The Political Consequences of Falling Profit Rates: An Empirical Analysis of Private Welfare Spending in OECD Countries

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Abstract

Most advanced democratic countries employ a divided social system in that both the public and private sectors help finance their welfare programs. Although there is a large body of research concerning public social spending, scant research has been done regarding private social spending. I develop and test a theory of the democratic capitalist state, whereby special interest groups and companies are motivated to lobby governments for increases in private social spending to in proportion to decreases in the average profit rate. After conducting a time-series panel regression analysis using data from 24 OECD countries, results suggest that as the average rate of profit declines, private welfare spending increases in response.

Keywords: Welfare, Inequality, Privatization, Subsidies

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Contents

In	troduction	3
1	Literature Review 1.1 The State of Welfare	4 4 8
2	Theory and Hypotheses 2.1 Special Interest Politics	12 14
3	Data and Methodology	16
4	Results	19
5	Conclusion	22
\mathbf{B}^{i}	ibliography	25
\mathbf{A}	ppendix 1: Alternate Model Results	29
\mathbf{A}	ppendix 2: Alternate Model Results (2WFE)	32
\mathbf{A}	ppendix 3: Alternate Model Results (2WFE, Lagged DV)	34
\mathbf{A}	ppendix 4: Right Government Interaction Effect Plots	36
\mathbf{A}_{1}	ppendix 5: Left Government Interaction Effect Plots	37
${f L}$	ist of Figures	
	Share of Income Tax Expenditures (%)	6 7 11 12 15 23
\mathbf{L}	ist of Tables	
	Cross-National Levels of Social Spending	4 20 21 29 30 30

LIST OF TABLES

LIST OF TABLES

7	Left Cabinet LSDV Model Results (Robust SE)	31
8	Right Cabinet LSDV Model Results (2WFE)	32
9	Left Cabinet LSDV Model Results (2WFE)	33
10	Left Cabinet LSDV Model Results (PCSE)	34
11	Left Cabinet LSDV Model Results (Robust SE)	35

Introduction

There is no shortage of research that attempts to explain the various determinants of changing levels of social spending, i.e., welfare. There are studies that find evidence to suggest that political partisanship largely explains changes social spending (Allan & Scruggs 2004; Iversen & Stephens 2008; Obinger, Schmitt, & Zohlnhöfer 2014), while others emphasize the influence of international trade and capital mobility and the need to compensate the "losers" of globalization (Avelino, Brown, & Hunter 2005; Potrafke 2009).

But what often goes without saying in the various works that examine social spending is that they are only considering direct *public* social spending in their analyses, while every advanced country also employs indirect *private* social spending, otherwise known as private welfare (Alber 2010; Farnsworth 2013). By marginalizing the role of private social expenditures, the existing welfare literature excludes a significant—and increasingly prominent—element of most countries' social systems, leading to incomplete understandings of the modern welfare state. The current paper fixes this problem by examining the factors that influence how countries choose to finance their welfare programs, given that every modern welfare state is paid for both via public *and* private means. Table 1 presents data on how much certain OECD countries spend on welfare, broken down by the type of spending: public, private, or total.

The existing literature tends to exclusively define welfare (or social safety net, social system, social spending, social insurance, etc.) as direct public spending from the government, which omits the massive amounts of money that governments allocate to social programs through private entities. This means that any conclusions drawn concerning the welfare state apply only to the public side of it, not the welfare state as a whole. Moreover, including private social spending into studies of the welfare state is essential because it is becoming "increasingly impossible to understand and explain the shape and delivery of contemporary social policy unless we consider the role of business" (Farnsworth 2006).

According to Society at a Glance 2019: OECD Social Indicators—in slightly different wording than the official definitions found in the SOCX manual—social expenditures are classified as public "when general government controls the financial flows. Sickness benefits financed by compulsory contributions to social insurance funds are considered public, whereas sickness benefits paid directly by employers to their employees are classified as private" (pg. 104).

Table 1: Cross-National Levels of Social Spending

	Percent of GDP (2017)					
Country	Public	Private	Total	Public Rank	Private Rank	Total Rank
France	31.5	3.6	35.1	1	8	1
Finland	29.6	1.3	31.0	2	10	2
Sweden	26.0	3.8	29.8	3	6	5
Germany	25.4	3.6	29.0	4	7	6
Norway	25.2	2.6	27.8	5	9	8
United Kingdom	20.5	6.4	26.9	6	5	9
United States	18.4	12.5	30.9	7	2	3
Canada	18.0	7.1	25.1	8	4	10
Switzerland	17.0	11.8	28.9	9	3	7
Netherlands	16.6	13.5	30.1	10	1	4

Data Source(s): OECD Social Protection Database

Marx's "Law of the Tendency of the Rate of Profit to Fall" (LRPTF) is the theoretical inspiration for examining the potential relationship between average profit rates and levels of private welfare spending. And after applying a synthesis of Marxist and non-Marxist methodological approaches to data covering 24 Organization for Economic Co-operation and Development (OECD) countries from 1980 to 2017, the results suggest that private businesses react to declining average rates of profit (ROP) by extracting rents from governments in the form of increased private social spending.

1 Literature Review

1.1 The State of Welfare

The primary goal of the current paper is to understand what leads to cross-national differences in how countries finance their respective welfare states, despite the limited amount of research concerning the role played by tax expenditures in financing social goods. I attempt to accomplish this goal by presenting a theory concerning the state and special interest influence that explains the growth of private welfare spending after 1980. The manual for the OECD Social Protection Database provides the following definition for "Tax Breaks for

Social Purposes" (TBSPs), otherwise known as private social spending:

Those reductions, exemptions, deductions or postponements of taxes, which: a) perform the same policy function as transfer payments which, if they existed, would be classified as social expenditures; or b) are aimed at stimulating private provision of benefits (Adema, Fron, & Ladaique 2011, pg. 29).

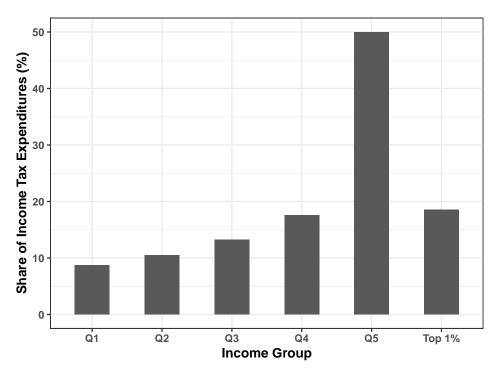
Faricy (2015) emphasizes the role of partisanship in shaping how the US social system is paid for, whereby Democratic control of government is associated with greater public spending and Republican control is associated with greater private spending. Faricy's empirical analyses indicate that Democrats increase social spending via direct public spending, whereas Republicans do so by via indirect tax expenditures. So when it comes to social spending in the US, the key distinction between Democrats and Republicans is not that the former prefers to raise spending and the latter prefers to cut spending, but rather that both parties attempt to increase spending in different ways to direct benefits towards their favored constituencies. In other words, the two major parties in the US "narrowly target" welfare to specific groups of people due to both electoral and ideological reasons, differing only in the type of welfare employed.

The "Global Tax Expenditure Database" (GTED) was created in 2021 with the combined efforts of the German Development Institute (GDI) and the Council on Economic Policies (CEP). According to its authors, the GTED "is the first database that documents [tax expenditure] reporting by governments worldwide, using a common set of criteria and indicators. It covers 218 countries and jurisdictions, 97 of which published at least some data on [tax expenditures] since 1990" (Von Haldenwang, Redonda, & Aliu 2021, pg. 8).

For example, "wealthier professionals in large corporations" are the largest beneficiaries of private social spending, considering that they are the ones best situated to benefit from tax breaks/credits and are one of the primary constituencies of the Republican party. (Faricy 2015, pg. 9). Faricy goes on to demonstrate how private social spending contributes to widening income inequality in the US, given that wealthier individuals can reduce their overall tax burden by taking advantage of social tax expenditures, which they have more opportunities to do than non-wealthy people.

Figure 1 illustrates the distribution of the total amount of income tax expenditures used to pay for social programs in the US for the year 2019, which equaled 1 trillion dollars.

Figure 1 shows that the top 1-percent of income earners in the US "received" approximately 20% of all tax expenditures, equaling roughly \$200 billion, which is more than any other single quintile group. The incredibly unequal distribution of tax expenditures in the US demonstrates the precise mechanism by which private welfare can lead to greater income inequality. And although Faricy's study is limited to the US, his results concerning the regressive redistributive effect of left-right partisanship, in the context of social policy, find support in some cross-national studies of public welfare spending (Abou-Chadi & Immergut 2019; Allan & Scruggs 2004; Iversen & Stephens 2008; Obinger, Schmitt, & Zohlnhöfer 2014). Figure 2 illustrates this point by plotting private social spending (as a percentage of GDP) and the national income share held by the top 1-percent of income earners from 1980 to 2020 for Germany, France, Canada, Norway, Great Britain, and the US.

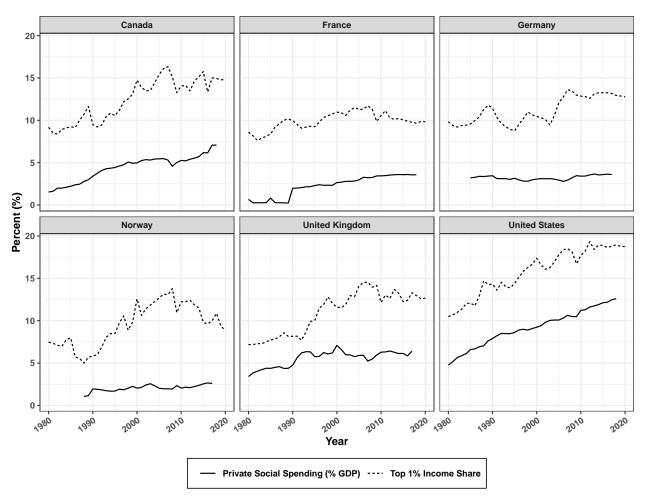


Data source(s): Congressional Budget Office (2019)

Figure 1: Share of Income Tax Expenditures (%)

There is also a power-politics element inherent to the provision of welfare through either public or private means. To quote Faricy (2015):

The political choice between indirect and direct spending is more than just the innocuous selection of a policy tool, it is essentially a choice about altering the balance



Data source(s): OECD Social Protection Database & World Inequality Database

Figure 2: Private Welfare Spending vs. Income Inequality

between public and private power in society (pg. 14).

Meyer & Bridgen (2012) finds evidence that lends support to Faricy's claim after conducting a case study of the United Kingdom, wherein the authors found that certain forms of private welfare relate to the amount of social control that private firms have over their employees. Retirement pension reforms proposed by a Labour government led the three largest corporate lobbying groups in Britain to effectively set aside their respective economic interests and join together to prevent the government from further regulating their private pension schemes. The three groups essentially conducted a cost-benefit analysis, concluding that it was better to have their role in providing pensions to their employees reduced to preempt further government regulation.

This study is of particular interest because it expands on an idea first discussed in Mares (2003): Not all forms of private welfare provision are equally attractive to all private firms. Instead, there are distinct interests between businesses that come about by them being in different sectors. For example, insurance agencies will have different economic preferences and motivations than a law firm, which were both parties to the inter-sectoral compromises examined in Meyer & Bridgen (2012). But while sector-based interests do exist, private firms appear to be able to settle their differences when a proposed government policy would otherwise negatively impact them all if they do not work together, without implying that each party will benefit equally from achieving the desired policy outcome.

1.2 A Spectre is Haunting the Welfare State

The main explanatory variable used to explain changes in private social spending across economically developed democracies, the average rate of profit (ROP), is taken from the third volume of Karl Marx's *Capital*. Although discussions of profit and profit-making are found in virtually all of Marx's economic writings, his theories concerning profit and average profit rates are most comprehensively expounded in *Capital*, *Volume III*, which was published posthumously in 1894 by Marx's longtime friend and collaborator Frederick Engels.

Scholars have operationalized the ROP formula *a la* Marx in various ways, mainly in response to ever-improving data sources (Duménil & Lévy 2002; Jones 2016; Kliman 2012; Kotz 2019; Maito 2018; Roberts 2016; Yu & Hong 2016). For Marx, the rate of profit (ROP) is equal to the total surplus-value (S) of a domestic economy divided by the sum of its constant capital (C) and variable capital (V):

$$ROP = \frac{S}{C + V}$$

Despite the methodological differences among Marxist scholars, Michael Roberts observes in his book *The Long Depression* that the respective methodological approaches and subsequent

Both volumes II and III of *Capital* were published by Engels after Marx's death in 1883. As a result, there has been a debate surrounding the degree to which the two volumes truly represent Marx's ideas, given that Engels admitted at the time that only portions of each respective volume were manuscript-ready. The rest of the texts had to be adapted from Marx's notebooks. It took Engels ten years to publish the third volume of *Capital*, alone. See Callinicos (2018) for more on this topic.

findings of Duménil & Lévy (2002); Bakir & Campbell (2006); Li, Xiao, & Zhu (2007); Kotz (2008); Economakis, Anastasiadis, & Markaki (2010); Kliman (2012):

Not only confirm the secular decline in the US ROP since 1946 but also agree that there was a cyclical movement in the ROP, with turning points of a peak in 1965–66, a trough at 1982 and then a peak in 1997, not surpassed since (Roberts 2016, pg. 279-281).

This statement would imply that although their measurements may differ in minor ways, numerous works of Marxist economics that study trends in profit rates report approximately the same results. Therefore, I would expect the profit rate calculations of other scholars to be interchangeable with the one offered by Roberts (shown in Figure 3), where he operationalizes Marx's rate of profit formula as the sum of GDP minus labor income (LABOR) minus consumption of fixed capital (CFC) divided by the sum of total capital stock (CAP) plus labor income (LABOR):

$$ROP = \frac{GDP - LABOR - CFC}{CAP + LABOR}$$

As potentially intuitive as it may seem to theorize that average profit rates influence the lobbying behavior of special interest groups, the LTRPF has uniquely dire implications for the future of welfare states across all advanced capitalist democracies. To the extent that the LTRPF accurately maps onto our economic reality, private welfare spending is expected to increase in a secular manner for the foreseeable future, all other economic, political, and social conditions being equal. In other words, the downward trend in profit rates will continue to serve as motivation for private sector entities to attempt to extract economic rents from governments, at varying magnitudes in relative proportion to the current average profit rate, so long as the foundational elements of modern capitalist states do not change.

As an informal robustness check on the ROP formulation, I also include the "real internal rate of return" (IRR) as a separate explanatory variable. The IRR variable is taken directly from the Penn World Tables dataset and is designed to be "a proxy for the (expected) real returns to capital" (Inklaar, Woltjer, & Albarrán 2019). The IRR of a national economy is equal to the sum of GDP minus labor income (LABOR) minus natural resource rents (NR)

See Figure 3 for a visualization of the historical trends in the ROP and IRR, respectively.

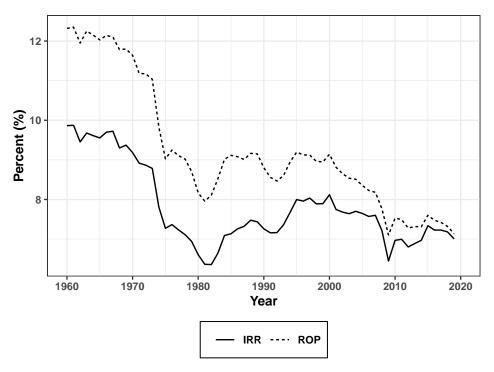
divided by total capital stock (CAP) (Inklaar, Woltjer, & Albarrán 2019, pg. 45):

$$IRR = \frac{GDP - LABOR - NR}{CAP}$$

Although the ROP and IRR appear to capture similar economic phenomena and are calculated using some of the same variables, the ROP is particularly fascinating once it is observed alongside Marx's "Law of the Tendency of the Rate of Profit to Fall," herein referred to as the LTRPF (Marx 1959). Marx considered the LTRPF to be one of the most important laws in all political economy, so much so that he believed it was the fundamental and unavoidable contradiction of capitalism that would inevitably cause it to end and give way to a new system of social production. According to him, the underlying and inextricable cause of recurrent and regular crises of capitalism can be attributed to the LTRPF, which he describes as follows:

With the progressive decline in the variable capital in relation to the constant capital, this tendency leads to a rising organic composition of the total capital, and the direct result of this is that the rate of surplus-value, with the level of exploitation of labor remaining the same or even rising, is expressed in a steadily falling general rate of profit.

There is much disagreement among Marxist scholars concerning the validity of the law and its relevance to modern economics. Effectively side-stepping the LTRPF, some Marxist scholars believe that the tendency for capitalism to facilitate the monopolization of capital is a more grounded way to understand profit rate oscillations and the destructive nature of capitalist market dynamics (Baran & Sweezy 1966; Foster 1986). On the other hand, there are those who emphasize the political and social tensions that capitalism produces to explain its inevitable end (Harvey 2015; Luxemburg 1951). There are also those who may think it is not worth trying to understand the LTRPF due to the fact that Marx primarily discussed the law in the context of values, and therefore has no bearing on an economic reality that is predicated on explicit prices instead of abstract notions of value. But to address the issue of values versus prices expression, one need only to sufficiently operationalize the selected variables, which has been done in various forms within Marxist scholarship. Moreover, Marx did discuss market prices and how they relate to his conception of values in many of his books and essays. Take this quote from "Wages, Price and Profit" (Marx 2020, pg. 104):



Data Source(s): Penn World Table 10.0

Figure 3: Comparing Profit Rate Measurements

Considering the whole [business cycle], you will find that one deviation of the market price is being compensated by the other, and that, taking the average of the [business cycle], the market prices of commodities are regulated by their values.

To the extent that the ROP accurately captures what it claims to, it can help explain the economic behavior of different industries at a particular time. I theorize that the particular desire for increases in private social spending corresponds to falling profit rates in the traditional economic sectors, i.e., industry and commerce. This is not to say that private welfare benefits are the only way that private companies seek to compensate for falling profit rates. Instead, private welfare is one thing among countless others, such as lobbying for aggressive deregulation of business practices. Additionally, companies may respond to a low rate of profitability by shifting their investment from fixed (productive) capital to speculative finance, or "fictitious capital" (Lapavitsas & Powell 2013).

Figure 4 serves to illustrate this phenomenon, plotting the cross-national differences across six advanced countries concerning the total value of their capital assets, measured as a percentage of GDP. The assets are broken down into two categories: financial assets and non-financial assets. Financial assets (fictitious capital) are more prevalent than non-

financial ones in each observed country for every year after 1960, with the value of financial assets in the UK peaking at 1657.2-percent of GDP in 2011, compared to non-financial assets making up a mere 189.1-percent.

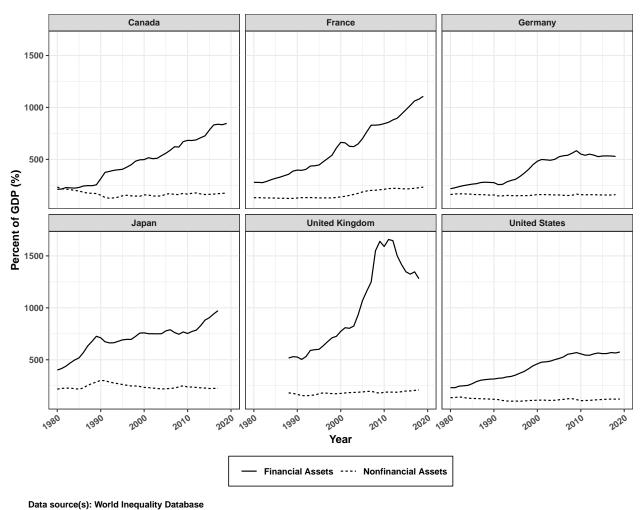


Figure 4: Cross-National Corporate Asset Levels (% GDP)

2 Theory and Hypotheses

The current study considers private social spending as a form of economic rent sought out by private sector entities and is acquired via lobbying or some other means of soliciting benefits from the state. The literature concerning special interest groups and how they interact with governments is quite robust (de Figueiredo & Richter 2014; Richter, Samphantharak, & Timmons 2009), but little attention has been paid to the question of understanding the

timing of particular types of lobbying, specifically in the context of seeking financial benefits from the state. In other words, my theory attempts to explain when and why governments change their levels of private social spending.

The simplest explanation would be to consider such behavior as the product of personal or corporate greed. Still, such an explanation would fail to explain why private individuals/corporations would take particular actions (lobbying for more private welfare) and the timing of such actions. More specifically, considering government lobbying by those seeking financial windfalls as a mere extension of greed or avarice does nothing to explain differences over time concerning how much said lobbyists seek from the government, nor why such lobbyists would conduct their activities at one specific moment in time versus any other point in time.

Inspired by the formal model of special interest politics found in Persson & Tabellini (2002), I theorize that businesses act as "specific groups" that seek "concentrated benefits" from the government in response to declining profit rates. In this case, the sought-after concentrated benefits are increases in private social spending. Research has shown that private businesses can sufficiently coordinate with each other as the aforementioned "specific groups" and effectively lobby governments in the context of social policy. Therefore, I would argue that declining profit rates are a uniquely motivating force when it comes to private firms attempting to solve the collective action problem in order to secure more private welfare spending, ultimately determining the ability of private companies "to be organized and politically active" (Persson & Tabellini 2002, pg. 191).

The current theory is entirely consistent with Faricy's approach to understanding social policy decisions. Still, the inclusion of average profit rates into the equation helps explain the intensity of partisan motivations of government actors over time. Generally speaking, conservatives and conservative parties are expected to favor more private spending, and liberals are expected to favor more public spending, all things being equal. But once the average rate of profit is taken into consideration, conservatives are expected to favor private spending more than they did previously. At the same time, liberals may be effectively forced into favoring more private spending due to the fiscal pressures incurred by a falling rate of profit. Both partisan groups face the same pressures associated with the average profit

rate of their national economies. Therefore, it becomes a question of whether the average profit rate either emboldens or conflicts with a political party's standard ideological position concerning public vs. private welfare spending.

2.1 Special Interest Politics

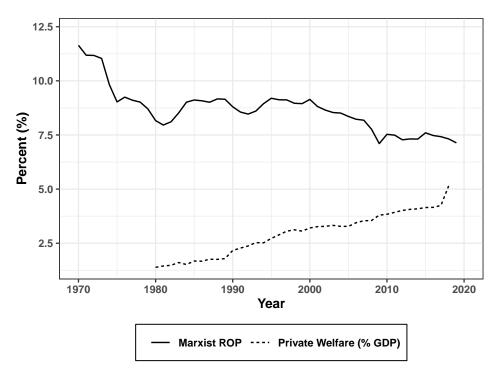
It is assumed that special interest groups can access the different partisan factions at their discretion. Each partisan faction will typically be approached by distinctly different special interest groups already aligned with the political positions of whichever partisan group they approach. It is also assumed that all conservative parties under observation share similar fiscally conservative attitudes. In contrast, all left parties are assumed to share similar fiscal/economic liberalism sentiments. Moreover, under normal circumstances, the overall financing scheme of a country's welfare state is assumed to be the product of typical governmental procedure and policy-making, wherein partisanship is the biggest factor in determining policy outcomes.

On the other hand, if the average rate of profit begins trending downward, all political parties, regardless of their standard ideological positions, will start being approached by special interest groups that all, in various forms, want the government to increase private social spending levels to make up for falling profits in the private sector. Based on the aforementioned theoretical expectations, I present the following testable hypotheses:

- **H1**: As the average rate of profit of a country's domestic economy *increases*, private social spending will *decrease*.
- **H2**: When conservative parties control the government, private social spending will increase.
 - H2.1: The rate of profit will have a stronger negative effect on private social spending when conservative parties control the government.

Private social spending is expected to have a negative relationship with the average rate

of profit, regardless of the particular measure employed, given that private businesses are primarily focused on maximizing profits and will go to great lengths to do so. Merely turning a profit is not sufficient for a private firm. Instead, the goal is to earn the largest sum of profits possible, above and beyond what it cost for said profits to be realized in the first place, which is precisely what the Marxist ROP and non-Marxist IRR are both designed to measure. Thus, if profit maximization is indeed the raison d'être of all private enterprises, it follows that the rate of profit reflects the extent to which such enterprises are able to succeed in maximizing their profits and the relative motivation they feel to lobby the government for financial assistance in the form of increases in private welfare.



Data Source(s): OECD Social Protection Database & Penn World Table 10.0

Figure 5: Average Rate of Profit & Private Welfare Spending

For reference, Figure 5 shows the historical trends in the ROP and private welfare spending, wherein each variable represents the average for all 24 OECD countries under observation.

3 Data and Methodology

The current paper uses data from the Penn World Tables (PWT), the World Inequality Database (WID), the OECD Social Protection Database (SOCX), the Varieties of Democracy Project (V-Dem), and the Comparative Political Data Set (CPDS). Each variable is measured at its recorded value for each country-year observation. I mention this because one article found that simply observing variables as their annual percent changes the end results would directly contradict results found by instead using the given year to year values of the same variables (Busemeyer 2009). That such a simple empirical specification can have such an impact on the outcome of an analysis indicates that any attempt to conduct a statistical analysis of the welfare state needs to be especially precise and transparent in its model specification, as well as in variable operationalization.

The main explanatory variable for each of my regression analyses is a measure of the average rate of profit, or rate of return on capital investment. To compare their respective explanatory power, I employ two different measurements of profit rates (ROP and IRR) in their own set of empirical models. For each of the empirical analyses, I employ an OLS regression with country-specific fixed effects, otherwise known as a least-squares dummy variable model (LSDV). Additionally, I follow the advice of Beck & Katz (1995) and apply panel-corrected standard errors (PCSE) to correct for heteroskedasticity, contemporaneous correlation, and autocorrelation. But in a slight deviation from the model specification commonly used in time-series panel studies, I do not include a lagged dependent variable in any of the regression models (Avelino, Brown, & Hunter 2005; Lupu & Pontusson 2011; Moene & Wallerstein 2001).

Excluding lagged dependent variables serves two functions. Firstly, because the models include country-level fixed effects, the inclusion of a lagged dependent variable could introduce Nickell-bias (Nickell 1981). And secondly, the inclusion of a lagged dependent variable would make it far more difficult to correctly interpret the coefficient estimates of all the explanatory and control variables "since the conditional effect of x on y is dynamic and aggregated over all periods" and would also mean that "the coefficient of the LDV estimates at best the average dynamic effect of all substantive RHS variables, rather than the actual

dynamic effect of each explanatory variable" (Troeger 2020, pg. 4-5). Moreover, results from various diagnostic tests fail to reject the null hypothesis of there being individual fixed effects, further demonstrating the appropriateness of including country-specific dummy variables in the regression models.

Similar to the empirical design used by Faricy (2011) and Faricy (2015), the first set of models includes national unemployment and annual inflation as control variables. Unemployment is included given that private social benefits are largely tied to one's employment, meaning that the movement of employment levels necessarily affects private spending increases or decreases in a virtually automatic manner. Inflation is included to control for the potential monetary pressures felt by governments to reduce its public expenditure, which would likely result in cuts to public social spending and/or increases in private social spending. To capture if a government is controlled by one partisan group or another, I code "government cabinet control" as a dummy variable based on if conservative parties make up a majority of positions or not. The same is done for left parties in the second set of models, which are displayed in Table 2.

The choice to use a different variable to capture the degree to which a government's cabinet is controlled by conservative or left parties was made in order to appropriately reflect the nature of non-US political systems, whereby most countries have multiple parties, meaning that it is possible for a country to have multiple conservative parties. Therefore, using cabinet control is more appropriate for the current analysis than trying to fully replicate Faricy's approach.

Each model also includes an interaction term between the respective measures of profit and right/left party control of government to see if the effect of the average rate of profit on levels of private social spending is dependent on partisan control of government. The results of the interaction terms will show whether or not the theory holds up that conservative governments increase private welfare spending more when the ROP/IRR is low versus when it is high, and left governments decrease private welfare spending less when the ROP/IRR

Similar to Iversen & Cusack (2000), results for models that do include a lagged dependent variable and country-specific dummies are included in the appendix to act as an informal robustness check on the main model design. Additionally, I provide results for each model after applying robust standard errors (Robust SE) and PCSE, respectively.

is low compared to when it is high.

Taking inspiration from Rickard (2012), the second set of models also include the following variables (as percentages of GDP): international trade and government subsidies. Rickard (2012) sought to examine the potential relationship between government subsidies and public social spending, wherein they theorized that an increase in one type of spending would come at the direct expense of the other (pg. 1172). I theorize that government subsidies will be associated with a decrease in private social spending, but not as a result of the reasons articulated by Rickard. Instead, private welfare spending is expected to be negatively associated with government subsidies simply due to the similarities of their functions. Put another way, receiving subsidies would accomplish the same thing as private social spending in that both types of benefits could help offset any potential economic losses/expenses of a recipient. Therefore, it is less that the two kinds of spending are in conflict with each other, but rather that they are complementary. If you receive a government subsidy, you are that much less inclined to also lobby for increases in private welfare and vice versa.

Comparative studies concerning the welfare state typically limit their scope to OECD countries as a means to control for cross-national economic and political development (Baek, Ryu, & Lee 2017; Garrett & Mitchell 2001; Hicks & Swank 1992; Iversen & Soskice 2006; Lupu & Pontusson 2011; Scruggs & Allan 2006). And while OECD membership is not universally agreed upon as the best mechanism for country selection, it appears to be the most widely used method in the literature, likely due to its simplicity and how easy it is for other scholars to replicate. On the other hand, some scholars have instead recommended selecting countries based on an index of democratization so that more country-level data can be included in the empirical analyses. There are also differences in variable operationalization across studies, as well as different ideas of what qualifies as social spending (summarized in Castles & Obinger 2007, pg. 212). In Lupu & Pontusson (2011), the authors limit their operationalization of welfare to government spending directed exclusively to "working-age households or, more precisely, households headed by someone between the ages of 25 and 59 years" (pg. 320). To their credit, the authors provide sufficient reasoning for their variable operationalization, but the narrowness of the operationalization is still consistent with the empirical diversity found in the welfare state literature at large, complicating any and all attempts to compare and replicate different studies that ostensibly cover the same general topic.

4 Results

Table 2 contains the results of for two sets of LSDV regression models. Columns 1 and 2 represent the models with the Marxist ROP as the main explanatory variable (EV), and columns 3 and 4 represent the models with the Non-Marxist IRR. Other than having a different EV, the two sets of model specifications are the same. Table 3 is set up similarly to Table 2, with only difference being that the displayed models replace the conservative party control of the cabinet variable with left party control. Other than this one variable change, the models are the same.

Both the ROP and IRR appear to have a negative and statistically significant relationship with private social spending, as expected. Interpreting the full model from column 2, a one unit increase in the Marxist ROP is associated with, on average and holding all things equal, a 0.137 unit decrease in private social spending (as a percentage of GDP). This number may appear to be substantively insignificant, but recall that the private welfare variable is measured as a percentage of GDP, meaning that ostensibly small numbers in fact correspond to rather large estimated impacts.

Models 1, 2, and 4 show that the measure of average profit rates is strongly associated with lower levels of private social spending. In model 3, the coefficient sign for the non-Marxist IRR is negative, as expected, but its relationship with private social spending is less statistically significant than the other models. This fact disappears once right party control of the legislature is swapped with left party control. In Table 2, models 1 through 4 all show that the Marxist and non-Marxist profit rates are consistently associated with reduced levels of private social spending, with the IRR in model 3 reaching 99-percent statistical significance.

The results for respective partisan cabinet control across all model specifications are consistently both substantively and statistically significant. Additionally, the signs for cabinet control are in accordance to my prior expectations. Left cabinet control is consistently nega-

Table 2: Right Cabinet LSDV Model Results

	Priv	vate Social Sp	ending (% G	DP)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.148***	-0.136***		
	(0.021)	(0.020)		
Non-Marxist IRR	,	,	-0.045^{*}	-0.070***
			(0.024)	(0.025)
Unemployment	-0.036***	-0.079***	-0.037^{***}	-0.090***
- 0	(0.012)	(0.015)	(0.013)	(0.016)
Inflation	-0.114^{***}	-0.069****	-0.126****	-0.078***
	(0.008)	(0.009)	(0.010)	(0.010)
Trade	,	0.011***	` ,	0.012***
		(0.001)		(0.001)
Subsidies		-0.136***		-0.115^{**}
		(0.045)		(0.046)
Government Debt		0.013***		0.015***
		(0.002)		(0.002)
Right Cabinet	1.641***	1.172***	1.489***	1.068***
	(0.300)	(0.240)	(0.261)	(0.208)
Marxist ROP x Right Cabinet	-0.179^{***}	-0.114****	, ,	` ,
	(0.032)	(0.025)		
Non-Marxist IRR x Right Cabinet	, ,		-0.183***	-0.113***
			(0.033)	(0.025)
Constant	4.725***	4.287^{***}	3.780***	3.571***
	(0.292)	(0.266)	(0.267)	(0.252)
Observations	714	714	714	714
\mathbb{R}^2	0.873	0.889	0.865	0.885
Adjusted R^2	0.868	0.884	0.860	0.880

Note: *p<0.1; **p<0.05; ***p<0.01

tively associated with private welfare, whereas right cabinet control is consistently positively associated with private welfare. Moreover, after interpreting their respective interaction term coefficients, the effects of both left and right cabinet control on private social spending are dependent on the ROP and IRR. As expected, the interaction term for right party control increases the negative effects that the ROP and IRR each have on private social spending. In contrast, the interaction term for left party control decreases the negative effect that the ROP and IRR each have on private social spending. Further, the overall interaction term results show that the effects of the ROP and IRR are reinforced by the presence of a right controlled cabinet. On the other hand, the negative effect on private welfare associated with

Table 3: Left Cabinet LSDV Model Results

	Priv	vate Social Sp	ending (% G	DP)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.244***	-0.209***		
	(0.025)	(0.020)		
Non-Marxist IRR	,	,	-0.128***	-0.138***
			(0.025)	(0.024)
Unemployment	-0.031**	-0.074***	-0.027^{**}	-0.084^{***}
1 0	(0.013)	(0.015)	(0.014)	(0.016)
Inflation	-0.116****			
	(0.008)	(0.009)	(0.011)	(0.010)
Trade	, ,	0.013***	` ,	0.013***
		(0.001)		(0.001)
Subsidies		-0.183****		-0.163****
		(0.046)		(0.048)
Government Debt		0.012***		0.015***
		(0.002)		(0.002)
Left Cabinet	-0.871***	-0.854****	-1.108***	-0.965***
	(0.254)	(0.211)	(0.260)	(0.239)
Marxist ROP x Left Cabinet	0.093***	0.079***	` ,	` ,
	(0.029)	(0.024)		
Non-Marxist IRR x Left Cabinet	, ,	, ,	0.140^{***}	0.107^{***}
			(0.032)	(0.028)
Constant	5.665***	5.089***	4.638***	4.337***
	(0.323)	(0.282)	(0.299)	(0.282)
Observations	714	714	714	714
\mathbb{R}^2	0.867	0.887	0.859	0.883
Adjusted R ²	0.862	0.883	0.854	0.878

Note:

*p<0.1; **p<0.05; ***p<0.01

the presence of a left controlled cabinet is consistently reduced by the effect of the ROP and IRR, but the overall effect remains negative, which implies that, as expected, the standard political preference of left parties can be effectively outpaced by the effect of the average profit rate, in contrast with the interaction between the average profit rate and right parties.

Both tables provide evidence that increased economic globalization is consistently associated with higher levels of private welfare spending. This finding can be tentatively interpreted as evidence in support of welfare studies that found globalization to be associated with lower levels of public welfare spending. Private welfare often comes at the direct expense of public welfare, so it certainly plausible that the pressure of globalization to reduce public welfare

also pressures governments to increase private welfare.

Unsurprisingly, unemployment consistently has a strong negative relationship with private social spending, as does the variable representing government subsidies. But in stark contrast to my expectations, inflation is also negatively associated with private social spending, at 99-percent statistical significance across all model specifications. One potential explanation for the negative relationship between inflation and private social spending has to do with debt burdens. As much as inflation can cause myriad problems for a country's economy, it has the positive side-effect of reducing debt burdens for individuals and businesses alike. Put simply, because inflation necessarily results in the devaluation of a nation's currency, the value of pre-existing debts also decreases. Therefore, inflation makes it easier to pay back outstanding debts, which might explain the negative association with private social spending. Rising inflation may, to some degree, alleviate the financial pressure to extract economic rents from the government. I leave to future research the task of examining if corporate debt (and possibly the private debt of wealthy households, too) affects levels of private social spending.

5 Conclusion

Few studies that seek to understand any given aspect of the welfare state have recognized that there are two essential parts to it: direct public spending and indirect private spending. The current paper attempts to bridge the gap between the handful of studies that have examined private welfare with the studies that have exclusively focused on public welfare. By employing similar methodological approaches used in other studies and building a novel theory to explain the determinants of private welfare, the subsequent findings are of great interest to scholars of the welfare state.

Both sets of regression models provide evidence that the framework exmployed by Faricy (2015) can be effectively applied to countries beyond the US, needing only minor methodological and conceputal adjustments. As discussed, the theory presented here did not necessarily contradict Faricy's or those that explained variations in public social spending via political partisanship or economic globalization. Rather, I theorized that there was an additional

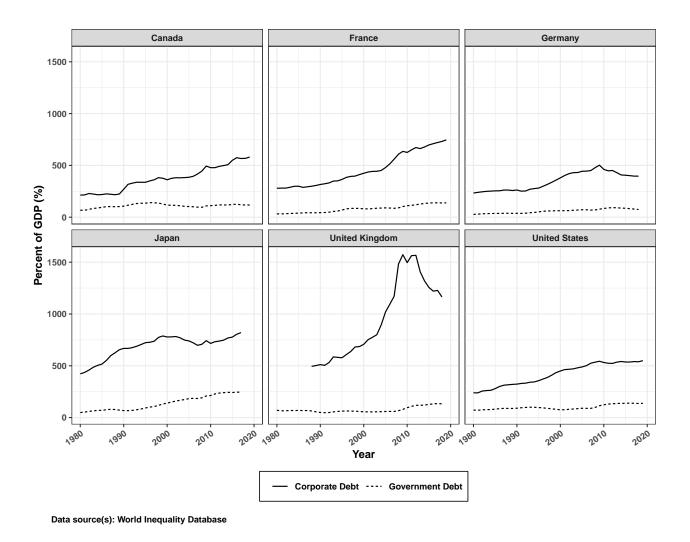


Figure 6: Cross-National Debt Levels (% GDP)

phenomenon that factored in to how political parties decide to provide social services, that being the Marxist concepion of the average rate of profit of a national economy. Results from the empirical analyses suggest that there are cross-national partisan differences in private welfare support, wherein left parties oppose it and right parties support it. Further, results also suggest that the average rate of profit emboldens conservative governments to increase private welfare as the ROP/IRR decreases. On the other hand, left governments appear politically constrained in their fiscal policy options as the ROP/IRR decreases and may be effectively coerced into supporting private welfare, albeit to a lesser degree than what a right government would support. And overall, the results support each of the stated hypotheses, lending support to the general theory that the average rate of profit affects the degree

to which governments finance their social welfare programs using private means instead of public ones.

As stated in the introduction, these findings have dire implications for the future of welfare states across most, if not all, advanced capitalist democracies. To the extent that Marx's LTRPF accurately reflects our economic reality, it follows that if average profit rates continue to decrease in a secular manner (as shown in Figure 6), its negative association with private welfare implies that private welfare should continue to increase in a secular manner for the foreseeable future. Moreover, the combination of the partisanship/average profit rate interaction effects and the observed long-term secular decline in average profit rates suggests that private welfare spending will continue to increase in a secular manner regardless of which political parties are in power. Rather, the only expected difference based on which type of political parties are in power would be the degree to which private social spending increases, discounting the possibility that changes in government partisanship can lead to decreases in levels of private spending, let alone increases in public social spending.

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Appendix 1: Alternate Model Results

Table 4: Right Cabinet LSDV Model Results (PCSE)

	Pri	vate Welfare S	pending (% GI	OP)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.066**	-0.064**		
	(0.029)	(0.029)		
Non-Marxist IRR	` ,	` ,	-0.036	-0.049*
			(0.028)	(0.029)
Unemployment	-0.008	-0.027^{*}	-0.008	-0.029^{*}
	(0.012)	(0.016)	(0.012)	(0.016)
Inflation	-0.051***	-0.036***	-0.055***	-0.040***
	(0.014)	(0.014)	(0.014)	(0.014)
Trade	` ,	0.004^{*}	` ,	0.005^{*}
		(0.002)		(0.002)
Subsidies		-0.052		-0.049
		(0.082)		(0.081)
Government Debt		0.005**		0.006**
		(0.003)		(0.003)
Right Cabinet	0.401**	0.278	0.442**	0.336*
-	(0.204)	(0.211)	(0.179)	(0.188)
Lagged DV	0.698***	0.664***	0.710***	0.671***
	(0.043)	(0.044)	(0.043)	(0.044)
Marxist ROP x Right Cabinet	-0.039	-0.020	, ,	, ,
-	(0.024)	(0.025)		
Non-Marxist IRR x Right Cabinet	` ,	` ,	-0.050**	-0.030
			(0.023)	(0.025)
Adjusted R ²	0.737	0.750	0.733	0.748

Note:

Table 5: Right Cabinet LSDV Model Results (Robust SE)

	Pri	vate Welfare Sp	ending (% GD	P)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.066***	-0.064***		
	(0.025)	(0.025)		
Non-Marxist IRR	,	` ,	-0.036	-0.049**
			(0.024)	(0.025)
Unemployment	-0.008	-0.027*	-0.008	$-0.029^{'*}$
	(0.011)	(0.015)	(0.011)	(0.015)
Inflation	-0.051****	-0.036**	-0.055****	-0.040^{**}
	(0.013)	(0.016)	(0.014)	(0.016)
Trade	` ,	0.004***	` ,	0.005***
		(0.001)		(0.001)
Subsidies		-0.052		-0.049
		(0.076)		(0.072)
Government Debt		0.005**		0.006***
		(0.002)		(0.002)
Right Cabinet	0.401	$0.278^{'}$	0.442*	0.336
	(0.248)	(0.253)	(0.239)	(0.242)
Lagged DV	0.698***	0.664***	0.710***	0.671***
	(0.092)	(0.096)	(0.090)	(0.094)
Marxist ROP x Right Cabinet	-0.039	-0.020	` ,	, ,
-	(0.025)	(0.026)		
Non-Marxist IRR x Right Cabinet	, ,	, ,	-0.050*	-0.030
•			(0.029)	(0.029)
Adjusted R ²	0.737	0.750	0.733	0.748

Note:

*p<0.1; **p<0.05; ***p<0.01

Table 6: Left Cabinet LSDV Model Results (PCSE)

	Pri	vate Welfare S	pending (% GD)P)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.082***	-0.078***		
	(0.028)	(0.027)		
Non-Marxist IRR	` ,	` ,	-0.056**	-0.068**
			(0.029)	(0.028)
Unemployment	-0.008	-0.026	$-0.00\acute{6}$	-0.027^{*}
	(0.012)	(0.016)	(0.012)	(0.016)
Inflation	-0.052****	-0.036**	-0.055****	-0.039****
	(0.014)	(0.014)	(0.014)	(0.014)
Trade	,	0.005*	, ,	0.005**
		(0.002)		(0.002)
Subsidies		-0.071		-0.070
		(0.083)		(0.082)
Government Debt		0.005^{*}		0.005**
		(0.003)		(0.002)
Left Cabinet	-0.132	-0.169	-0.307	-0.304
	(0.254)	(0.251)	(0.241)	(0.246)
Lagged DV	0.706***	0.667***	0.719***	0.675***
	(0.043)	(0.044)	(0.043)	(0.044)
Marxist ROP x Left Cabinet	0.006	$0.005^{'}$	` ,	` ,
	(0.031)	(0.031)		
Non-Marxist IRR x Left Cabinet	, ,	, ,	0.031	0.026
			(0.032)	(0.033)
Adjusted R ²	0.736	0.750	0.731	0.748

Note:

Table 7: Left Cabinet LSDV Model Results (Robust SE)

	Pri	vate Welfare S	pending (% Gl	OP)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.082***	-0.078***		
	(0.026)	(0.023)		
Non-Marxist IRR	,	,	-0.056**	-0.068***
			(0.023)	(0.020)
Unemployment	-0.008	-0.026	-0.006	$-0.027^{'*}$
- •	(0.012)	(0.016)	(0.011)	(0.015)
Inflation	-0.052****	-0.036**	-0.055****	-0.039**
	(0.014)	(0.015)	(0.014)	(0.016)
Trade	` ,	0.005***	` ,	0.005***
		(0.001)		(0.001)
Subsidies		-0.071		-0.070
		(0.076)		(0.073)
Government Debt		0.005**		0.005**
		(0.002)		(0.002)
Left Cabinet	-0.132	-0.169	-0.307	-0.304
	(0.265)	(0.206)	(0.187)	(0.198)
Lagged DV	0.706***	0.667***	0.719***	0.675***
	(0.090)	(0.096)	(0.089)	(0.095)
Marxist ROP x Left Cabinet	0.006	0.005	` /	,
	(0.031)	(0.025)		
Non-Marxist IRR x Left Cabinet	` '	` ,	0.031	0.026
			(0.021)	(0.025)
Adjusted R ²	0.736	0.750	0.731	0.748

Note:

Appendix 2: Alternate Model Results (2WFE)

Table 8: Right Cabinet LSDV Model Results (2WFE)

	Pri	vate Welfare S	pending (% GI	OP)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.037	0.052*		
	(0.024)	(0.028)		
Non-Marxist IRR			-0.047^{*}	0.036
			(0.025)	(0.028)
Unemployment	0.001	-0.022*	-0.0003	-0.023**
	(0.009)	(0.011)	(0.009)	(0.011)
Inflation	0.054***	0.044***	0.053***	0.045***
	(0.009)	(0.009)	(0.009)	(0.010)
Trade	` ,	-0.005****	` ,	-0.005****
		(0.001)		(0.001)
Subsidies		0.239***		0.230***
		(0.038)		(0.040)
Government Debt		0.006***		0.005***
		(0.001)		(0.001)
Right Cabinet	0.877***	0.961***	0.834***	0.888***
	(0.202)	(0.209)	(0.169)	(0.168)
Marxist ROP x Right Cabinet	-0.089****	-0.094****	,	,
ě.	(0.022)	(0.023)		
Non-Marxist IRR x Right Cabinet	,	,	-0.099***	-0.101***
9			(0.021)	(0.021)
Constant	1.262***	0.524*	1.102***	0.645***
	(0.270)	(0.278)	(0.233)	(0.231)
Adjusted R ²	0.909	0.912	0.910	0.913

Note:

Table 9: Left Cabinet LSDV Model Results (2WFE)

	Pri	vate Welfare S	pending (% GI	OP)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.075***	0.0003		
	(0.024)	(0.026)		
Non-Marxist IRR	, ,	, ,	-0.087***	-0.011
			(0.024)	(0.026)
Unemployment	0.005	-0.017	$0.005^{'}$	-0.017
	(0.009)	(0.011)	(0.009)	(0.011)
Inflation	0.056***	0.048***	0.056***	0.049***
	(0.009)	(0.009)	(0.009)	(0.010)
Trade	` ,	-0.005****	` ,	-0.005****
		(0.001)		(0.001)
Subsidies		0.209***		0.203***
		(0.037)		(0.039)
Government Debt		0.005***		0.005***
		(0.001)		(0.001)
Left Cabinet	-0.501***	-0.472^{***}	-0.737***	-0.785***
	(0.172)	(0.174)	(0.173)	(0.174)
Marxist ROP x Left Cabinet	0.045**	0.045**	, ,	` ,
	(0.021)	(0.021)		
Non-Marxist IRR x Left Cabinet	, ,	, ,	0.087***	0.098***
			(0.022)	(0.022)
Constant	1.683***	1.070***	1.572***	1.209***
	(0.277)	(0.275)	(0.245)	(0.238)
Adjusted R ²	0.908	0.911	0.909	0.911

Note:

Appendix 3: Alternate Model Results (2WFE, Lagged DV)

Table 10: Left Cabinet LSDV Model Results (PCSE)

	Priva	ate Welfare S	pending (% C	GDP)
	(1)	(2)	(3)	(4)
Marxist ROP	-0.044	-0.031		
	(0.032)	(0.032)		
Non-Marxist IRR	, ,	,	-0.054*	-0.041
			(0.030)	(0.030)
Unemployment	0.007	-0.005	0.007	-0.004
- V	(0.012)	(0.016)	(0.012)	(0.016)
Inflation	0.026	$0.021^{'}$	$0.025^{'}$	$0.021^{'}$
	(0.017)	(0.017)	(0.017)	(0.017)
Trade	, ,	0.001	,	0.001
		(0.003)		(0.003)
Subsidies		$0.074^{'}$		$0.074^{'}$
		(0.086)		(0.086)
Government Debt		$0.002^{'}$		$0.002^{'}$
		(0.003)		(0.003)
Left Cabinet	-0.063	-0.061	-0.286	-0.282
	(0.217)	(0.217)	(0.212)	(0.215)
Lagged DV	0.626***	0.620***	0.623***	0.618***
	(0.043)	(0.042)	(0.043)	(0.042)
Marxist ROP x Left Cabinet	$-0.00\acute{6}$	$-0.00\acute{6}$,	,
	(0.028)	(0.027)		
Non-Marxist IRR x Left Cabinet	` ,	` ,	0.026	0.026
			(0.029)	(0.030)
Adjusted R ²	0.582	0.585	0.583	0.586

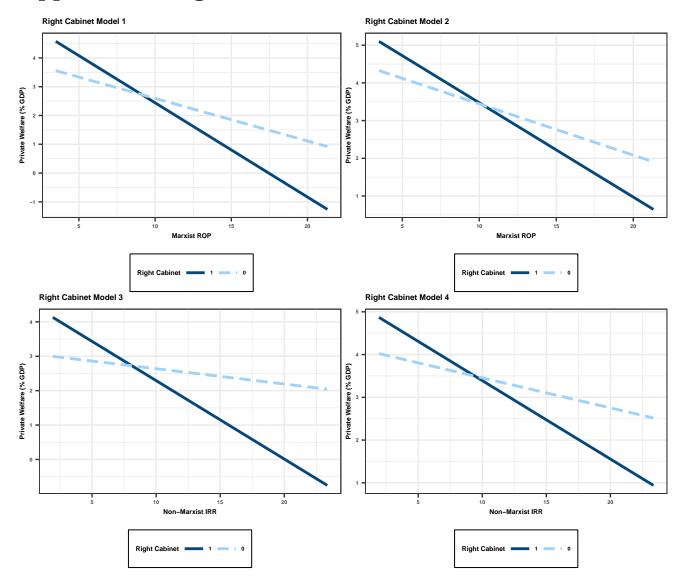
Note:

Table 11: Left Cabinet LSDV Model Results (Robust SE)

	Private Welfare Spending (% GDP)			
	(1)	(2)	(3)	(4)
Marxist ROP	-0.044*	-0.031		
	(0.025)	(0.033)		
Non-Marxist IRR	` ,	` ′	-0.054**	-0.041
			(0.022)	(0.026)
Unemployment	0.007	-0.005	$0.007^{'}$	-0.004
	(0.011)	(0.015)	(0.011)	(0.015)
Inflation	0.026**	$0.021^{'}$	0.025**	$0.021^{'}$
	(0.011)	(0.013)	(0.011)	(0.013)
Trade	` ,	0.001	` ,	0.001
		(0.002)		(0.002)
Subsidies		$0.074^{'}$		$0.074^{'}$
		(0.098)		(0.095)
Government Debt		0.002		0.002
		(0.002)		(0.002)
Left Cabinet	-0.063	-0.061	-0.286*	-0.282^{*}
	(0.160)	(0.144)	(0.148)	(0.153)
Lagged DV	0.626***	0.620***	0.623***	0.618***
	(0.086)	(0.087)	(0.087)	(0.088)
Marxist ROP x Left Cabinet	-0.006	-0.006	, ,	,
	(0.020)	(0.019)		
Non-Marxist IRR x Left Cabinet	` '	` /	0.026	0.026
			(0.018)	(0.019)
Adjusted R ²	0.582	0.585	0.583	0.586

Note:

Appendix 4: Right Government Interaction Effect Plots



Appendix 5: Left Government Interaction Effect Plots

