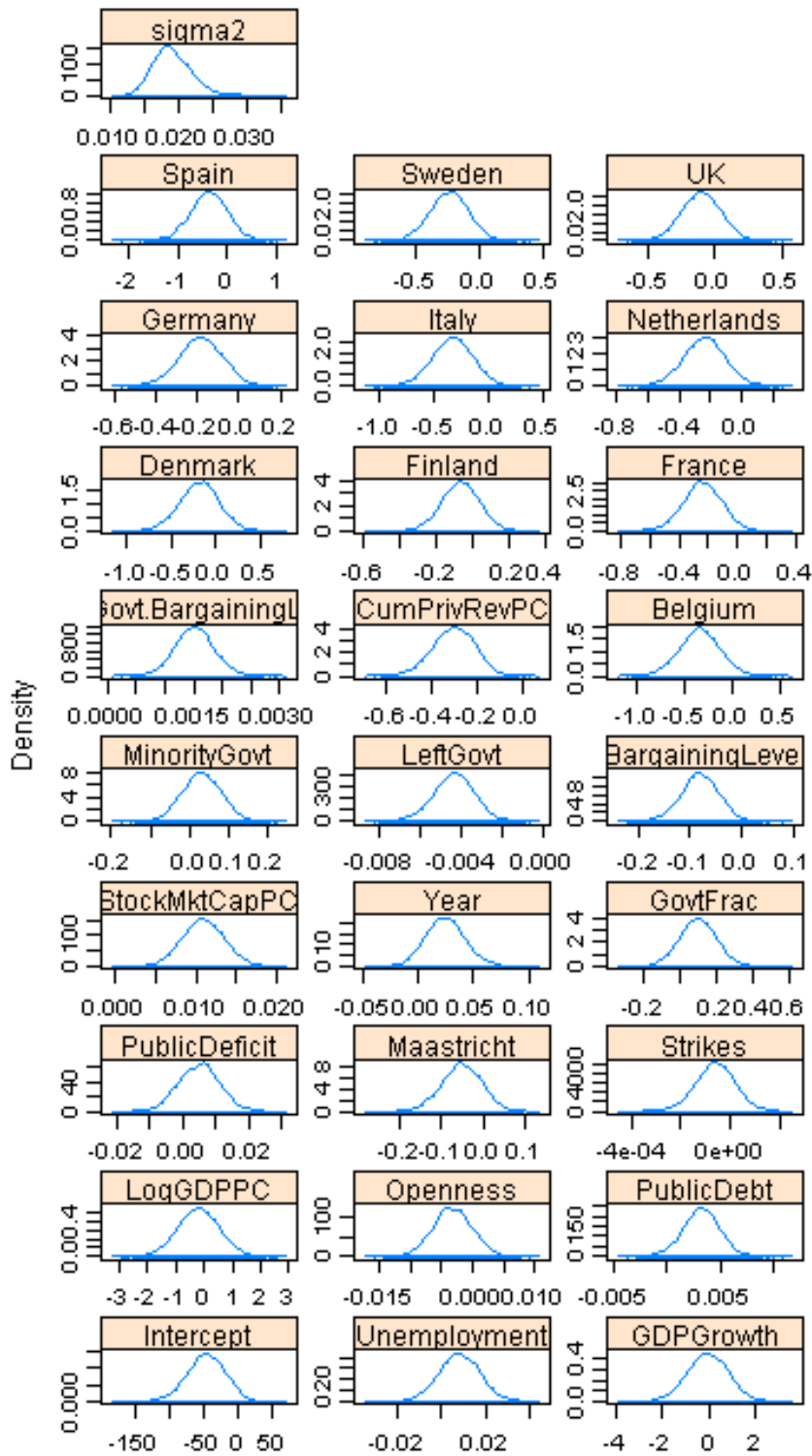


Figure 5: Results from Model 3 - Bargaining level with uninformative fixed effect priors.

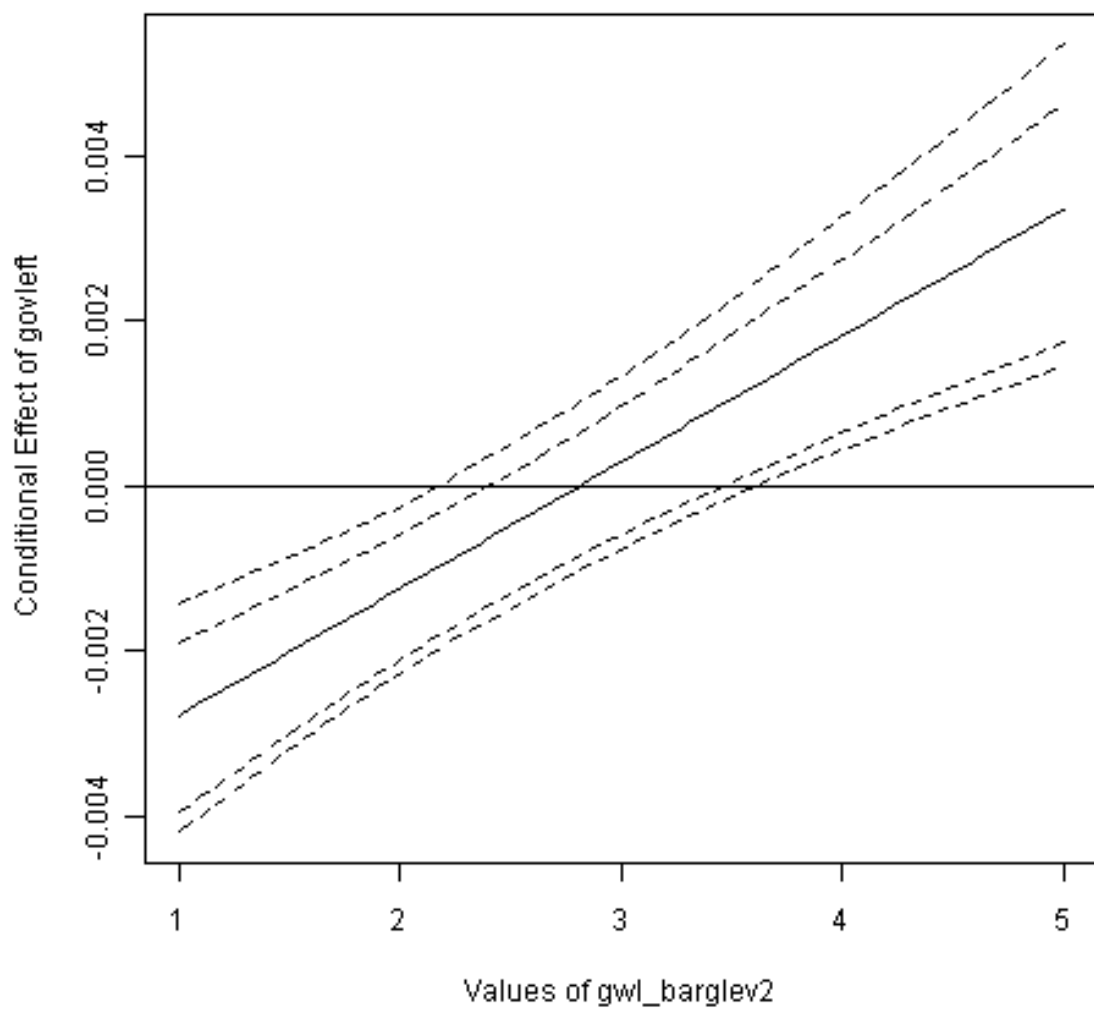


Figure 6: Effect of $LeftGovt_{i,t}$ on $PrivRevPC_{i,t}$, conditional on $UnionDensity_{i,t}$.

6 Discussion

What can we learn from the quantitative evidence presented above? The quantitative empirical results are commensurate with the theoretical claim made in this paper. Rather than rewarding or succumbing to union strength, it appears that left-wing parties take the opportunity afforded to them by a stronger labour movement, and more readily opt for privatization.

From the point of view of the theory set out in *Section 4*, the finding that left-wing governments privatize more than right-wing governments at higher levels of wage bargaining is somewhat puzzling. The theoretical case was that right-wing parties always had incentive to privatize, while the disincentive for left-wing parties to do so could be mitigated in particular circumstances. There was no prediction of higher incentives for left-wing governments. However, as noted in *Section 5.3*, this effect can plausibly be explained by an unwarranted (but unavoidable) treatment of *BargLevel* as an interval variable. The assumption of a linear conditional partisanship effect may be leading strong negative effects at low levels of *BargLevel* to drive the apparent partisanship effect at high levels of *BargLevel*.

A natural objection to the evidence presented here is that it does not necessarily support the theoretical claims of the paper. *UnionDensity* and *BargLevel* may be taken to be proxies not for the strength of organised labour, but of corporatism. The sort of consensual bargaining associated with such regimes, it may be argued, could enable the more controversial aspects of privatization to cause fewer political difficulties, and thus could make the sale of state assets easier. However, such a hypothesis would imply a direct effect from the supposed corporatism proxies, but not an interaction effect with *LeftGovt*. The evidence is not sufficient to dismiss the corporatism hypothesis, but the presence of an interaction effect indicates that, on its own, corporatism does not explain the pattern of partisanship in privatization across Europe. A closer analysis of the relationship between privatization and power resource theories does provide an explanation for that pattern.

How do the findings in this paper sit with earlier, more country-specific studies? The answer is: rather well.

In Austria — a country with historically strong unions and left-wing parliamentary presence — the mid-1980s saw both the Socialist Party (SPÖ) and the conservative People’s Party (ÖVP) embrace privatization, as well as broader deregulatory policies. Indeed, Meth-Cohn and Müller (1994) describe the shift by the SPÖ finance minister, Franz Vranitzky as a “quantum leap into supply-side economic policies”, and one for which “criticism within his party was relatively moderate” (Meth-Cohn and Müller, 1994, 166). Furthermore, they argue that (Meth-Cohn and Müller, 1994, 166),

the SPÖ accepted that the state is not an optimal owner. A minister cannot run a firm in the same way as a private owner; under such a situation the enterprise

belongs *de facto* to the management and the workers' council, and beyond that to local and regional politicians and the unions.

In the UK, the flip side of the argument regarding left-wing preferences for strong unions where the political parties themselves are weaker can be seen. The Thatcherite revolution of the 1980s has been explicitly associated with attempts by the Conservatives to reduce the power of public sector unions. Having witnessed the militant miners bring down Edward Heath's government in the early 1970s, the Tories were eager to ensure that such a situation in which a union could hold country by the "jugular vein" could not reoccur (Steel and Heald, 1982, 341). That view became all the more prescient towards the latter end of the 1980s, after a raft of trade union legislation had also been passed and Thatcher had won her famous battle with the National Union of Mineworkers (Mitchell, 1987; Gamble, 1988).

In Sweden, the aspect of the theory emphasising left-wing incentives for state ownership becomes all the more stark. Pontusson (1989, 129) notes that,

Sweden represents something of a paradox. In no other West European country has a reformist working-class party (or any other type of left party) held government office for so long; yet public ownership of industrial/commercial enterprise is quite limited by comparative standards.

This is suggestive that the logic associating the need for public ownership with the acquisition of left-wing power resources may have relevance for the earlier period, before privatization. Lane (1994, 181) writes that, on nationalization, the "Social Democrats took an early pragmatic stand-point to this basic problem of Marxist ideology". On this basis, a fruitful line of future research would be to investigate the reasons for this earlier rejection of standard left-wing thought. Based on the theory and evidence presented in this paper, the strength of the Social Democrats, even in the absence of a large state-owned enterprise sector, is a plausible explanation.

7 Conclusion

Several conclusions can be drawn from this, the first of which must be that the traditional understanding of privatization as an inherently right-wing policy is rather wide of the mark. Left-wing parties have engaged in privatization programmes at least as large as those of the right-wing oppositions in several European countries. To dismiss such activities as capitulation to the Right seems to miss the point. On the basis of the evidence presented here, we can fairly reliably predict where left-wing parties will embrace privatization, and those predictions are not based on where we expect the Left to cave in to right-wing pressure — far from it. Privatization is an economic policy that has the capacity to 'raise all boats' —

at least in the medium term — but the political costs of it are felt differentially by left-wing parties across countries. It is for this reason that the degree of partisan conflict on the issue varies.

The theory and evidence advanced in this paper also suggests a reassessment of which actors are the relevant agents within ‘developed’ political economies. Prominent schools of thought ascribe agency to interest groups on the one hand or ‘the median voter’ on the other. This paper responds to these traditions with a more careful theorising as to the incentives of political parties and goes on to find evidence to support the view that parties are important agents in their own right. They appear to be more than simple vehicles for the interests of either interest groups or the median voter. Instead, they mediate influences from such quarters, and do so in a strategic way.

In addition to this contribution to our understanding of political agency, this paper leads to some obvious questions regarding the nature of the SOE sectors across different countries in the pre-privatization era. The estimated country fixed effects which, to a large extent, should provide estimates of the size of each country’s SOE sector at the start of the sample period (i.e. 1979), hold some surprises for those who anticipate simple mappings of the sort ‘more left-wing government leads to a larger state’. For example, Sweden, Finland, and Denmark all have estimated fixed effects that are negative. In fact, these findings accord fairly well with the assessment of XXX[think tank], which rated the size of the state sector across countries in 1980.

An obvious line for further research, then, is to understand why countries that are traditionally thought of as being bastions of left-wing political strength appear to have pursued notably different industrial strategies during the twentieth century than their more right-wing cousins. Why did the Nordic and Benelux countries, as well as Germany, reject nationalization as a tool of industrial policy while their Anglo-Saxon and Mediterranean neighbours developed large-scale state-owned enterprise sectors? Why, where it was strongest, did the Left reject what many see as one of the core tenets of left-wing ideological thought?

A Summary of Variables

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Table 1: Privatization effort in four countries.

Country	PM's Party	Ideology	Years	Union Density	Privatization Revenues Mean per annum	Privatization Revenues (% GDP) Total
Spain	PSOE	Left	1991–1995	XXX	0.04	0.19
	PP	Right	1996–2000	XXX	0.13	0.67
France	RPR	Right	1985–1986	XXX	0.03	0.07
	Socialists	Left	1988–1992	XXX	0.01	0.04
Sweden	RPR	Right	1993–1997	XXX	0.1	0.51
	Socialists	Left	1998–2002	XXX	0.07	0.34
Denmark	Moderates	Right	1992–1995	XXX	0.09	0.37
	Social Democrats	Left	1996–2003	XXX	0.14	1.24
Denmark	Social Democrats	Left	1993–2001	XXX	0.14	1.28
	Venstre	Right	2002–2003	XXX	0.06	0.13

Source: *Privatization Barometer*.

Table 2: Summary of variables.

Variable	Description	Suggested By	Source
Dependent Variable			
$PrivRevPC_{i,t}$	Privatization revenues per capita (in \$ US).		Privatization Barometer
Economic Variables			
$Unemployment_{i,t-1}$	Unemployment rate in the previous year.	Armington et al. (2007)	World Development Indicators
$LogGDP_{i,t-1}$	The log of per capita gross domestic product (GDP) in the previous year.	Bortolotti, Fantini and Siniscalco (2003)	World Development Indicators
$GDPGrowth_{i,t-1}$	The growth rate of GDP in the previous year.	Bortolotti, Fantini and Siniscalco (2003)	World Development Indicators
$Openness_{i,t-1}$	The sum of exports and imports as a percentage of GDP, in the previous year.	Zohlnhöfer and Obinger (2006)	Armington et al. (2007)
$PublicDebt_{i,t-1}$	Public debt as a percentage of GDP in the previous year.	Bortolotti, Fantini and Siniscalco (2003)	Armington et al. (2007)
$PublicDeficit_{i,t-1}$	Public budget deficit as a percentage of GDP in the previous year.	Zohlnhöfer and Obinger (2006)	Armington et al. (2007)
Contextual Variables			
$Maastricht$	A dummy variable equal to 1 after 1993.	Clifton, Comin and Diaz Fuentes (2006)	
$Strikes_{i,t-1}$	Working days lost to strikes per 1000 workers, in the previous year.	Zohlnhöfer and Obinger (2006)	Armington et al. (2007)
$StockMktCapPC_{i,t-1}$	Total stock market capitalization per capita in the previous year.	Bortolotti, Fantini and Siniscalco (2003)	Global Financial Data
$UnionDensity_{i,t-1}$	Union density in the previous year.	Zohlnhöfer and Obinger (2006)	Swank (2007)
Political Variables			
$LeftGovt_{i,t}$	Percentage of cabinet seats held by a left-wing party.	Boix (1997)	Armington et al. (2007)
$MinorityGovt_{i,t}$	Dummy variable equal to 1 if there is a minority government.	Boix (1997)	Armington et al. (2007)
$GovtFrac_{i,t}$	The probability that two deputies picked at random from among the government parties will be of different parties.	Boix (1997)	Keefer and Stasavage (2003)