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Social Policy Commitment in South America. The Effect of Organized Labor on Social Spending from 1980 to 2010

Sara Niedzwiecki

Abstract: This paper studies the effect of organized labor on social policy commitment in Latin America. Contrary to the idea that unions are not expected to be major promoters of social state development due to being weakened by dictatorship and structural adjustment, I argue for the incorporation of this variable in statistical analysis of social spending. Through pooled time-series regressions of 10 South American countries from 1980 to 2010, this paper finds that union strength has a statistically significant and positive effect on social spending. This analysis also confirms that democracy and the concentration of power in the executive all have a significant effect with regard to predicting changes in the levels of social spending.

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Keywords: Latin America, social spending, labor movement, welfare states

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Introduction

Does organized labor influence long-term social spending in South American democracies? Contrary to the strong role of unions and their linkages to parties in advanced welfare states (Stephens 1979; Korpi 1978; Huber and Stephens 2001), it has been argued that organized labor is unlikely to be a major promoter of social state development in Latin America. This is because (i) dictatorship and structural adjustment have critically weakened unions, (ii) unions are not progressive and only represent a narrow working base, (iii) parties are less institutionalized than those in the OECD countries, and (iv) the linkages between unions and political parties are different and have probably become weaker since the implementation of market-oriented reforms (Coppedge 1998; Kitschelt et al. 2010; Roberts 2002; Weyland 2004; Haggard and Kaufman 2008; Stein et al. 2006: 107). Partly for these reasons, researchers conducting statistical analyses on the determinants of social spending in Latin America have either excluded the role of organized labor (Huber, Mustillo, and Stephens 2008; Haggard and Kaufman 2008) or included it in an index together with left partisanship (Segura-Ubierno 2007).

This paper argues that there are theoretical reasons to expect unions to shape social spending in Latin America.¹ The main contribution of this paper is to test the independent long-term effect of unions on social policy commitment, especially since the return of democracy. In particular, I argue that the independent effect of unions on social policy commitment has been significant (and positive) throughout the periods of retrenchment (1980–1999) and expansion (2000–2010). This is true even when partisanship is not a relevant predictor of social policy commitment.

The main factors that prevent left partisanship from having a significant influence are parties' low levels of institutionalization, the lack of correspondence between class cleavages and political parties, and the weaker substantive content of “left” and “right” party labels when compared to those in both Eastern and Western European countries (Kitschelt et al. 2010: 111; Mainwaring and Scully 1995; Roberts 2002). In particular, serious economic constraints during retrenchment years led candidates elected on left-of-center platforms (e.g. in Argentina, Mexico,

1 Acknowledgements: I wish to thank Evelyne Huber and Jonathan Kropko for their excellent comments throughout the many iterations of this paper. Thomas Carsey, Kenneth Roberts, John Stephens, Jim Stimson, and Alissandra Stoyan also provided helpful comments on previous drafts of this paper. All remaining errors are my own responsibility.

and Venezuela) to ignore their campaign promises and implement neoliberal policies (Murillo 2001; Stokes 2001). By the end of the first decade of the twenty-first century, democracies in Latin America had become more consolidated and economic constraints had lessened; party systems, however, remain weakly institutionalized. In fact, most left parties elected to the presidency in Latin America have either been characterized by low levels of institutionalization (such as in Bolivia, Venezuela, and Ecuador) or functioned as populist machines that concentrate authority in a dominant personality and lack a coherent ideology (such as in Argentina and Nicaragua) (Levitsky and Roberts 2011: 13).²

This paper is divided into three sections. After this introduction, the first section discusses the literature that underpins this study and its theoretical expectations. In the second section I briefly describe the variables and use pooled time series data and different model specifications in South American countries during 1980–2010 to analyze the determinants of changes in social spending levels. This statistical analysis will be useful for testing the effects of (i) labor movement strength, (ii) the left-partisan balance in the lower house, (iii) the concentration of political power in the executive, and (iv) the cumulative years of democracy on total, social security, and health spending as a percentage of GDP. In the third section I then summarize and reflect on the implications of my findings for the analysis of social policy in Latin America.

Unions, Parties, and Social Spending

This paper analyzes the independent effect of organized labor on social policy commitment in South America. I argue that union strength has a significant effect on social spending: the stronger the organized labor movement, the greater the total, social security and welfare, and health spending as a percentage of GDP. This theoretical expectation is derived from power resources theory and the broader welfare states theory. Additionally, this paper incorporates analyses that focus on how the concentration of power, democracy, and globalization shape social spending.

Power resources theory focuses on the role of class to explain societal institutions. The chances of success in a distributive conflict are shaped by the relative differences in the distribution of resources

2 Chile, Brazil, and Uruguay have been considered the only Latin American countries with institutionalized left parties elected to the executive (Levitsky and Roberts 2011: 13).

(Stephens 1979; Korpi 1978: 24, 50). In OECD countries the welfare state is the democratic attempt to influence the distribution of power resources (Korpi 1978: viii–x), while the organized working class is the main agent of change. As a result, social democratic welfare states have developed in countries with a strong organized working class. The working class promotes change by being represented by leftist – and, in part, Christian Democratic – parties, which expand the welfare state once in power (Stephens 1979; Huber and Stephens 2001; Esping-Andersen 1990; Korpi 1978: 319–323). Both left-wing parties and unions demand generous social policies and thus increases in spending. It is therefore standard practice to use the strength of left-wing parties as an indicator of the role of the labor movement (e.g. Huber and Stephens 2001; Hicks 1999; Iversen and Stephens 2008).³

The argument that the ideological position of political parties in OECD countries plays a critical role in social policy formation has been supported by previous analysis (Stephens 1979; Huber, Ragin, and Stephens 1993; Huber and Stephens 2001). Huber and Stephens argue that in the long term, partisanship has a “ratchet effect” on social policy (Huber and Stephens 2001: 28–32). According to this concept, leftist governments affect social policy by providing broad entitlements during periods of expansion, which become popular. During periods of retrenchment, however, partisan governments’ effects are weakened because the Right is constrained by the popularity of social programs and the Left faces fiscal constraints (Huber and Stephens 2001; Pierson 1996; Pierson 2001). Organized labor strength is, in turn, strongly related to left incumbency in advanced industrial democracies.⁴ In the post-retrenchment literature in OECD countries, the roles of labor strength and left partisanship vary between the different varieties of capitalism. For instance, whereas coordinated market economies exhibit social partnerships between unions and employers, liberal market economies exhibit adversarial relations and weaker employment protection (Hall and Soskice 2001). Different social coalitions, which include organized labor,

3 Jensen (2012) and Kwon and Pontusson (2010) represent noticeable exceptions in the literature on advanced democracies. Jensen (2012), in particular, argues for the need to separate union strength and left partisanship because unions and left parties may both want increases in spending, but on different types of social programs. In addition, unions may also influence policies under right-wing governments.

4 Besides organized labor, other organizations in civil society such as the women’s movement can also deploy their organizational power resources and affect social policy outcomes (Huber and Stephens 2006).

shape different liberalization reform paths with important implications for redistribution (Thelen 2014).

Most of these theories have been developed and tested in Europe; only the most recent works have tested these hypotheses for Latin American states, through the inclusion of a partisanship variable in regression analyses. Huber and Stephens (2012) find that the cumulative effect of left partisanship is not a significant predictor of increases in social expenditure but matters for poverty and inequality reduction. This means that the Left allocates expenditures in a more redistributive way. The lack of significance of the partisanship variable for accounting for increases in broad categories of social spending is parallel to previous findings and responds to the weakness of leftist parties in formative periods of social security systems and the inheritance of Bismarckian or employment-based contributory systems (Huber, Mustillo, and Stephens 2008: 433–434).

Along similar lines, some previous studies have noted that political parties are weaker in Latin America, albeit with considerable variation across countries (Coppedge 1998; Mainwaring and Scully 1995; Kitschelt et al. 2010; Roberts 2002; Mainwaring and Torcal 2005). To begin with, left parties have engaged in nonprogressive social policies, thus making social policy predictions based on partisanship a difficult enterprise (Madrid 2003). In addition, the substantive content of “left” and “right” labels is less meaningful in Latin America than in Eastern and Western Europe (Kitschelt et al. 2010: 111). This is partly due to the lack of congruence between class structure and political organization. In particular, labor movements were weakened during neoliberal policies, which produced a shift away from mass-based parties toward elitist parties (Roberts 2002).

While there is some evidence about the effect of partisanship on social policy commitment, there are no comparable findings on the role of organized labor. Existent statistical analysis on the determinants of social policy spending in Latin America have either not included the strength of labor movements (Huber, Mustillo, and Stephens 2008; Haggard and Kaufman 2008; Huber and Stephens 2012), have included it in an index together with left partisanship (Segura-Ubierno 2007), have included two measures of labor strength yielding opposite results (Wibbels 2006), or have included a measure of collective protest that produces different results across spending on human capital and social security (Zarate Tenorio 2014). This exclusion is partly related to the fact that neoliberalism and military dictatorships in Latin America have weakened unions, both in terms of participation and political power

(Weyland 2004: 145–149; Roberts 2002; Stein et al. 2006: 108). Therefore, we should not necessarily expect unions to have a strong effect on social policy commitment. Nevertheless, previous qualitative works on the region have shown the relevance of unions and union–government interactions to social policy reforms, during both retrenchment and expansion periods.

Some authors claim that in late-industrializing countries, workers place greater value on alliances with political parties – thus accepting, for instance, market-oriented reforms often in return for concessions (Murillo 2001: 197). For others, neoliberal reforms are possible in weakly structured and routinized labor parties, which offer the flexibility to replace weak union-based linkages with personal-based clientelistic networks (Levitsky 2003: 2–3). According to Levitsky, organized labor accepted neoliberal reforms in Argentina because of the unions’ “long-standing social, political and organizational ties to Peronism” (2003). Recent works have highlighted the crucial role unions and other civil society groups play in welfare state formation and social policy reform (Dion 2010; Niedzwiecki 2014). These frameworks are helpful for pointing out the relevance of unions and the ways in which they impact social policy commitment.

Given the existing qualitative evidence and the initial resurgence of strong labor movements (Etchemendy and Collier 2007), I include an independent measure of organized labor strength to analyze the determinants of social policy commitment. I argue that, as it is the case in advanced industrial democracies, strong and encompassing labor movements always demand more social services, which are materialized by increases in social spending. This is because social welfare caters to the interests of unions’ constituencies: formal workers. These policies protect workers from the risks associated with the market, sickness, and old age. In addition, the stronger and more centralized union organization is, the stronger the preference of unions for encompassing policies that benefit all workers (Stein et al. 2006: 107). The reason for this is that the leaders of encompassing and strong labor movements care about the entire labor force and have the institutional capacity to ensure a broad outcome (Garrett 1998: 9).

Apart from welfare state theory and power resources theory, there are alternative explanations (found within the institutionalist, democratization, and globalization literatures) that tackle the question of the determinants of social spending. The institutional perspective, as well as the concentration of power more generally, sheds light on the debate over the opportunity structure that presidents face when implementing

their own social policy agenda. Given that retrenchment is less popular than expansion, the constitutional and partisan concentration of power in the executive branch facilitates overall cuts in social spending. Previous analyses on social spending have included institutional variables in random-effects pooled time-series models (Huber, Mustillo, and Stephens 2008) or excluded this variable in fixed-effects models that do not allow for nonchanging variables within units across time (Segura-Ubiergo 2007).

The effect of democracy on governments' social spending has shown mixed results in the literature on Latin America. The relevance of this variable has to do with the fact that parties and organized civil society can only be strengthened in a democratic context. While some authors have found no relationship between democracy and overall social spending (Kaufman and Segura-Ubiergo 2001; Haggard and Kaufman 2008), others have found a positive and statistically significant correlation (Huber, Mustillo, and Stephens 2008; Huber and Stephens 2012; Avelino, Brown, and Hunter 2005; Brown and Hunter 1999). According to these studies, democracies respond to voter pressure more than authoritarian governments do, and regime type is "more influential in determining which constraints matter" (Brown and Hunter 1999: 779). To quantify the dynamics in this variable, Huber, Mustillo, and Stephens (2008) and Huber and Stephens (2012) measured the cumulative record of democracy through the number of years that a certain country has been democratic. These studies examined the determinants of social spending in random-effects pooled time series for 18 Latin American and Caribbean countries for the period 1970–2007, finding that democracy mattered in the long run for social security and welfare, health, and education spending.

Explanations based on globalization have offered support for both the expansion and retrenchment of the welfare state. Since globalization increases poverty and inequality, in advanced industrial economies the newly excluded will pressure the state for compensation; the state will respond accordingly by expanding protection to these groups. Empirical analyses of Latin America, however, have shown mixed results. Integration into the world economy has produced, on the one hand, an overall decrease in social spending, particularly during economic crises and due to the consequent policies of structural adjustment (Wibbels 2006). On the other hand, trade openness has led to an overall increase in aggregate social spending as a result of significant growth in human capital spending (Avelino, Brown, and Hunter 2005). Disaggregating the dependent variable shows that globalization negatively affects social

security spending (mainly financed through payroll taxes) but not necessarily human capital spending (including health and education) (Kaufman and Segura-Ubiergo 2001; Segura-Ubiergo 2007; Wibbels 2006). Yet, others have found that more-open markets increase both education and social security expenditures (Avelino, Brown, and Hunter 2005). Overall, the inconsistency of the findings is related to the selection of different time frames, cases, data, methods, and control variables (Huber and Bogliaccini 2010).

Measuring Concepts and the Statistical Model

The sample for this statistical analysis consists of 10 South American countries: Argentina, Brazil, Bolivia, Chile, Colombia, Ecuador, Peru, Uruguay, Paraguay, and Venezuela. These cases were selected because they are the largest countries in the region and there is available data. In addition, geographically narrowing the analysis to South American countries allows for studying the effect of labor in middle-income countries with somewhat homogeneous economies. The dataset includes an unbalanced panel at the national level, covering the period 1980–2010.⁵ Table 1 shows the countries and years included in the analysis.

Table 1: Countries and Years

Country	Year
Argentina	1983–2010
Bolivia	1982–2010
Brazil	1985–2010
Chile	1990–2010
Colombia	1980–2010
Ecuador	1980–2010
Paraguay	1989–2010
Peru	1980–1991, 1995–2010
Uruguay	1985–2010
Venezuela	1980–2010

Source: Author’s own compilation.

The sample countries are not included in the dataset during periods when authoritarian governments were in power, as the effect of unions and parties is only significant in a democratic context. The measurement of the dependent variable was available for between 21 (minimum) and 30 (maximum) observations per country for the analyzed period.

5 I take the year 1980 as the cut-off because at some point during or after 1980 all the countries in my dataset became democracies.

The models employed here include Prais-Winsten regressions, which use panel corrected standard errors (PCSE) and first-order autoregressive corrections that deal with the contemporaneous correlation of errors across countries (Beck and Katz 1995). In addition, given that the model includes both time-variant variables within countries (such as cumulative years of democracy) and rarely changing variables within countries (such as constitutional powers in the hands of the executive), I decided to apply a statistical model that deals with this kind of data at the same time that it tackles the problem of heterogeneity in the dependent variable – which is a particularly serious issue in time-series cross-sectional data (Stimson 1985). Mundlak (1978) and later Bartels (forthcoming) developed a modeling framework that is presented as a compromise between random- and fixed-effects models; for this reason, Bartels calls it a “unified” approach.⁶

The authors present this model as a way of differentiating within and between unit effects, accounting for unit-level unobserved heterogeneity through a random intercept and allowing for the inclusion of nonchanging variables across time in a single unit. In this model I first calculate within- and between-unit transformations of variables that vary across both dimensions.⁷ The second step is to run a random-effects model (Prais-Winsten PCSE) including (i) within- and between-unit coefficients of the changing variables across panels and time and (ii) nonchanging variables across time, while the error is partitioned into a within and a between cluster component. The within effect of the independent variables, therefore, should not be correlated with the between error.

For robustness checks, besides running the same model through different specifications, I employ additional data tests to rule out a significant problem with multicollinearity and influential outliers driving

6 I thank Jon Kropko for showing me the relevance of this model for the question I am asking (Kropko 2011). The appropriate application of this model remains my own responsibility.

7 The between-unit effect (B) is the average value of the variable over time for

each country, calculated through $X_i^B = \bar{X}_i = \frac{\sum_{t=1}^T X_{it}}{T_i}$. The within-unit

effect (W) centers the data around its mean and is the difference between that variable and the between variable. In this way, it removes the average differences between countries, calculated through $X_{it}^W = X_{it} - X_i^B$.

the results.⁸ Finally, I do not include a lagged dependent variable since that would suppress the power of other significant independent variables.⁹

Measures of Social Spending and the Independent Variables

The dependent variable, social spending, is measured through total spending as a percentage of GDP, social security and welfare spending as a percentage of GDP, and health spending as a percentage of GDP. The data comes from Huber et al. (2008b) and has been updated with data from Cepal.¹⁰ These variables were originally compiled using values from four spending series – one IMF series and three Cepal series.¹¹ Disaggregating the dependent variable into three components follows the claim that social spending has a different effect on poverty reduction depending on the type of spending in place. Huber, Mustillo, and Stephens (2008) discuss how social security spending has proven regressive in the region because it tends to benefit particular categories of employees and sectors and is generally tied to formal-sector employment. On the contrary, health spending is progressive overall, particularly in terms of expenditure on primary healthcare and nutrition. My

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- 8 To test for multicollinearity, I developed VIF in Stata. The average VIF is around 3.6 including dummy variables. Given that some of the variables appear to be skewed, I observed whether the results were dependent upon a few outliers by plotting the residuals against the dependent variable and dropping the countries one at a time. Looking at the scatter plots, there does not seem to be a problem with influential outliers. In addition, dropping each country one at a time does not change the main results. I also developed a test for heteroskedasticity (“hstest” in Stata), and there is no heteroskedasticity in the errors. The tests for ruling out heteroskedasticity and multicollinearity are shown in Appendix A4.
- 9 As Achen (2000) shows, lagged dependent variables “bias the substantive coefficients toward negligible values and does artificially inflate the effect of the lagged dependent variable” due to high serial correlation and trending in the exogenous variable.
- 10 Cepalstat, online: <http://estadisticas.cepal.org/cepalstat/WEB_CEPALSTAT/estadisticasIndicadores.asp?idioma=e> (1 July 2014).
- 11 The criteria for selecting among social spending figures starts with the IMF, then Cepal, followed by Cominetti, and finally Social Panorama. For a more extensive explanation on the selection and coding, see the codebook of Huber et al. (2008b), online: <www.unc.edu/~jdsteph/common/data-common.html> (23 July 2014).

decision to focus on levels of expenditure as opposed to percentage changes in the level of expenditure is based on three theoretical and practical reasons. First, year-to-year changes in expenditures are strongly determined by economic cycles, but I am interested in entitlements. Second, errors in the original dataset are exaggerated when taking into account annual change. Third, and most importantly, I am concerned with measuring long-term effects, which are not captured in yearly change (Huber and Stephens 2001: 57–64).

Table 2: Social Spending (Total, Social Security, and Health) as a % of GDP by Country

Country	Social Spending	Mean	Std. Dev.	Min	Max
Argentina	Total	16.9	4.2	8.8	27.8
	Social security	8.5	1.8	4.9	12.9
	Health	4.0	1.3	1.3	6.2
Bolivia	Total	9.2	3.5	3.3	15.6
	Social security	3.5	1.8	0.1	6.1
	Health	1.5	0.9	0.3	3
Brazil	Total	17.2	5.3	8.4	27.1
	Social security	9.8	2.5	5.9	14.1
	Health	3.4	1.2	1.3	5.2
Chile	Total	14.0	2.8	11.1	21.6
	Social security	8.0	2.4	5.4	14.3
	Health	2.5	0.6	1.7	4.1
Colombia	Total	9.8	3.8	3.7	14.6
	Social security	4.8	1.9	2.4	8.6
	Health	2.0	1.0	0.7	4.1
Ecuador	Total	7.0	1.6	3.8	9.8
	Social security	2.2	0.6	1.2	3.1
	Health	1.4	0.4	0.7	2.2
Paraguay	Total	6.9	2.8	1.3	11.0
	Social Security	3.0	1.0	1.1	5.3
	Health	1.2	0.8	0.3	3.5
Peru	Total	5.7	1.9	3.3	10.0
	Social security	2.5	0.7	0.9	3.6
	Health	1.1	0.2	0.8	1.7
Uruguay	Total	19.4	2.4	14.2	23.3
	Social security	13.3	1.6	10.6	16.8
	Health	3.2	0.8	1.7	4.9
Venezuela	Total	8.4	1.6	6	12.1
	Social security	2.6	1.0	1.2	4.6
	Health	1.5	0.3	0.8	2

Source: Author’s own compilation and calculation.

Table 2 summarizes the levels of social spending by country. It confirms that Uruguay, Argentina, Brazil, and Chile are by far the highest spending

countries in South America in terms of social spending (Huber and Stephens 2012, 2010). We can also see that social security and welfare spending accounts for the majority of social spending, whereas health spending represents only a small portion thereof. Overall, Table 2 shows high variation in the dependent variable across countries and types of social spending. Table 3 summarizes all variables included in the regression analysis and described below.

Table 3: Summary Statistics of Dependent, Independent, and Control Variables

Variable	Mean	Std. Dev.	Min	Max
Dependent Variables				
Total government social spending (% GDP)	11.5	5.7	1.3	27.8
Social security and welfare spending (% GDP)	6.0	4.1	0.1	16.8
Health government spending (% GDP)	2.2	1.3	0.3	6.2
Independent Variable				
Strength of organized labor	0.0	1.0	-1.5	2.9
Competing Explanations				
Legislative partisan balance	0.7	0.4	0.0	1.9
Constitutional concentration of power in the executive	0.0	1.0	-0.7	2.7
Partisan powers of the president in the lower house	0.3	0.2	0.0	0.8
Cumulative years of democracy	29.4	13.7	0	57
Control Variables				
GDP per capita	6225	2315	2546	12524
Trade (% GDP)	46.2	21.3	11.5	131
Balance of payment	-9e+8	7.3e+9	-4.7e+10	4.1e+10

Source: Author’s own compilation and calculation.

The main independent variable (organized labor strength) is measured through an index constructed through factor analysis. In the literature it is conventional to measure labor movement strength through union density and the degree of organizational concentration (Roberts 2002: 14; Bogliaccini and Filgueira 2011; Garrett 1998: 13). The percentage of the workforce that is unionized is a measure of the representativeness and the scope of the movement. More encompassing labor movements demand social policies that affect a broader population (Garrett 1998: 9). Union concentration, in turn, shows the capacity of a labor movement for political action. However, union density measures in Latin America exhibit a relatively high level of missingness (see Appendix A2), and the data on union concentration does not exhibit variation within countries

across time. I therefore include a third indicator of this variable (minimum wage), which does not exhibit high levels of missingness and shows variation both across countries and within countries across time. Most importantly, minimum wage is highly correlated with union strength.¹² While union density and union concentration are direct measures of union strength, minimum wage is a proxy of it.¹³

As a result, the index variable for organized labor strength includes three observable indicators: (1) the proportion of workforce organized into unions coded for each country and each year taken from the Human Rights Report of the US State Department (Section on “The Right of Association”),¹⁴ (2) minimum real wage value taken from Huber et al. (2008b) and updated with CEPAL data, and (3) union concentration provided by Kenneth Roberts.¹⁵ This index ranges from -1.5 to 2.9 (see Table 3).¹⁶

12 Sobel (1999) shows how the political strength of unions (and the weakness of business interests) increases the minimum wage in the United States. When unions gain more power, they partly use this power to increase the minimum wage.

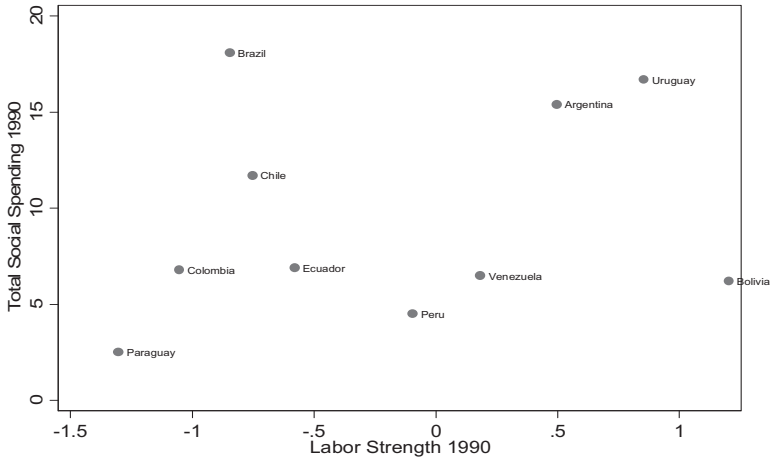
13 An additional possible indicator of labor strength is the number of strikes and the number of people participating in those strikes. However, this indicator suffers from theoretical and empirical shortcomings. On one hand, protests can be used more as defensive strategies than as a mechanism to influence policy making (Stein et al. 2006: 111). On the other hand, and to my knowledge, there is no reliable source that includes data for all the countries included in this analysis or for the relevant time frame. The absence of other reliable indicators of labor strength therefore makes the minimum wage an accurate proxy for labor movement strength.

14 Given the lack of variation within countries across time, the years that have missing information take on the value of the closest year. I thank Kenneth Roberts for pointing out the relevance of this source.

15 For Paraguay, I use the Human Rights Report of the US State Department.

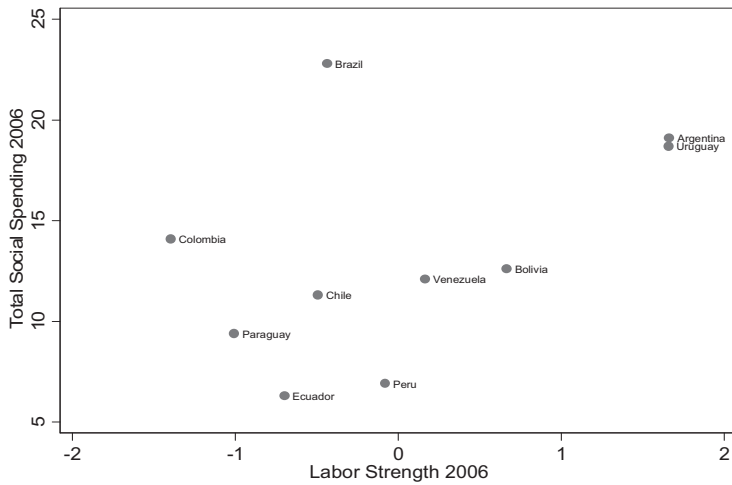
16 Appendix A2 shows missingness in the original indicators of this variable. The factor analysis, presented in Appendix A3, produces three factors. Only one has an Eigenvalue larger than 1 (1.5) and is therefore the only factor retained. Each dimension loads positively and produces a factor that accounts for half of the total variance. Although in confirmatory factor analysis loadings should be 0.7 or higher to confirm that independent variables identified a priori are represented by a particular factor, the 0.7 standard is a high one and real-life data may well not meet this criterion. Therefore, the factor loadings for strength of labor can be considered as “medium-high.”

Figure 1: Total Social Spending as a Percentage of GDP and Strength of the Labor Movement, 1990



Source: Author's own compilation and calculation.

Figure 2: Total Social Spending as a Percentage of GDP and Strength of the Labor Movement, 2006



Source: Author's own compilation and calculation.

In Figures 1 and 2 the sample countries' total social spending as a percentage of GDP is plotted for the randomly selected years of 1990 and 2006. The countries with the strongest labor movements, Argentina and Uruguay, are located on the far right of the x-axis, while countries with traditionally weak labor movements, such as Paraguay and Colombia, are located on the far left. In addition, Figures 1 and 2 show the positive association between labor strength and total social spending as a percentage of GDP.¹⁷

The second independent variable, legislative partisan balance, taps left partisan presence in the lower house. This variable was taken from the Huber et al. (2008a) dataset (updated in 2014), which bases its categories on Michael Coppedge's *A Classification of Latin American Political Parties* (1997).¹⁸ Coppedge's classification includes two main dimensions and a residual dimension. The first main dimension consists of a left–right ideological spectrum regarding class appeal that focuses on growth and redistribution. The second main dimension is a religious one and includes the categories “secular” and “Christian.” The residual dimension consists of three categories: personalist, other, and unknown. Huber and Stephens constructed a party index (which they call the “ideological center of gravity” or “legislative power balance”) in which higher values result in a left-leaning balance and the secular and religious categories are aggregated. The index is constructed as follows:

$$Right \times 0 + 0.5 \times CenterRight + 1 \times Center + 1.5 \times CenterLeft + 2 \times Left$$

The third independent variable is the constitutional concentration of power in the executive, measured through a factor analysis that includes the following indicators: (a) federalism (0 if federal, 1 if unitary); (b) type of electoral system (0 if PR, 1 if modified PR, 2 if majority); (c) type of cameralism (0 if strong bicameralism [symmetrical and incongruent], 1 if weak bicameralism [symmetrical and congruent], 2 if unicameralism or any variety of asymmetrical bicameralism); and (d) judicial review (0 if exists, 1 if does not exist). This data (updated in 2014) is included in Huber et al. (2008a).

17 It is noteworthy that the x-axis and the y-axis are larger in 2006 than in 1990. This is because both social spending and organized labor increased throughout this time frame.

18 The dataset was originally constructed by consulting country experts on the classification of parties that participated in elections for the lower house since 1912. The update of the dataset was conducted in 2014 by Huber and Stephens through primary and reference materials.

The fourth independent variable is partisan powers of the president in the lower house. Partisan powers are measured through the percentage of seats in the lower house held by the party of the president – this is also taken from Huber et al. (2008a). The fifth independent variable is the cumulative years of democracy from 1945 until 2010, coded “0” if nondemocracy and “1” if democracy. The original coding of this dichotomous variable follows Przeworski, Cheibub, and Limongi (2000), updated by Huber et al (2008a).

Four control variables (updated in 2012) have been added from Huber et al. (2008b). First, to measure the level of wealth and level of income in a given country, I include real GDP per capita in constant dollars based on 2005 purchasing power parities.¹⁹ Second, to measure the effect of globalization, I include the level of trade. This is measured as imports plus exports as a percentage of GDP and is based on the World Bank’s World Development Indicators. Third, I incorporate a measure for current account balance of payments (in current dollars), originally taken from the World Development Indicators. Finally, I include a dummy variable for the period 2000–2010 (1980–1999 = 0; 2000–2010 = 1) to control for the dual phase of widespread cuts in the 1980s and 1990s and the phase of expansion during the first decade of the twenty-first century.²⁰

Results

The main finding derived from the following regressions is that labor movements consistently lead to an increase in social spending as a percentage of GDP. Not only is this true for total social spending and social security spending in every model specification, it is also the case for health spending during the expansion period and when comparing countries. Conversely, the effect of left partisan balance in the lower

19 This variables was originally taken from Penn World Table Version 7.1. The Chain Index, in which this variable is based on, incorporates changing relative prices into the analysis. As a result, the growth rate of GDP per capita for a given period is based upon international prices most closely allied with that period.

20 I changed the cut-off point to different values and replaced it with a dummy for the years in which the country had an agreement with the IMF; this did not alter the main results (see Appendix A6). I did not include more controls for economic conditions to avoid overspecifying the model and because of their varying significance and signs across different analyses (e.g. Kaufman and Segura-Ubiergo 2001; Huber and Stephens 2012).

house is mostly insignificant with regard to predicting changes in social spending across South American countries and across time. In addition, and in keeping with previous findings, cumulative years of democracy in a given country lead to an increase in social spending. Finally, presidents have used their constitutional powers to cut spending rather than expand it. These results can be seen in Tables 4 through 10, which use an array of model specifications such as bivariate correlations, regressions that incorporate interaction terms, and models that differentiate “within” and “between” coefficients.

Table 4: Bivariate Correlations between Social Spending (as a Percentage of GDP) and Labor Strength

	Coefficient	Std. Err.	P> t
Total Social Spending	1.38***	.33	.00
Social Security Spending	.97***	.24	.00
Health Spending	.25***	.08	.00

Note: ***p<0.01, **p<0.05, *p<0.1.

Source: Author’s own compilation and calculation.

The effect of the labor movement on social spending is consistently significant and positive, which can be seen from the bivariate correlations between labor strength and the three types of government social spending in Table 4. The correlations are highly significant and positive in each of the three specifications of the dependent variable as a percentage of GDP.

Table 5 incorporates control variables in a Prais-Winsten PCSE regression. The effect of organized labor on total spending and social security and welfare spending is significant. A one-unit increase in the index variable for organized labor strength increases total spending by around 0.8 percent of GDP. For a medium-sized country in South America, such as Colombia, this represents roughly USD 200 million (in an economy with a PPP GDP of USD 250 billion; Avelino, Brown, and Hunter 2005). Tables 6 through 10 incorporate interaction terms and “within” and “between” coefficients, confirming the strongly significant and positive effect of labor strength on total spending and social security and welfare spending. It is worth mentioning that the effect of organized labor is generally stronger in the expansion period (Tables 7 and 10) than in the retrenchment period (Tables 6 and 9). While a one-unit increase in the labor-strength index increases total social spending by 0.77 points in the period 1980–1999 (Table 6), the effect increases to 1.32 points in the period 2000–2010 (Table 7). In addition, the effect of the labor movement is almost exclusively across countries rather than within countries

across time (Tables 8–10). This is because most of the variation in the index variable for organized labor strength is found across cases, as Appendix A1 shows.

The effect of organized labor on health spending deserves particular attention. In the model presented in Table 5, labor strength appears insignificant, possibly for three reasons. First, while social security spending benefits particular categories of formal-sector employees, health spending is generally related to the sectors of the population excluded from the formal labor market (Huber, Mustillo, and Stephens 2008). Pensions are a higher priority for unions than health care because it is seen as a way to protect their core constituency – namely, workers (Jensen 2012). As a result, unions are expected to have a stronger effect on the former than on the latter. Furthermore, given that the health sector is more complex to reform than other areas due to the influence of actors with various interests (such as physicians, laboratories, and organized patients), the effect of unions is only significant in more propitious contexts of state expansion. While the 1980s and 1990s were characterized by state retrenchment, the period 2000–2010 reflected social state expansion. Therefore, the effect of organized labor is insignificant in the retrenchment years (Table 6) but is positive and significant in the expansion years (Table 7). A one-unit increase in the labor-strength index during the period 2000–2010 increases health spending by 0.28 percentage points (Table 7) – which is relevant given that the average South American country in the sample spends around 2.2 percent of GDP on health.

Finally, the model presented in Table 5 does not differentiate between the effect of labor movements across countries and within countries across time. Given that most of the variation in the strength-of-organized-labor index is across time rather than within countries (see Appendix A1), one would expect this variable to be significant for health spending when differentiating “within” and “between” coefficients. Table 8 incorporates such complexity and shows that organized labor has a statistically significant positive effect on health spending across countries (Table 8), both in the expansion and retrenchment periods.

The quantitative evidence produced here on the effect of unions on social spending confirms the findings of previous case studies (see for example Niedzwiecki 2014). Labor unions in Argentina and Brazil, for example, opposed the privatization of the pension systems. In Brazil strong pressure from civil servants’ unions was successful in blocking any attempts to reform the pension system along the lines of the Chilean privatization (Kay 1999; Weyland 2006). The powerful media campaigns

that described the potential pension reforms as “privatization,” a “neoliberal package,” or “selling the country to foreign capital” managed to turn public opinion against reform (Brooks 2009: 231).

Despite successfully campaigning against full privatization of the pension system in the 1990s, labor unions in Argentina were unable to prevent the introduction of a mixed system (Haggard and Kaufman 2008). The reason why Argentine unions were not as successful in completely blocking pension reform as were their Brazilian counterparts is because their main concern was to avoid losing full access to health insurance funds. In Argentina social insurance companies run by unions (called *obras sociales*) are a crucial part of union funding. As a result of these interests, any attempt to completely privatize the health insurance sector has been strongly opposed by the unions (Murillo 2001; Niedzwiecki 2014).

In Bolivia unions and other grassroots organizations played a crucial role in backing the Movement Toward Socialism government’s universal noncontributory pension policy, *Renta Dignidad*. Labor unions – in alliance with neighborhood associations, landless movements, indigenous movements, informal workers associations, and pensioners – were relevant actors during the design, passing, and implementation of the policy. In particular, these groups organized public demonstrations in support of the bill and in opposition to the wealthier eastern departments that did not want to see their transfers cut to finance the policy (Anríia and Niedzwiecki 2015).

Table 5: Determinants of Total, Social Security and Welfare, and Health Spending as a Percentage of GDP in South America, 1980–2010. Prais-Winsten PCSE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor	.79**	(.35)	.65**	(.21)	.05	(.11)
Legislative left-partisan balance	-.73	(.47)	-.23	(.35)	.14	(.14)
Cumulative years of democracy	.25***	(.04)	.14***	(.02)	.03***	(.01)
Presidential constitutional powers	-.71**	(.35)	-1.26***	(.27)	-.27***	(.08)
LH control of the party of the president	.66	(.54)	.17	(.40)	.00	(.16)
GDP per capita	.001***	(.00)	.00**	(.00)	.00***	(.00)
Trade (% GDP)	-.02*	(.01)	-.01	(.01)	-.00	(.00)
Balance of payment	-.00	(.00)	-.00	(.00)	-.00	(.00)
R ²	.58		.63		.52	

	Total Social Spending	Social Security Spending	Health Spending
Rho	.89	.77	.84
Countries	10	10	10
Observations	262	262	262

Note: Standard errors in parenthesis *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.1$.

Source: Author's own compilation and calculation.

Table 6: Determinants of Total, Social Security and Welfare, and Health Spending as a Percentage of GDP in South America, 1980–2010. Model with Interaction Terms with Dummy Variable (1980–1999 = 0; 2000–2010 = 1). Prais-Winsten PCSE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor	.77**	(.34)	.64***	(.20)	-.09	(.09)
Strength of organized labor*dummy	.56*	(.32)	.03	(.21)	.38***	(.11)
Legislative left-partisan balance	-.01	(.58)	.20	(.46)	.21	(.18)
Legislative left-partisan balance*dummy	-1.33**	(.68)	-.58	(.44)	-.20	(.23)
Cumulative years of democracy	.20***	(.03)	.12***	(.02)	.03**	(.01)
Presidential constitutional powers	-.96***	(.27)	-.86***	(.14)	-.20**	(.06)
Presidential constitutional powers*dummy	-.84**	(.31)	-.59**	(.17)	-.22**	(.07)
LH control of the party of the president	.05	(.79)	-.16	(.60)	-.00	(.24)
LH control of the party*dummy	1.36	(1.05)	.72	(.74)	.01	(.31)
Dummy (1980–1999)	1.10	(.77)	.25	(.45)	.46**	(.22)
GDP per capita	.00***	(.00)	.00***	(.00)	.00***	(.00)
Trade (% GDP)	.00	(.01)	-.01*	(.01)	-.00	(.00)
Balance of payment	-.00*	(.00)	-.00	(.00)	-.00*	(.00)
R ²	.75		.77		.61	
Rho	.78		.63		.81	
Countries	10		10		10	
Observations	262		249		262	

Note: LH = Lower House. Standard errors in parenthesis *** $p \leq 0.01$, ** $p \leq 0.05$, * $p \leq 0.1$.

Source: Author's own compilation and calculation.

Table 7: Interpretation of Interaction Terms from Table 6, 2000–2010

Interaction Terms	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor*dummy	1.32***	(.36)	.68***	(.23)	.28**	(.11)
Legislative left-partisan balance*dummy	-1.34**	(.58)	-.38	(.38)	.01	(.19)
Presidential constitutional powers*dummy	-1.80***	(.36)	-1.45***	(.19)	-.42***	(.09)
LH control of the party* dummy	1.41*	(.73)	.56	(.52)	.01	(.20)

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1. Coefficients, standard errors and t values for the interaction term have been calculated following Brambor, Clark, and Golder (2005).

Source: Author's own compilation and calculation.

Table 8: Determinants of Total, Social Security & Welfare, and Health Spending as a Percentage of GDP in South America, 1980–2010. Estimates Breaking the Predictor into a Within Effect (W) and a Cross-sectional Between (B) Part. Prais-Winsten PCSE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of labor movement (B)	2.41***	(.65)	2.23**	(.71)	.38**	(.14)
Strength of labor movement (W)	.52	(.37)	.24	(.28)	-.02	(.11)
Legislative left-partisan balance (B)	-.62	(2.25)	-3.71**	(1.67)	-.71	(.56)
Legislative left-partisan balance (W)	-.56	(.41)	-.09	(.30)	.28**	(.12)
Cumulative years of democracy (B)	.08	(.11)	.25**	(.11)	-.01	(.02)
Cumulative years of democracy (W)	.39***	(.04)	.19***	(.02)	.09***	(.01)
Presidential constitutional powers (B)	-1.06*	(.66)	-2.29***	(.68)	.03	(.14)
LH control of the party of the president(B)	-5.45	(6.33)	-21.7**	(7.04)	.84	(1.2)
LH control of the party of the president(W)	.99**	(.50)	.00	(.36)	.13	(.15)
GDP per capita (B)	.00***	(.00)	.00	(.00)	.00***	(.00)
GDP per capita (W)	-.00	(.00)	-.00*	(.00)	.00	(.00)
Trade (% GDP) (B)	.08**	(.04)	.11**	(.04)	.00	(.00)
Trade (% GDP) (W)	-.05***	(.01)	-.03***	(.01)	-.00**	(.00)
Balance of payment (B)	-.00***	(.00)	-.00***	(.00)	-.00***	(.00)

Balance of payment (W)	Total Social Spending		Social Security Spending		Health Spending	
	-.00*	(.00)	-.00	(.00)	-.00	(.00)
R ²	.78		.75		.82	
Rho	.84		.82		.61	
Countries	10		10		10	
Observations	283		269		283	

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1.

Source: Author’s own compilation and calculation.

Besides the effect of the strength of organized labor on increasing social spending, three additional results are worth discussing. First, the results presented in these tables show the overall insignificant effect of left partisanship (measured through left partisanship in the legislature) on social spending.²¹ In fact, the effect of the left partisan balance is insignificant not only across types of social spending in the model presented in Table 5 but also during the periods of retrenchment (Table 6) and expansion (Table 7) and when differentiating between “within” and “between” effects (Tables 8–10). In the few cases in which left partisan balance is significant, it has a negative sign. In these cases, a higher percentage of seats in the lower house occupied by left and left-of-center parties has seen decreases in social spending. This is possibly due to the fact that left parties enjoy the credibility to cut spending when framed as necessary. In fact, many neoliberal reforms have been promoted by populist and center-left leaders (Murillo 2001).

Second, the regression analyses presented in Tables 5 through 10 confirm the positive effect of the cumulative years of democracy on social spending across time and countries (Huber, Mustillo, and Stephens 2008; Huber and Stephens 2012). This result is consistent across types of social spending and across retrenchment and expansion periods. One more year of democracy, for instance, increases total social spending by 0.25 points on average (Table 5). The models that differentiate “between” from “within” effects show that the long-term effect of democracy on social spending is mostly significant within countries across time rather than between countries (Tables 8 and 9).

21 The inclusion of the orientation of the party of the executive does not change the other results, but the effect of this variable on social spending is erratic: sometimes it is insignificant; sometimes, positive; and sometimes, negative. This has to do with the fact that it is challenging in Latin America to measure the ideology of the party of the president given that presidents often do not respect their campaign promises once in office (Stokes 2001). Appendix A5 shows these results.

Table 9: Determinants of Total, Social Security, and Health Spending (as a % of GDP). Model with Interaction Terms (1980–1999 = 0, 2000–2010 = 1) and Breaking the Predictor into a Within Effect (W) and a Cross-sectional Between (B) Part. Prais-Winsten PSCE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor (B)	2.46***	(.52)	2.14***	(.48)	.28**	(.12)
Strength of organized labor (B)*dummy	.07	(.35)	-.30	(.25)	.30**	(.10)
Strength of organized labor (W)	.12	(.43)	.09	(.31)	-.23*	(.14)
Strength of organized labor (W)*dummy	1.14*	(.61)	.41	(.49)	.43**	(.21)
Legislative left-partisan balance (B)	.23	(1.87)	-2.28*	(1.31)	-.46	(.47)
Legislative left-partisan (B)*dummy	-.75	(.99)	-.77	(.56)	-.49	(.35)
Legislative left-partisan balance (W)	.08	(.51)	.08	(.41)	.38	(.15)
Legislative left-partisan (W) *dummy	-1.10	(.79)	-.17	(.55)	-.17	(.24)
Cumulative years of democracy (B)	.10	(.08)	.20**	(.08)	-.01	(.02)
Cumulative years of democracy (W)	.37***	(.04)	.16***	(.02)	.07***	(.01)
Presidential constitutional powers (B)	-.83	(.57)	-1.66***	(.48)	.11	(.11)
Presidential const. powers (B) *dummy	-.93**	(.35)	-.54**	(.23)	-.25**	(.08)
LH control of the party of the president(B)	-6.74	(4.88)	-16.9***	(4.82)	1.22	(1.19)
LH control of the party (B) *dummy	4.22	(4.25)	4.54	(2.82)	-2.05 *	(1.10)
LH control of the party of the president(W)	.28	(.70)	-.42	(.50)	.27	(.22)
LH control of the party (W) *dummy	1.53	(.97)	1.06	(.70)	-.27	(.29)
Dummy variable (1980–1999)	-.57	(1.44)	-.83	(.86)	1.19***	(.32)
GDP per capita (B)	.00***	(.00)	.00*	(.00)	.00***	(.00)
GDP per capita (W)	.00	.00	-.00	(.00)	.00	(.00)
Trade (% GDP) (B)	.08**	(.03)	.09***	(.03)	.00	(.00)
Trade (% GDP) (W)	-.05***	(.01)	-.03***	(.01)	-.01**	(.00)
Balance of payment (B)	-.00***	(.00)	-.00***	(.00)	-.00***	(.00)
Balance of payment (W)	-.00**	(.00)	-.00	(.00)	.00**	(.00)
R ²	.89		.81		.87	
Rho	.62		.69		.57	

	Total Social Spending	Social Security Spending	Health Spending
Countries	10	10	10
Observations	283	269	283

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1.

Source: Author’s own compilation and calculation.

Table 10: Interpretation of Interaction Terms from Table 9, 2000–2010

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor (B)*dummy	2.53***	(.56)	1.85***	(.50)	.58***	(.13)
Strength of organized labor (W)*dummy	1.25**	(.51)	.50	(.41)	.20	(.18)
Legislative left-partisan (B)*dummy	-.52	(1.9)	-3.06**	(1.33)	-.95	(.52)
Legislative left-partisan (W) *dummy	-1.02	(.69)	-.10	(.43)	.21	(.21)
Presidential const. powers (B) *dummy	-1.76***	(.58)	-2.20***	(.49)	-.14	(.12)
LH control of the party (B) *dummy	-2.52	(5.6)	-12.3**	(5.10)	-.83	(1.3)
LH control of the party (W) *dummy	1.82**	(.72)	.64	(.51)	.00	(.20)

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1. Coefficients, standard errors and t-values for the interaction term have been calculated following Brambor, Clark, and Golder (2005).

Source: Author’s own compilation and calculation.

The final result to underscore is the consistent negative effect of the constitutional concentration of power in the executive. Presidents with more constitutional power seem to use their authority to cut rather than expand social spending. A one-unit increase in the index of presidential constitutional powers, for instance, leads to a decrease in total social spending by 0.71 points on average (Table 5). These results are robust across the retrenchment (Table 6) and expansion years (Table 7). This is, in part, because social state expansion is more popular than state retrenchment, and therefore only powerful presidents can engage in the latter. Given that this is a rarely changing variable, it only receives a between-unit coefficient in the models that incorporate this complexity (Tables 8–10). By narrowing its effect to cross-country differences, this variable loses some of its significance in the “within” and “between” models, although it is still negative and significant in a majority of the cases. Unlike presidential constitutional powers, presidential partisan powers (measured by the percentage of seats in the lower house controlled by the party of the president) appear consistently insignificant.

In other words, presidential constitutional power shapes social spending more than presidential partisan power does. This may be related to the fact that many presidents either enjoy automatic majorities or do not go through congress to pass reforms; in fact, most reform proposals in Latin America originate in the executive.

Conclusions

This paper shows that unions in Latin America, like their European counterparts, demand expansion of the social state, which is materialized by increases in social spending. It underscores the need to incorporate labor strength into the analysis of social spending in Latin America, where the presence of a strong labor movement has resulted in increased total, health, and social security spending as a percentage of GDP. This finding was robust across different model specifications, which included interaction terms for differentiating retrenchment from expansion periods and differentiated between effects within countries and across countries.

While the significance of the effect of organized labor strength highlights the relevance of power resources theory for explaining social policy commitment in Latin America, the lack of significance of the left partisan balance underlines the need to adapt these theories to the local context. Political parties in advanced industrial democracies are stronger than in Latin America; therefore, the effect of left partisanship is expected to differ. The weakness of parties in the region, particularly with regard to clear “left” and “right” party labels, makes this variable insignificant for predicting changes in the levels of social spending.

Besides testing (and partly confirming) welfare state theories, this paper confirms the argument that cumulative years of democracy produce an expansion of social spending. Finally, it also finds that presidential constitutional power has been used as a tool for cutting spending rather than increasing it.

The main implication that stems from this analysis is that union strength matters in Latin America. In opposition to the body of literature on the weakness of labor organization and on the regressive characteristics of unions in the region, this investigation shows that unions are relevant to social state expansion. Thus, this variable must be incorporated into statistical analyses of social spending in the region. Further research is required to analyze specific changes in the composition of social spending, which go beyond the categories of social security and health. In particular (and if the data are available), future research should

focus on the role unions play in changes to the specific components of social spending that have a direct effect on the reduction of poverty and inequality.

References

- Achen, Christopher (2000), *Why Lagged Dependent Variables Can Suppress Explanatory Power of Other Independent Variables*, paper prepared for the Annual Meeting of the Political Methodology Section of the American Political Science Association.
- Anria, Santiago, and Sara Niedzwiecki (2015), *Social Movements and Social Policy: The Bolivian Renta Dignidad*, manuscript under review.
- Avelino, George, David S. Brown, and Wendy Hunter (2005), The Effects of Capital Mobility, Trade Openness and Democracy on Social Spending in Latin America, 1980-1999, in: *American Journal of Political Science*, 49, 3, 625–641.
- Bartels, Brandon (forthcoming), Beyond “Fixed versus Random Effects”: A Framework for Improving Substantive and Statistical Analysis of Panel, TSCS, and Multilevel Data, in: Robert J. Franzese (ed.), *Quantitative Research in Political Science*, Sage.
- Beck, Nathaniel, and Jonathan N. Katz (1995), What to do (and not to do) with Time-Series Cross-Section Data, in: *American Political Science Review*, 89, 3, 634–647.
- Bogliaccini, Juan A., and Fernando Filgueira (2011), Capitalismo en el Cono Sur de América Latina Luego del Final Del Consenso de Washington: ¿Notas sin Partitura?, in: *Revista del CLAD Reforma y Democracia*, 51, 1–23.
- Brambor, Thomas, William R. Clark, and Matt Golder (2005), Understanding Interaction Models: Improving Empirical Analyses, in: *Political Analysis*, 14, 1, 63–82.
- Brooks, Sarah M. (2009), *Social Protection and the Market in Latin America: The Transformation of Social Security Institutions*, Cambridge, NY: Cambridge University Press.
- Brown, David S., and Wendy Hunter (1999), Democracy and Social Spending in Latin America, 1980–92, in: *The American Political Science Review*, 93, 4, 779–790.
- Coppedge, Michael (1998), The Dynamic Diversity of Latin American Party Systems, in: *Party Politics*, 4, 4, 547–568.
- Coppedge, Michael (1997), *A Classification of Latin American Political Parties*, Kellogg Institute Working Paper, 244, Evanston, IL: Kellogg Institute online: <www3.nd.edu/~mcoppedg/crd/datalaps.htm> (6 July 2015).

- Dion, Michelle L. (2010), *Workers and Welfare: Comparative Institutional Change in Twentieth-Century Mexico*, Pittsburgh, PA: University of Pittsburgh Press.
- Esping-Andersen, Gøsta (1990), *The Three Worlds of Welfare Capitalism*, Princeton, NJ: Princeton University Press.
- Etchemendy, Sebastián, and Ruth Collier (2007), Down but Not Out: Union Resurgence and Segmented Neocorporatism in Argentina (2003–2007), in: *Politics & Society*, 35, 3, 363–401.
- Garrett, Geoffrey (1998), *Partisan Politics in the Global Economy*, (= Cambridge Studies in Comparative Politics), Cambridge, UK/ New York: Cambridge University Press.
- Haggard, Stephan, and Robert R. Kaufman (2008), *Development, Democracy, and Welfare States: Latin America, East Asia, and Eastern Europe*, Princeton, NJ: Princeton University Press.
- Hall, Peter A., and David Soskice (2001), An Introduction to Varieties of Capitalism, in: Peter A. Hall and David Soskice (eds), *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, Oxford/ New York: Oxford University Press, 1–68.
- Hicks, Alexander M. (1999), *Social Democracy & Welfare Capitalism: A Century of Income Security Politics*, Ithaca, NY: Cornell University Press.
- Huber, Evelyne, and Juan A. Bogliaccini (2010), Development and Reforms of Latin American Welfare States, in: Francis G. Castles (ed.), *The Oxford Handbook of the Welfare State*, Oxford: Oxford University Press, 644–655.
- Huber, Evelyne, and John D. Stephens (2012), *Democracy and the Left: Social Policy and Inequality in Latin America*, Chicago, IL: The University of Chicago Press.
- Huber, Evelyne, and John D. Stephens (2010), Successful Social Policy Regimes? Political Economy, Politics, and Social Policy in Argentina, Chile, Uruguay and Costa Rica, in: Scott Mainwaring and Timothy R. Scully (eds), *Democratic Governance in Latin America*, Stanford, CA: Stanford University Press, 155–210.
- Huber, Evelyne, and John D. Stephens (2006), Combating Old and New Social Risks, in: Klaus Armingeon and Giuliano Bonoli (eds), *The Politics of Post-Industrial Welfare States: Adapting Post-War Social Policies to New Social Risks*, London/ New York: Routledge, 143–168.
- Huber, Evelyne, and John D. Stephens (2001), *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*, Chicago, IL: University of Chicago Press.

- Huber, Evelyne, Thomas Mustillo, and John D. Stephens (2008), Politics and Social Spending in Latin America, in: *The Journal of Politics*, 70, 2, 420–436.
- Huber, Evelyne, Charles C. Ragin, and John D. Stephens (1993), Social Democracy, Christian Democracy, Constitutional Structure, and the Welfare State, in: *American Journal of Sociology*, 99, 3, 711–749.
- Huber, Evelyne, John D. Stephens, Thomas Mustillo, and Jennifer Pribble (2008a), *Latin America and the Caribbean Political Dataset, 1945–2008*, accessed and updated in May 2014, online: <www.unc.edu/~jdsteph/common/data-common.html> (6 July 2015).
- Huber, Evelyne, John D. Stephens, Thomas Mustillo, and Jennifer Pribble (2008b), *Social Policy in Latin America and the Caribbean Dataset, 1960–2006*, accessed and updated in December 2013, online: <www.unc.edu/~jdsteph/documents/common/data/Codebook%20LAC%20Welfare%202008%20public.pdf> (6 July 2015).
- Iversen, Torben, and John D. Stephens (2008), Partisan Politics, the Welfare State, and Three Worlds of Human Capital Formation, in: *Comparative Political Studies*, 41, 4-5, 600–637.
- Jensen, Carsten (2012), Two Sides Of the Same Coin? Left-Wing Governments and Labour Unions as Determinants of Public Spending, in: *Socio-Economic Review*, 10, 2, 217–240.
- Kaufman, Robert R., and Alex Segura-Ubiergo (2001), Globalization, Domestic Politics, and Social Spending in Latin America: A Time-Series Cross-Section Analysis, 1973–97, in: *World Politics*, 53, 4, 553–587.
- Kay, Stephen J. (1999), Unexpected Privatizations: Politics and Social Security Reform in the Southern Cone, in: *Comparative Politics*, 31, 4, 403–422.
- Kitschelt, Herbert, Kirk A. Hawkins, Juan P. Luna, Guillermo Rosas, and Elizabeth J. Zechmeister (2010), *Latin American Party Systems*, Cambridge, NY: Cambridge University Press.
- Korpi, Walter (1978), *The Working Class in Welfare Capitalism*, London: Routledge/ Boston, MA: Kegan Paul.
- Kropko, Jonathan (2011), *Drawing Accurate Inferences About the Differences Between Countries in Time-Series Cross-Section Data*, paper presented at 2011 American Political Science Association Annual Meeting, online: <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1903235> (6 July 2015).
- Kwon, Hyeok Y., and Jonas Pontusson (2010), Globalization, Labour Power and Partisan Politics Revisited, in: *Socio-Economic Review*, 8, 2, 251–281.

- Levitsky, Steven (2003), *Transforming Labor-Based Parties in Latin America: Argentine Peronism in Comparative Perspective*, Cambridge, UK/ New York: Cambridge University Press.
- Levitsky, Steven, and Kenneth M. Roberts (2011), Latin America's "Left Turn": A Framework for Analysis, in: Steven Levitsky and Kenneth M. Roberts (eds), *The Resurgence of the Latin American Left*, Baltimore, MD: The Johns Hopkins University Press, 1–28.
- Madrid, Raúl L. (2003), *Retiring the State: The Politics of Pension Privatization in Latin America and Beyond*, Stanford, CA: Stanford University Press.
- Mainwaring, Scott, and Timothy R. Scully (eds) (1995), *Building Democratic Institutions: Party Systems in Latin America*, Stanford, CA: Stanford University Press.
- Mainwaring, Scott, and Mariano Torcal (2005), *Party System Institutionalization and Party System Theory After the Third Wave of Democratization*, Kellogg Institute Working Paper, 319, Evanston, IL: Kellogg Institute.
- Mundlak, Yair (1978), On the Pooling of Time Series Cross Section Data, in: *Econometrica*, 46, 1, 69–85.
- Murillo, Maria V. (2001), *Labor Unions, Partisan Coalitions and Market Reforms in Latin America*, Cambridge, UK/ New York: Cambridge University Press.
- Niedzwiecki, Sara (2014), The Effect of Unions and Organized Civil Society on Social Policy: Pension and Health Reforms in Argentina and Brazil (1988–2008), in: *Latin American Politics & Society*, 56, 4, 22–48.
- Pierson, Paul (1996), The New Politics of the Welfare State, in: *World Politics*, 48, 2, 143–179.
- Pierson, Paul (ed.) (2001), *The New Politics of the Welfare State*, Oxford: Oxford University Press.
- Przeworski, Adam, José A. Cheibub, and Fernando Limongi (2000), *Democracy and Development: Political Institutions and Well-Being in the World, 1950-1990*, Cambridge NY: Cambridge University Press.
- Roberts, Kenneth M. (2002), Social Inequalities Without Class Cleavages in Latin America's Neoliberal Era, in: *Studies in Comparative International Development*, 36, 4, 3–33.
- Segura-Ubierno, Alex (2007), *The Political Economy of the Welfare State in Latin America: Globalization, Democracy, and Development*, Cambridge, NY: Cambridge University Press.
- Sobel, Russell (1999), Theory and Evidence on the Political Economy of the Minimum Wage, in: *Journal of Political Economy*, 107, 4, 761–785.
- Stein, Ernesto, Mariano Tommasi, Koldo Echebarría, Eduardo Lora, and Mark Payne (2006), *The Politics of Policies: Economic and Social Progress in*

- Latin America*, Washington, DC: Inter-American Development Bank.
- Stephens, John D. (1979), *The Transition from Capitalism to Socialism*, London: Macmillan.
- Stimson, James A. (1985), Regression in Space and Time: A Statistical Essay, in: *American Journal of Political Science*, 29, 4, 914–947.
- Stokes, Susan C. (2001), *Mandates and Democracy: Neoliberalism by Surprise in Latin America*, Cambridge, NY: Cambridge University Press.
- Thelen, Kathleen A. (2014), *Varieties of Liberalization and the New Politics of Social Solidarity*, Cambridge, NY: Cambridge University Press.
- Weyland, Kurt (2006), *Bounded Rationality and Policy Diffusion: Social Sector Reform in Latin America*, Princeton, NJ: Princeton University Press.
- Weyland, Kurt (2004), Neoliberalism and Democracy in Latin America: A Mixed Record, in: *Latin American Politics & Society*, 46, 1, 135–157.
- Wibbels, Erik (2006), Dependency Revisited: International Markets, Business Cycles, and Social Spending in the Developing World, in: *International Organization*, 60, 2, 433–468.
- Zarate Tenorio, Barbara (2014), Social Spending Responses to Organized Labor and Mass Protests in Latin America, 1970–2007, in: *Comparative Political Studies*, 47, 14, 1945–1972.

Compromiso con la Política Social en Sudamérica. El Efecto de los Sindicatos sobre el Gasto Social de 1980 a 2010

Resumen: Este trabajo estudia el efecto de los sindicatos sobre el compromiso con la política social en América Latina. Contrario a la idea de que los sindicatos no son promotores del desarrollo del estado social debido a que han sido debilitados por la dictadura y las políticas de ajuste estructural, en este trabajo argumento que se debe incorporar esta variable al análisis estadístico del gasto social. A través del uso de series de tiempo agregadas en 10 países sudamericanos de 1980 a 2010, este trabajo demuestra que la fortaleza de los sindicatos posee un efecto estadísticamente significativo y positivo sobre el gasto social. Este análisis también confirma que la democracia y la concentración de poder en el ejecutivo tienen un efecto significativo en predecir cambios en los niveles de gasto social.

Palabras Clave: América Latina, gasto social, sindicatos, estado de bienestar

Appendix A1: Independent Variables Description, including “between”(_b) and “within” (_w) Components

Variable	Mean	Std. Dev.	Min	Max
Independent Variable				
Strength of organized labor_b	-0.0	0.9	-1.3	1.3
Strength of organized labor_w	0.0	0.4	-0.9	1.6
Competing Explanations				
Presidential constitutional powers_b	-0.0	0.9	-0.7	2.7
Lower house control of the party of the president_b	0.3	0.1	0.2	0.5
Lower house control of the party of the president_w	-0.0	0.2	-0.4	0.6
Legislative left-partisan balance_b	0.7	0.3	0.3	1.3
Legislative left-partisan balance_w	-0.0	0.3	-0.9	0.8
Cumulative years of democracy_b	30.4	10.9	7	43
Cumulative years of democracy_w	-1.0	8.3	-16	14
Control Variables				
GDP per capita_b	6171	1898	3031	8670
GDP per capita_w	53.4	1237	-3766	4706
Trade (% GDP)_b	46.2	17.6	20.4	81.6
Trade (% GDP)_w	-0.0	12.1	-54.9	49.1
Balance of payment_b	-9e+8	3.7e+9	-9.4e+9	6.9e+9
Balance of payment_w	29.9	6.3e+9	-3.8e+10	3.4e+10

Appendix A2: Missingness in the Indicators of Strength of Organized Labor

Indicator	Total Missing	Percent Missing	Description
Minimum wage	1	0.3	Argentina in 2012
Union Concentration	1	0.3	Venezuela in 2012
Density	33	10	Data is not available for 2011 and 2012 for any of the countries, for Argentina 1980-1982, for Chile for 1980-1988, and for Peru 1980

Appendix A3: Principal Component Factor Analysis

Factor	Eigenvalue	Difference	Proportion	Cumulative
Factor 1	1.48	0.53	0.49	0.49
Factor 2	0.95	0.37	0.32	0.81
Factor 3	0.56	.	0.19	1.00
Number of observations	297			
Retained factors	1			
LR Test: Chi ² (3)=63.97	Prob>chi2 = 0.0000			

Factor Loadings (Pattern Matrix) and Unique Variance

Variable	Factor 1	Uniqueness
Union density	0.73	0.46
Minimum wage	0.49	0.76
Union concentration	0.83	0.31

Appendix A4: Multicollinearity and Heteroskedasticity Tests

Multicollinearity: VIF Test

Variables	VIF
Strength of organized labor	2.22
Strength of organized labor*dummy	1.93
Legislative left-partisan balance	2.10
Legislative left-partisan balance*dummy	7.70
Cumulative years of democracy	4.26
Presidential constitutional powers	2.22
Presidential constitutional powers*dummy	1.76
LH control of the party of the president	2.03
LH control of the party*dummy	5.52
Dummy (1980–1999)	10.93
GDP per capita	2.72
Trade (% GDP)	1.86
Balance of payment	1.24
Mean VIF	3.58

Heteroskedasticity: Breusch-Pagan / Cook-Weisberg Test

Source	ss	Df	MS
Model	4740	13	364.63
Residual	3631	248	16.64
Total	8371	261	32.07

Number of observations	=	262
F (13, 248)	=	24.90
Prob > F	=	0.00
R-squared	=	0.57
Adj R-squared	=	0.54
Root MSE	=	3.83

Total Social Spending	Coef	SE
Strength of organized labor	.16	(.37)
Strength of organized labor*dummy	1.49	(.55)
Legislative left-partisan balance	-.49	(1.04)
Legislative left-partisan balance*dummy	1.60	(1.51)
Cumulative years of democracy	.002	(.04)
Presidential constitutional powers	-.85	(.34)
Presidential constitutional powers*dummy	-1.62	(.51)
LH control of the party of the president	-5.52	(1.84)
LH control of the party*dummy	8.12	(2.93)
Dummy (1980–1999)	-.03	(1.61)
GDP per capita	.001	(.00)
Trade (% GDP)	-.04	(.01)
Balance of payment	-.00	(.00)
Constant	8.80	(1.39)

Breusch-Pagan / Cook-Weisberg Test for Heteroskedasticity

Ho: Constant variance

Variables: fitted values of total spending

chi2(1) = 1.22

Prob > chi2 = 0.2687

Appendix A5: Regressions Including Ideological Position of the President

Determinants of Total, Social Security & Welfare, and Health Spending as a Percentage of GDP in South America: 1980–2010. Prais-Winsten PCSE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor	.71**	(.36)	.66***	(.19)	.07	(.10)
Ideology of the party of the president	.03	(.03)	.06***	(.02)	.02**	(.01)
Cumulative years of democracy	.23***	(.03)	.12***	(.02)	.04***	(.01)
Presidential constitutional powers	-.60*	(.35)	-1.45***	(.28)	-.27***	(.09)
LH control of the party of the president	.60	(.58)	.40	(.40)	.07	(.16)
GDP per capita	.00***	(.00)	.00**	(.00)	.00***	(.00)
Trade (% GDP)	-.02**	(.01)	-.01**	(.01)	-.00	(.00)
Balance of payment	-.00	(.00)	-.00	(.00)	-.00	(.00)
R ²	.56		.75		.48	
Rho	.94		.65		.89	
Countries	10		10		10	
Observations	258		245		258	

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1.

Determinants of Total, Social Security & Welfare, and Health Spending as a Percentage of GDP in South America: 1980–2010. Model with Interaction Terms with Dummy Variable (1980–1999 = 0; 2000–2010 = 1). Prais-Winsten PCSE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor	.88***	(.32)	.67***	(.19)	-.08	(.08)
Strength of organized labor*dummy	.63.63*	(.33)	.001	(.21)	.41***	(.10)
Ideology of the party of the president	.10**	(.04)	.06**	(.03)	.03**	(.01)
Ideology of party of the president *dummy	-.04	(.06)	.03	(.03)	.02	(.02)
Cumulative years of democracy	.20***	(.03)	.13***	(.02)	.03***	(.01)
Presidential constitutional powers	-1.14***	(.28)	-.92***	(.14)	-.27***	(.08)
Presidential constitutional powers*dummy	-.78***	(.30)	-.61***	(.16)	-.22***	(.07)
LH control of the party of the president	.13	(.87)	.16	(.60)	.18	(.27)

	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
LH control of the party*dummy	1.58	(1.02)	.62	(.69)	-.07	(.31)
Dummy (1980–1999)	.47	(.61)	-.27	(.36)	.29	(.20)
GDP per capita	.00***	(.00)	.00***	(.00)	.00***	(.00)
Trade (% GDP)	-.00	(.01)	-.01**	(.01)	-.00	(.00)
Balance of payment	-.00*	(.00)	-.00	(.00)	-.00**	(.00)
R ²	.77		.83		.64	
Rho	.76		.53		.80	
Countries	10		10		10	
Observations	258		245		258	

Note: LH = Lower House. Standard errors in parenthesis ***p<0.01, **p<0.05, *p<0.1.

Interpretation of Interaction Terms from Table above (Years 2000–2010)

	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Interaction Terms						
Strength of organized labor* dummy	1.52***	(0.35)	.67***	(.23)	.32***	(.10)
Ideology of party of the president*dummy	.06	(.04)	.09***	(.02)	.04***	(.01)
Presidential constitutional powers*dummy	-1.93***	(.36)	-1.52***	(.18)	-.49***	(.09)
LH control of the party*dummy	1.71**	(.66)	.78	(.46)	.11	(.18)

Note: LH = Lower House. Standard errors in parenthesis ***p<0.01, **p<0.05, *p<0.1. Coefficients, standard errors and t values for the interaction term have been calculated following Brambor, Clark, and Golder (2005).

Determinants of Total, Social Security & Welfare, and Health Spending as a Percentage of GDP in South America: 1980–2010. Estimates Breaking the Predictor into a Within Effect (W) and a Cross-sectional Between (B) Part. Prais-Winsten PCSE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of labor movement (B)	1.65***	(.45)	.86*	(.51)	.27*	(.16)
Strength of labor movement (W)	.40	(.38)	.04	(.26)	-.03	(.11)
Ideology of party of the president (B)	-1.33***	(.28)	-1.18***	(.27)	-.07	(.07)
Ideology of party of the president (W)	.02	(.03)	.03	(.02)	.02**	(.01)
Cumulative years of democracy (B)	-.19**	(.09)	-.15**	(.08)	-.06***	(.02)
Cumulative years of democracy (W)	.37***	(.04)	.19***	(.03)	.08***	(.01)
Presidential constitutional powers (B)	.88	(.63)	.34	(.66)	.23	(.17)

	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
LH control of the party of the president(B)	9.14***	(3.07)	3.60	(3.11)	1.59**	(.73)
LH control of the party of the president(W)	.77	(.59)	.19	(.39)	.06	(.18)
GDP per capita (B)	.00***	(.00)	.00***	(.00)	.00***	(.00)
GDP per capita (W)	-.00	(.00)	-.00***	(.00)	.00	(.00)
Trade (% GDP) (B)	.05	(.02)	.01	(.02)	-.00	(.00)
Trade (% GDP) (W)	-.05***	(.01)	-.02***	(.01)	-.00	(.00)
Balance of payment (B)	-.00***	(.00)	-.00***	(.00)	-.00***	(.00)
Balance of payment (W)	-.00**	(.00)	-.00	(.00)	-.00*	(.00)
R ²	.85		.71		.86	
Rho	.96		.96		.59	
Countries	10		10		10	
Observations	258		245		258	

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1.

Determinants of Total, Social Security, and Health Spending (as a % of GDP). Model with Interaction Terms (1980–1999 = 0, 2000–2010 = 1) and Breaking the Predictor into a Within Effect (W) and a Cross-sectional Between (B) Part. Prais-Winsten PSCE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor (B)	1.80***	(.38)	1.25***	(.30)	.18	(.13)
Strength of organized labor (B)*dummy	.04	(.39)	-.39	(.29)	.33**	(.14)
Strength of organized labor (W)	-.14	(.45)	-.25	(.30)	-.24*	(.13)
Strength of organized labor (W)*dummy	1.32**	(.65)	.74	(.45)	.48**	(.19)
Ideology of party of the president (B)	-1.01***	(.19)	-.94***	(.14)	-.02	(.06)
Ideology of party of president (B)*dummy	.17	(.13)	.22**	(.09)	-.07*	(.04)
Ideology of party of the president (W)	.03	(.04)	.01	(.03)	.00	(.01)
Ideology of party of president (W)*dummy	.02	(.06)	.08**	(.04)	.04**	(.02)
Cumulative years of democracy (B)	-.18***	(.07)	-.12***	(.04)	-.05***	(.02)
Cumulative years of democracy (W)	.35***	(.04)	.16***	(.02)	.05***	(.01)
Presidential constitutional powers (B)	.95*	(.51)	.34	(.28)	.28*	(.15)
Presidential const. powers (B) * dummy	-.77**	(.31)	-.42**	(.18)	-.25***	(.08)

	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
LH control of the party of the president(B)	8.43***	(2.38)	.88	(1.70)	1.42**	(.62)
LH control of the party (B) * dummy	6.49*	(3.85)	5.27**	(2.29)	-1.35	(1.05)
LH control of the party of the president(W)	-.51	(.99)	-.25	(.61)	-.07	(.31)
LH control of the party (W) * dummy	2.39**	(1.19)	.98	(.77)	.19	(.36)
Dummy variable (1980–1999)	-2.47*	(1.37)	-2.64***	(.88)	.96**	(.42)
GDP per capita (B)	.00***	(.00)	.00***	(.00)	.00***	(.00)
GDP per capita (W)	-.00	(.00)	-.00***	(.00)	.00	(.00)
Trade (% GDP) (B)	.04***	(.01)	.01	(.00)	-.00	(.00)
Trade (% GDP) (W)	-.04***	(.01)	-.02***	(.01)	-.00	(.00)
Balance of payment (B)	-.00***	(.00)	-.00***	(.00)	-.00***	(.00)
Balance of payment (W)	-.00***	(.00)	-.00	(.00)	-.00**	(.00)
R ²	.92		.89		.90	
Rho	.79		.72		.55	
Countries	10		10		10	
Observations	258		245		258	

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1.

Interpretation of Interaction Terms from Table above (2000–2010)

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor (B)*dummy	1.84***	(.42)	.87***	(.31)	.51***	(.14)
Strength of organized labor (W)*dummy	1.18***	(.54)	.49	(.38)	.24	(.15)
Ideology of party of president (B)*dummy	-.85***	(.19)	-.72***	(.14)	-.09	(.07)
Ideology of party of president(W)* dummy	.05	(.04)	.09***	(.03)	.04***	(.01)
Presidential const. powers (B) * dummy	.18	(.54)	-.08	(.30)	.03	(.15)
LH control of the party (B) * dummy	14.9***	(3.41)	6.15**	(2.29)	.06	(.97)
LH control of the party (W) * dummy	1.88***	(.70)	.72	(.46)	.12	(.20)

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1. Coefficients, standard errors and t-values for the interaction term have been calculated following Brambor, Clark, and Golder (2005).

Appendix A6: Regressions Including a Dummy for Years in Which the Country Has an Ongoing Agreement with the IMF

Determinants of Total, Social Security & Welfare, and Health Spending as a Percentage of GDP in South America: 1980–2010. Model with Interaction Terms with Dummy Variable (Agreement with IMF = 0; No Agreement with IMF = 1). Prais-Winsten PCSE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor	.63*	(.35)	.51**	(.23)	.10	(.11)
Strength of organized labor*dummy	.65.65**	(.26)	.31*	(.19)	.01	(.08)
Legislative left-partisan balance	.40	(.65)	.49	(.45)	.22	(.19)
Legislative left-partisan balance*dummy	-1.90***	(.68)	-.72	(.48)	-.15	(.18)
Cumulative years of democracy	.24***	(.04)	.07***	(.02)	.03***	(.01)
Presidential constitutional powers	-.72**	(.34)	-.74***	(.12)	-.22***	(.07)
Presidential constitutional powers*dummy	-.06	(.17)	-.10	(.10)	-.04	(.05)
LH control of the party of the president	.20	(.78)	.30	(.57)	-.08	(.22)
LH control of the party*dummy	.91	(.98)	-.63	(.69)	.20	(.28)
Dummy (Agreement with IMF)	1.42**	(.56)	.36	(.40)	.10	(.15)
GDP per capita	.00***	(.00)	.00***	(.00)	.00***	(.00)
Trade (% GDP)	-.02*	(.01)	-.01	(.01)	-.00	(.00)
Balance of payment	-.00	(.00)	-.00	(.00)	-.00	(.00)
R ²	.66		.68		.61	
Rho	.90		.75		.84	
Countries	10		10		10	
Observations	262		249		262	

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1.

Interpretation of Interaction Terms from Table above (No Agreement with IMF)

Interaction Terms	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor*dummy	1.28***	(.38)	.81***	(.23)	.10	(.11)
Legislative left-partisan balance *dummy	-1.50***	(.56)	-.23	(.43)	.07	(.14)
Presidential constitutional powers*dummy	-.79***	(.34)	-.83***	(.13)	-.25***	(.07)
LH control of the party*dummy	1.10	(.73)	-.33	(.51)	.12	(.21)

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1. Coefficients, standard errors and t values for the interaction term have been calculated following Brambor, Clark, and Golder (2005).

Determinants of Total, Social Security, and Health Spending (as a % of GDP). Model with Interaction Terms (Agreement with IMF = 0; No Agreement with IMF = 1) and Breaking the Predictor into a Within Effect (W) and a Cross-sectional Between (B) Part. Prais-Winsten PSCE

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor (B)	2.12***	(.44)	1.11***	(.43)	.39***	(.13)
Strength of organized labor (B)*dummy	.71**	(.28)	.29	(.22)	.02	(.11)
Strength of organized labor (W)	.28	(.39)	.27	(.30)	-.10	(.12)
Strength of organized labor (W)*dummy	.75*	(.45)	.46	(.37)	.16	(.13)
Legislative left-partisan balance (B)	1.64	(1.54)	.06	(.80)	-.81	(.50)
Legislative left-partisan balance (B)*dummy	-2.57***	(.90)	-1.52***	(.53)	.25	(.25)
Legislative left-partisan balance (W)	.002	(.55)	-.01	(.40)	.37**	(.15)
Legislative left-partisan balance (W)*dummy	-1.15*	(.68)	.23	(.53)	-.21	(.17)
Cumulative years of democracy (B)	.01	(.07)	.04	(.05)	-.01	(.02)
Cumulative years of democracy (W)	.43***	(.03)	.17***	(.02)	.09***	(.01)
Presidential constitutional powers (B)	-.77*	(.45)	-1.03***	(.25)	.06	(.13)
Presidential const. powers (B) *dummy	-.03	(.17)	-.004	(.09)	-.04	(.05)

	Total Social Spending		Social Security Spending		Health Spending	
LH control of the party of the president(B)	-5.75	(3.57)	-9.46***	(2.68)	.98	(1.19)
LH control of the party (B) *dummy	3.31	(2.76)	2.57	(1.81)	-.33	(.87)
LH control of the party of the president(W)	.71	(.78)	.16	(.56)	-.01	(.21)
LH control of the party (W) *dummy	.94	(.96)	-.40	(.62)	.35	(.26)
Dummy variable (Agreement with IMF)	1.23	(.96)	.19	(.57)	-.02	(.30)
GDP per capita (B)	.00***	(.00)	.00***	(.00)	.00***	(.00)
GDP per capita (W)	-.00	(.00)	-.00*	(.00)	.00	(.00)
Trade (% GDP) (B)	.06***	(.02)	.04***	(.02)	.00	(.00)
Trade (% GDP) (W)	-.05***	(.01)	-.00*	(.00)	-.00**	(.00)
Balance of payment (B)	-.00***	(.00)	-.00***	(.00)	-.00***	(.00)
Balance of payment (W)	-.00**	(.00)	-.00	(.00)	-.00	(.00)
R ²	.91		.84		.86	
Rho	.55		.66		.56	
Countries	10		10		10	
Observations	283		269		283	

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1.

Interpretation of Interaction Terms from Table above (No Agreement with IMF)

Variables	Total Social Spending		Social Security Spending		Health Spending	
	Coef.	SE	Coef.	SE	Coef.	SE
Strength of organized labor (B)*dummy	2.83***	(.44)	1.40***	(.42)	.41***	(.13)
Strength of organized labor (W)*dummy	1.03***	(.49)	.72*	(.37)	.06	(.14)
Legislative left-partisan balance (B)*dummy	-.92	(1.62)	-1.46	(.86)	-.56	(.51)
Legislative left-partisan balance(W)*dummy	-1.15***	(.55)	.22	(.41)	.16	(.14)
Presidential const. powers (B) *dummy	-.79	(.44)	-1.03***	(.24)	.01	(.13)
LH control of the party (B) *dummy	-2.44	(3.61)	-6.89***	(2.64)	.65	(1.19)
LH control of the party (W) *dummy	1.64***	(.67)	-.24	(.42)	.34*	(.15)

Note: LH = Lower House. Standard errors in parenthesis ***p≤0.01, **p≤0.05, *p≤0.1. Coefficients, standard errors and t-values for the interaction term have been calculated following Brambor, Clark, and Golder (2005).