

The Effects of Capital Mobility, Trade Openness, and Democracy on Social Spending in Latin America, 1980–1999

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Empirical studies measuring the impact of globalization on social spending have appeared recently in leading journals. This study seeks to improve upon previous work by (1) employing a more sophisticated and comprehensive measure of financial openness; (2) using a more accurate measure of trade openness based on purchasing power parities; and (3) relying on social spending data that are more complete than those used by previous studies on Latin America. Our estimates suggest that several empirical patterns reported in previous work deserve a second look. We find that trade openness has a positive association with education and social security expenditures, that financial openness does not constrain government outlays for social programs, and that democracy has a strong positive association with social spending, particularly on items that bolster human capital formation.

The international integration of markets for goods and services over the past two decades is unprecedented. Amidst a broader context of international integration, Latin America has experienced the most dramatic change in its economic policy orientation since World War II; few regions have undergone as rapid and thorough an economic transformation. How has economic integration affected the social welfare policies of Latin American governments? Has it forced them to reduce spending on social programs in order to compete in the world economy? Or, has it induced them to provide social safety nets for those hurt by economic competition? Has democratization in Latin America compelled governments to spend more on social programs in relatively open economies?

This study investigates the impact of two major developments—economic globalization and democratization—on social spending in Latin America. Examining

multiple facets of globalization, it measures trade and financial openness in new and arguably more accurate ways. It reaches beyond the economic sphere and investigates a central *political* variable: regime type. Since social programs vary widely in terms of the constituency served, the study also disaggregates expenditures into specific categories (e.g., health, education, social security) to determine whether the effects of globalization and regime type vary by program. Finally, the study employs spending data that maximize temporal coverage and cross-country comparability within Latin America.

Several empirical patterns emerge from our analysis. First, different measures of trade openness produce radically different results: previous empirical results based on exchange rate conversions are reversed when using a trade measure based on purchasing power parities (PPPs). Second, democracy has a strong and positive correlation with social spending. Third, financial

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openness does not constrain government spending on social programs. Finally, trade openness has a strong positive impact on the resources devoted to education and social security while democracy's impact on spending results from increased expenditures for education. Patterns observed in the disaggregated data suggest that the relationship between globalization, democracy, and social spending is somewhat more complex than recognized by the compensation-efficiency debate. For example, although trade openness leads to increases in aggregate social spending, a large part of the effect results from spending on education. Rather than being compensatory as the aggregate results might suggest, spending on education may be a form of improving efficiency by supplying employers with more productive workers. Our results indicate that compensation and efficiency are not mutually exclusive responses: both dynamics can occur simultaneously.

The first section situates the present analysis within previous theoretical and empirical work; the second section describes the data and the model we employ. Next, we present the results and their interpretation. The final section identifies some important unanswered questions that call for further research.

Theoretical and Empirical Context

A substantial and growing literature addresses the interaction among globalization, domestic politics, and variables related to social protection (Adserá and Boix 2002; Cameron 1978; Esping-Anderson 1996; Garrett 1998; Hicks and Swank 1992; Huber 1999; Huber and Stephens 2001; Iversen and Cusack 2000; Katzenstein 1985; Kaufman and Segura 2001; Pierson 2001; Rodrik 1997, 1999; Rudra 2002; Rudra and Haggard 2001; Swank 2002). Central to this literature is a debate over whether governments respond to globalization with social policy choices that are oriented more toward cutting costs (efficiency) or protecting people's welfare (compensation).¹

Proponents of the efficiency hypothesis argue that international competition threatens spending on social programs. Social services—funded in part by corporate income taxes, payroll taxes, and employer's contributions—increase labor costs that can generate higher prices of goods and services, affecting domestic firms' ability to compete in the international market. Open capital

markets provide governments alternative sources of capital, giving them the option of incurring debt to pay for social services. With increased government borrowing, higher real interest rates may eventually result, causing a decline in investment. Forced to choose between maintaining high rates of borrowing, raising taxes, or cutting social programs, governments choose the latter. With increased capital mobility, government officials are also subject to judgments made by individual international investors who normally avoid investing in countries that spend beyond their means. Capital flight poses a hard constraint on policy makers who would otherwise choose to increase spending on social programs. Put simply, the efficiency approach posits that the quest for international competitiveness places important constraints on welfare spending and leaves governments little choice but to restrict social outlays.

The compensation perspective recognizes the constraints imposed by economic integration yet accords greater weight to countervailing demands for protection and to the state's capacity to respond. According to the compensation hypothesis, government officials understand that social instability and discontent resulting from increased exposure to the international market could ultimately endanger the neo-liberal economic model as well as their own positions in government. Consequently, they protect domestic interests by strengthening social insurance mechanisms.

In addition to evaluating the efficiency and compensation hypotheses, scholars have examined both the direct and indirect influence democracy has on social spending (Adserá and Boix 2002; Kaufman and Segura 2001; Rudra and Haggard 2001). Subject to electoral and interest group pressures, politicians operating under democratic institutions may allocate greater funds to social programs than their authoritarian counterparts. Democracy's effect may only be evident when countries undergo trade and financial liberalization. Democracy may therefore matter as an independent variable and/or as an intervening factor as countries integrate economically.

The majority of studies that examine globalization's effects on social protection focus on OECD countries (e.g., Cameron 1978; Esping-Anderson 1996; Garrett 1998; Hicks and Swank 1992; Katzenstein 1985; Pierson 2001; Swank 2002). Most analyses focusing on the OECD show little support for the efficiency hypothesis and varying levels of support for the compensation thesis.² There is strong consensus among studies of Western Europe

¹A twist on the framing of this question is provided by Adserá and Boix (2002), who maintain that the level of trade openness and the size of the public sector emerge from decisions that consider both spheres simultaneously.

²Partial exceptions include Kurzer (1993), Scharpf (1991), and Rodrik (1997).

that trade openness in the first decades of the twentieth century served to expand social insurance. Other studies suggest the resilience of government spending and protection schemes (albeit often in restructured form) within OECD nations more recently (e.g., Garrett 1998; Hicks 1999; Pierson 2001; Swank 1998). It should be noted, however, that many analysts who point to the enduring strength of social welfare states are quick to underscore the importance of left-leaning parties, centrally organized labor unions, and other forms of social organization in offsetting the pressures unleashed with open markets for goods and capital. Are the experiences of highly industrialized and established democracies observed in Latin America?

A number of factors that differentiate Latin America from Western Europe could well impinge upon the ability and/or inclination of Latin American governments to respond to globalization by increasing social protection. Arguably the most outstanding feature of relevance concerns regime type. Whereas the vast majority of OECD countries have enjoyed uninterrupted democratic government in the postwar era, much of Latin America spent the same decades under authoritarian rule.³ There are good reasons to think that the absence of open competitive politics would reduce the likelihood of citizens demanding (and governments providing) compensatory policies.

A second major difference concerns labor organization and political party orientations. A well-organized labor movement and strong social democratic parties formed a historical support base for social protection in Western Europe. Together, they helped to expand the welfare state and to insulate previously won gains thereafter (Cameron 1978; Garrett 1998; Hicks 1999; Katzenstein 1985; Rueschemeyer, Stephens, and Stephens 1992). Due in part to a large informal sector, Latin American labor unions and political parties with social democratic tendencies are weak by comparison, thereby depriving citizens of two key organizational means to defend social services against budgetary cuts.

A further feature differentiating Latin America from OECD cases is the role of international financial organizations. The rapid and dramatic process of stabilization and adjustment in the wake of the Latin American debt crisis—and the active accompanying role played by the International Monetary Fund—is without parallel in the developed world. IMF prescriptions for fiscal solvency include the reduction or elimination of benefits deemed

marginal to economic productivity, all of which could contribute to a downward shift in social expenditures.⁴

Finally, the comparative weakness of Latin American states might render social safety nets vulnerable to retrenchment. Latin American governments are notorious for their inability to carry out some of the most essential tasks—beginning with tax collection—necessary to maintain generous welfare support (Huber 1999). The state in most Latin American countries, while never as strong as in much of Western Europe, was weakened further by the economic crisis of the 1980s and 1990s.

There are, however, some reasons to believe Latin American governments might respond with special sensitivity to some of the more problematic social consequences of globalization. Elected governments that came to office after long periods of autocratic rule often faced high expectations among citizens and few institutionalized bases to cushion them from immediate demands, which, if unmet, could have deleterious consequences for social stability at a critical time of political transition. That middle class segments, as well as the poor, suffered from economic restructuring may reinforce officials' concerns. The middle class, well represented at the ballot box and within influential interest groups, is also crucial to public opinion formation. The widespread institution of social emergency programs, such as PRONASOL in Mexico and FONCODES in Peru, suggests that governments in the region were mindful of shoring up support.

Empirical investigations of globalization's effects on social welfare outlays in less-developed countries have yielded mixed results. Some studies document a mostly positive relationship between various indices of economic globalization and government spending in LDCs (Garrett 2001; Rodrik 1998). Yet many of these studies examine highly aggregated measures of government spending, not social spending per se (e.g., Garrett 2001). Others do not analyze the possible mediating effects of political variables (e.g., Rodrik 1998).

Studies that reach less uniformly positive conclusions tend to distinguish among types of economic integration (e.g., trade vs. capital markets) and types of spending (e.g., social vs. general government expenditures). Many also analyze the role of political variables, such as labor strength and regime effects. Rudra (2002) finds that LDCs are more likely than OECD countries to contract welfare spending in the context of increased economic integration, attributing this mainly to the weaker bargaining position of workers in the former. Under similar circumstances, more democratic LDCs and those with

³Interestingly, Adserá and Boix (2002, 252) note that exclusionary politics in Spain and Portugal under fascist rule allowed governments to avoid having to come to grips with the social costs of free trade.

⁴See Deacon (1999) for a list of the IMF's prescriptions vis-à-vis the social policies of borrowing member countries.

stronger labor organizations are more likely to provide social protection (Rudra and Haggard 2001). Focusing specifically on the Latin American region, Kaufman and Segura conclude that “trade integration has a consistently negative effect on aggregate social spending and that this is compounded by openness to capital markets.” Moreover, “(n)either popularly based governments nor democracies consistently spend more or less than conservative governments or autocratic regimes” (2001, 554).

The inconclusive results generated by previous work may simply result from measurement issues. First, much of the data on social spending in the developing world varies tremendously in quality. Previous sources do not account for different categorizations or methods of government accounting. The measure of social spending we use was constructed explicitly for the purpose of making cross-country comparisons. Measures of capital mobility also differ between the various studies. So that we can compare our results to those previously found with the OECD countries, we adopt a well-established measure of capital mobility developed by Quinn (1997). Finally, issues of comparison arise because previous measures of trade openness are based on exchange rate conversions. While exchange rate-based measures are less problematic when comparing European economies, their use is more problematic when comparing the more heterogeneous economies of the developing world. We employ a trade openness measure based on PPPs to resolve the problem. With these improvements, we set out to test the following hypotheses:

H1: Latin American governments in open economies spend more on social programs than do governments in relatively closed economies.

H2: Democracies in Latin America spend more on social programs than do authoritarian regimes.

In addition to examining social spending in aggregate terms, previous work investigates the varying impact that globalization and democracy have had on the major components of social spending: health, education, and social security. Our expectations in this regard are derived from work by Kaufman and Segura. Kaufman and Segura venture that the relatively limited size of the population benefiting from social security renders social security spending vulnerable to retrenchment in an era of globalization and electoral competition. Observed differences in spending on health, education, and social security are based, they argue, on the size of the constituency served. The greater number of people who benefit from

education and health services enhances the probability of a compensatory governmental response in those areas. The underlying logic of their argument can be found elsewhere (Lake and Baum 2001). This interpretation, however, is problematic on a number of counts. First, it conflates the pressures of democracy with trade openness. By assuming spending in each area will be roughly proportional to the size of the electorate concerned, Kaufman and Segura implicitly rely on democracy (regime type) to explain the relationship between trade openness and social spending. Since regime type is included as an independent variable in their model, the effects of trade openness should be considered independently of regime type.

Our theoretical expectations for both the aggregate and disaggregated results differ from Kaufman and Segura’s based on that distinction. While their theoretical expectations are derived from the size of constituencies being affected by spending in each category, we argue that important pressure groups (social security lobbies, teachers’ unions, and health care professionals alike) have been able to influence governmental policy across different regime types. While they expect, for example, that social security might be vulnerable to cuts in an open economy, we hold open the possibility that important groups, though small in number, may receive compensation in the face of international competition.

Turning to regime type, Kaufman and Segura maintain that democracy does not yield higher aggregate social expenditures “because these measure aggregate programs with quite different social effects” (2001, 583–84). Under democracy, programs that reach a smaller number of people will be cut (e.g., social security) while programs that reach a larger number of beneficiaries (e.g., education and health) will be expanded. Consequently, democracy has no effect in aggregate terms. Yet evidence from Latin America suggests that while mass influence may indeed expand with democratization, this rarely takes place at the expense of powerful interest groups, which in fact sometimes benefit from democracy even more than their unorganized counterparts (Huber 1996; Madrid 2003; Mesa-Lago 1978; Weyland 1996). Consequently, in open economies, democracies may continue to spend on programs that address demands from large segments of the population while at the same time maintaining the benefits of numerically small yet politically powerful interests. Recognizing that new groups may enter the system and claim resources without fully displacing previously strong contenders, we invoke Anderson’s (1967) still powerful metaphor of modern Latin America as a “living museum.” With respect to the disaggregated data, we test the following hypotheses:

H3: Globalization's impact on the components of social spending does not follow a "size of constituency" logic.

H4: Democracies compensate social programs with large constituencies without cutting expenditures on programs that benefit numerically small but politically important segments of the electorate.

Model Specification

The bulk of the analysis focuses on levels of social spending, trade and financial openness rather than on change. Because space limitations preclude a full justification of this choice, we refer readers to a discussion of this issue by Huber and Stephens whose logic we adopt (2001, 57–58). An additional advantage of the levels approach is that we remain consistent with much of the previous literature (Cameron 1978; Garrett 1998; Hicks and Swank 1992; Katzenstein 1985). Yet since the process itself of economic opening—especially when rapid—may well affect the social priorities of governments, we also estimate models based on the error correction model (ECM) framework employed by Kaufman and Segura (Appendix B). This allows us to draw connections to some recent contributions that explore the impact of changes in trade and financial openness (Adserá and Boix 2002; Kaufman and Segura 2001).

We examined annual data on social spending for 19 Latin American countries between 1980 and 1999.⁵ The data were compiled by researchers at the United Nations Economic Commission for Latin America and the Caribbean (ECLAC/CEPAL).⁶ The components of the aggregate social spending figures are public expenditures on health, education, and social security. The data set features some unique advantages. It includes all Latin American countries except Cuba and Haiti. Moreover, during the data collection process studies of each country were con-

ducted for the express purpose of producing comparable data on social spending.

The data form a Times-Series Cross-Sectional (TSCS) data set in which each country-year represents a single observation. Although pooling the data has the obvious benefit of increasing the number of observations, it can violate at least two of the basic assumptions that underlie Ordinary Least Squares (OLS) estimation. First the temporal structure of the data increases the chance of autocorrelation, violating the OLS assumption that the errors are independent of each other. Second, the cross-sectional structure of the data increases the chance that the variance in the error terms may differ across countries and that there will be spatial processes that affect different panels simultaneously (e.g., a currency crisis in Argentina effects Brazil). The consequence of these violations is that OLS coefficient estimates are still unbiased but inefficient.

To deal with these problems we followed Beck and Katz (1995) and used panel-corrected standard errors. The majority of previous work approaches autocorrelation by the use of a lagged dependent variable. Achen (2000) demonstrates, however, that this method can lead researchers to mistakenly discount the importance of variables particularly if they do not vary dramatically over time. Both Achen (2000) and Greene (1990) suggest transforming the data to address autocorrelation and yet avoid the pitfalls of using the lagged dependent variable. We estimate and report both models, thereby demonstrating the strength of our results. To maintain consistency with previous work, the results in the text are based on the lagged dependent variable model. The corresponding results using the Prais-Winsten estimation technique are presented in Appendix A. In line with similar analyses, we include a set of "n" country and "t" year dummies. We employ the following baseline equation:

$$\begin{aligned} \text{Social Spending}_{i,t} = & \alpha_i + \delta_t + b_1 \text{SocialSpending}_{i,t-1} \\ & + b_2 \% \text{ of Population over } 65_{i,t} \\ & + b_3 \text{Unemployment}_{i,t} \\ & + b_4 \text{Level of Development}_{i,t} \\ & + b_5 \text{Growth}_{i,t} \\ & + b_6 \text{Urbanization}_{i,t} \\ & + b_7 \text{Democracy}_{i,t} \\ & + b_8 \text{Financial Openness}_{i,t} \\ & + b_9 \text{Trade Openness}_{i,t} \\ & + b_{10} \text{Inflation}_{i,t} + \varepsilon_{i,t}. \end{aligned}$$

In this equation, the terms α and δ represent country and year dummies, the b 's are the parameter estimates

⁵The countries are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. The full data matrix, therefore, comprises a maximum of 380 observations (19 countries by 20 years). Missing data, however, implied that we analyzed smaller data sets, depending on the country and year coverage of variables.

⁶Two research teams assembled the data. The first assembled data for the 1980s and the beginning of the 1990s Cominetti and Ruiz (1998). The second team updated and enlarged the first dataset and had been responsible for the information published in ECLAC's yearly publication *Social Panorama of Latin America* (ECLAC/CEPAL (Division de Desarrollo Social) 2001).

and ε represents the error term. Finally, the subscripts i and t represent the country and year of observations, respectively.

Social Spending is the dependent variable. It will be measured as a percentage of GDP. There are a number of different ways to measure government compensation: social spending as a percentage of GDP, social spending in per capita terms, social spending as a percentage of total public spending, and total government spending as a percentage of GDP. In order to address previous work, all dependent variables are measured as a % of GDP.⁷

Globalization consists of *financial openness* and *trade openness*. We base our measure of financial openness on Quinn's (1997) measure of capital account regulation whose coverage we extend temporally for our cases.⁸ Quinn's index improves upon previous measures in various ways. First, it is more refined than others (e.g., Alesina, Grilli, and Milesi-Ferreti 1994) in that it registers the intensity with which countries actively place financial restrictions on their capital accounts. Second, unlike other indexes of capital mobility (e.g., Morley, Machado, and Pettinato 1999) it allows for cross-regional comparison.⁹ Third, it is based on a consistent classification of restrictions used since the beginning of the IMF report.¹⁰ Consistency is crucial when constructing a quantitative measure from qualitative evidence (Quinn 1997, 535). The resulting measure conforms to our expectations: financial liberalization increased dramatically in Latin America during the 1990s. The mean value of the resulting score was 1.94 in 1980, increasing to 3.26 in 1999, representing an increase of more than one standard deviation.

It is worth mentioning that some scholars find it necessary to go beyond policy-based measures of financial liberalization and examine the actual movement of capital: external capital flows or foreign direct investment as a percentage of GDP.¹¹ Counterarguments to

this view focus on the fact that a host of factors other than government preferences, intentions, or actions affect capital mobility, including other domestic policies (Eichengreen 2001) and the international financial climate. For completeness, we substitute Gross Capital Flows for the capital mobility index in our basic model, providing a further test of stability; the results remained the same.

Trade openness (Exports + Imports/GDP) represents the other component of globalization. Although past measures have used Gross Domestic Product figures (the denominator) based on real exchange rates, using GDP figures based on PPPs allows for a more accurate rendering of trade relative to the size of the economy. Measures using exchange rates for conversion are based solely on goods and services traded internationally. Ignoring the nontradable sector (real estate, public services, taxicab rides, and a host of other informal activities)—which is a substantial fraction of many economies—can lead to distortions, producing estimates of economic output that are highly misleading. Based on what economists refer to as the Law of One Price (LOP), the possibility of arbitrage should push international price levels toward equality. Consequently, prices in traded goods have much lower cross-national variance than prices in nontraded goods: the numerator (exports + imports) does not suffer from the same distortions. Generally speaking, goods produced in the service sector in developing countries are comparatively inexpensive owing in part to the low price of labor relative to capital. As a result, measures of output based on exchange rates will underestimate the real value of the goods and services produced in the nontradable sector and overestimate the relative size of the tradable sector in these economies.

We therefore construct a new trade openness measure by substituting the exchange rate-based measure of GDP with one based on PPPs. Using a PPP-based measure of trade openness provides a more accurate estimate of trade levels which, in turn, produces a much more stable measure of trade: within-country variance is reduced significantly in the smallest economies. Consider Nicaragua whose economy in 1998 was approximately \$9 billion. Using an exchange rate-based measure of trade, Nicaragua's tradable sector changes 93.7 percentage points in 10 years: between 1987 and 1997, the exchange rate-based measure shows Nicaragua's tradable sector grew from 25.2% to 119.2%. A significant portion of the variance is most likely explained by significant fluctuations in the exchange rate. The PPP-based trade measure records a more credible change in the structure of the economy—the tradable sector grows by approximately 13.7 percentage points (from 9.6% to 23.3%). To further illustrate the

⁷For completeness, we ran the same models reported below using social spending as a percentage of total government spending. Even though the substantive meaning of the regression changes with the new dependent variable, the same patterns held.

⁸Quinn's measure provides data for 1958, 73, 82, and 88. Our measure provides annual entries for 19 Latin American countries for 1980–1999.

⁹While we restrict our analysis to Latin America, use of Quinn's measure would allow us to test our results for other regions. The correlation between the Quinn measure and that of Morley et al. was (.74). Substituting the Morley and Pettinato measure into our regression models produced estimates that were extremely close to the results reported below.

¹⁰This compares favorably with Brune et al. (2001).

¹¹See, for instance, Kray (1998) and Swank (1998).

TABLE 1 Within-Country Variances for Trade Openness Measures Based on PPPs and Exchange Rates

Group	GDP in \$Billions	Within Country Variance of Trade Measures							
		PPP-Based				Exchange Rate-Based			
		Variance	Min	Max	Range	Variance	Min	Max	Range
Jamaica	7	118.5	47.4	81.2	33.8	129.4	78.7	121.6	42.8
Nicaragua	9	21.6	9.6	23.5	13.8	727.4	25.5	119.2	93.7
Panama	10	58.9	37.8	66.4	28.6	78.6	63.0	99.1	36.1
Honduras	11	23.2	17.4	33.5	16.1	316.5	47.9	100.5	52.6
Bolivia	12	5.6	15.4	25.3	9.9	15.1	41.9	58.5	16.7
Paraguay	19	31.1	11.7	30.4	18.7	334.9	26.7	87.0	60.4
El Salvador	19	20.7	9.5	25.4	15.9	59.2	36.9	67.4	30.5
Uruguay	19	23.6	17.8	32.6	14.8	20.6	31.6	49.3	17.7
Costa Rica	20	63.1	19.0	44.0	25.0	111.6	61.8	97.6	35.7
Ecuador	27	38.2	21.5	40.6	19.1	45.5	42.6	62.9	20.4
Dominican Rep.	29	20.5	14.4	35.6	21.2	158.6	32.7	78.0	45.3
Guatemala	29	8.8	10.4	21.0	10.6	45.5	24.9	47.1	22.2
Chile	69	37.8	22.7	47.4	24.7	51.1	40.6	67.1	26.5
Peru	79	14.9	5.8	17.6	11.9	28.0	23.7	41.8	18.1
Venezuela	95	139.7	25.2	62.9	37.6	57.8	30.7	59.6	28.9
Colombia	188	5.5	6.6	13.5	6.8	19.2	23.7	37.2	13.6
Argentina	286	14.8	4.8	16.3	11.6	12.1	11.6	23.3	11.8
Mexico	504	81.8	10.2	39.9	29.7	200.6	23.3	63.5	40.2
Brazil	789	4.1	6.1	13.0	6.9	5.6	13.2	22.2	9.0

Source: The GDP measure above represents estimates for 1998 based on PPPs and was taken from the WDI 2003 CD-ROM.

potential discrepancy generated by the two measures, consider Table 1. Table 1 not only illustrates the dramatic differences in variances between the two trade measures, it shows that the biggest differences are recorded in the smallest economies.

Failing to accurately measure trade openness produces two related problems for analysts. First, since the poorest countries spend the least on social programs, estimation procedures based on cross-national comparisons will match inflated trade openness figures with low social spending, generating a (misleading) negative relationship between trade openness and social spending. Second, when using estimation techniques based on within-country variance (fixed-effects), inflated figures of trade openness will produce exaggerated levels of variance in the smallest economies. In the context of trade openness and social spending in Latin America, employing more stable estimates of trade openness produces radically different results. All variables on the right-hand-side of the equation that measure output are based on PPPs. To maintain consistency in measurement, we converted both the nu-

merator and denominator of the dependent variable into PPPs.¹²

Our measure for *democracy* conceives of democratization as a process that engenders political rules and institutions that are fundamentally distinguishable from what came before. We measure its effects by using a dummy variable for the political regime, coding one for democracies and zero for the residual category of authoritarian

¹²Purchasing Power Parity conversion factors are designed specifically for GDP. This is an important consideration since social spending represents nontradable goods exclusively while GDP does not. As a result, even after having converted social spending into PPPs, the true extent of social spending may actually be underestimated. We want to thank an anonymous reviewer for bringing this to our attention. To our knowledge, no conversion factor exists for social spending. Fortunately, since all estimates are based on fixed-effects models that rely on within-country variance, difficulties associated with cross-national comparisons will not affect the results. Moreover, even if a separate conversion factor for social spending existed, the resulting transformation would not affect the within-country variance since we would be transforming both the numerator and denominator (social spending and GDP) by conversion factors whose ratio would vary little from year to year.

regimes. The measure and classification are drawn from Alvarez et al. (1996), who, based on Dahl's (1971) minimalist definition of a democratic regime, focus on contestation as the essential institutional feature of democracy. To check the stability of our results with respect to the measure of democracy, we ran every regression using a continuous variable derived from Gurr's POLITY IV data. We subtracted Gurr's AUTOC score from his DEMOC score, producing a more continuous measure that ranges from -10 (most authoritarian) to 10 (the most democratic). Using Gurr's measure had no substantive impact on the results.¹³

In addition to investigating the independent effect of democracy, we examine democracy's influence as an intervening variable, interacting it with trade openness in our basic model (See model 4 in Table 2). This follows previous work that tests whether democracy interacts with trade openness to compensate citizens in economies subject to high levels of trade (Adserá and Boix 2002; Garrett 1998; Rudra and Haggard 2001).

Alongside the key variables of interest—democracy, trade openness, and financial openness—we include several control variables traditionally used in the social spending literature (see Appendix D).¹⁴ The first is demographic (*% of Population over 65*). Due to health care and social security needs, we would expect a higher percentage of elderly people in the population to be positively related to social spending.

A second control variable is the *unemployment* rate. Despite the existence of few public unemployment programs in Latin America, we would expect higher unemployment rates to be correlated with increased social spending as a reflection of the pressure states feel to maintain a variety of social programs in the face of dislocations caused by a declining economy and contracting job possibilities. Due to greater coverage, the data were drawn from various issues of ECLAC's yearly report, Economic Survey of Latin America.

We account also for the *level of economic development*, defined as the log of Gross Domestic Product per capita and measured in PPP dollars. Including income in the equation takes into account Wagner's Law, which holds that the level of public spending will be positively correlated with levels of economic development. The annual *growth* rate of GDP per capita is included to control for the effects of economic volatility on government spending.

¹³Substituting the Gurr measure for Przeworski's dichotomous measure produced only minor changes. The coefficient on the democracy score was significant at the .03% level of confidence.

¹⁴Unless otherwise noted, all data are from the WDI 2003 CD ROM.

We control also for *inflation*, which can have a direct and indirect effect on social spending. High inflation may indicate that a government is spending more than it is collecting in revenue. As inflation rises, there is often pressure for governments to reduce spending. Social programs are frequently the first programs cut. Inflation may also affect the ability of citizens to calculate relative values, including government expenditures. Consequently, politicians may have more latitude in manipulating the distribution of benefits. Since the distribution of inflation throughout Latin America is highly skewed—ranging from -2 to $13,000$ —we logged inflation so that linear methods could be used in our analysis.

Finally, we control for *urbanization*, which is strongly associated with industrialization and labor organization. A developed industrial sector implies the presence of unions that can strike, protest, and lobby for higher wages and benefits. The urban bias that Bates (1981) observed in Africa might also be a relevant factor in determining the amount of pressure the population can place on elected officials.

Results

Aggregate Measures

The regressions reported in Table 2 yield three important findings: (1) democratic regimes spend more on social programs than do their authoritarian counterparts; (2) trade, as measured by purchasing power parities, tends to enhance rather than diminish social spending; and (3) financial openness has little systematic bearing on social spending.¹⁵

The same patterns observed within the levels framework are evident within the ECM regressions (Appendix B). First, substituting the different measures of trade openness produces different estimates: the lagged trade variable switches signs and becomes positive and significant. Second, the first-differenced trade variable (change) is negative but not significant when based on exchange rate conversions. Switching to a trade measure based on PPPs produces a positive and insignificant estimate. Finally, the lagged democracy term is positive and strongly significant, implying that democracy has a long-term positive effect on social spending. The democracy variable measured in terms of change is positive but not significant, implying that the immediate effects of democratization are relatively small.

¹⁵So that the results did not depend on the inclusion or exclusion of any one country in the sample, we performed a modified jackknife procedure by removing each country separately from the analysis and recalculating the estimates. The results reported in Table 2 and Table 3 remained consistent throughout the entire procedure.

TABLE 2 Regression Results for Social Spending as a Percentage of GDP on Trade Openness, Financial Openness, Democracy, and Control Variables

	(1)	(2)	(3)	(4)
Lagged Dependent Variable	0.726*** (0.043)	0.760*** (0.044)	0.757*** (0.045)	0.777*** (0.046)
% of population in urban areas _t	0.191*** (0.051)	0.175*** (0.049)	0.178*** (0.049)	0.169*** (0.049)
% of population aged 65 and over _t	-0.218 (0.333)	0.396 (0.351)	0.393 (0.337)	0.657* (0.365)
GDP/capita _t (logged)	-1.184 (0.757)	-1.164 (0.847)	-1.021 (0.862)	-1.570* (0.947)
Growth in GDP per capita _t	-0.010 (0.015)	-0.025 (0.016)	-0.032** (0.016)	-0.023 (0.016)
Unemployment _t	0.032 (0.026)	0.051* (0.028)	0.050* (0.029)	0.049* (0.028)
Inflation _t (logged)	-0.120 (0.119)	-0.250** (0.118)	-0.277** (0.119)	-0.245** (0.119)
Trade Openness _t	-0.046*** (0.007)			
Trade Openness _t (based on PPPs)		0.027** (0.013)	0.030** (0.013)	0.022 (0.016)
Capital Mobility Index _t	0.147 (0.117)	-0.098 (0.110)	-0.095 (0.113)	0.203 (0.162)
Democracy _t	0.636*** (0.173)	0.575*** (0.187)	0.609*** (0.189)	1.793*** (0.508)
Debt Service Ratio _t			0.009 (0.006)	
Democracy * Trade Openness (PPPs)				-0.006 (0.011)
Democracy * Capital Mobility Index				-0.388** (0.180)
Constant	1.940 (9.644)	-3.571 (10.800)	-5.111 (10.832)	-2.657 (10.997)
Observations	311	311	311	311
R ²	.97	.96	.96	.97

Panel-Corrected Standard Errors in parentheses: *significant at 10%, **significant at 5%, ***significant at 1%. Country dummy and year dummy variables were included in each regression but were not reported above for presentation purposes. A joint significance test revealed that the two interactive terms in Model (4) were statistically significant at the .02 level.

Of the estimates reported in Table 2, the strongest and most consistent result was the positive and significant coefficient associated with the democracy variable.¹⁶

¹⁶We estimated models that included interactive terms between democracy and economic integration (both trade openness and capital mobility). The coefficient on the interactive term between democracy and capital mobility is negative and significant. Plotting the predicted values for the authoritarian and democratic cases revealed that although the difference between the two regime types was quite large at low levels of financial liberalization (democracies spent more), the predicted values converge at the highest levels

Not only is the coefficient statistically significant, but it is substantively important as well. The coefficient on the democratic dummy variable indicates that the difference between democratic and authoritarian regimes is roughly

of financial liberalization (democracies decrease spending *relative to authoritarian regimes* as the capital mobility index increases). The observed convergence implies when countries liberalize capital markets, important constraints are imposed that cause both regime types to provide similar levels of social spending. Further analysis is necessary to more fully understand how democracy influences the relationship between capital mobility and social spending.

TABLE 3 Regressions of (1) Education Spending, (2) Health Spending, and (3) Social Security (all as Percentages of GDP) on Trade Openness, Financial Openness, Regime Type and Control Variables

	(1)	(2)	(3)
Lagged Dependent Variable	0.645*** (0.041)	0.689*** (0.078)	0.691*** (0.047)
% of population in urban areas _t	0.047** (0.022)	0.005 (0.013)	0.046*** (0.014)
% of population aged 65 and over _t	-0.269** (0.133)	-0.109 (0.088)	0.752*** (0.161)
GDP per capita _t (logged)	-0.148 (0.339)	0.603** (0.246)	-0.821** (0.409)
Growth in GDP per capita _t	-0.006 (0.006)	-0.009** (0.005)	-0.019** (0.008)
Unemployment _t	0.016 (0.010)	0.011 (0.010)	0.043*** (0.014)
Inflation _t	-0.125*** (0.046)	0.005 (0.042)	-0.078 (0.078)
Trade Openness _t (PPPs)	0.021*** (0.004)	-0.001 (0.006)	0.019*** (0.006)
Capital Mobility Index _t	-0.064 (0.046)	0.071 (0.044)	-0.080 (0.055)
Democracy _t	0.355*** (0.078)	0.034 (0.056)	0.010 (0.112)
Constant	0.916 (3.699)	-3.845 (2.862)	-0.919 (3.572)
Observations	312	292	290
R ²	.92	.96	.98

Panel-Corrected Standard Errors in parentheses: *significant at 10%, **significant at 5%, ***significant at 1%. Country and year dummies were included in each regression but are not reported above for presentation purposes.

.58 percentage points of GDP in the basic model (2). The larger the economy, the more substantial in absolute terms is this roughly .5 percentage point difference. For the average country in our sample (10.4% of GDP is allocated to social spending), the .5 percentage point difference represents roughly a 5% difference in social spending. In Brazil's 1 trillion dollar economy (10.5% of which goes to social spending), a 5% increase is equivalent to roughly \$5 billion.¹⁷ In Colombia's \$250 billion economy (roughly 10% of which goes to social spending), the 5% increase represents roughly \$1.25 billion.

¹⁷More recent estimates (WDI 2003; GDP in PPPs) show that Brazil's economy is actually slightly larger than \$1 trillion.

Health, Education, and Social Security

Examining the components of spending separately can shed light on the aggregate results. Earlier we noted that by conflating regime type and trade openness when deriving hypotheses about economic integration's impact on health, education, and social security, Kaufman and Segura expected that social security might witness cuts relative to health and education. While they maintained that social security was vulnerable based on the small size of the group receiving pensions, we allowed for the possibility that this numerically small but still politically important group might succeed in receiving some form of compensation. The estimates indicate that when holding regime type constant, *trade openness* is positively correlated with education and social security. Spending in these two areas appears responsible for the positive coefficient produced with the aggregate data. *Financial openness* is not strongly associated with education, health, or social security.

Regarding democracy, our expectations were similar to Kaufman and Segura's with a slight but important distinction. Although we argue that democratization can benefit programs aimed at large segments of the population, it will rarely come at the expense of politically influential, yet narrowly construed interest groups. We find that democracies do not increase spending on health or social security but do increase spending on education. The democratic dummy variable has a positive and statistically significant coefficient in the education equation. Democracy has a negative but not significant correlation with social security: gains in education do not seem to be associated with decreases in social security. The relationship between democracy and health spending is positive although not statistically significant at traditionally accepted levels. The positive correlation nevertheless suggests that parallel processes may be at work that link democracy to education and health expenditures.

In short, Latin America's heightened exposure to international competition does not affect all social programs equally. In fact, our results suggest that politicians in open economies both compensate certain groups (spend on social security) and undertake policies that raise the level of efficiency in an economy (spend on education). In addition, democracies enhance the prospects for investing in human capital while preserving social security payments.

Interpretation of Results

What explains the central patterns we observe? We venture the following explanations in full acknowledgement that

they should be regarded as plausible and not definitive until additional data are gathered and detailed case work is carried out.

Our aggregate results suggest that Latin American politicians in open economies address the challenge of economic integration through increased spending on social programs. In addition, democracies spend more on social welfare. The disaggregated results, however, both complicate and shed light on this picture. The positive and statistically significant correlation between trade openness and social security is one of our strongest findings, contrasting starkly to the negative relationship obtained by Kaufman and Segura (2001). In all likelihood, the discrepancy in results owes to the difference between measures of trade openness based on purchasing power parities vs. exchange rates. Social security transfers are the component of social spending that is most pertinent to the efficiency/compensation debate insofar as they have a direct cost to employers (not easily passed on to consumers in an open economy) and provide more direct insulation from market forces than do education and health expenditures. As explained below, the latter holds true even though the majority of social security financing goes to old age pensions—disability, severance payments, and unemployment lag far behind in terms of their contribution to social security expenditures.

Our explanation of why social security manages to resist cutbacks focuses on the organizational power and status of social security recipients. Most pension systems in Latin America are the privilege of the middle class and formal sector workers, whose capacity for resistance no doubt helps to guard their entitlements. In all but the Caribbean and poorest Central American countries, workers in the formal private sector comprise the majority of those covered by state-sponsored social security systems. Increasing trade places these workers at risk. In addition, the economic uncertainty brought about by trade liberalization may induce potentially affected individuals to protect their futures by going on disability or seeking early retirement. Data from various countries reveal a striking correlation between the onset of economic crisis and increases in people suddenly retiring for reasons of “invalidéz” or “vejez.”¹⁸ This coincidence cannot be explained on the basis of demographics. The estimated coefficients on GDP/capita and unemployment lend further credence to the hypothesis. Downturns in the economy accompanied by increasing rates of unemployment are correlated with

increased spending on social security. Finally, trade liberalization might also be correlated with other policies, such as privatization, that do affect government workers. To the extent that trade liberalization and privatization are correlated—countries that liberalized trade generally initiated privatization efforts—we might expect that social security would be one way to allocate resources to those in need when government workers get laid off. Thus, social security transfers enjoy protected status even though they impose high costs on employers, contribute little to a country’s productivity, and benefit only a small segment of the population, factors Kaufman and Segura (2001) stress in their explanation for the opposite finding.

While governments that pursue an open trade strategy protect social security spending, they appear motivated to increase education spending as well. Human capital is an important component of international competitiveness, as the economic success of the East Asian NICs in the post-war era reveals. By increasing the level of skilled labor, market reforms have raised the returns to human capital investment and have generated interest among more enlightened government officials and business elites in improving the quality of schooling in their countries (Birdsall, Londoño, and O’Connell 1998, 41; Gajardo 1999). Policy makers are now debating what amounts, levels, and types of schooling are required to enhance the international competitiveness of their economies. The positive (but not significant) link we find between trade openness and health may well be part of a broader emphasis that highly integrated countries are placing on human capital development, suggesting that neither the compensation nor efficiency perspectives appropriately describes the dynamic in play. Instead, theories about endogenous growth may be driving the emphasis on the accumulation of human capital. The weaker results for health compared to education spending may result from policy makers’ perception of a less pronounced link between market performance and health spending, the higher and more direct financial burden that health spending imposes on employers, and the fact that basic health indicators are superior to educational indicators in the region, rendering the sector in less urgent need of reform.¹⁹

The extent to which open economies emphasize human capital hinges partly on the political context. The presence of democracy enhances education spending but does not increase spending on health or social security. This finding is the most striking point of convergence

¹⁸Taking the case of Mexico, for example, tables presented in Ulloa (1996) and Pérez (1992, 274–75) manifest this correlation. Evidence from Brazil follows the same pattern (Ministério do Previdência Social 1997, 1).

¹⁹Whereas Latin America under performs in education relative to its economic counterparts), the same is not true for health (Birdsall, Londoño, and O’Connell 1998).

between our study and that of Kaufman and Segura (2001). The democracy–education link is sufficiently robust that both studies obtained the same result despite measuring international influences in different ways.

What accounts for democracy's association with increased education expenditures? One interpretation (emphasized by Kaufman and Segura) rests on the connection between competitive elections and attempts by politicians to reach the broadest slice of voters possible, for which educational projects are well suited (Ames 1987; Brown 2002; Brown and Hunter 1999, 2004). In recent years, elected officials in contexts as different as Peru under Alberto Fujimori (1990–2000) and Brazil under Fernando Henrique Cardoso (1995–2002) have used education resources in strategic ways to enhance their electoral standing. Latin American demographics—namely, the high percentage of young people in the population²⁰—provide a broad base of appeal for education spending. Moreover, citizens regard the quality of public education as problematic and in urgent need of reform. In one recent survey, respondents in Bolivia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, and Venezuela rated education as their number one concern, above public health, corruption, terrorism, crime, and other social ills.²¹

Increased spending on education might also reflect pressures by well-organized teachers for higher wages. Teachers' unions, frequently linked to parties of the left, tend to be quite militant, especially under democratic conditions. Given that education expenditures are highly biased toward salaries²² political contexts that provide unions with more possibilities for protest and other forms of influence might well generate greater resource allocations for the education sector. Until more comprehensive data are available, we are unable to sort out the relative weight of the electoral dynamic vs. the trade union factor in accounting for increased education expenditures under

democratic governments.²³ There is some basis, however, for thinking that democracy might increase spending because of the electoral constraint. If democracy helped both large segments of the electorate and numerically small but politically important groups equally, we might expect democracy to enhance social security benefits as well, yet it does not. Nonetheless, until more evidence is gathered, it is impossible to determine which mechanism is at work.

Education may be one of the only sectors where interests converge among employers, employees, and large segments of the population. While employers need more innovative and productive workers, employees know that their (and their children's) futures rest increasingly on acquiring greater knowledge and better skills.²⁴ Hence, while employers in economies undergoing trade liberalization may have to spend more on social security for workers, this may be at least partially offset through gains in production made possible by increased allotments for public education.

Conclusion

Amidst rising criticism of globalization, this study investigates the impact of economic integration and democratization on social policy formation in Latin America. It asks whether these trends generate more or less social protection, as reflected in levels of social spending. Using social expenditure data for the period 1980–1999, it tests whether the compensation or the efficiency hypothesis best describes expenditure patterns in the region. In comparison with Western Europe, the factors thought to ameliorate the adverse welfare consequences of globalization and to explain the variance in social spending in that context—namely, strong unions, social democratic parties, and effective states—do not appear essential for increased social spending to occur in Latin America. A set of factors and dynamics of a different sort are evidently at play in Latin America, sustaining and even boosting certain components of social spending.

As the previous pages have revealed, the story is more complicated than a simple confirmation of one hypothesis over the other. The impact trade openness has on social spending varies dramatically based on how it

²⁰In Latin America, the mean percentage of the population over 65 is 4.9%. The corresponding mean for Europe over the same period (1980–1999) is 11.5%.

²¹See Latinobarómetro. 1998. *Opinión Pública Latinoamericana*. The question asked was: "From the list of problems that I am going to show you, which would you consider to be the most important?" The options were education, labor market, crime and drugs, corruption, poverty, inflation, terrorism, health, other, and don't know.

²²In a study by the Inter-American Development Bank (Inter-American Development Bank 1998), salaries accounted for approximately 90% of the total education budget in 15 of the 21 countries examined.

²³See Murillo (2002) on teacher union issues in current-day Latin America.

²⁴Evidence suggests an increasingly close link between education and wage/salary levels in Latin America. See Stallings and Perez (2000, 126–29) for a discussion of this point.

is operationalized. Trade openness (using PPPs) has a positive (though not always statistically significant) impact on aggregate spending, and a strong positive and significant association with spending on social security and education. Financial openness bore no systematic association—positive or negative—with overall social spending. Democracies spend more on social programs mainly through allocating funds to education. To the extent that social security experienced discernable gains in open economies, our investigation offers little support for the efficiency hypothesis. At the same time, it offers a new wrinkle on the compensation perspective: in open economies politicians protect workers through social security benefits while at the same time they address what could be compensation *and* efficiency concerns by investing in human capital.

While our investigation leaves many crucial questions unanswered, we hope to have identified important avenues for future research. One such avenue concerns the distributional consequences of changes in social sector allocations generated by economic integration and democratization. What kinds of programs and people are the beneficiaries of the increased spending in certain areas? It could be, for example, that in education the lion's share is dedicated to universities rather than primary education. Within primary education, there could be important funding differences in programs designed to enhance learning relative to programs designed to win votes. In public universities, resources applied toward programs explicitly designed to enhance international competitive-

ness may differ substantially from others. How much—if at all—are the funds used to train new workers or to retool the recently unemployed? Similar sets of questions could be asked about developments in health and social security spending.

The advancement of knowledge rests in part on more finely tuned quantitative work. More refined and comparable data would help provide researchers with a better handle on trends in social policy. Such data are more widely available for the welfare state in Western Europe than for Latin America, especially with respect to business associations and unions (Huber 2002, 27). In this vein, we join Huber (2002, 27) in her call for more data collection on the Latin American cases. At the very minimum, more detailed and systematic information on how money is spent within the various ministries (education, health, social security) is necessary. The development of comparable data on unions and business associations is also crucial for furthering our understanding of the political logic behind different kinds of social spending.

Case studies are also vital for revealing why and how social sector programs have been restructured in recent years. As the growth of targeted social programs and other innovations suggest, social spending has been redirected considerably in some countries. Understanding the rationale behind such changes, the (often difficult) political dynamics of instituting them, and their economic and political impact rests on detailed qualitative analysis. The future is wide open for quantitative and qualitative researchers alike to take up these and related challenges.

APPENDIX A Prais-Winsten Regressions of Social Spending, Education Spending, Health Spending, and Social Security (Expressed as % of GDP) on Trade Openness, Financial Openness, Regime Type, and Control Variables

	(1)	(2)	(3)	(4)	(5)
% of population in urban areas _t	0.433*** (0.081)	0.427*** (0.083)	0.090*** (0.030)	0.057** (0.023)	0.116*** (0.030)
% of population age 65 and over _t	-0.259 (0.562)	0.544 (0.583)	-0.812*** (0.203)	-0.092 (0.151)	1.739*** (0.280)
GDP per capita _t (logged)	-2.082 (1.396)	-2.082 (1.482)	0.220 (0.536)	0.794** (0.404)	-2.054*** (0.658)
Growth in GDP per capita _t	0.005 (0.014)	-0.004 (0.014)	-0.003 (0.005)	-0.007* (0.004)	0.005 (0.007)
Unemployment _t	0.133*** (0.035)	0.122*** (0.037)	0.025* (0.014)	0.025* (0.013)	0.126*** (0.020)
Inflation _t (logged)	-0.364** (0.181)	-0.561*** (0.180)	-0.215*** (0.058)	-0.052 (0.055)	-0.247** (0.101)
Trade Openness _t	-0.059*** (0.011)				

(continued on next page)

APPENDIX A (Continued)

	(1)	(2)	(3)	(4)	(5)
Trade Openness _t (PPPs)		-0.006 (0.024)	0.017** (0.007)	-0.011 (0.008)	0.027*** (0.010)
Capital Mobility Index _t	0.045 (0.163)	-0.047 (0.168)	-0.096 (0.064)	0.042 (0.062)	-0.060 (0.088)
Democracy _t	0.746** (0.301)	0.756** (0.294)	0.509*** (0.094)	0.154** (0.074)	0.002 (0.146)
Constant	2.844 (13.717)	-4.790 (14.765)	1.139 (4.698)	-7.237* (4.241)	-0.304 (5.851)
Observations	314	314	314	296	295
R ²	.85	.83	.77	.84	.92

Panel-Corrected Standard Errors in parentheses: *significant at 10%, **significant at 5%, ***significant at 1%. Country and year dummies were included in every regression but are not reported above for presentation purposes. The Prais-Winsten regressions above duplicate the main regressions reported in Tables 2 and 3. (1) Social spending regression with trade measure based on exchange rate conversions (Table 2, model 1); (2) social spending regression with trade measure based on PPPs (Table 2, model 2); (3) education spending is the dependent variable (Table 3, model 1); (4) health spending is the dependent variable (Table 3, model 2); (5) social security is the dependent variable (Table 3, model 3).

APPENDIX B Comparison of Error Correction Models That Use Different Measures of Trade Openness (Regressions Based on Model (2) from Table 2)

	(1)	(2)
Dependent Variable _{t-1}	-0.237*** (0.050)	-0.230*** (0.050)
% of population in Urban Areas _{t-1}	0.137*** (0.052)	0.150*** (0.052)
% of population over 65 years _{t-1}	0.178 (0.367)	0.450 (0.382)
GDP per capita _{t-1} (logged)	-1.715** (0.691)	-1.871*** (0.684)
Growth in GDP per capita _{t-1}	0.003 (0.014)	-0.001 (0.014)
Unemployment _{t-1}	-0.010 (0.026)	0.007 (0.030)
Inflation _{t-1} (logged)	-0.197* (0.118)	-0.195* (0.117)
Δ Trade Openness _{t-1}	-0.014 (0.012)	0.003 (0.022)
Trade Openness _{t-1}	-0.014 (0.009)	0.048*** (0.013)
Δ Capital Mobility Index _{t-1}	-0.0004 (0.180)	0.083 (0.169)
Capital Mobility Index _{t-1}	0.055 (0.106)	-0.156 (0.116)
Δ in Regime Type _{t-1}	0.004 (0.294)	0.010 (0.292)
Regime Type _{t-1}	0.453** (0.183)	0.439** (0.179)
Constant	7.710 (8.858)	4.730 (9.824)
Observations	298	298
R ²	.24	.25

Panel-Corrected Standard Errors in parentheses: *significant at 10%, **significant at 5%, ***significant at 1%. In both regressions the dependent variable is the annual change in social spending as a % of GDP. (1) Trade measure based on exchange rate conversions; (2) trade measure based on purchasing power parities. Country dummies and year dummies were included in each regression but are not reported above for presentation purposes.

APPENDIX C Average Spending Levels (as a Percentage of GDP) for Total Social Spending, Education, Health, and Social Security

Country	Total	Education	Health	Social Security
Argentina	17.81	3.71	4.19	7.28
Bolivia	7.58	3.79	2.48	2.00
Brazil	10.52	1.14	2.34	6.18
Chile	16.21	3.54	2.54	7.45
Colombia	9.96	3.68	1.91	3.36
Costa Rica	17.13	4.46	5.47	4.20
Dominican Republic	5.42	1.96	1.14	0.54
Ecuador	10.02	4.19	1.79	2.50
El Salvador	5.98	2.72	1.66	1.27
Guatemala	4.70	1.79	1.05	1.40
Honduras	7.57	4.21	2.34	0.34
Jamaica	9.67	4.83	2.47	0.72
Mexico	8.14	3.19	2.57	1.25
Nicaragua	11.03	4.76	4.37	0.00
Panama	17.84	5.08	6.33	4.96
Paraguay	4.77	2.09	0.73	1.77
Peru	4.58	2.33	0.97	1.03
Uruguay	18.23	2.76	2.76	12.36
Venezuela	9.63	4.25	1.53	2.41
Total	10.40	3.37	2.57	3.55

APPENDIX D Summary Statistics of the Independent Variables

Variable	Observations	Mean	Standard Deviation	Minimum	Maximum
% of population in urban areas	311	63.10	16.30	36.02	91.04
% of population age 65 and over	311	4.90	2.23	2.61	12.55
GDP per capita (logged)	311	8.34	0.45	7.18	9.39
Growth in GDP per capita	311	3.36	5.82	-20.56	24.87
Unemployment	311	8.96	4.21	1.50	22.20
Inflation (logged)	311	1.36	0.74	0.94	4.07
Trade Openness (PPPs)	311	22.66	12.88	4.75	73.77
Trade Openness	311	50.57	22.75	12.35	119.97
Capital Mobility Index	311	2.62	0.91	0.50	4.00
Democracy	311	0.78	0.41	0.00	1.00

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