

Economic Openness and Welfare Spending in Latin America (1970-2000)

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Abstract

Studies of developed countries generally find that participation in world markets is associated with larger government spending and welfare effort. Does this relationship hold true in developing countries? A small but growing literature has investigated the relationship between economic openness and social spending in developing countries, and findings are not uniform. In this paper, I estimate an error correction model with panel-corrected standard-errors of 17 Latin American countries over three decades. I use measures of globalization that encompass trade and capital openness, seeking to distinguish liberalization from exposure in the former. I find that countries that liberalized trade tended to spend more on social services. The analysis of the disaggregated data shows the strongest association of liberalization to be with social security and education spending.

Introduction

Latin America as a region has experienced remarkable changes over the past 40 years. Though each country's experience has been unique, the casual observer would not be too far off if he were to claim that the whole region underwent profound changes to its economy and politics. Long characterized by authoritarian regimes (the infamous military *juntas*) and protectionist trade policies, Latin American countries underwent a period of liberalization, both in the economic and political realms. These changes were welcomed by champions of democracy and markets both at home and abroad.

Most Latin American countries removed high tariffs to international trade and obstacles to capital flows while making the transition to full electoral democracy as part of what Huntington described as the "third wave" of democratization.¹ Understanding the interplay between economic and political liberalization and their attendant consequences on the way governments operate is important if we are to make predictions regarding the sustainability of globalization and democracy in the region.

Technology reduced the costs of transportation and communication and – combined with market-friendly government policies – created a boom in the volume of global trade. By the nineties, most Latin American countries had adopted, to different degrees, liberalizing reforms. The introduction of competition in the economic and political realms is expected to generate changes.

¹ Samuel P. Huntington, *The Third Wave: Democratization in the Late Twentieth Century* (University of Oklahoma Press, 1993).

Trade liberalization exposed previously protected sectors of the economy to competition from abroad; it also benefitted consumers with lower prices and greater access to foreign goods.²

Competition in the political realm increased the presence of leftist parties (previously absent mostly due to institutionalized repression). Freedom of political organization created room for previously excluded points of view and for greater party institutionalization.³ No longer were parties mere instruments of the regime, as they were, for example, during most of the Brazilian dictatorship (1964-1985). Rather, electoral competition increased the role of representation in government.

More recently, leftist leaders have won multiple elections across the region, a phenomenon which scared foreign investors, bringing back memories of a time (not so long ago) when the left threatened foreign investment with expropriation. With exceptions, the policies implemented by these new leftist leaders led journalists and analysts to call the phenomenon a “pink tide” rather than a “red wave.” As a concept, “pink tide” represents a milder brand of leftism, a form of pragmatic, popular socialism. The origins of the term “pink tide” are associated with *New York Times* reporter Larry Rohter, who characterized President Vazquez's ascension as part of “not so much a red tide” sweeping South America “as a pink one.”⁴ Rohter’s characterization was meant to characterize Vazquez’s election in Uruguay in 2005. However, Vazquez’s was the sixth leftist victory in the region after Lula da Silva (Brazil), Ricardo Lagos (Chile), Nestor Kirchner (Argentina), Hugo Chavez (Venezuela) and Evo Morales (Bolivia). To some extent, it has been

² Andy Baker, *The Market and the Masses in Latin America: Policy Reform and Consumption in Liberalizing Economies*, 1st ed. (Cambridge University Press, 2009).

³ Robert H. Dix, “Democratization and the Institutionalization of Latin American Political Parties,” *Comparative Political Studies* 24, no. 4 (January 1, 1992): 488–511.

⁴ Colin McNickle, “Latin America’s ‘Pragmatic’ Pink Tide,” *Tribune-Review*, March 6, 2005, http://www.pittsburghlive.com/x/pittsburghtrib/s_310062.html.

argued that the pragmatic socialist policies implemented by (most of) these new presidents is the result of greater market strictures after the opening of their economies in the nineties.

In this paper I investigate the relationship between globalization and economic liberalization in trade and capital. An analysis of 17 Latin American countries from 1970 to 2000 using a measure of trade liberalization lends support to the expectation that trade liberalization increases social spending. The compensatory logic of globalization finds support in the data and is consistent with my expectation that the groups that benefited from protectionism (and were, therefore, hurt by liberalization) also got the benefits from increased social spending, in particular social security spending. The paper proceeds as follows. First, I review the literature on the relationship between globalization and government policies, highlighting the findings for developing countries and competing hypotheses. Second, I describe the data and expected relationships. Third, I discuss the estimation method used for the econometric analysis. Fourth, I present the results with a discussion. I then conclude and suggest further avenues of research.

Review of Literature

The connection between market liberalization and subsequent policy is one of interest to political scientists who seek to answer the question: what are the relationships between economic and political liberalization on social spending decisions? In particular, how has the region's social policy been affected by globalization and democratization? Social spending encompasses the allocation of resources by the government to provide social services like education, health and social security to the public. When compared to other forms of spending like defense and policing, social spending stands out as more the subject of debate due to its intrinsic relationship to the perennial question of the proper role of the state.

On the question of the relationship between trade and spending, the conventional wisdom expects greater globalization to lead to a “race to the bottom” in terms of provision of social services because of greater competition among countries to attract capital and increase their world trade market share. The logic behind this relationship takes many forms; however, its essence can be seen in expected convergence of taxes and other policies when countries move away from relative autarky to greater integration. More mobile capital tends to prefer places with lower taxation to make investments, creating pressures for the size of government to be reduced. The conventional wisdom of a race to the bottom has been questioned by many scholars, especially because initial econometric tests of the hypothesis do not support it.⁵

Other scholars expect globalization to generate countervailing forces rising from those negatively affected. To maintain the openness achieved, governments would be expected to increase spending as a form of compensation. Because much of the literature on social spending focuses on developed countries (for which there is good data), which have mostly remained democratic, expectations surrounding democracy’s relationship are less apparent. Generally, democratization is expected to have a positive to no relationship with social spending.

How has change toward liberalization in trade and finance and higher competition among political groups affected the role of the state in the provision of social services? What was the relationship between economic globalization and the provision of social services in Latin America? Did integration into world markets for goods and capital lead governments to cut or increase spending on social goods like health, education, and, more importantly, social security? Have companies facing stronger competition from abroad pressured their governments to reduce

⁵ Wallace E. Oates, “Fiscal Competition or Harmonization? Some Reflections.,” *National Tax Journal* 54, no. 3 (2001): 507–512.

social spending and, as a consequence, taxation? Have those affected by the increased volatility and uncertainty from exposure to foreign markets demanded compensation?

The literature on the question of the relationship between trade openness and social (or even government) spending has not arrived at a consensus opinion when econometric analysis puts it to the test. Garrett provides a useful classification for categorizing the explanations and expectations generated by the large literature investigating this question for developed countries (mostly members of the Organization for Economic Cooperation and Development, OECD). Garrett separates studies into two camps or, rather, general hypotheses.⁶

The *efficiency* hypothesis posits a negative relationship between globalization and social spending; the hypothesis is based on the expectation that globalization will tend to create pressure for governments to reduce expenditures in order to remain competitive in the global marketplace. Economic theory predicts that the ability of the state to intervene in the economy is reduced as it liberalizes.⁷

This gradual erosion of state autonomy is more apparent in the case of capital mobility. The Mundell-Fleming trilemma (a portmanteau for a situation in which only two of three possible *desiderata* are possible) posits that given high capital mobility countries cannot maintain both an independent monetary policy and a fixed exchange rate.⁸ As a country becomes more entwined

⁶ Geoffrey Garrett, "Global Markets and National Politics: Collision Course or Virtuous Circle?," *International Organization* 52, no. 4 (Autumn 1998): 787–824; Geoffrey Garrett, *Partisan Politics in the Global Economy* (Cambridge University Press, 1998); Robert R. Kaufman and Alex Segura-Ubiergo, "Globalization, Domestic Politics, and Social Spending in Latin America: A Time-Series Cross-Section Analysis, 1973–97," *World Politics* 53, no. 4 (2001): 553–587.

⁷ Kenichi Ohmae, *The End of the Nation State: the Rise of Regional Economies* (New York: Free Press, 1995).

⁸ Robert A. Mundell, "The Monetary Dynamics of International Adjustment Under Fixed and Flexible Exchange Rates," *The Quarterly Journal of Economics* 74, no. 2 (May 1, 1960): 227–257; Robert A. Mundell, "Capital Mobility and Stabilization Policy Under Fixed and Flexible Exchange Rates," *The Canadian Journal of Economics*

in the global economy, it becomes harder for it to chart its own course for very long. Domestic policy goals must eventually counter with international interests. The expectation is that competitive pressures from greater exposure to the international market will force governments to reduce their size.

Because social spending is perhaps more susceptible to cuts than other kinds of spending (like military spending), the hypothesis expects governments in globalizing countries to move towards reducing these expenditures. There are many possible mechanisms through which this hypothesis may operate. For example, it may be that higher social expenditures, financed via higher payroll and other taxes, come to be perceived as culprits of firms' reduced competitiveness in international markets. Trade groups and others could be expected to pressure the government to reduce these higher costs to production. Alternatively, governments could forego higher taxes and opt to finance social expenditures via public debt; greater government presence in debt markets would be expected to raise interest rates via a crowding-out effect and be deleterious to private investment.

In contrast, the *compensation* hypothesis posits that globalization creates strong countervailing pressures to increase the provision of social safety nets for those hurt by economic liberalization. Groups formerly protected by a trade barrier could be expected to demand compensation in exchange for higher exposure to imports and the end of protectionist policies. Compensation for openness can come in many forms including higher spending on social goods.

Conversely, governments seeking to liberalize may adopt a proactive stance towards their opening strategy and increase spending to reduce resistance against liberalizing reforms.

Furthermore, compensation could have positive consequences if the spending adds to a country's human capital stock which could provide a long-term boost in productivity growth. As suggested by theorists of endogenous growth, spending that increases human capital may increase economic growth.⁹

Some of the literature investigating the link between liberalizing policy and domestic social political economy has found a positive relationship between globalization and government policies in developed countries finding that trade openness and the size of government are positively related.¹⁰ The argument put forth for this positive correlation emphasizes how trade openness increases economic risks and uncertainties which, in turn, strengthen the power of unions and leftist parties.¹¹ Increasing exposure to world markets stimulates demands for social programs which create political opportunities for elected governments to compensate those adversely affected by the vicissitudes of globalization. Scheve and Slaughter analyze the impact of globalization (and its attendant economic uncertainties) on individual preferences over trade policy, finding empirical evidence for the link between globalization and worker insecurity.¹²

An influential paper which investigated the relationship between economic liberalization and domestic social political economy was Cameron's "Expansion of the Public Economy"

⁹ N. Gregory Mankiw, David Romer, and David N. Weil, "A Contribution to the Empirics of Economic Growth," *The Quarterly Journal of Economics* 107, no. 2 (May 1992): 407–437; Howard Pack, "Endogenous Growth Theory: Intellectual Appeal and Empirical Shortcomings," *The Journal of Economic Perspectives* 8, no. 1 (Winter 1994): 55–72.

¹⁰ David R. Cameron, "The Expansion of the Public Economy: A Comparative Analysis," *The American Political Science Review* 72, no. 4 (December 1978): 1243–1261; Peter J. Katzenstein, *Small States in World Markets: Industrial Policy in Europe* (Cornell University Press, 1985); Dani Rodrik, "Why Do More Open Economies Have Bigger Governments?," *The Journal of Political Economy* 106, no. 5 (October 1998): 997–1032.

¹¹ Garrett, *Partisan Politics in the Global Economy*.

¹² Kenneth F. Scheve and Matthew J. Slaughter, "What Determines Individual Trade-policy Preferences?," *Journal of International Economics* 54, no. 2 (August 2001): 267–292.

published in 1978.¹³ Investigating the increasing role of the state in 18 countries belonging to the Organization for Economic Co-operation and Development (a group of 34 countries founded in 1961 which is synonymous with developed countries) between 1960 and 1975, Cameron found a strong, positive relationship between trade exposure (exports plus imports divided by gross domestic product) and the size of government (as measured by its tax revenues divided by GDP). Cameron used a measure of tax revenue rather than spending, arguing that “the scope of the public economy can be compared as well by considering the revenues of governments rather than their expenditures” (p. 1244).¹⁴ This is true if one assumes revenues and spending are highly correlated (which they probably are for most countries); however, to the extent that there’s a substantial increase in spending financed through debt, then the relationship can be expected to break down.

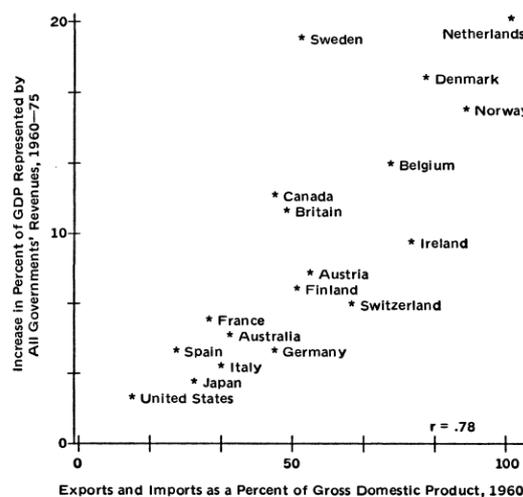


Figure: Size of Government vs. Exposure to Trade from Cameron’s 1978 paper

¹³ Cameron, “The Expansion of the Public Economy.”

¹⁴ Ibid.

According to Cameron, trade openness would lead to high industrial concentration in export-oriented economies which would bolster the power of unions and widen the scope of collective bargaining. When thinking about which groups would favor the kinds of services afforded by social spending, unions stand out because of their interest in preserving the benefits derived by their members.

The general pattern of the evolution of social spending in Europe relied on unions being able to secure welfare services over and above the efficiency considerations of owners of capital.¹⁵ As competition from abroad increased pressures to lower wages, strong unions made themselves heard in the political arena and were able to push for “policies that will enhance the economic conditions of their members by supporting programs that provide income supplements” (p. 1258). As Cameron writes,

[g]overnments in small open economies have tended to provide a variety of income supplements in the form of social security schemes, health insurance, unemployment benefits, job training, employment subsidies to firms, and even investment capital. Prompted in part by the incentive to maintain price competitiveness of export goods in the world market and accentuated by the *social structural features* generated by economic openness, this expansion of the role of government in the distribution and consumption of national income has dramatically enlarged the scope of the “tax state” in contemporary advanced capitalist society. (p.1260, my emphasis)

Cameron’s study was influential for the focus it placed on a country’s position in the international economy as a determinant of its domestic political economy. Google Scholar reports that Cameron’s paper has been cited more than 1,700 times.¹⁶ As noted by Cameron twenty-eight years after publication,

the article’s suggestion that a high degree of openness may, depending upon the partisanship of the government and the structure of labor market institutions, cause

¹⁵ Gosta Esping-Andersen, *The Three Worlds of Welfare Capitalism* (Princeton University Press, 1990).

¹⁶ Citation count in Google Scholar as of May 4, 2012.

governments to offer compensation through social policy in exchange for wage moderation remains, I think, an intriguing hypothesis in an era marked by increasing global interdependence and economic “openness.”¹⁷

As the figure below shows, the increasing importance of world trade which marked the seventies continued apace during the nineties and 2000s, with a major reversal due to the global financial crisis of 2008. The growth in the importance of world trade also increased the relevance of the question of trade openness’s relationship to government policy. Though globalization as a concept encompasses more than economic considerations, it is undeniable that greater liberalization of trade policy and of capital are crucial elements. After all, foreign investment and trade have been the main drivers of globalization.¹⁸



Figure: Trade as share of GDP (World Bank)

¹⁷ Lee Sigelman, “The American Political Science Review Citation Classics,” *American Political Science Review* 100, no. 04 (2006): 667–669.

¹⁸ Nayan Chanda, *Bound Together: How Traders, Preachers, Adventurers, and Warriors Shaped Globalization*, 1st ed. (Yale University Press, 2007).

Studying small European welfare states, Katzenstein argued that the correlation between openness and government size was due to governments' strategies for pursuing liberalization. Small countries have little choice but to be open. Since trade openness is expected to generate economic uncertainty, the state has an incentive to compensate the "losers" through higher spending (and a combination of other programs) in order to make exposure more palatable to those made more insecure because of globalization.¹⁹ A similar logic was put forward in Garrett's study of OECD economies.

Arguing against the thesis that politics becomes irrelevant in a globalizing world (because of the constraints it places on government intervention), Garrett highlighted the role of partisanship in determining the degree of openness and compensation. Rather than hurting the left, Garrett argued that globalization had strengthened the "political demands for government policies that reduce [the] burgeoning inequalities of risk and wealth" (p. 157).²⁰ These demands had "increase[d] the political payoffs for governments in [social democratic corporatist] systems to compensate those whose economic insecurity increased with greater competition in international markets" (p. 102).

Cameron's analysis, though comprehensive in its discussion of alternative explanations, was limited from a statistical point a view by the number of years under consideration and the number of countries included. Furthermore, the logic he suggested seemed tethered the specific context of European politics of the time. Modifying Cameron's proposed explanation for the

¹⁹ Katzenstein, *Small States in World Markets*.

²⁰ Garrett, *Partisan Politics in the Global Economy*.

relationship between trade openness and government size, Rodrik gathered data on more countries and focused on the economic rationale for larger governments.²¹

He proposed an argument that generalized the relationship found by Cameron but modified the original argument because, as he notes, “it may not be plausible to attach such importance to the role of labor organizations in most developing countries” (p. 999). Rodrik’s proposed alternative idea, also hinted at by Cameron, is that governments may use higher “public spending [as] a risk-reducing instrument.” This idea was cited by Cameron in his 1978 paper:

Lindbeck (1975, p. 56) argues that governments can dampen the effects of the open economy on production, employment, and consumption by increasing the scope of the public economy. He notes that the growth of social insurance and tax systems represent “built-in stabilizers” which allow policy makers to “smooth out” the peaks and valleys of business cycles.²²

In other words, because trade openness can be expected to expose domestic economies to the risks and volatility of the world market, it is expected to generate insecurity among economic agents who are likely to be adversely affected by international competition. For example, if the previously protected domestic shoe industry is exposed to foreign competition because a tariff on imported shoes was removed – a tariff wall which historically has made their locally produced shoe (artificially) cheaper than those made abroad – the industry will lose market share while shoe importers will flourish. Shoe workers’ future will become more insecure, and they could demand support from the government in the form of unemployment benefits, worker retraining programs, etc. Such programs would be financed from general state funds, payroll taxes, or debt. Ultimately, however, the spending will or will not take place depending on the political calculus by politicians and interest groups.

²¹ Rodrik, “Why Do More Open Economies Have Bigger Governments?”.

²² Assar Lindbeck, “Business Cycles, Politics and International Economic Dependence,” *Skandinaviska Enskildens Bank Quarterly Review* 2 (1975): 53–68.

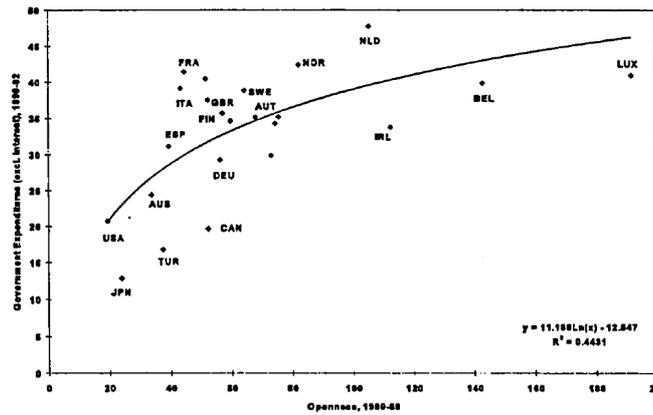


Figure: Size of Government vs. Trade Openness from Rodrik’s 1998 paper

For the simple scatter plot shown in the figure above, Rodrik collected data on 23 OECD countries and plotted government expenditures as a share of GDP against trade openness (measured as exports plus imports over GDP). He fitted a logarithmic line with $R^2 = 0.44$.

For his econometric analysis, Rodrik gathered data on more countries (from 103 to 125 depending on the specification). For the dependent variable he used the share of government consumption in GDP which, as he notes, is not ideal given that it “excludes income transfers and public investment.” However, as a measure of consumption, the variable still fits Rodrik’s modified argument in the following way: insofar as government consumption (because it operates autonomously from the world market to some extent) manages to smoothen GDP growth, it will contribute to a reduction in income volatility and function as a countervailing force against the pressures of globalization.

Rodrik’s contribution is valid for its comprehensive inclusion of countries and careful theorizing; however, in comparison to Cameron, it lacks an explicit political element. Adsera and Boix criticize Rodrik’s model for not taking politics explicitly into account. They argue that the model

assumes a quasi-functional relationship between external risk and bigger government (p. 229).²³

Just because there is an opportunity for moderating the volatility associated with integration does not mean governments will take it. In other words, it matters whom globalization hurts and who has the power and interest to respond.

As noted by Adsera and Boix, the Rodrik's model supposes that

[s]ocieties seem to demand (and receive) an expanded government role as the price for accepting larger doses of external risk. In other words, government spending appears to provide social insurance in economies subject to external shocks (p. 998).²⁴

In this passage, the implied enlightened administrator is expected to implement these risk-reducing policies in response to trouble; however, insurance against volatility can come in many forms and benefit different groups. Once politics is taken into account, Adsera and Boix argue that the positive correlation between more openness and more spending breaks down.

Modeling social policy and trade openness as simultaneous decisions, they challenge the expectation that compensation is always necessary to achieve greater integration. By allowing the possibility that free trade interests will, in certain situations, subvert democracy and impose autocracy, their model includes the possibility of systematic exclusion of those hurt by openness, thus paving the way for globalization *without* compensation.

They predict three equilibrium outcomes: autarkic democracies with no compensation, open democracies with compensation, and open autocracies without compensation. The first is the pre-globalization outcome in which the economy is closed and government small. Without distortions, the need to expand the scope of government is null. The second is the open economy

²³ Alicia Adsera and Carles Boix, "Trade, Democracy, and the Size of the Public Sector: The Political Underpinnings of Openness," *International Organization* 56, no. 2 (Spring 2002): 229–262.

²⁴ *Ibid.*

with an open political system (democracy) and government spending to compensate the “losers” of globalization. This is the conventional expectation associated with Cameron, Garrett, and Rodrik. In a way, spending acts as the “price” for openness. The third equilibrium is the open economy with a closed political system (autocracy) in which the losers are systematically excluded. If those who are hurt by globalization are unable to protect their interests because they lack a voice, then the state can continue to pursue liberalization while ignoring these interests. Adding historical evidence to the analysis of panel data on 65 countries from 1950 to 1990, Adsera and Boix find a significant and positive coefficient on the interaction of democracy and trade openness. In short, they find that democracies undergoing periods of trade liberalization increase the size of the government’s participation in the economy.

Closed democracies may be a temporary equilibrium in developing countries. As argued by Milner and Kubota, political leaders may have an incentive to reduce trade barriers in labor-abundant countries.²⁵ There are other reasons to expect the autarkic equilibrium to be short-lived. Trade liberalization could come about because of economic crises, external pressures from international institutions such as the International Monetary Fund or the spread of ideas and diffusion of policy. Indeed, it could be argued, as Frieden and Rogowski did, that as worldwide integration proceeds and transportation costs are reduced, pressures for trade liberalization will increase as the opportunity costs of remaining closed also increases.²⁶

²⁵ Helen V. Milner and Keiko Kubota, “Why the Move to Free Trade? Democracy and Trade Policy in the Developing Countries,” *International Organization* 59, no. 01 (2005): 107–143.

²⁶ Jeffrey A. Frieden and Ronald Rogowski, “The Impact of the International Economy on National Policies: An Analytical Overview,” ed. Robert O. Keohane and Helen V. Milner, *Internationalization and Domestic Politics* (1996): 25–47.

Using economic theory and a simplified model of politics, Rogowski proposes a useful framework for understanding who loses and who gains from greater economic liberalization.²⁷ As a country opens itself to trade, its relative world position in terms of labor and capital will be an important determinant of which holders of these factors benefits the most. Plainly put, when a developed country with more skilled than unskilled labor liberalizes trade, the holders of the relatively scarce factor (unskilled labor) will become exposed to competition from countries with plenty of unskilled labor. So long as it is costly for them to become skilled or move somewhere else, they can be expected to resist trade liberalization or demand compensation.

Rogowski's framework is based on the Stolper-Samuelson theorem which proposes (under certain conditions) the positive relationship between relative factor endowments and gains from freer trade. The basic insight is summarized by Rogowski (p. 1122): "[I]n a society rich in labor but poor in capital, [trade] protection would benefit capital and harm labor; and liberalization of trade would benefit labor and harm capital." The factors Rogowski discusses are land, labor and capital; his major insight relates to the types of political divisions (or cleavages) with which different factor endowments would be associated in the case of an endogenous or exogenous increase in trade liberalization. This framework finds empirical support. Scheve, for example, finds evidence that in the United States in 1992 "factor type dominate[d] industry of employment in explaining support for trade barriers" (p. 289).²⁸ Because the United States is (when compared to the world) relatively scarce in low-skilled labor, this labor is likely to lose once higher trade openness introduces competition from other countries with low-skilled labor. Government

²⁷ Ronald Rogowski, "Political Cleavages and Changing Exposure to Trade," *The American Political Science Review* 81, no. 4 (December 1987): 1121–1137; Ronald Rogowski, *Commerce and Coalitions: How Trade Affects Domestic Political Alignments* (Princeton University Press, 1990).

²⁸ Scheve and Slaughter, "What Determines Individual Trade-policy Preferences?"

spending can act as an insurance policy to smoothen the “bumpy ride.” And low-skilled American workers can receive aid to retrain, pay the bills and search for another job.

The Case of Latin America

Data availability and quality are constant issues when analysis moves beyond developed countries to include developing ones. This fact in itself presents a problem for analysis, since data availability and quality do not vary independently of the reporting country’s characteristics. Vreeland and Rosendorff find that a country’s regime type, i.e., whether it is democratic or not, impacts its data transparency.²⁹

In spite of the challenges of data quality/availability, including developing countries in the analysis is essential if the argument and logic proposed is to be confidently generalized; it is also important to test expectations in settings in which some important variables vary substantially, like political regime, i.e. whether a country is democratic or not.

Equipped with better and more extensive data, scholars investigated the relationship between globalization and government policies in Latin America. There are good social scientific reasons to do so. Not only should scholars seek to test their theories and expectations on other regions but Latin American countries implement (or claim to implement) significant social policy programs and can be, therefore, conceptualized as welfare states and exhibit significant variation in factors of interest such as regime type and level of economic integration.

²⁹ B. Peter Rosendorff and James Raymond Vreeland, “Democracies and Data Dissemination: The Effect of Political Regime on Transparency”, June 2006; B. P. Rosendorff and J. R. Vreeland, “Democracy and Data Dissemination: The Effect of Political Regime on Transparency,” University of Southern California and Yale University (unpublished), 2004.

As defined by Wilensky, the “essence of the welfare state is government-protected minimum standards of income, nutrition, health, housing, and education, assured to every citizen as a political right, not as charity.”³⁰ Latin American countries explicitly recognize rights to social services and some have implemented welfare programs as early as 1924.³¹ As argued by Mesa-Lago “the LAC [Latin America and the Caribbean] region led the rest of the Third World in the introduction of social-security programs.”³² Part of the implementation of these welfare systems was the political economy which supported them. A major element of this political economy was its relationship to the world economy.

In the 1950s and 1960s, Latin American countries were among the most closed in the world. Influenced by the United Nation’s Economic Commission for Latin America and the Caribbean (ECLAC or, as it is better known, CEPAL) and its director Raúl Prebisch,³³ Latin American countries imposed high import tariffs to promote import-substitution industrialization (ISI). These policies were motivated, in part, by the Prebisch-Singer hypothesis which stipulated that the price of primary products falls secularly in relation to price of manufactures.³⁴ These declining terms-of-trade constitutes an adverse relationship that, according to the argument, could be remedied by state intervention. Dependency theory provided further ideological justification for national autonomy and trade protection.³⁵

³⁰ Harold L. Wilensky, *The Welfare State and Equality: Structural and Ideological Roots of Public Expenditures* (Berkeley: University of California Press, 1974).

³¹ Carmelo Mesa-Lago, *Social Security in Latin America: Pressure Groups, Stratification, and Inequality* (Pittsburgh: University of Pittsburgh Press, 1978).

³² Ehtisham Ahmad et al., eds., *Social Security in Developing Countries* (Oxford [England]: Clarendon Press, 1991).

³³ Edgar Dosman, *The Life and Times of Raúl Prebisch, 1901-1986* (Montreal: McGill-Queen’s University Press, 2008).

³⁴ Raul Prebisch, *The Economic Development of Latin America and Its Principal Problems* (United Nations Dept. of Economic Affairs, 1950).

³⁵ Fernando Henrique Cardoso and Enzo Faletto, *Dependency and Development in Latin America* (Berkeley: University of California Press, 1979).

Pessimism about prospects for foreign-exchange earnings from traditional exports led to policies that directly or indirectly shifted incomes out of agriculture and into the public or industrial sectors; these policies included tariffs and other trade restrictions designed to encourage import substitution in the manufacturing sector, over-valued currencies or multiple exchange-rates, and direct taxes and subsidies.³⁶ ISI was not completely unsuccessful;³⁷ it managed to develop a manufacturing sector and promote foreign direct investment, mainly attracted by favorable legislation and tax reductions. Politically, ISI tilted the balance away from landed interests toward a growing industrial and urban sector. The development model relied on attracting foreign investment. Once this investment ceased, due in part to the oil shocks of the 1970s, the region plunged in a period of stagnation in the 1980s later dubbed the “lost decade.”

Among the consequences of ISI was the rapid increase in urbanization and the creation of industrial centers. Growth in social programs coincided with the development of a class of urban citizens and relatively skilled industrial workers. Social security, in particular, relied on the creation of *formal* jobs under ISI, thereby excluding *informal* workers.³⁸ The model relied on employee and employer contributions and was “politically feasible [because] employers, protected by high tariff walls, were able to pass these costs on to consumers” (p. 423).³⁹

Beginning in the 1970s and intensifying in the 1980s, Latin American countries began to open their economies. Many thought that ISI as a development model had failed, having achieved

³⁶ Irving B. Kravis, “Trade as a Handmaiden of Growth: Similarities Between the Nineteenth and Twentieth Centuries,” *The Economic Journal* 80, no. 320 (December 1970): 850–872.

³⁷ Rosemary Thorp, *Progress, Poverty and Exclusion: An Economic History of Latin America in the Twentieth Century* (Inter-American Development Bank, 1998).

³⁸ Carmelo Mesa-Lago, “Social Security in Latin America and the Caribbean: A Comparative Assessment,” in *Social Security in Developing Countries*, ed. Ehtisham Ahmad et al. (New York: Oxford University Press, 1991), 356–394.

³⁹ Evelyne Huber, Thomas Mustillo, and John D. Stephens, “Politics and Social Spending in Latin America,” *The Journal of Politics* 70, no. 02 (2008): 420–436.

mostly low growth, chronic inflation and recurrent balance-of-payments crises. Resolving the debt crises of the eighties required resorting to international financial institutions (IFIs); the International Monetary Fund insisted on structural adjustment programs which included, among other things, trade liberalization.⁴⁰

Three countries were pioneers in implementing reforms and underwent abrupt economic changes: Argentina, Chile and Uruguay; all associated with coups. Exemplifying a new model, the Pinochet regime in Chile reversed ISI policies, lowered trade tariffs and pursued privatization. Social spending was reduced, hurting low-income and middle-income groups. The “excessive speed [of the reforms] led to financial crises in all three countries at the beginning of the 1980s” and a temporary reversion of liberalization (p. 8,402).⁴¹ In Chile, the trend toward restraint in social spending was reversed in 1982-83, “particularly to support the unemployed through subsidies, emergency employment programs, and money transfers” (p. 226).⁴²

The transition toward a more open economy took place at different paces in different countries; however, by the 1990s, Latin American countries were more open. The liberalization of the economy in Latin American countries was so similar in spirit that an American economist went so far as to dub these reforms part of an emerging “Washington Consensus.”⁴³ He would later come to deplore the misunderstanding surrounding this concept, soon to be equated with “neoliberalism.”⁴⁴ And though perhaps there should have been more focus on the social

⁴⁰ James Raymond Vreeland, *The IMF and Economic Development* (Cambridge University Press, 2003).

⁴¹ Victor Bulmer-Thomas, “Latin American Studies,” in *International Encyclopedia of the Social & Behavioral Sciences*, ed. Neil Smelser and Paul Baltes, 1st ed. (Amsterdam, New York: Elsevier, 2001).

⁴² M. Marcel and A. Solimano, “The Distribution of Income and Economic Adjustment,” *The Chilean Economy: Policy Lessons and Challenges* (1994): 217–255.

⁴³ John Williamson, ed., *Latin American Adjustment: How Much Has Happened?* (Institute for International Economics, 1990).

⁴⁴ John Williamson, “What Should the World Bank Think About the Washington Consensus?,” *The World Bank Research Observer* 15, no. 2 (August 2000): 251–264.

consequences of the inevitable disruptions from liberalization, the consensus did emphasize macroeconomic stabilization, privatization and liberalization. The emphasis on these three goals sprung from the collective experience of the region. After a bout of high growth during the 1970s, much of it fueled by foreign capital, Latin American countries suffered as a whole when Mexico defaulted on its debt in 1982. The spikes in oil prices (1973 and 1979) and in U.S. interest rates (1981) led to a regional debt crisis that took a heavy toll. Until then, rolling over the national debt was manageable; however, the spikes led to a sudden stop of capital flows.⁴⁵

Macroeconomic stabilization as a goal was “setting the house in order;” it involved preparing an austerity budget, raising interest rates and devaluing the currency, all done to preserve the sustainability of public finances. Sometimes an agreement with the International Monetary Fund was necessary, either to secure lender-of-last-resort financing or to push legislation against domestic resistance. Privatization relied on the belief that state-owned enterprises were generally inefficient and a drain on state finances. Their liquidation would inject both competition into domestic markets and reduce the high rate of foreign indebtedness. Finally trade policy liberalization was expected to keep a lid on high inflation and improve export-competitiveness (by removing distortions that favored inefficient import-competing firms). Many authoritarian regimes failed to deal effectively with their deteriorating economies. High inflation and popular dissatisfaction conspired to erode the support of the *juntas* and military presidents. One by one they fell and gave way to newly elected presidents. A transition to electoral democracy and a fully competitive party system took place.⁴⁶

⁴⁵ Guillermo A. Calvo, “Capital Flows and Capital-Market Crises: The Simple Economics of Sudden Stops,” *Journal of Applied Economics*, *Journal of Applied Economics* (1998): 35–54.

⁴⁶ Terry Lynn Karl, “Dilemmas of Democratization in Latin America,” *Comparative Politics* 23, no. 1 (October 1990): 1–21.

By the late nineties, the debate on the consequences of neoliberalism, trade liberalization in particular, led scholars to investigate the relationship between globalization and the welfare state. Kaufman and Segura-Ubiergo focused on Latin American countries exclusively and found a strong negative relationship of trade with social spending. Though their dependent variable is different from Cameron's and Rodrik's, their data allows closer scrutiny of potential causal mechanisms. Kaufman and Segura-Ubiergo compiled data for fourteen Latin American countries from 1973 to 1997 from the International Monetary Fund. They found that globalization has a strong negative association with social spending and that this relationship is concentrated on social security spending, i.e. transfers and pensions. They argued that the traditional bulwarks of social protection in developed countries (unions and leftist parties) were not strong enough to avoid the "efficiency" pressures of globalization.

Kaufman and Segura-Ubiergo argued that social security spending, most of it pensions, is generally financed by payroll taxes that "have a direct and transparent impact on the cost of labor," making them prime targets for business resistance. Also, social security spending is regressive in Latin America, meaning that income distribution after transfers is more unequal than before.⁴⁷ This is the result of the legacy of its development. Social insurance schemes were first implemented in Chile around the 1920s with Brazil, Uruguay, Argentina and Cuba, the "pioneers" as Mesa-Lago calls them, following suit.⁴⁸ Social insurance coverage followed a general pattern first covering the military and civil servants then white-collar professionals and only later expanded to blue-collar workers. This uneven gradual evolution led to the creation of what Mesa-Lago describes as a "stratified social-insurance program [characterized by a]

⁴⁷ K. Lindert, E. Skoufias, and J. Shapiro, "Redistributing Income to the Poor and the Rich: Public Transfers in Latin America and the Caribbean," *World Bank Social Protection Discussion Paper No. 0605* (August 2006).

⁴⁸ Mesa-Lago, *Social Security in Latin America*.

pyramidal structure, with relatively small groups of persons protected by privileged subsystems” (p. 359).⁴⁹ Though social security does include progressive anti-poverty programs, the “costs of financing of large pension-fund deficits are socialized through general taxation or inflation.”⁵⁰ A large amount of welfare spending is in the form of pensions to higher income and skilled workers who would have an easier time organizing to defend their interests, even as globalization goes forward.

A problem with their (and all analyses of this kind) is that more or less spending does not necessarily mean that individuals receive more or less services, especially in health and education. Given the large inefficiencies in the distribution of resources, it is possible that services improve while their cost goes down. This concern is less important in the case of social security spending but nonetheless relevant.

Also focusing on Latin American countries, Avelino et al. find that trade openness leads to higher spending on education and social security. Using data from 19 Latin American countries from 1980 to 1999, Avelino et al. find evidence for a compensation mechanism whereby the negative consequences of globalization (higher volatility and competition) are offset through higher government spending.⁵¹ Avelino et al. argue that

[m]ost pensions 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. ... [S]ocial security transfers enjoy protected status even though they impose high costs

⁴⁹ Carmelo Mesa-Lago, “Social Welfare Reform in the Context of Economic-political Liberalization: Latin American Cases,” *World Development* 25, no. 4 (January 1997): 497–517.

⁵⁰ Carmelo Mesa-Lago, *Ascent to Bankruptcy: Financing Social Security in Latin America* (University of Pittsburgh Press, 1990).

⁵¹ George Avelino, David S. Brown, and Wendy Hunter, “The Effects of Capital Mobility, Trade Openness, and Democracy on Social Spending in Latin America,” *American Journal of Political Science* 49, no. 3 (2005): 625–641.

on employers, contribute little to a country's productivity, and benefit only a small segment of the population.

The findings of Avelino et al. suggest that though weaker, unions and leftist parties are not necessary for preserving social services. As they note:

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 wages – do not appear essential for increased social spending to occur in Latin America (p. 636).

Their argument relies on the finding of higher spending on human capital (education and health) associated with democratization. Their proposed explanation relies on the tendency, in electoral systems, for recipients of social services to be able to protect their transfers and “at the same time [for politicians to] address what could be compensation *and* efficiency concerns by investing in human capital” (p. 637).⁵²

Econometric studies in political science examining the nexus of globalization-welfare, such as the ones just described, use a measure of trade openness based on the ratio of the sum of exports and imports to gross domestic product (GDP). Though a good measure of *exposure*, the trade ratio does not grasp what is of substantive concern to studies of the welfare state, namely, the trade-off facing the liberalizing policymaker.

By using both a measure of trade *exposure* and *liberalization*, I propose to separate the relationship between volatility and policy to tease out a potential mechanism through which the compensation logic of globalization can impact social spending effort; namely, the substitution of protectionism for compensation.

⁵² Ibid.

In the case of Latin America, I argue that the legacy of the domestic political economy created groups in the *formal* labor market that benefited from trade protectionism and, disproportionately, from social safety nets. When protectionist policies were removed, these groups were adversely affected but managed to be compensated through higher spending. I argue that important groups were able to secure compensation in spite of weak political parties, unions and democratic institutions.

There are a number of potential reasons why sectors that benefited from protection could not keep tariffs high. Some have argued that powerful international actors and institutions pushed liberalization.⁵³ Others maintained that U.S. hegemony influenced policy ideas and decisions.⁵⁴ Ideas certainly played a role in the gradual transition away from ISI towards international economic integration. For example, the strong performance of the Chilean economy after redemocratization in 1990 provided support for the neoliberal ideas embodied in the Washington Consensus. It could also be that democratization weakened the protectionist position of import-competing sectors as politicians began to serve broader constituencies that would benefit from lower tariffs and potential demand for their relatively abundant factor: labor.⁵⁵

If they could not resist liberalization, protectionist interests would be expected to demand compensation. One would expect them to be efficient at securing this because these urban-industrial interests are numerically smaller and their benefits concentrated.⁵⁶ It is plausible to

⁵³ John Williamson, "Democracy and the 'Washington Consensus'," *World Development* 21, no. 8 (August 1993): 1329–1336.

⁵⁴ Albert O. Hirschman, "How the Keynesian Revolution Was Exported from the United States, and Other Comments," in *The Political Power of Economic Ideas: Keynesianism Across Nations*, ed. Peter A. Hall (Princeton Univ Press, 1989).

⁵⁵ Milner and Kubota, "Why the Move to Free Trade?"

⁵⁶ Robert Bates, *Markets and States in Tropical Africa: the Political Basis of Agricultural Policies* (Berkeley: University of California Press, 1981).

think that social spending would be an important component of the compensatory package because, as discussed, in Latin America it tends to benefit urban and industrial groups. Social spending is less broad, comprehensive, or progressive than in developed countries.⁵⁷

It must be noted that in a large number of developing countries, social programs were initiated by autocracies. This is particularly true of old age and disability insurance. For example, Mares and Carnes report that in Latin America 12 autocracies first adopted old age insurance compared to only 2 democracies.⁵⁸ For disability insurance, the contrast is even greater: 16 autocracies first adopted the policy compared to 3 democracies. Whether these policy implementations came by as a consequence of economic openness or not is an open question. However, whereas the majority of developed countries remained democratic in the postwar period, many developing countries, especially in Latin America, experienced autocratic reversals and redemocratizations.⁵⁹

The variation in regime type in Latin America is important because of their potential impact on redistributive politics, the basis for social spending. Theoretical perspectives based on a Downsian logic of party behavior and redistribution models expect democracies to redistribute more than autocracies, especially if inequality is high.⁶⁰ That is because in unequal countries, where the median voter's income is less than the mean voter's; policies will tend to favor higher redistribution if the franchise is universal. The logic (which I over-simplify here for purposes of

⁵⁷ Evelyne Huber et al., "Politics and Inequality in Latin America and the Caribbean," *American Sociological Review* 71, no. 6 (December 2006): 943.

⁵⁸ Isabela Mares and Matthew E. Carnes, "Social Policy in Developing Countries," *Annual Review of Political Science* 12, no. 1 (June 2009): 93–113.

⁵⁹ Juan J. Linz and Alfred Stepan, *Problems of Democratic Transition and Consolidation: Southern Europe, South America, and Post-Communist Europe*, illustrated ed. (The Johns Hopkins University Press, 1996).

⁶⁰ Anthony Downs, *An Economic Theory of Democracy* (New York: Harper and Row, 1957); Allan H. Meltzer and Scott F. Richard, "A Rational Theory of the Size of Government.," *Journal of Political Economy* 89, no. 5 (October 1981): 914.

exposition) presupposes a continuous policy spectrum of redistribution which is related to one's income. Parties strategically place themselves along this spectrum to maximize votes; the median voter's placement becomes defining, and his location, relative to the mean-income voter, will be in favor of more redistribution.

Some empirical evidence supports this expectation. Lake and Baum find a positive relationship between democracy and social spending, arguing democracies are more responsive to citizens' demands and deliver better results because of higher provision of public services.⁶¹ Brown and Hunter find that social spending in democracies was more resilient during economic crises.⁶² They also find that democracies spend more on education both overall and specifically on primary education, the type of spending more likely to be progressive and improve human capital.⁶³

Kaufman and Segura-Ubiergo do not encounter a positive relationship between democracy and social spending; they find evidence that "democratically elected government[s] did protect expenditures on health and education," (p. 584).⁶⁴ Avelino, Brown and Hunter find a positive relationship, adding that more spending came "mainly through allocating funds to education" (p. 637).⁶⁵

⁶¹ David A. Lake and Matthew A. Baum, "The Invisible Hand of Democracy: Political Control and the Provision of Public Services," *Comparative Political Studies* 34, no. 6 (August 1, 2001): 587–621; Matthew A. Baum and David A. Lake, "The Political Economy of Growth: Democracy and Human Capital," *American Journal of Political Science* 47, no. 2 (2003): 333–347.

⁶² David S. Brown and Wendy Hunter, "Democracy and Social Spending in Latin America, 1980-92," *The American Political Science Review* 93, no. 4 (December 1999): 779–790.

⁶³ David S. Brown and Wendy Hunter, "Democracy and Human Capital Formation: Education Spending in Latin America, 1980 to 1997," *Comparative Political Studies* 37, no. 7 (September 1, 2004): 842–864.

⁶⁴ Kaufman and Segura-Ubiergo, "Globalization, Domestic Politics, and Social Spending in Latin America."

⁶⁵ Avelino, Brown, and Hunter, "The Effects of Capital Mobility, Trade Openness, and Democracy on Social Spending in Latin America."

Data and Expected Relationships

To test my expectations regarding the relationship between globalization and democracy on social spending, I conduct an econometric estimation using time-series cross-sectional (TSCS) data of 17 Latin American countries from 1970 to 2000. These countries are Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Paraguay, Peru, Uruguay and Venezuela. The thirty years in question witnessed a great deal of variation in the variables of interest. The choice of countries was constrained due to data availability.

Dependent variable. My dependent variable is social spending as a percent of GDP. This measure comes from the IMF's *Government Finance Statistics*. The IMF also reports disaggregated measures of spending on health, education and social security. I use these in the analysis of the relationships between trade liberalization and the constituent parts of total social spending. The figure below compares the simple average for the entire sample of total spending and its constituent parts (health, education and social security). As we can readily observe, social security spending has the highest average value (3.92%) followed by education (2.72%) and health (1.48%).

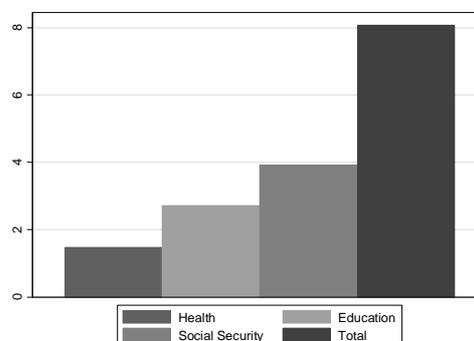


Figure: Simple Average of Spending as a % of GDP for Sample (IMF Data)

I conduct the same analysis using a summary measure assembled by Huber et al. who engaged in extensive data collection of multiple sources of Latin American data.⁶⁶ This summary variable is constructed by Huber et al. from three sources: the IMF, the Economic Commission for Latin America and Caribbean (ECLAC) and Cominetti.⁶⁷ The data, its description and algorithm are available at <http://www.unc.edu/~jdsteph/common/data-common.html>. The main advantage of using this summary variable is coverage. Though using this alternative measurement for the dependent variable sometimes increased the significance of the coefficient of interest, it rarely changed its sign so that the substantive results remain the same.

As the figure below shows, the simple average of the spending components is quite close to the IMF estimates: social security is the largest share (3.6%) followed by education (3.1%) and health (1.9%).

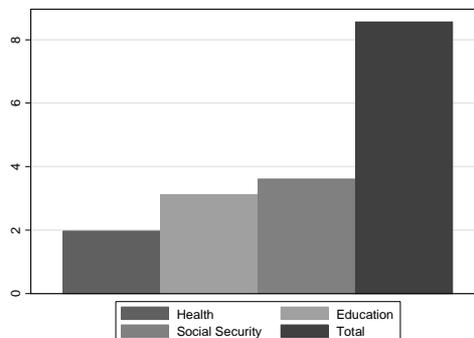


Figure: Simple Average of Spending as a % of GDP for Sample (Huber Data)

⁶⁶ Evelyn Huber et al., *Social Policy in Latin America and the Caribbean Dataset, 1960-2006* (University of North Carolina, 2008).

⁶⁷ R. Cominetti, "Social Expenditure in Latin America: An Update", 1996.

The table below shows summary statistics for the IMF variable by country. Of note is Uruguay's large average share of GDP dedicated to social spending (17.21%), of which the largest component by far is social security spending (13.89%). Guatemala has the lowest share of social spending in the sample (2.99%), most of it concentrated in education spending (1.59%).

Table: Summary Statistics for Social Spending (IMF Data)

Country	Health	Education	Social Security	Total
Argentina	0.36%	1.19%	5.63%	7.19%
Bolivia	1.00%	3.49%	2.22%	6.71%
Brazil	1.62%	1.09%	7.48%	10.18%
Chile	2.24%	3.70%	8.68%	14.62%
Colombia	1.00%	3.05%	1.84%	5.89%
Costa Rica	4.62%	4.85%	3.71%	13.18%
Dominican Rep.	1.58%	1.93%	0.87%	4.38%
Ecuador	1.12%	3.52%	0.17%	4.81%
El Salvador	1.14%	2.52%	0.53%	4.19%
Guatemala	0.90%	1.59%	0.52%	3.00%
Honduras	1.82%	3.26%	0.95%	6.03%
Mexico	0.50%	3.12%	2.96%	6.59%
Nicaragua	2.54%	3.31%	3.00%	8.86%
Paraguay	0.44%	1.44%	2.15%	4.04%
Peru	1.03%	3.36%	0.04%	4.51%
Uruguay	1.23%	2.08%	13.90%	17.21%
Venezuela	2.05%	4.00%	1.64%	7.69%
<u>Total</u>	1.48%	2.72%	3.92%	8.08%

Trade liberalization and exposure. Economists recognize that trade protection is a form of transfer from one group (consumers) to another (protected sectors).⁶⁸ As barriers are removed, i.e., as a country opens itself to trade, previously protected sectors are exposed to outside

⁶⁸ Miroslav N. Jovanovic, *The Economics of International Integration* (Edward Elgar Publishing, 2006); Kenneth A. Reinert, *An Introduction to International Economics: New Perspectives on the World Economy* (Cambridge University Press, 2012).

competition. They can either pressure their government to reduce spending as predicted by the efficiency hypothesis or can be expected to demand compensation for their lost preference.

As discussed, previous studies have used a measure of trade openness by dividing the sum of export and imports by GDP. Whereas this traditional measure may be a good measure of *exposure*, it has a number of drawbacks as a measure of trade *liberalization*. It is well known that smaller countries have higher trade ratios by virtue of being small; for examples, island nations must import and export much more than continental ones. Given that trade liberalization is a political-economic decision, using the trade ratio to measure *liberalization* biases against larger economies portraying them as less open when in fact trade policy may be considerably liberal.

Given that the compensation hypothesis involves degree of commercial liberalization more than increasing exposure to external risk, I employ a measure of comparative trade policy orientation. I call this measure *hiscox*, or trade liberalization, and construct it based on a variable developed by Hiscox and Kastner.⁶⁹ The Hiscox-Kastner variable has been used in other studies; of note is Ansell's study of the determinants of education spending.⁷⁰ The measure as well as its methodology is available here: <http://www.people.fas.harvard.edu/~hiscox/TPO.html>. Hiscox and Kastner's measure is derived from a gravity model of trade that takes a number of factors into account to estimate a world free-trade benchmark and estimate how much each country deviates from it. Their variable is better suited for studies of trade liberalization because it

⁶⁹ Michael Hiscox and Scott Kastner, "A General Measure of Trade Policy Orientations: Gravity-Model-Based Estimates for 82 Nations, 1960 to 1992", 2002.

⁷⁰ Ben W. Ansell, "Traders, Teachers, and Tyrants: Democracy, Globalization, and Public Investment in Education," *International Organization* 62, no. 02 (2008): 289–322.

captures the role of obstacles to free trade that are not observed, such as non-tariff barriers (NTBs), which have grown in importance in the decades this study is concerned with.⁷¹

The value of the measure is based on the residuals of a gravity model of trade involving bilateral trade flows. The basic insight of the gravity model is that trade between two countries goes up with income and down with distance. By including information on factor endowments, the authors approximate the expectations of the Heckscher-Ohlin model; they estimate the gravity model with country-fixed effects so that the estimated coefficients on the dummies capture how much “imports are altered by unobservable aspects (i.e., policies) of the importing country” (p. 15).⁷²

The measure fits the stylized facts about the most open and closed countries, sometimes outperforming the conventional trade ratio measure. Higher values of *hiscox* indicate more open economies; this will ease the interpretation of coefficients while preserving the isonomy of the measure.

A cursory analysis of the Chilean economy lends support to the advantages of this measure over the trade ratio. The figure below shows both the traditional measure and the *hiscox* variable for the Chilean economy.

⁷¹ Edward D. Mansfield and Marc L. Busch, “The Political Economy of Nontariff Barriers: A Cross-National Analysis,” *International Organization* 49, no. 4 (Autumn 1995): 723–749.

⁷² Hiscox and Kastner, “A General Measure of Trade Policy Orientations.”

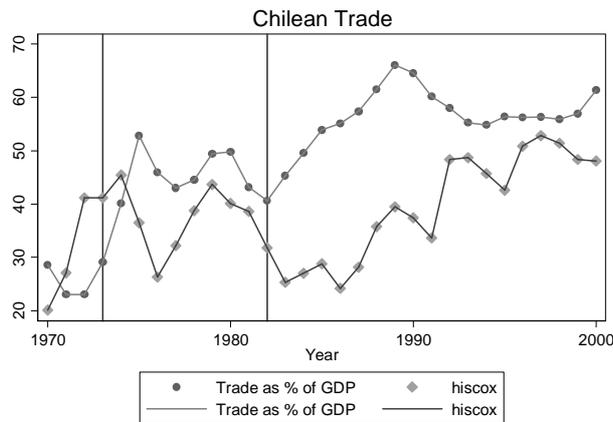


Figure: Chilean Trade: *hiscox* vs. Trade as % of GDP (with median spline estimation)

Edwards and Lederman analyze the Chilean trade liberalization and offer a stylized characterization (p. 6).⁷³ The seventies saw the most dramatic change; once in power, the Pinochet regime liberalized unilaterally, and by 1979, Chile had reduced import tariffs from an average of over 100% to 10%. The regime also eliminated exchange rate controls and removed quantitative restrictions. When Chile entered a recession in 1983-84, the government reversed policy and raised import tariffs to an average of 35%.⁷⁴ Though the traditional trade measure seems to better capture the opening of the Chilean economy in 1973 (the first vertical bar in the figure above), it performs poorly when reflecting the protectionist stance of the government after 1983. The traditional measure shows an increasing share of trade as percent of GDP after 1983, implying that the country continued to be open, whereas *hiscox* reflects the increased protectionism adopted by the government in response to recession. This look at the data serves to

⁷³ Sebastian Edwards and Daniel Lederman, "The Political Economy of Unilateral Trade Liberalization: The Case of Chile," *NBER Working Paper No. W6510* (April 1998), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=226252.

⁷⁴ *Ibid.*

demonstrate why *hiscox* may be a better measure of trade policy orientation in certain instances compared to the traditional measure.

Because the correlation between *hiscox* and trade as a % of GDP is low (0.3785 for levels and 0.1010 for first differences), I include both *hiscox* and trade openness in my econometric models since they capture two different concepts.

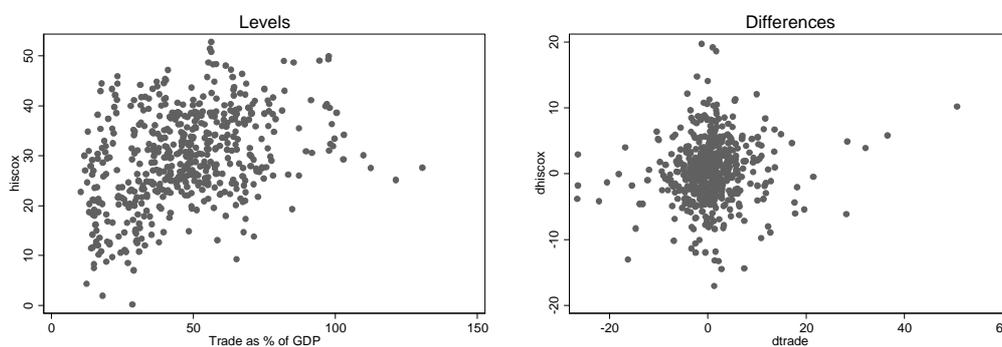


Figure: Scatter of Trade Exposure vs. *hiscox*

In line with the discussion above, I expect higher trade liberalization to be associated with higher social spending. Because they benefit the same groups that are hurt by globalization, I expect globalization in Latin American to be associated with increased social spending. Increases will be commensurate with the degree of liberalization effort and will vary in accordance to how skewed the expenditure is towards these groups. Because of ISI's legacy, I expect trade liberalization to have the greatest association with social security spending.

Capital Openness. Financial openness, the second dimension of globalization, is notoriously difficult to operationalize. The distinction between *de jure* and *de facto* openness is crucial but

almost impossible to address satisfactorily. For this study, I use a measure of *de jure* financial openness developed by Chinn and Ito.⁷⁵

Their *kaopen* index is based on the disaggregated components of the IMF's *Annual Report on Exchange Rate Arrangements and Exchange Restrictions*. The index attempts to overcome the problems of other measures by using the extensity of capital controls to proxy for their intensity, i.e., the number of restrictions should proxy the openness of the country. As the figure below demonstrates, the distribution of the *kaopen* index (and its density estimate) has changed remarkably from decade to decade. The eighties stand out in the figure below as the most skewed towards lower capital openness.

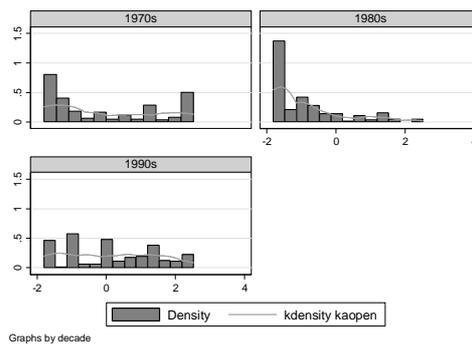


Figure: Distribution of *kaopen* Index by Decade (with Kernel Density Estimate)

The figure below plots the simple average of *kaopen* for the sample over time. Again the eighties appears as the decade with the lowest value; however, after the 1990s the average increases and surpasses the value for the 1970s.

⁷⁵ Menzie D. Chinn and Hiro Ito, “Capital Account Liberalization, Institutions and Financial Development: Cross Country Evidence,” *NBER Working Paper No. 8967* (2002); Menzie D. Chinn and Hiro Ito, “What Matters for Financial Development? Capital Controls, Institutions, and Interactions,” *Journal of Development Economics* 81, no. 1 (October 2006): 163–192.

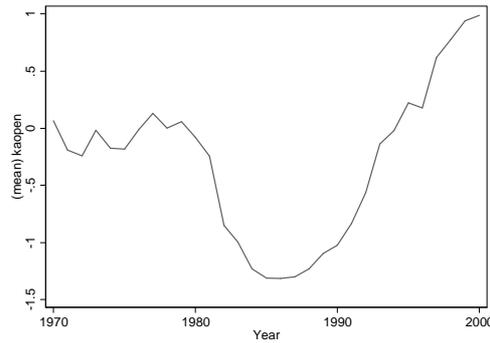


Figure: Simple Average of *kaopen* Index by Year

Recent studies have found different relationships of financial openness and social spending. Capital openness arguably strengthens the power of capital by giving it an exit option. If we expect capital to resist social spending, greater capital openness should lead to lower spending.

Democracy. To test the relationship of democracy and social spending, I use a dichotomous measure of democracy developed by Przeworski et al.⁷⁶ and updated by Cheibub et al.⁷⁷ This measure is based on a minimalist conception of democracy heavily influenced by Schumpeter’s and Dahl’s emphasis on contestation in the political arena.⁷⁸ By excluding other considerations, such as political and economic equity, the dichotomous measure preserves the opportunity for investigating questions that are “just too interesting to be resolved by definitional fiat” (p. 33).⁷⁹

The variable takes on two values: zero and one. It is one if the country in question achieves a level of contestation in its political process that goes beyond the formal arrangements for free

⁷⁶ Adam Przeworski et al., *Democracy and Development* (Cambridge University Press, 2000).

⁷⁷ Jose Antonio Cheibub et al., *Democracy and Development Extended Data Set*, 2004.

⁷⁸ Joseph Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper and Row, 1942); Robert A. Dahl, *Polyarchy: Participation and Opposition* (Yale University Press, 1971).

⁷⁹ Przeworski et al., *Democracy and Development*.

elections: there must be a change in power from country to country. In their work, Przeworski et al. call this the “Botswana rule,” the reason being that

the same party has ruled Botswana since independence, always controlling an overwhelming majority in the legislature ... the question arises whether or not elections are held in Botswana only because the ruling party is certain to win them (p. 23).

The figure below shows the average value taken by the democracy measure for the sample. We can see how the sample went from a low level of democracy (where only 29% of the countries scored one in Przeworski et al.’s measure) to 82% by 1986. Countries which scored a zero on the democracy score for the period after 1986 are Chile (1986-1989), Ecuador (2000), Mexico (1986-1999), Paraguay (1986-2000) and Peru (1990-2000).

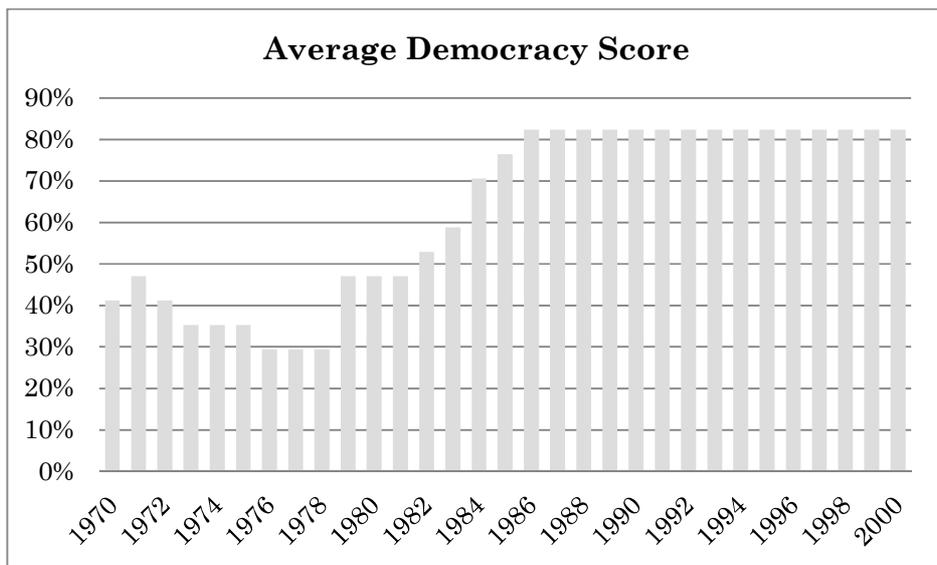


Figure: Simple Average Democracy Score for Sample

Apart from its theoretical significance, democracy is an important control since it could be driving both social spending and trade openness.⁸⁰ As discussed above, democracy can be

⁸⁰ Milner and Kubota, “Why the Move to Free Trade?”.

expected to raise the welfare effort of a country (especially highly unequal countries where the median income is substantially lower than the mean income). I expect democracies to spend more on social services than non-democracies.

Partisanship. Many studies of the welfare state in OECD countries find that the partisanship of government is an important determinant of social policy.⁸¹ Though, as discussed above, there are reasons not to expect a strong association, namely the low degree of party institutionalization, I test for the association between partisanship and social spending. I construct a dummy variable that is coded one if the ideological orientation of the executive is coded as “left” in the World Bank’s *Database of Political Institutions*, zero otherwise.⁸² I expect leftist governments to spend more than nonleftist governments.

Economic and Demographic Controls. Following other studies, I include a number of economic and demographic controls. I control for the dependency structure of the population by including the percent of the population that is over 65 years of age and the percent that is 15 years old or below. This measure is supplied by the World Bank’s *World Development Indicators*. Since many social programs focus on ensuring the health of the young and old, educating the young, and providing pensions for the old, I expect that the larger their share in the population, the larger the social disbursement.

I include the log of GDP per capita measured in 2000 dollars, taken from the WDI, to control for Wagner’s “law,” i.e. the expectation that demand for social services rises with income per

⁸¹ Alexander M. Hicks and Duane H. Swank, “Politics, Institutions, and Welfare Spending in Industrialized Democracies, 1960-82,” *The American Political Science Review* 86, no. 3 (September 1992): 658–674; Evelyne Huber and John D. Stephens, *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*, 1st ed. (University Of Chicago Press, 2001).

⁸² Thorsten Beck et al., “New Tools in Comparative Political Economy: The Database of Political Institutions,” *World Bank Econ Rev* 15, no. 1 (June 1, 2001): 165–176.

capita.⁸³ I use quotation marks around law because Wagner’s “law” has been criticized; for example, Wildavsky argued that an inverse relationship is to be expected rather than a positive. As paraphrased in Cameron, where people are rich, they tend to be satisfied and demand less government (p. 1,245).⁸⁴ As a further control, I include the size of government, measured as public expenditures as a percent of GDP. My expectation is that bigger governments spend more on social services.

In line with previous studies I include decade dummies to proxy for further unobserved constant factors associated with the 1980s and 1990s. The table below displays summary statistics for the variables just described.

Table: Summary Statistics of Demographic and Economic Controls

Variable	Obs	Mean	Std. Dev.	Min	Max
Public Expenditure (% of GDP)	463	18.84	8.00	8.09	67.68
GDP per capita (log)	527	7.67	0.65	6.49	9.01
Below 15 (% of population)	527	39.27	6.04	24.76	48.44
Above 65 (% of population)	527	4.58	2.13	2.43	13.01
Left Dummy (0 or 1)	527	0.20	0.40	0	1
Urban (% of population)	527	0.60	0.17	0.29	0.91

Estimation Technique

Because my unit of analysis is the Latin American country over time, experimentation is not possible. Not to dwell too much on an obvious point, one should note that experimental intervention on this scale is not only unfeasible, it would also be ethically wrong. Denying some part of the population the same access to social services (which we expect *a priori* would be the

⁸³ Adolf Wagner, “The Nature of the Fiscal Economy,” in *Classics in the Theory of Public Finance*, ed. Richard A. Musgrave and Peacock (London: Macmillan, 1883), 1–8.

⁸⁴ Cameron, “The Expansion of the Public Economy.”

result of the “treatment”) because of random assignment would violate the principle of social science research that dictates that researchers do no wrong. The only viable research design is an observational study. As we know from Kish,⁸⁵ the challenge of an observational study is to remove as many disturbing (i.e., confounding) variables as possible by controlling for them.

The econometric study of the evolution of the welfare state has utilized a number of different estimation techniques. It is important to select an appropriate technique based on econometric and substantive concerns. To estimate the relationship between political and economic openness on government spending, a lot of attention must be paid to the common problems associated with time-series cross-sectional (TSCS) data. These problems are panel heteroskedasticity (non-constant variance) as well as spatial and serial autocorrelation (non-null covariance and time-dependent correlation) of the residuals. Ignoring these problems will lead to biased estimates and underestimated standard errors, making it easier to reject the null hypothesis and commit a Type I error, i.e., rejecting the null hypothesis of no relationship when it is in fact true.⁸⁶

An early study of the political economy of rich countries conducted by Alvarez et al.⁸⁷ used feasible generalized least squares (FGLS) to deal with the problems described above, especially heteroskedasticity. Their analysis was later corrected⁸⁸ and prompted Beck and Katz to investigate how best to model the relationship in a TSCS framework. The resulting paper on these investigation is one of the most cited in the field.⁸⁹ As noted by Beck and Katz, the

⁸⁵ Leslie Kish, *Statistical Design for Research*, 99th ed. (Wiley, 1987).

⁸⁶ Jeffrey M. Wooldridge, *Introductory Econometrics: a Modern Approach* (Ohio: South Western College Publishing, 2006).

⁸⁷ R. Michael Alvarez, Geoffrey Garrett, and Peter Lange, “Government Partisanship, Labor Organization, and Macroeconomic Performance,” *American Political Science Review* 85, no. 2 (June 1991): 539–556.

⁸⁸ Nathaniel Beck et al., “Government Partisanship, Labor Organization, and Macroeconomic Performance: A Corrigendum,” *The American Political Science Review* 87, no. 4 (December 1993): 943–948.

⁸⁹ Nathaniel Beck and Jonathan N. Katz, “What to Do (and Not to Do) with Time-Series Cross-Section Data,” *The American Political Science Review* 89, no. 3 (September 1995): 634–647; Nathaniel Beck and Jonathan N. Katz, “8.

problem with FGLS is its estimation of the variance-covariance matrix (Ω) and use of this estimated measure ($\hat{\Omega}$) to calculate coefficients and standard errors.

$$\beta_{FGLS} = \left(X' \left(\hat{\Omega}^{-1} \right) X \right)^{-1} X' \left(\hat{\Omega}^{-1} \right) y$$

TSCS data presents a challenge to analysts because, in political economy data, the number of countries and years for which the analysts have data, is usually small. Using Monte Carlo simulation of data, Beck and Katz showed that FGLS provided biased estimates with underestimated standard errors. For the case of political economy data, they proposed a different method: OLS with panel-corrected standard-errors, which they tested using Monte Carlo simulations. These simulations showed that their proposed method performed better than FGLS. Panel-corrected standard errors (PCSE) are intended to deal with two problems associated with TSCS data. These problems refer to untenability of the classical Gauss-Markov assumptions about the error structure (p. 623).⁹⁰ As discussed above, TSCS errors are not independent and display non-constant variance (heteroskedasticity). Errors can correlate between countries in the same year (contemporaneous correlation) or within countries over many years (serial correlation). As argued by Beck and Katz in their simulations, an ordinary least squares (OLS) regression is still appropriate for estimating coefficients but not for calculating standard errors. Because of error correlation and heteroskedasticity, the standard errors that OLS produces overestimate the significance of results (i.e., standard errors are underestimated).

Nathaniel Beck and Jonathan N. Katz. 1995. *American Political Science Review* 89 (September): 634–47 Cited 398 Times.,” *American Political Science Review* 100, no. 04 (2006): 676–677.

⁹⁰ Wooldridge, *Introductory Econometrics*.

To adjust the standard errors, Beck and Katz propose combining OLS standard errors with the panel structure of errors to obtain a better estimation. As we know, the variance-covariance matrix estimated by OLS is:

$$Cov(\beta) = (X'X)^{-1}(X'\Omega X)(X'X)^{-1}$$

where Ω is, by the classical Gauss-Markov conditions, assumed to be of constant variance (homoskedasticity) and zero off-diagonal terms in the variance-covariance matrix ($\Omega = \sigma^2 I$).

This assumption simplifies the calculation to:

$$Cov(\beta) = \sigma^2 I (X'X)^{-1}$$

where σ^2 is the variance, I is the identity matrix, and $(X'X)^{-1}$ is calculated from the data. The Gauss-Markov assumptions are too strict for real-world data; however, Beck and Katz use it to build panel-corrected standard errors. They allow for heteroskedasticity and non-zero off-diagonal terms in the variance-covariance matrix but only within panels (i.e., groups or countries). The elements of these blocks are estimated using (p. 638):⁹¹

$$\hat{\Sigma}_{i,j} = \frac{\sum_{t=1}^T e_{i,t} e_{j,t}}{T}$$

where e are the estimated residuals of an OLS regression. Beck and Katz test the panel-corrected standard errors using Monte Carlo simulation and find that they outperform FGLS, as discussed above. The greater flexibility of the error structure allows the model to incorporate more of the

⁹¹ Beck and Katz, "What to Do (and Not to Do) with Time-Series Cross-Section Data"; Nathaniel Beck and Jonathan N. Katz, "Nuisance Vs. Substance: Specifying and Estimating Time-Series-Cross-Section Models," *Political Analysis* 6, no. 1 (January 1, 1996): 1–36.

error that would otherwise be assumed to not exist. The implementation of panel-corrected standard errors is performed by Stata's **xtpcse** command.

To deal with serial correlation, I follow Beck and Katz and use a lagged dependent variable (LDV). This modeling choice assumes that the serial correlation is not a nuisance but an important element in the dynamic relationship;⁹² an alternative would be to use an autoregressive error process (AR) which imposes a further assumption on the data. An LDV is also an integral part of the error-correction model.

As argued by Kaufman and Segura-Ubiergo, we can think of the relationship of openness and social spending as having both short-term and long-term components. Because I am interested in analyzing both, depending on the substantive concern, it is useful to use a single-equation error correction model as suggested by Beck and Katz.⁹³ This model conceives of the relationship between the independent variables and the dependent variable to be in a long-run equilibrium that can be affected by both short- and long-term changes.

$$\Delta y_{i,t} = \alpha_i + \Delta x_{(i,t)}\beta_k + \phi(y_{i,t-1} - x_{i,t-1}\gamma) + \epsilon_{i,t}$$

where $\Delta y_{i,t}$ is the change in the dependent variable for country i at year t , α_i is the constant term which has subscript because I use fixed-effects. One should note that x is a vector of k -independent variables which appear both in lagged ($t - 1$) and first-difference (Δ) form. One can think of y and x in an equilibrium relationship that can be changed either in the short- or long-term.

⁹² Beck and Katz, "Nuisance Vs. Substance."

⁹³ Beck and Katz, "What to Do (and Not to Do) with Time-Series Cross-Section Data"; Beck and Katz, "Nuisance Vs. Substance."

If we assume for a moment that $y_{i,t-1} = x_{i,t-1}\gamma$, in other words, that there was no deviation from the previous period, then it is clear that the model described above is a simple first differences model, in which the change in x has an instantaneous “effect” on the change in y ; there is no subsequent period “correction” of the deviation. However, because x has changed, the equilibrium state was disturbed and will react. The error-correction component $\phi(y_{i,t-1} - x_{i,t-1}\gamma)$ can be understood as the impact of the previous *deviation* of the lagged level of y and our predicted $\hat{y} = x\gamma$ on the contemporaneous relationship. In fact, this term is the reason why the equation is known as an error-correction model. We can think of the model as a first-difference that is affected by two things: first, the changes in x and, second, the “correction” of the deviation of the previous period, $v_{i,t-1}$:

$$\Delta y_{i,t} = \alpha_i + \Delta x_{i,t-1}\beta_k + \epsilon_{i,t} + v_{i,t-1}\phi$$

where $v_{i,t-1}$ is the previous period’s error, or deviation, and ϕ is the “rate” at which this deviation is corrected so that the long-term equilibrium is achieved. A way to estimate $v_{i,t-1}$ is to recognize that it can be arrived at via this equation:

$$y_{i,t-1} = x_{i,t-1}\gamma + v_{i,t-1}$$

which is the linear relationship between the lagged level of the dependent variable and the lagged level of the independent variable dictated by the coefficient γ . We can solve for the error $v_{i,t-1}$ by rearranging the equation so that:

$$v_{i,t-1} = x_{i,t-1}\gamma - y_{i,t-1}$$

If we plug in this identity into the equation of the first-difference of the dependent variable above, we get:

$$\Delta y_{i,t} = \alpha_i + \Delta x_{i,t-1} \beta_k + \epsilon_{i,t} + \phi(x_{i,t-1}\gamma - y_{i,t-1})$$

To make the equation more intelligible, suppose that $\beta_j = -(\phi\gamma)$; then we can write:

$$\Delta y_{i,t} = \alpha_i + \Delta x_{(i,t)}\beta_k + \phi(y_{i,t-1}) + \beta_j(x_{i,t-1}) + \epsilon_{i,t}$$

The interpretation of the coefficients, then, is that β_k is the instantaneous “effect” of a change in x on the contemporaneous change in y ; however, a change in x will also affect the next period’s error, or “deviation,” so that, ultimately, the short-term “effect” of $\Delta x_{i,t}$ will depend on time and, more importantly, it will decay in accordance with the “rate” of correction as measured by ϕ .

The long-term “effect” is given by γ which, as defined previously, equals $\gamma = \frac{\beta_j}{-\phi}$.

For a concrete example, suppose we perform regression analysis and ask what is the “effect” of *Openness* on *Social Spending*?

$$\Delta \text{Social Spending}_{i,t}$$

$$= \alpha_i + \Delta \text{Openness}_{i,t} \beta_k + \text{Social Spending}_{i,t-1} \phi + \text{Openness}_{i,t-1} \beta_j + \epsilon_{i,t}$$

The expected change from a short-term change in one period is equal to β_k . However, this change will create a disequilibrium in the next period now that both openness and social spending increase; the adjustment, or error-correction, we should expect is captured by γ which, as we defined above, is equal to $\frac{\beta_k}{-\phi}$.

Like most of the literature I include country fixed effects in order to limit the analysis to changes within countries over time as opposed to across countries. Using panel-corrected standard errors together with country fixed effects produces conservative estimations of significance. However, as highlighted by Kaufman and Segura, who use the same method, “[w]hile this method carries

some risk that causal hypothesis will be rejected prematurely, it also increases our confidence that results which do emerge as significant are not the consequence of unsound statistical assumptions or inappropriate economic methods” (p. 566).⁹⁴

Results

This section presents and discusses the results of the aggregate measure of social spending (as a % of GDP) and of the disaggregated measures of social spending; namely, spending on social security, education, and health (as a % of GDP). Though the aggregate measure is the sum of the three disaggregated kinds of spending, analyzing the relationships first for the aggregate followed by the disaggregated spending will show which specific relationships are the main drivers of the overall relationship.

Table 1 of the Appendix displays the results using aggregate social spending as the dependent variable. Individual country dummies are not shown due to space constraints; a Wald test of the country fixed effects showed that we can reject the null with confidence at the 5% level. Model 1 displays the regression using the IMF data while Model 2 replicates the analysis using Huber et al.’s summary variable. Note how the number of observations is higher for Model 2.

The strongest association is that between public spending and social spending. The larger the size of public spending relative to GDP, the higher the share of that spending goes to social services, i.e. the higher the size of government, the higher the welfare effort. This relationship is significant as reflected in the coefficient on the first difference. This suggests that increases in a country’s fiscal effort are accompanied by increases in the welfare effort. In the short-run, a one

⁹⁴ Kaufman and Segura-Ubiergo, “Globalization, Domestic Politics, and Social Spending in Latin America.”

percent increase in public spending as a % of GDP is associated with a 0.2 percent increase in total social spending. In the long-run, a one-percent permanent increase in public spending will be associated with a quarter of a percent increase in social spending in Model 1 and a third of a percent increase in Model 2. (Recall that to calculate the long-term “effect” one must divide the coefficient on the lagged variable by the negative coefficient of the lagged dependent variable, LDV).

The coefficients for our independent variables of interest, namely trade liberalization (*hiscox*) and financial openness (*kaopen*), are both positive in the short- and long-run. Financial liberalization is only significant in Model 1 (using IMF data) but its *t*-statistic dips below the traditional confidence level of 5% in Model 2. The positive sign on financial liberalization goes against our initial expectation. The relationship between trade liberalization (as measured by *hiscox*) and spending is positive and significant in both models. The positive (and significant) coefficient on trade liberalization is in line with our initial expectations. The traditional measure of trade exposure is negative in both the short- and long-term. This finding is in line with Kaufman and Segura-Ubiergo’s finding. The association is observed primarily in the short-run, and is highly significant. A one percent increase in trade exposure is associated with a 0.02 to 0.03 (depending on the model) percent decrease in social spending. The long-run relationship is also negative.

The demographic and economic controls show the expected sign. The dependence structure of the population (given by the share of the population that is below 15 and above 65 years of age) and the share of the population that lives in urban areas have positive associations in the long-term though negative (and significant in the case of urbanization) in the short-term. It is difficult to interpret short-term coefficients for these two variables since they change very slowly over

time. It is surprising that the sign of GDP per capita is negative in Model 1 and positive in Model 2 which suggests that either results are not robust or that Wagner's "law" operates only in the long-term (while Wildavsky's expectation operates in the short-term).

Democracy shows a positive and significant short-term association with social spending; in fact, once a country becomes democratic, there is an associated increase in social spending of 0.65% to 0.67% (depending on the model). It is interesting to note that the long-run association between democracy and spending is *negative*. A potential reason for this may be due to the regressive profile of social security spending in Latin America.⁹⁵ As one will see from the disaggregated regressions, only social security (the largest share of social spending) has a negative long-term coefficient of democracy. If we believe that democracies tend to redistribute more than autocracies and that social security spending in Latin America is regressive (i.e., incomes after transfers are more unequal than before), then we can have reason to believe that democracy might cut this kind of spending and focus its efforts on more redistributive spending like education and health.⁹⁶

Table 2 in the Appendix displays results for spending on social security. Social security, i.e. spending on pensions and welfare services, is an important element of budgets because of its size and observable impact on people's livelihoods. It is likewise the most promising locus of the struggle between those taxed and those receiving services. This leads social security spending to be highly related to social policy in general and an important focus of debates on governments' welfare policies and wider role in the economy, i.e. how these kinds of spending affect growth and employment.

⁹⁵ Huber et al., "Politics and Inequality in Latin America and the Caribbean."

⁹⁶ Ibid.

The results of the regression show that again the more powerful determinant is public expenditure as a % of GDP. The association between this measure and social security spending is positive and highly significant for both the short and long-term. The other controls have the expected sign. The dependence structure of the population and urbanization have a positive coefficients in the long-run. The association of trade liberalization (as measured by *hiscox*) is positive in both the short- and long-terms but not significant at the 5% level. The traditional trade ratio variable has a negative association in both the short- and long-run. This suggests that the same relationship found in Table 1 is applicable to social security; this is not surprising given that social security composes the larger share of total social spending.

Table 3 in the Appendix displays results for education spending. Public spending as a % of GDP has the strongest association with education spending effort. The coefficients on trade liberalization are positive and significant in the short-term in both models. The positive and significant coefficient of trade liberalization in the short-term provides evidence of the compensation hypothesis for Latin American countries. Trade exposure, on the other hand, is associated with cuts in education spending; a one percent increase in trade exposure is associated with a 0.01% cut in education spending as a % of GDP.

Table 4 in the Appendix displays results for health spending. Public spending as a % of GDP is again the strongest predictor, both in the short and long term. The dependence structure of the population has a generally negative association with health spending but, notably, positive in the long-term for Model 2. One would have expected a more robust finding given that demand for these kinds of spending is expected to go up for societies with a higher proportion of the elderly and the young. The association with trade liberalization is positive in the short- and long-run but significant only in Model 2 at 5%. The coefficient on the trade ratio variable is negative for the

short-run and positive for the long-run but these associations are not significant. Notably, the long-term coefficient on democracy is positive and significant for health spending.

Democratization is associated, in the long-run, with a 0.39% (Model 1) and 0.53% (Model 2) increase in health spending. This kind of spending tends to benefit lower income populations who depend more heavily on public health facilities than higher income groups who can often purchase private health insurance. It is also, generally speaking, a more redistributive kind of spending, especially when compared to Latin American social security spending and some countries' focus on *tertiary* education spending.⁹⁷

The interpretation of the positive association of trade liberalization with total spending and its disaggregated components could be due to a reaction by groups hurt by globalization to secure compensation by influencing the state in the short- and long-term. Or it could be due to policymakers preempting demands from these groups by increasing social programs as the “price” to pay for greater liberalization. The short-term association likely reflects the simultaneous increase in social spending as barriers to trade were removed. This could be the result of a preemption which is in the interest of the policymaker if he perceives trade liberalization as a risk to his chances of staying in power.

Conclusion

The pace of globalization increased in Latin America from 1970 to 2000. What relationship did this have with the provision of social services? The analysis conducted in this paper used a measure of trade liberalization and disaggregated components of social spending to tease out the

⁹⁷ Ibid.

differential impacts of trade liberalization vs. exposure on social spending during the period.

Trade *liberalization* was positively associated with increases in social spending while increases in trade *exposure* were associated with decreases in social spending. The relationship between trade liberalization and social spending is positive for all disaggregated components of social spending but is highest for social security and education spending. The presence of positive coefficients suggests a compensatory logic in which groups adversely affected by globalization were able to secure higher social spending. The findings are in line with this paper's expectations that social protection acts as a substitute for trade protection. That is because the "losers" from globalization in Latin America tend to be the same groups that historically were benefitted by the legacy of the evolution of social safety nets. These are relatively better-off groups who are urban and employed in the formal sector.

This study could be improved in a number of ways. Partisanship plays a large role in explaining social policy in the developed world. Though not the central concern of this paper, a better measure of partisanship could show clearer relationships. Labor market flexibility, disaggregated components of education spending, measures of inequality and unionization rates, and other indicators have recently been compiled and can be applied towards testing whether social spending is part of a compensatory package of a liberalization program. The large amounts of missing data in these new datasets could be overcome through the use of statistical methods that impute missing data.

Influence on policy can be exerted via different mechanisms. In democracies, contributions and votes can help to secure higher tariffs and to resist trade liberalization.⁹⁸ If they cannot resist liberalization, these privileged interests can be expected to demand compensation for exposure to international competition; this can come in many forms like subsidies to industry, nontariff barriers (NTBs) and social spending.

Though rarely recognized as such in the public sphere, trade protection is a form of transfer. Though there are nuances to be taken into account, this generalization has been recognized since the time of Adam Smith. Trade restrictions impose a cost on consumers; they sustain themselves because the benefits to import-competing producers is concentrated and the costs of this subsidy to consumers are diffuse. This Olsonian logic tells us that protectionist interests can be expected to organize more efficiently because of the concentration of benefits and their smaller numbers.⁹⁹

In Latin America, social protection may have functioned as a substitute for trade protection which would explain why social security spending would be the channel through which (some) compensatory spending would flow to those sectors of society most hurt by globalization. The analysis of the disaggregated components of social spending supports this expectation; social security spending increased after trade liberalization. This suggests that states pursuing a liberalization program preempted the resistance of groups that would be adversely affected and increased spending as they increased liberalization. On the other hand, the negative association of trade exposure with social spending lends evidence to the efficiency hypothesis. The reasons for

⁹⁸ Gene M. Grossman and Elhanan Helpman, "Protection for Sale," *The American Economic Review* 84, no. 4 (September 1994): 833–850; Kishore Gawande and Usree Bandyopadhyay, "Is Protection for Sale? Evidence on the Grossman-Helpman Theory of Endogenous Protection," *The Review of Economics and Statistics* 82, no. 1 (February 2000): 139–152.

⁹⁹ Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups*, Second Printing with New Preface and Appendix, Revised. (Harvard University Press, 1971).

this are unclear but may be due to the more external nature of a trade exposure increase. Because policymakers are not directly responsible for increases in trade exposure they may be less responsive to demands for compensation. For example, lower oil prices may lead to lower transportation costs for imported goods which could increase trade exposure; such increase could not be linked to a shift in trade policy and, therefore, appeals to policymakers could be less effective.

The compensatory logic observed in aggregate social spending seems to come in large part via social security and education spending. Education spending has the potential of being redistributive if spending is allocated towards primary and secondary schooling since tertiary spending tends to benefit higher-income groups. Unfortunately, Latin America displays a general pattern of favoring tertiary education over primary and secondary education.¹⁰⁰ This means that increases in trade liberalization likely served the same constituencies as increases in social security spending.

An econometric study of this kind is a first step toward the investigation of the complex relationship between globalization and social spending in Latin America. It is important to extend and test the theories and expectations generated by similar studies conducted of developed countries. Latin American countries merit being classified as welfare states. These countries exhibit a lot of variation in variables of interest to economists (trade and financial liberalization, rate of economic growth, etc.) and to political scientists (regime type, strength of labor regulation, programmatic parties, etc.). The study of the relationship of globalization with

¹⁰⁰ Lindert, Skoufias, and Shapiro, "Redistributing Income to the Poor and the Rich: Public Transfers in Latin America and the Caribbean."

social programs in developing countries has a long way to go. New research and data collection should be a priority for scholars.

The conclusions in this paper are tentative. Insights are necessary for interpreting the general patterns observed. The use of a measure of trade liberalization has to be extended to developed countries so that the mechanisms developed for those cases can be tested; this may be particularly useful for disentangling the relationships between liberalization and exposure in more data-rich contexts. Though perhaps too specific to Latin America, the idea presented of social protection as a substitute for trade protection can be appropriate and its expectations can be better tested in other countries and with other measures.

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Appendix: Economic Openness on Welfare
Spending in Latin America (1970–2000)

Table 1: The Determinants of Aggregate Social Spending

	(1)		(2)	
	Social Spending		Social Spending	
eighties	0.105	(0.62)	0.518**	(2.66)
nineties	0.637*	(2.32)	1.024***	(3.61)
D.Financial Liberalization	0.184*	(1.98)	0.190	(1.94)
L.Financial Liberalization	0.121*	(2.00)	0.115	(1.94)
D.Public Spending	0.208***	(10.67)	0.200***	(8.57)
L.Public Spending	0.0632**	(3.25)	0.0907***	(4.80)
D.GDP per capita (log)	-2.816*	(-2.15)	-0.845	(-0.57)
L.GDP per capita (log)	-0.239	(-0.46)	0.170	(0.33)
D.Dependence Ratio	-0.180	(-0.51)	-0.185	(-0.47)
L.Dependence Ratio	0.0195	(0.52)	0.157***	(3.42)
D.Left	0.0382	(0.20)	0.0408	(0.18)
L.Left	0.0187	(0.11)	-0.125	(-0.65)
D.Urban	-44.78*	(-1.99)	-123.8***	(-4.34)
L.Urban	1.512	(0.44)	5.065	(1.39)
D.Democracy	0.667*	(2.48)	0.652*	(1.99)
L.Democracy	-0.155	(-0.89)	-0.0849	(-0.42)
D.Trade Ratio	-0.0286***	(-3.50)	-0.0148*	(-2.01)
L.Trade Ratio	-0.00990	(-1.78)	-0.00778	(-1.69)
D.Hiscox	0.0248**	(2.69)	0.0301**	(2.64)
L.Hiscox	0.0156	(1.81)	0.0281**	(2.83)
LDV (IMF)	-0.252***	(-4.96)		
LDV (Huber)			-0.274***	(-6.59)
_cons	0.693	(0.14)	-12.55*	(-2.23)
<i>N</i>	358		382	

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: D. is the first difference, L. is the lag.

Results of OLS regression with Panel-Corrected Standard-Errors.

Individual country-fixed effects not shown.

Table 2: The Determinants of Social Security Spending

	(1)		(2)	
	Social Security		Social Security	
eighties	0.243	(1.46)	0.189	(1.24)
nineties	0.786**	(3.09)	0.657**	(2.93)
D.Financial Liberalization	0.209*	(2.48)	0.153*	(2.02)
L.Financial Liberalization	0.177**	(3.05)	0.127**	(2.60)
D.Public Spending	0.107***	(6.16)	0.101***	(5.96)
L.Public Spending	0.0437**	(3.24)	0.0395**	(3.18)
D.GDP per capita (log)	-3.265*	(-2.45)	-2.731*	(-2.29)
L.GDP per capita (log)	-0.0997	(-0.21)	-0.0497	(-0.11)
D.Dependence Ratio	-0.243	(-0.81)	-0.120	(-0.42)
L.Dependence Ratio	0.0346	(1.11)	0.0324	(1.21)
D.Left	0.0318	(0.19)	-0.0354	(-0.24)
L.Left	0.00613	(0.05)	-0.0410	(-0.35)
D.Urban	-23.34	(-1.29)	-27.91	(-1.55)
L.Urban	0.860	(0.30)	0.878	(0.33)
D.Democracy	0.571*	(2.47)	0.598**	(2.58)
L.Democracy	-0.224	(-1.38)	-0.139	(-0.94)
D.Trade Ratio	-0.0143*	(-2.01)	-0.00917	(-1.63)
L.Trade Ratio	-0.0117*	(-2.48)	-0.0109***	(-3.54)
D.Hiscox	0.0166*	(2.11)	0.0117	(1.55)
L.Hiscox	0.00845	(1.21)	0.00523	(0.80)
LDV (IMF)	-0.277***	(-5.04)		
LDV (Huber)			-0.269***	(-4.94)
_cons	-1.725	(-0.37)	-1.742	(-0.41)
<i>N</i>	353		392	

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: D. is the first difference, L. is the lag.

Results of OLS regression with Panel-Corrected Standard-Errors.

Individual country-fixed effects not shown.

Table 3: The Determinants of Education Spending

	(1)		(2)	
	Education (IMF)		Education (Huber)	
eighties	-0.0819	(-1.16)	0.0674	(0.73)
nineties	-0.0912	(-0.92)	0.0161	(0.11)
D.Financial Liberalization	0.0229	(0.77)	0.0374	(0.75)
L.Financial Liberalization	-0.000744	(-0.04)	0.0169	(0.61)
D.Public Spending	0.0626***	(9.75)	0.0564***	(4.06)
L.Public Spending	0.0116	(1.90)	0.0323**	(2.99)
D.GDP per capita (log)	-0.187	(-0.47)	0.381	(0.49)
L.GDP per capita (log)	-0.220	(-1.61)	-0.0628	(-0.26)
D.Dependence Ratio	0.0101	(0.08)	0.0579	(0.35)
L.Dependence Ratio	-0.0132	(-0.92)	0.0861***	(3.75)
D.Left	-0.0211	(-0.23)	0.0336	(0.24)
L.Left	-0.0146	(-0.18)	-0.130	(-1.17)
D.Urban	-0.605	(-0.06)	-50.98***	(-3.33)
L.Urban	1.015	(0.78)	5.155**	(2.74)
D.Democracy	0.138	(1.74)	0.0858	(0.66)
L.Democracy	-0.0256	(-0.45)	-0.00808	(-0.09)
D.Trade Ratio	-0.0121**	(-3.27)	-0.0128**	(-2.70)
L.Trade Ratio	0.000513	(0.22)	0.00294	(1.05)
D.Hiscox	0.00824*	(2.25)	0.0132*	(2.43)
L.Hiscox	0.00557	(1.78)	0.0182***	(3.86)
LDV (IMF)	-0.251***	(-5.09)		
LDV (Huber)			-0.375***	(-7.24)
_cons	2.427	(1.47)	-6.919*	(-2.10)
<i>N</i>	366		426	

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: D. is the first difference, L. is the lag.

Results of OLS regression with Panel-Corrected Standard-Errors.

Individual country-fixed effects not shown.

Table 4: The Determinants of Health Spending

	(1)		(2)	
	Health (IMF)		Health (Huber)	
eighties	0.0282	(0.35)	0.229*	(2.09)
nineties	0.122	(1.01)	0.315*	(2.00)
D.Financial Liberalization	-0.0110	(-0.37)	-0.0147	(-0.33)
L.Financial Liberalization	-0.0413*	(-2.38)	-0.0377	(-1.51)
D.Public Spending	0.0429***	(5.05)	0.0262**	(2.99)
L.Public Spending	0.0273***	(3.77)	0.0173**	(2.68)
D.GDP per capita (log)	0.226	(0.44)	0.707	(1.21)
L.GDP per capita (log)	-0.00968	(-0.06)	-0.0613	(-0.33)
D.Dependence Ratio	0.261	(1.50)	-0.169	(-0.76)
L.Dependence Ratio	-0.00568	(-0.44)	0.0632**	(2.67)
D.Left	-0.0310	(-0.27)	0.00967	(0.08)
L.Left	-0.0305	(-0.32)	0.0147	(0.16)
D.Urban	-16.80	(-1.41)	-49.22**	(-3.05)
L.Urban	-1.898	(-1.29)	0.583	(0.35)
D.Democracy	0.00565	(0.07)	0.00659	(0.06)
L.Democracy	0.172**	(2.88)	0.180*	(2.38)
D.Trade Ratio	-0.000890	(-0.22)	0.00176	(0.50)
L.Trade Ratio	0.00170	(0.73)	0.00422	(1.95)
D.Hiscox	0.00127	(0.36)	0.00941	(1.40)
L.Hiscox	0.00349	(1.24)	0.0121*	(2.37)
LDV (IMF)	-0.446***	(-5.41)		
LDV (Huber)			-0.337***	(-5.48)
_cons	1.996	(0.98)	-3.219	(-1.34)
<i>N</i>	366		425	

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Note: D. is the first difference, L. is the lag.

Results of OLS regression with Panel-Corrected Standard-Errors.

Individual country-fixed effects not shown.