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**GLOBALIZATION, DOMESTIC POLITICS AND SOCIAL  
SPENDING IN LATIN AMERICA**

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**Globalization, Domestic Politics and Social Spending in Latin America:  
A Time-Series Cross-Section Analysis, 1973-1997\***

**Robert R. Kaufman and Alex Segura-Ubiergo**

“Has globalization gone too far?” This question -- the title of a recent book by Dani Rodrik<sup>1</sup> -- has been asked for over a century in Latin America. The issues it raises, however, have acquired special force in the last 25 years, as once-closed import-substituting economies have been transformed by structural reforms that have linked them far more closely to international trade and capital markets. As in other parts of the world, the specific effects of this transformation on Latin American societies remain unclear. Nevertheless, it seems quite apparent that it has brought about important modifications in the balance of political power and has altered the margins of choice available to domestic governments.

In this paper, we examine one of the most controversial aspects of this economic opening: its impact on governments’ fiscal commitments to social security, health and education. Many have argued that the new era of neoliberal reforms has undermined the thin protections that states in the region had provided to at least some of their citizens during earlier periods of ISI. Whether or not this is the case, the central challenge going forward is whether badly damaged welfare systems can be reconstructed and expanded in ways that will shield citizens exposed to new market forces and enable them to compete effectively in the new era of “globalization.”

We explore these issues through an analysis of changes in social security transfers, and health and education expenditures in a time-series cross-sectional analysis in 14 Latin American countries from 1973 to 1997. The countries are: Argentina, Bolivia, Brazil, Chile, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Mexico, Paraguay, Peru, Uruguay, and Venezuela.<sup>2</sup>

We examine three sets of issues. First, we want to know whether integration into global markets has in fact constrained social spending. On this question, we draw heavily on the distinction drawn by Geoffrey Garrett<sup>3</sup> between an “efficiency” hypothesis which posits

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<sup>1</sup> See Dani Rodrik, *Has Globalization Gone Too Far?* (Washington DC: Institute for International Economics, 1997).

<sup>2</sup> Because of missing or non-comparable data, we were unable to include Colombia, Cuba, Haiti, Honduras, Nicaragua, and Panama.

that increasing exposure to international competition will induce governments to roll back social expenditures, and a “compensation” hypothesis which emphasizes incentives to invest in “human capital” and to respond to political demands for protection against risk. Within this context, we then turn to an examination of the extent to which such outcomes might be influenced by two additional sets of domestic political and institutional factors: the balance of partisan power, and the electoral pressures of democratic institutions.

Consistent with Garrett’s findings for a larger global sample, we show that trade integration has a consistently negative effect on aggregate social spending, and that this is compounded by openness to capital markets. This is the strongest and most robust finding in our study. Against at least some of the studies of OECD countries, moreover, the “political” variables have weak and inconsistent impacts on aggregate social spending. Neither popularly-based governments nor democracies consistently spend more or less than conservative governments or autocratic regimes.

We also find, however, that globalization and domestic politics have a much more complex impact when social expenditures are disaggregated into social security transfers, and “human capital” spending on health and education. The negative effect of international economic integration operates primarily through social security transfers (mainly pensions), while health and education expenditures are far less vulnerable. Each type of spending also appears to be influenced by different political factors. Popularly-based governments tend to protect expenditures devoted to pensions and other welfare transfers, which have primarily benefited middle-class and union constituencies. On the other hand, the change to democracy has a positive impact on health and education spending, which reaches a larger segment of the population.

One reason our study is distinctive, we believe, is that it deploys broader measures of social spending than are found in most other LDC samples, and that these are examined on an annual basis over a relatively long period of time. In our analysis of these data, we use a pooled time-series error-correction model, estimated through Ordinary Least Squares with panel-corrected standard errors to correct for panel heteroskedasticity and spatial correlation; a lagged dependent variable to model the time dynamics and correct for serial correlation; and country and time dummies to control for fixed effects. Compared to Generalized Least Squares (GLS) and Maximum Likelihood (ML) models, our methodological procedure establishes a high threshold for estimating conventional levels of significance<sup>4</sup>. Such estimates are more reliable in the sense that the estimation of the standard errors is more efficient and consistent.

We present our analysis in the following steps. In the first section, we outline the main theoretical arguments about how globalization and domestic politics might influence

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<sup>3</sup> Geoffrey Garret, “Globalization and Government Spending Around the World” (Paper presented at the annual meeting of the American Political Science Association, Sept 1-5, 1999).

<sup>4</sup> Nathaniel Beck and Jonathan Katz, “What to do (and not to do) with Time-Series Cross-Section Data,” *American Political Science Review* 89 (September 1995), and Nathaniel Beck and Jonathan Katz, “Nuisance versus Substance: Specifying and Estimating Time-Series Cross-Section Models,” *Political Analysis* 6 (July 1996).

social spending in Latin America. The second section discusses the variables and the model used in the analysis. In the third section, we present our findings for changes in aggregate social spending. In the fourth, we show the impact of economic and political variables when spending is disaggregated into transfers on the one hand, and health and education expenditures on the other. The last section is the conclusion.

## **I. The Argument: Globalization, Domestic Politics, and Social Spending in Latin America**

### **The “Efficiency” and “Compensation” Hypotheses**

Contending hypotheses about the effects of globalization on social spending constitute our point of departure. As Garrett<sup>5</sup> has noted, there are two quite contradictory sets of arguments that cannot be resolved without empirical research. Each offers quite different propositions about the interests and resources of labor and capital, and about the economic and political options which governments face.

The “efficiency hypothesis” rests on the assumption that high levels of social spending reduce competitiveness in global markets. This effect can operate through several channels. For example, increases in social spending might be linked to higher payroll taxes that increase the cost of labor and reduce the competitiveness both of exports and domestic products exposed to import competition. Increases in fiscal expenditures can also undermine competitiveness by driving up interest rates, crowding out private investment, and increasing the value of the real exchange rate. As business groups become increasingly exposed to international competition, therefore, they can be expected to press governments to reduce social expenditures. Integration into capital markets would presumably compound this pressure, since it increases the exit opportunities available to asset holders.

At the same time, we might also expect a decline in labor’s capacity to resist reductions in social spending. The Hecksher-Ohlin theorem, it is true, can be taken to imply the opposite: that in labor-abundant LDCs, the expansion of trade would lead to an increase in returns to labor, and to an increase in its bargaining power vis-a-vis capital<sup>6</sup>. For a number of reasons, however, this has not generally been the case in Latin America. First, as Rodrik<sup>7</sup> argues with respect to LDCs in general, capitalists have greater exit options than workers, and are thus in a better position to close their plants or relocate as the price of labor increases. Against theoretical expectations, moreover, trade liberalization in many parts of Latin America has contributed to increasing demand for skilled, rather than low-skill workers<sup>8</sup>; and even where this is not the case, the large pool of rural and informal sector workers creates a

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<sup>5</sup> Garret (fn 3).

<sup>6</sup> Ronald Rogowski, *Commerce and Coalitions* (Princeton: Princeton University Press, 1989).

<sup>7</sup> Rodrik (fn 1), 46.

<sup>8</sup> Barbara Stallings and Wilson Peres, *Growth, Employment and Equity: The Impact of Economic Reform in Latin America and the Caribbean* (Washington, DC: Brookings Institution Press, 2000).

slack in the labor market that cannot be reduced quickly<sup>9</sup>. Finally, Latin American unions have been based in the public sector and import-substituting industries, both of which have been seriously weakened by trade liberalization. As their economies become more exposed to international competition, therefore, the incentives for governments to curb social spending become stronger, while the political costs of doing so decline.

The “compensation hypothesis” posits just the reverse effect. It focuses on the role of the welfare state as a mechanism for offsetting the social costs of international integration and for contributing to the development of “human capital.” In OECD countries, this hypothesis is supported by studies that show a very strong empirical association between economic openness, large public sectors, and generous welfare systems.<sup>10</sup>

Of course, we should not automatically expect similar developments in Latin America, where both factor endowments and political histories are obviously very different than those of the developed countries. Even so, studies by both Garrett and Rodrik show empirically that openness to trade leads to larger public economies in LDCs as well as developed countries.<sup>11</sup>

There are several reasons why the unsettling effects of increasing international competition might lead LDC governments to expand commitments to social spending. First, regardless of their specific role in the international economy or the net economic gains brought about by trade liberalization, countries that increase their exposure to international markets are likely to experience social dislocations, uncertainty, and unequal distributive effects. This in turn creates a potential for political instability and/or backlash against market-oriented economic policies. For governments and businesses, there is thus an incentive to ward off such threats by providing welfare transfers to social sectors or geographic regions that have fallen behind in the process of change.

As in developed countries, moreover, increasing exposure to trade may also strengthen incentives to use social spending to enhance the skill level and productivity of the labor force. To the extent that public investment in “human capital” provides a collective good for the private sector, business groups might welcome or even press for these expenditures. We note at this point that the term “compensation hypothesis” is rather misleading if one assumes that expanding social spending is necessarily less “efficient” than cutting it back. On the contrary, by enhancing labor skills and insuring political stability, large welfare states may provide collective goods that enhance the competitiveness of the economy in international markets.

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<sup>9</sup> Nita Rudra, “Globalization and the Decline of the Welfare State in Less Developed Countries,” *International Organization*, forthcoming.

<sup>10</sup> See, for example, David Cameron, “The Expansion of the Public Economy: A Comparative Analysis,” *American Political Science Review* 72 (December 1978), and Peter Katzenstein, *Small States in World Markets* (Ithaca: Cornell University Press, 1985).

<sup>11</sup> Garret (fn 3) and Rodrik (fn 1).



## Domestic Politics

Whether governments adopt “efficiency” or “compensation” strategies may also depend on the means citizens have to mobilize around economic interests and to hold governments accountable. Two additional sets of political and institutional factors, therefore, may also influence social spending as economies become more open. One of these is the balance of power among interest groups and party organizations. In the OECD countries, strong unions and social democratic governments have often been the paramount forces behind the expansion of welfare systems. Conceivably, they are also important forces for resisting cutbacks, although this is a matter of some dispute in the OECD cases.<sup>12</sup>

In Latin America, as in other LDCs, unions are notoriously weak, at least when compared to their counterparts in Western Europe; moreover, cross-national differences within the region are extremely difficult to measure systematically. A recent study by Nita Rudra<sup>13</sup> attempts to circumvent the measurement problem by focusing on variations in labor market conditions as a proxy for the bargaining power of organized labor. In a global sample of LDCs, she finds that social security spending varies positively with the ratio of skilled to unskilled labor, and negatively with the pool of “surplus” labor. On the other hand, we still lack more direct and reliable indicators of organizational strength (membership, cohesion, etc.) that characterize studies of the OECD.

In this work, we take a more direct approach to this problem by focusing on the political orientation and constituent base of the parties supporting incumbent presidents. As we shall discuss below, the social security transfers advocated by “popularly-oriented” parties in Latin America sometimes may sometimes benefit their labor constituencies but have a negative impact on the incomes of rural and informal-sector workers. Even when the transfers pursued by such parties do not reach the very poor, however, we can hypothesize that social spending is more likely to be sustained under presidents who have been elected with their support.

Finally, within the Latin American and LDC context, we need to ask more explicitly whether democracy itself “makes a difference.” This has been a matter of some dispute in the literature on economic and social reform. One view is that the general distinction does not have much explanatory significance and that it is more important to focus on more specific features of constitutional design, party systems, and partisan politics.<sup>14</sup> An alternative perspective rests on a relatively straightforward theoretical point: democratic rulers face pressures from a mass electorate to deliver social services, and are thus more likely than authoritarians to respond to demands for “compensation.”

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<sup>12</sup> Paul Pierson, “The New Politics of the Welfare State,” *World Politics*, 48 (April 1996), and Alexander Hicks, *Social Democracy and Welfare Capitalism: A Century of Income Security Politics* (Ithaca: Cornell University Press, 1999).

<sup>13</sup> Rudra (fn 9).

<sup>14</sup> Stephan Haggard and Robert R. Kaufman, *The Political Economy of Democratic Transitions* (Princeton: Princeton University Press, 1995).

Resolving this issue is complicated by the fact that, as noted above, many social services are inequitably distributed in Latin America.<sup>15</sup> Nevertheless, they do reach significant portions of the middle and working-class population, the social sectors that are most likely to turn out at the polls. For this reason, the distinction between electoral democracies and autocracies can be considered a potentially important causal factor in spending decisions. In fact, a recent study by Brown and Hunter<sup>16</sup> does show that Latin American democracies are more likely to maintain social security, health, and education expenditures in the face of economic downturns. In this article, we build on their work by asking if the impact of political regimes is affected by integration into international markets.

### **The Latin American Sample**

These issues and related questions have received considerable attention in quantitative studies of OECD countries, and more recently, they have been explored in global samples.<sup>17</sup> Our Latin American sample cannot draw on the refined data sets available in the OECD and it lacks the wide empirical scope of the broader samples. On the other hand, focusing on the countries of this region does have a number of advantages.

First, unlike many other LDCs and transition economies, many Latin American countries have long had occupationally-based welfare systems modeled along European lines, with defined-benefit pension plans, health services, and family allowances. By the 1920s, the groundwork for these systems had been established in Argentina, Uruguay, and Chile. During the 1930s and 1940s, a second wave of countries followed suit, including Brazil, Costa Rica, Mexico, Venezuela, Panama, and Colombia.<sup>18</sup>

Notwithstanding distributive inefficiencies and inequities, social safety-nets and services covered significant portions of their respective societies. By the 1980s, estimates that coverage reached from 62 to 96 percent of the economically-active population in at least five countries (Uruguay, Argentina, Chile, Brazil, and Costa Rica), and from 45 to 53 percent of the active population in Panama, Mexico, and Venezuela<sup>19</sup>. This, of course, was not a

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<sup>15</sup> The distributional impact of social spending is still subject to empirical debate. One important study conducted under the auspices of the U.N. Economic Commission on Latin America and the Caribbean finds that social spending had a positive impact on the lowest quintile in Argentina, Brazil, Chile, and Columbia. Rossana Mostajo, "Gasto social y distribución del ingreso: caracterización e impacto redistributivo en países seleccionados de América Latina y el Caribe," *Serie Reformas Económicas* 69 (Santiago: ECLAC, 2000).

<sup>16</sup> David Brown and Wendy Hunter, "Democracy and Social Spending in Latin America, 1980-92," *American Political Science Review* 93 (1999). Also George Filho Avelino, "Economic Crisis, Democratization, and Social Expenditure in Latin America, 1980-1994" (Ph.D. diss., Stanford University, 2000).

<sup>17</sup> See the studies by Garret (fn 3), Rodrik (fn 1) and Rudra (fn 9).

<sup>18</sup> Carmelo Mesa-Lago, *Social Security in Latin America: Pressure Groups, Stratification, and Inequality* (Pittsburgh: University of Pittsburgh Press, 1978).

<sup>19</sup> Carmelo Mesa-Lago, *Ascent to Bankruptcy: Financing Social Security in Latin America* (Pittsburgh: Pittsburgh University Press, 1989), 41.

very good record by developed-country standards. Nevertheless, at the onset of Latin America's "great transformation," such welfare systems constituted an important part of the "social contract" connecting citizens with the state.

The Latin American sample is also interesting because of the political transformations that swept the region over the past two decades. Latin American countries were among the first non-European states to join the "third wave" of democratization. The fact that these political transitions occurred more or less concurrently with economic openings gives special salience to the question of whether democracies can mitigate the potential negative effects of globalization.

Finally, the limited cross-national scope of our sample is partly offset by the quality and reliability of the data that can be compiled. This is particularly important with respect to the measurement of the dependent variable. Our coverage of social spending contains a number of problems that we will discuss below; but it does add some important dimensions to other studies of LDCs. The aggregate measures of government spending used in Rodrik's and Garrett's<sup>20</sup> global samples are imperfect substitutes for social spending, at least in Latin America. The simple correlation between central government expenditures and social spending as percentages of GDP is high (.81), but those with welfare expenditures per capita and as a proportion of government spending are only .51 and .31 respectively. Spending data in several other important studies have not included health and education expenditures, or cover a more limited period of time.

Like these other measures, the validity of our data is compromised by the fact that some of the most serious problems of LDC welfare systems involve defects in the organization and distribution of benefits, rather than financing per se.<sup>21</sup> For this reason, as we have suggested at several points above, all types of spending measures are very imperfect proxies for the actual payoffs which citizens receive. It is plausible to assume, however, that even relatively efficient and equitable delivery systems will require significant financial commitments from the public sector. The types of spending measures used in this study and others provide at least a rough indication of the resources governments are prepared to devote to social needs.

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<sup>20</sup> Garret (fn 3) and Rodrik (fn 1).

<sup>21</sup> Evelyne Huber, "Options for Social Policy in Latin America: Neoliberal versus Social Democratic Models," in Gosta Esping-Andersen, ed., *Welfare States in Transition: National Adaptations in Global Economies* (London: Sage Publications, 1996) and Joan Nelson, "The Politics of Pension and Health-Care Delivery: Reforms in Hungary and Poland," in Janos Kornai, Stephan Haggard, and Robert R. Kaufman, eds., *Reforming the State: Fiscal and Welfare Reform in Post-Socialist Countries* (New York: Cambridge University Press, 2000).

## II. The Variables and the Model

### The Variables

***Social Spending:*** Our social spending variables are based on annual IMF data on public spending on social security, health care, and education.<sup>22</sup> These expenditures in turn are measured in three ways: in per capita 1995 dollars; as a percentage of GDP; and as a share of central government spending net of interest payments on the public debt. Interest payments are excluded from government spending totals, because they are in part the product of accumulated long-term debt that cannot be reduced quickly by the government in power, whereas we are interested in how these governments establish budget priorities. We present findings for each specification of the dependent variable, because each captures somewhat different kinds of welfare effort. As just noted, the fiscal share of social expenditures reflects priorities set within the public sector. Spending as a percent of GDP indicates allocative priorities within the national economy as a whole. Welfare dollars per capita measures the value of the resources potentially available to recipients.

Unfortunately, as in other large-N studies of public spending in developing countries, annual data is available for central government spending only.<sup>23</sup> This presents a serious problem for our analysis, because a number of federal systems began in the late 1980s to shift some responsibility for social programs to state governments. We deal with this problem in a number of ways, although none is fully satisfactory. First, it should be noted that our data set extends back into the early 1970s, while the main impulses for fiscal decentralization did not occur in most countries until the 1990s. Even then, federal governments retained responsibility for pensions and many social services. Finally, we find no important differences in the results of our model when we exclude Brazil and Argentina, the two most decentralized countries during most of the period covered in the model.

After declining during the fiscal crises of the 1980s, social spending within Latin America as a whole rose substantially during the 1990s, a period in which the region also became increasingly integrated into the world economy. On the surface, the concurrence of spending increases and economic opening would appear to support the compensation hypothesis. It is impossible to assess the causal connection between the two trends, however, without also taking into account the effect of other factors that can also influence social spending, as we do in this study.

It is important to emphasize, moreover, that the rate of change varied considerably from one country to the next. Over the 25-year period covered by our model, the average annual change in spending per capita was \$7.30, whereas the standard deviation was \$52.39. The changes as a percentage of the budget and of GDP averaged .16 and .08 percent respectively, while the standard deviations were 4.82 and 1.31. During the upward trend of the 1990s, annual rates of change varied from a low of minus 1.7 percent in Honduras to 22

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<sup>22</sup> International Monetary Fund, *Government Finance Statistics*, Various Years.

<sup>23</sup> Garrett (fn 3) uses general government consumption expenditures, but this is based on cross-sectional averages and does not include transfer payments.

percent in Peru, and even by the end of the decade, spending in El Salvador, Guatemala, and Venezuela remained below pre-1980 highs.<sup>24</sup> So, there is enormous variation in the dependent variable.

**Globalization:** Exposure to international markets is measured in two ways. Following conventional practices in most of the literature on globalization,<sup>25</sup> trade integration is calculated as imports+exports/GDP. This measure is affected by the size of the economy and by changes in the exchange rate, but the inclusion of country dummies and exchange rate variables as regressors in our model corrects for these effects.

For openness to international capital markets, we use an index of capital account liberalization developed by Morley, Machado, and Pettinato<sup>26</sup> which reflects the extent of sectoral control on foreign investment, limits on profit and interest repatriation, and controls on external credits by national borrowers and capital outflows. We use this policy index instead of a more direct measure of capital flows, because flows often indicate macroeconomic volatility rather than openness, especially in an extraordinarily unstable region like Latin America. As with the use of trade ratios, this choice follows a practice common in the literature on globalization.<sup>27</sup>

**Popularly-Based Presidents:** To gauge the relative balance of partisan power, finally, we have coded all democratic heads of state in terms of the political orientation of their party base. Presidents are coded as popularly-based if they come from parties with close historical links with labor unions (for example, the Peronists in Argentina or Acción Democrática in Venezuela), and/or if their parties have long-standing programmatic orientations toward “the popular sector” (for example, the MNR in Bolivia, or the PLN in Costa Rica). It is important to emphasize that our coding deliberately does not take into account whether individual presidents themselves were conservative or left-leaning in their own social policy preferences; in fact, some “popularly-based” leaders like Carlos Saúl Menem in fact lean decisively to the right. The question, however, is whether their policy behavior is constrained by their constituent base or partisan supporters; and this is an issue that should be resolved empirically, rather than by definition. Again, this approach parallels a question

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<sup>24</sup> Economic and Social Commission on Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America* (1999).

<sup>25</sup> See, for example, Alexander Hicks and Dwane Swank, “Politics, Institutions and Welfare Spending in Industrialized Democracies, 1960-1982,” *American Political Science Review*, 86 (September 1992); Evelyn Huber and John Stephens, *Development and Crisis of the Welfare State: Parties and Policies in Global Markets* (Chicago: University of Chicago Press, 2001); Torben Iverssen and Thomas Cusack, “The Causes of Welfare State Expansion: Deindustrialization or Globalization?” *World Politics*, 52 (April 2000); Rodrik (fn 1), and Garret (fn 3).

<sup>26</sup> Samuel Morley, Roberto Machado and Stefano Pettinato, “Indexes of Structural Reform in Latin America,” (Santiago: ECLAC Economic Development Division, LC/L.1166, January 1999).

<sup>27</sup> See Garret’s discussion of these issues (fn 3), and Dennis Quinn, “The Correlates of Change in International Financial Regulation,” *American Political Science Review*, 91 (September 1997).

typically asked about OECD countries; namely, whether “left” parties behave differently from conservative ones once they arrive in government.

We have also coded a number of autocratic regimes as “popularly-based,” according to the way specialists have characterized their principal support coalitions, or their strategies for building political support. One example is the military regime that took power in Peru in 1968; a second is the dominant-party regime in Mexico. Although we have more confidence in the validity of this coding in democratic regimes, it is of interest to see whether “popular bases” determine behavior independently of regime type.

**Democracy:** Finally, following Alvarez, Cheibub, Limongi and Przeworski, we use a dichotomous measure of democracy, based on the Polity III data set of Keith and Gurr.<sup>28</sup> Countries were ranked by subtracting the 10-point “autocracy” scale from the 10-point “democracy” scale. Any country that scores at least six points is coded as democratic, and the others as authoritarian.<sup>29</sup> As noted in the preceding section, we would expect democratically-elected governments to have a positive effect on changes in welfare spending as their countries become more integrated into the international economy.

**Control Variables:** In the course of our research, we have examined the impact of a large number of control variables, including population size, urbanization, public debt, government revenues, dummies for inflation, exchange-rate, and GDP shocks, logged GDP, and GDP growth. Most of these were excluded from the final model in order to avoid problems of multicollinearity and to enhance the clarity of our presentation. Our eventual choices of which controls to include in the final model were based on the strength of our initial theoretical expectations, the completeness of data coverage, and on Chow and Aiken information tests to determine the contribution of the controls to the total variance explained in the model. It should be emphasized, however, that none of the controls excluded from this model altered our basic substantive findings.

The final specification of the model incorporates the effects of demographic composition by including controls for the age of the population or, where relevant, the percentage of both child and elderly dependents. GDP/capita controls for “Wagner’s law” which holds that the size of government increases with the wealth of the economy. We also include an “output gap” variable used by OECD economists. It is derived by comparing the actual value of GDP in a given year with the value predicted by the underlying growth trend, and can be used to assess the effects of the business cycle on social spending. A positive sign would indicate that these effects are pro-cycle, while a negative relation would show a counter-cyclical pattern. As a control, the output gap measure eliminates the possibility that the effects of other variables are actually caused by these cyclical relationships.

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<sup>28</sup> Michael Álvarez, Jose Antonio Cheibub, Fernando Limongi and Adam Przeworski, “Classifying Political Regimes,” *Studies in Comparative International Development*, 31 (1996); and Keith Jagers and Ted Robert Gurr, *Polity III: Regime Type and Political Authority, 1800-199*, Computer File, (Maryland: University of Maryland, 1996).

<sup>29</sup> We have also tried other specifications of democracy such as (1) using a continuous measure, or (2) changing the cutting point from 6 to 7 or 5. We did not see any significant changes in the results.

Since changes in social spending may actually be an effect of more general changes in government expenditure, we include the latter as another control; and exchange rate fluctuations are also included to take into account their possible effects on trade and capital account openness. Following Krugman<sup>30</sup> we estimate the real exchange rate by multiplying the nominal rate in each country by the ratio of local consumer price inflation to the US CPI index. A more complete description of all of these variables is provided in the appendix.

Finally, the model also takes into account the effects of time and of fixed effects. Decade dummies are used to account for the important differences in regional and international conditions over the course of our time period. The first covers the years prior to the debt crisis, from 1973 to 1981. The second extends from 1982 to 1990, which were generally marked by economic recession and painful structural adjustments. The last covers the period of economic recovery that took place during the first half of the 1990s.<sup>31</sup> Country dummies are included in all of the specifications of the model. These correct for factors that might impact a country's economic openness and/or welfare spending over the long run, such as the size of the population and territory, wealth, long-term political history, etc.

## The Model

Our construction of the time-series model takes into account the important distinction between analysis of cross-national differences and the analysis of changes within individual countries over time.<sup>32</sup> Cross-national differences in the size of the welfare state, Garrett argues<sup>33</sup>, are likely to be invariant over time, because they are influenced by historical factors at work over long periods, or by structural conditions that change only slowly. The causes of such differences are best assessed statistically through analyses in which the key explanatory variables (openness, left strength, etc.) are expressed as long-term properties of the system. In this connection, we mention in passing that, in contrast to the OECD cases, cross-sectional OLS regressions show no significant relationship between openness and the size of government in Latin America. Some countries with open economies, such as Panama, do have large governments, but many other small, open Central American societies do not. These results, moreover, are unaffected by controls for GDP and democracy.

In this paper, however, we are interested in changes in social spending, which are presumably influenced more directly by dynamic processes of globalization and by contemporaneous political pressures. We use an error-correction model which is well-suited for just such a purpose.

As discussed in the introduction, we have taken particular care to deal with the most common problems that affect time-series cross-sectional models. We have followed the

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<sup>30</sup> Paul Krugman, *International Economics* (New York: Addison-Wesley Longman, 1999).

<sup>31</sup> We also ran the regressions substituting year dummies for decade dummies. This did not significantly affect the results.

<sup>32</sup> See Garret (fn 3), Huber and Stephens (fn 25).

<sup>33</sup> Garret (fn 3).

methodology suggested by Beck and Katz<sup>34</sup> whereby the use of Ordinary Least Squares with panel-corrected standard errors deals with the problem of panel heteroskedasticity and spatial correlation, and the lagged dependent variable corrects for serial correlation.

We use country dummy variables and time dummies to control for country-specific and time-specific fixed effects. The use of fixed effects is becoming the norm in panel studies of the welfare state and is particularly important in our model, since most variables vary more across units than over time. The use of panel-corrected standard errors usually produces rather conservative results, since it tends to increase the standard errors of the estimates. Moreover, the inclusion of dummy variables tends to deflate the statistical significance of the other regressors.<sup>35</sup> This method carries some risk that causal hypotheses will be rejected prematurely. On the other hand, it also increases our confidence that results which do emerge as significant are not the consequence of unsound statistical assumptions or inappropriate econometric methods.<sup>36</sup>

The generic version of the model can be specified as<sup>37</sup>:

$$\Delta Y_{i,t} = D\alpha + Y_{i,t-1}.\beta_0 + \Delta X_{i,t-1}.\beta_k + X_{i,t-1}.\beta_j + T\lambda + \varepsilon_{i,t} \quad (1)$$

Where  $Y_{i,t}$  is welfare expenditures in country  $i$  during year  $t$ ,  $X$  is a vector of independent variables,  $D$  is a vector of country dummy variables or fixed effects, and  $T$  is a vector of time effects. Specifications of the dependent variable are measured as first-differences, and the independent variables include the lagged level of welfare expenditures, the lagged level of each independent variable, and the yearly changes ( $\Delta$ ) in the independent variables.

This type of model is based on the idea that the dependent and independent variables are in a long-run equilibrium relationship, but that there are also important short-term or temporary effects.<sup>38</sup> As noted above, the “ $\Delta$ variables” on the right hand side of the equation measure first-difference changes that are used to estimate annual changes in the dependent variable. Their overall impact on spending depends on the magnitude of the regression coefficient ( $\beta_k$ ) associated with the first-difference variable and the extent to which the change persists over time, which in turn depends on the coefficient of the lagged dependent

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<sup>34</sup> Beck and Katz (fn 4).

<sup>35</sup> Lois Sayrs, *Pooled Time Series Analysis*, (London: Sage Publications, 1989).

<sup>36</sup> The failure to address these technical problems has called the findings of a number of earlier studies into question. For example, in a replication of Hicks and Swank’s (see fn 25) influential study of OECD spending, only 4 of 13 political and institutional variables reach conventional levels of significance when panel corrected standard errors are used (Beck and Katz, fn 4).

<sup>37</sup> This model is equivalent to the one described by Beck and Katz (fn 4) in which the authors explain the importance of separating short-term from long-term effects in dynamic models (see appendix ).

<sup>38</sup> See William Greene, *Econometric Analysis*, 4<sup>th</sup> ed. (New Jersey: Prentice Hall, 2000), 733-735; Anindya Banerjee, Juan Dolado, John Galbraith, and David Henry, *Co-Integration, Error Correction, and the Econometric Analysis of Non-stationary Data* (Oxford: Oxford University Press, 1993).



variable ( $\phi$ ). In other words, if a ten percent change in  $\Delta\text{trade}$  is sustained in subsequent years, that will have a larger effect than if the change is subsequently reversed.

The coefficients ( $\beta_j$ ) of the *levels* variables ( $X_{i,t-1}$ ) measure long-term effects on the dependent variable. They allow us to assess whether trends in the independent variable are causally related to long-term trends in the dependent variable. When the regression coefficient ( $\beta_j$ ) is statistically significant, it indicates that there is a long-term causal relationship between these trends. The strength of that relationship is estimated by dividing the regression coefficient ( $\beta_j$ ) by  $(-\phi)$ , the yearly rate at which the unpredicted annual changes in the Y variable return to the trend line (see appendix).

The inclusion of both first-difference and “levels” variables is a statistical requirement of the error-correction model. The interpretation of their causal role, however, requires theoretical and conceptual judgments. The demographic measures used as control variables, for example, change slowly from year to year, and their effects are most likely to work through the “levels” variables. In other cases, both first-difference changes and long-term trends may have substantive meaning. For example, the first-difference variables for democracy or popularly-based governments can be presumed to measure the effects of a regime transition or change of government in a given year, while the “levels” variables measures the longer-term effect of these changes within a given country. To the extent that the effects of trade on spending work through the lobbying efforts of business groups exposed to international competition, they are most likely to be felt over the long term. On the other hand, as we shall suggest below, governments that link structural reforms to spending reductions may also produce important short-term effects captured by first-difference variables.

### III. Results for Aggregate Social Spending

The estimates for changes in aggregate levels of spending are shown in Table 1. To enhance the clarity of presentation, we do not include country dummies in the table and also do not show the first-difference effects of several control variables that would appear to work primarily as longer-term trends. Overall, the models explain between about 35 and 46 percent of the variance in social spending. This is a reasonably good fit. A model using only *levels* variables typically leads to much higher  $R^2$ , but this only because the lagged dependent variable artificially inflates the total variance explained.

Coefficients of the control variables go in the expected direction most of the time, and are uniformly consistent with expectations when they reach standard thresholds of statistical significance. Not surprisingly, trends in central government spending have an important impact; as the size of the central government increases, so does welfare spending per capita and as a percent of GDP. The impact of the output gap is significant for spending/GDP and positive in the other specifications, which indicates that social spending in Latin America tends to be pro-cyclical. The coefficients for the decade dummies measure the effects on spending in the 1970s and 1980s, compared with that of the 1990s, the omitted category. As expected, the fact that these coefficients are negative and significant indicate that, when all else is held constant, spending in the 1970s and 1980s was lower than in the 1990s. As noted,

moreover, even where the individual control variables do not reach standard significance levels, Chow tests and Aiken information criteria show that they generally contribute significantly to the overall variance in the model.

When we turn to the substantive variables highlighted in the general discussion of globalization, the most striking finding is the strong negative effects of trade openings. Both the long and short-term effects cross the high thresholds of significance of the error-correction model across all specifications of the dependent variable. The model shows that the effects of trade integration are independent of the “conjunctural” circumstances of the 1980s and 1990s, the business cycle, demographic changes, exchange rate fluctuations, and fixed country effects. The trade variables were also robust against a battery of other controls which we eventually chose not to include in the model, including inflation, inflation crises, exchange-rate shocks, economic shocks, and sudden drops in the GDP.<sup>39</sup>

The coefficients for “trade levels” can be interpreted as an indication that secular shifts in the preferences and relative power of business sectors exposed to international competition curb increases in social spending over the long term. In that respect, they are quite consistent with the “efficiency hypothesis.” As discussed in the appendix, the substantive impact of this variable is estimated by dividing the regression coefficient ( $\beta_j$ ) by the negative value of the lagged dependent variable ( $\phi$ ). With all else held constant, a 10 percent increase in long-term trade between 1973 and 1997 produces an average decrease of over \$31 per capita in social spending; that comes to over ten percent of the regional average of \$255. At least 5 countries (Chile, Costa Rica, the Dominican Republic, Mexico, and Uruguay) experienced much larger increases -- from 25 to 50 percent in the ratio of trade to GDP. In those cases, the predicted decrease in spending would range from about 78 to 156 dollars. Under the same conditions, spending would decline by about 1.5 to 3.0 as a percent of GDP; and between 2.9 and 5.8 percent as a share of government spending, against regional averages of about 7.0 and 46 percent respectively.

The short-term effect of an increase in trade is also important, and the cumulative impact can be quite substantial if it is sustained over time. For example, there were 22 instances in which countries experienced at least a 10-point increase in their ratio of trade to GDP. We can simulate the effects of such an increase in Mexico, which is more or less at the mean of the sample in terms of social spending, and where trade actually grew by an even greater amount in 1995. Holding all else constant, but assuming a one-year 10-point increase in trade, spending during the first year would decline by about \$15 per capita, by 0.4 percent of the GDP, and by a more modest 1 percent of government spending. If the one-time increase in trade is subsequently sustained (as it was in Mexico) the cumulative effect after five years leads to a decline in spending from \$200 to about \$155 per capita, and from 6.3 to 5.1 percent of GDP. The cumulative drop in budget share is considerably smaller, but still slips from 46.6 to 45 percent.<sup>40</sup>

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<sup>39</sup> A sequential series of regressions, which excluded one country at a time, shows that these results are not driven by any given country. To check for possible outliers, we used robust regressions that use D-beta and Cook distances to correct for unusually deviant observations and obtained very similar results.

<sup>40</sup> See appendix for the formula used in these calculations.

**Table 1. Determinants of Social Spending in 14 Latin American Countries, 1973-1997<sup>41</sup>**

	D.welfcap	D.welfpub	D.welfgdp
L. GDPCAP	0.04578*** (2.95)	0.00084 (0.77)	-0.00015 (0.65)
L. OUTPUT GAP	1.16775 (0.86)	0.18411 (1.02)	0.08660*** (2.64)
L. AGE65	26.62502** (2.56)	-0.72316 (0.66)	0.16036 (0.82)
L. GOVERNMENT	2.91540*** (3.22)	0.24923 (1.38)	0.08819*** (3.72)
D. GOVERNMENT	10.19899*** (8.92)	-0.20322 (0.69)	0.26326*** (10.68)
L. EX.RATE	0.00665 (0.92)	-0.00168 (1.08)	-0.00022 (1.13)
D. EX.RATE	0.02540 (1.56)	0.00278 (0.75)	0.00070* (1.66)
L. TRADE	-0.89904*** (3.04)	-0.07027** (1.99)	-0.01662** (2.48)
D. TRADE	-1.47504*** (4.61)	-0.10286** (2.30)	-0.03935*** (5.05)
L. CAPITAL	-0.44671* (1.89)	0.06978** (2.21)	-0.00007 (0.01)
D. CAPITAL	0.20770 (0.51)	0.09792* (1.78)	0.00104 (0.13)
L. DEMOCRACY	-12.32505 (1.52)	0.08369 (0.06)	-0.19032 (1.04)
D. DEMOCRACY	-15.96276 (1.05)	1.05218 (0.40)	-0.52492 (1.59)
L. POPULAR	-11.20824* (1.73)	1.17233 (1.18)	-0.04741 (0.32)
D. POPULAR	2.07271 (0.29)	2.41128** (2.11)	0.04107 (0.25)
Dec-70	-38.24258*** (3.41)	-6.36836*** (3.46)	-0.92348*** (3.40)
Dec-80	-36.30183*** (4.61)	-4.56418*** (3.14)	-0.93233*** (4.85)
Lagged DV	-0.28097*** (3.14)	-0.61602*** (4.78)	-0.27955*** (4.28)
Constant	-378.22368*** (2.63)	32.19257** (2.42)	1.81409 (0.66)
R-squared	0.4600	0.3589	0.4567
Prob>Wald Chi2	0.0000	0.0001	0.0000
Observations	284	284	284

Panel-corrected z-statistics in parentheses.

\*significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

<sup>41</sup> In all tables, variables preceded by “L” are measured in levels; variables preceded by “D” are measured in first-differences (the first-differences of the first three control variables were, in most cases, not significant and are therefore not shown). Estimation with an error correction model that is robust to unit roots (see appendix). Lagrange multiplier test indicates that model is not affected by serial correlation. Model estimated with fixed

Although these first-difference effects are generally strong, they are difficult to interpret in the same way as the long-term effects of the *levels* variables. Whereas the latter may reflect direct or anticipated pressure of business groups, it seems less likely that such pressures would be mobilized or anticipated so quickly on a year-to-year basis. An alternative explanation is that the short-term effects reflect assumptions made by policymakers themselves about the relation between structural reform and fiscal adjustment. If liberal reformers view such adjustments as a necessary condition of “efficient” trade competition, for example, they might initiate curbs on social spending independently of pressure from business interests, conceivably as a component of an overall reform “package.”

As a check on the possibility, we reestimated our model, replacing our trade-ratio variable with an index of trade policy liberalization developed by Morley, Machado and Pettinato.<sup>42</sup> The effects of the first-difference changes in trade policy were remarkably similar to  $\Delta$ trade, whereas the coefficients for the long-term effects of policy were not significant. The implication is that different causal mechanisms drive social spending reductions in the short and long-run. In the short run, these reductions result from the initiatives of macro-economic policy elites. If these reforms are sustained and trade expands over the longer run, the downward pressures on spending may reflect structural changes in the economy and the broader interests of producer groups themselves.

Unlike trade, Table 1 shows that capital account liberalization does not have a consistent impact on social spending; the significance of the effects are sensitive to the other variables included in the model and the signs are not robust across alternative specifications of social spending.<sup>43</sup> One implication is that the main pressure for reducing expenditures comes from producer interests exposed to competition, rather than from a more general concern with establishing “credibility” in international financial markets. For producers, increases in welfare expenses imply higher payroll taxes, which directly impacts their bottom line. They thus have an incentive to lobby directly against expanding welfare commitments.<sup>44</sup> Liquid asset holders worry more about aggregate macroeconomic “fundamentals” than about welfare expenditures or labor costs per se.

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effects (Least Squares Dummy Variables model). Country dummies not shown to save space. The country dummy for Argentina was omitted to avoid perfect collinearity. An F-test for the significance of the fixed effects indicated that, at a 5% (or better) level of significance, the fixed effects belong in the model. The correlation between the fixed effects and the regressors is about 0.8. Hence, model cannot be estimated with random effects. Model was estimated with the “xtpcse” command in STATA 7.0. Alternative estimation techniques such as “rreg” (robust regression), maximum likelihood, generalized method of moments, or the Arellano-Bond estimator did not produce substantive changes in our main results. We therefore preferred to use OLS with panel-corrected errors, as suggested by Beck and Katz (fn 4), due to its relative simplicity and the ease of interpreting results.

<sup>42</sup> Morley et al. (fn 26).

<sup>43</sup> Quinn (fn 27) also finds a positive relation in his study of OECD countries, as does Garrett (fn 3) in his global sample.

<sup>44</sup> See Jeffrey Frieden, *Debt, Development, and Democracy* (Princeton: Princeton University Press, 1991); and Rodrik (fn 1).

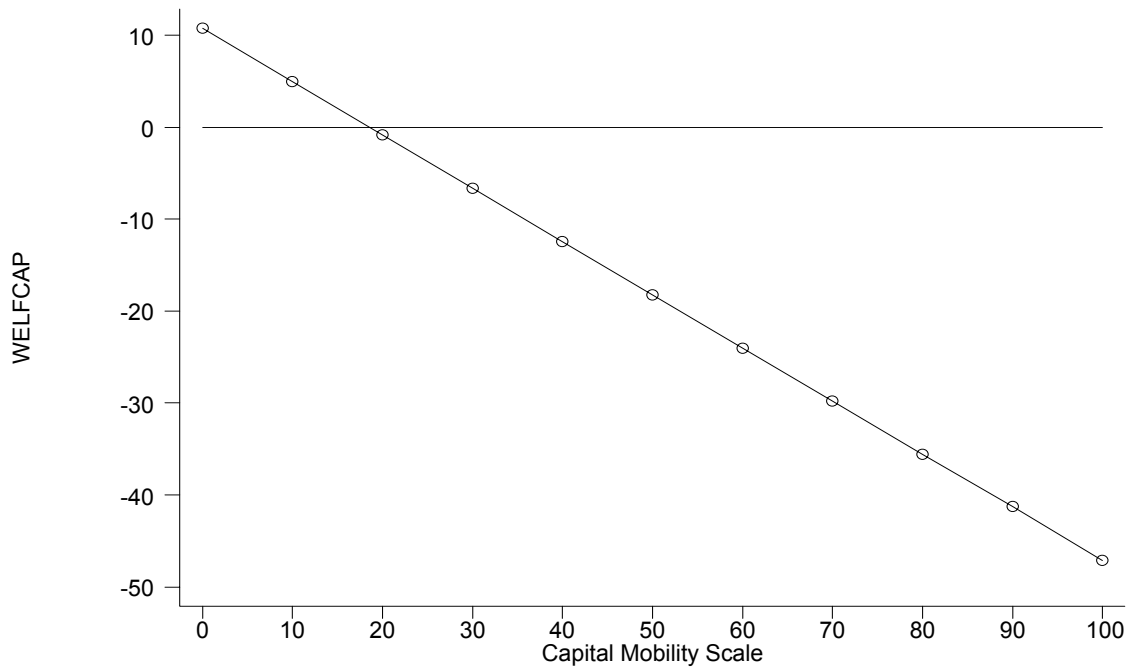
**Table 2. Determinants of Social Spending in 14 Latin American Countries, 1973-1997. Includes an interaction coefficient between trade and capital mobility.**

	D.welfcap	D.welfpub	D.welfgdp
L. GDPCAP	0.05211*** (3.27)	0.00122 (1.11)	-0.00011 (0.48)
L. OUTPUT GAP	0.77892 (0.57)	0.17950 (1.05)	0.08657*** (2.62)
L. AGE65	34.91644*** (2.93)	-0.64500 (0.52)	0.25328 (1.15)
L. GOVERNMENT	3.30616*** (3.51)	0.29859 (1.58)	0.09605*** (3.98)
D. GOVERNMENT	10.25068*** (8.82)	-0.19431 (0.65)	0.26407*** (10.49)
L. EX.RATE	0.00711 (0.92)	-0.00247 (1.51)	-0.00025 (1.20)
D. EX.RATE	0.02375 (1.36)	0.00195 (0.50)	0.00070 (1.54)
L. TRADE	0.30471 (0.46)	0.08263 (0.93)	-0.00682 (0.53)
D. TRADE	-1.49695*** (4.11)	-0.07054 (1.46)	-0.03724*** (4.33)
L. CAPITAL	0.26930 (0.59)	0.15297** (2.42)	0.00451 (0.65)
D. CAPITAL	0.09342 (0.22)	0.08632 (1.59)	-0.00035 (0.04)
L. DEMOCRACY	-9.04328 (1.08)	0.84851 (0.56)	-0.13790 (0.70)
D. DEMOCRACY	-16.96761 (1.11)	1.02375 (0.39)	-0.51814 (1.56)
L. POPULAR	-17.68635** (2.38)	0.66099 (0.62)	-0.09809 (0.57)
D. POPULAR	3.57339 (0.50)	3.59734*** (3.05)	0.11421 (0.63)
Dec-70	-0.01802** (2.22)	-0.00223* (1.82)	-0.00013 (0.89)
Dec-80	-0.01474 (1.54)	-0.00193 (1.54)	-0.00015 (0.82)
L. trade*capital	-34.78092*** (2.86)	-6.32199*** (3.31)	-0.86041*** (2.95)
D. trade*capital	-34.16169*** (4.02)	-4.79902*** (3.20)	-0.90888*** (4.40)
Lagged DV	-0.30021*** (3.24)	-0.64301*** (4.89)	-0.28627*** (4.32)
Constant	-546.11518*** (3.21)	23.32253 (1.62)	0.32960 (0.11)
R-squared	0.4724	0.3757	0.4613
Prob>Wald Chi2	0.0000	0.0013	0.0000
Observations	273	273	273

Panel-corrected z-statistics in parentheses

\* Significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Figure 1. Conditional Effect of a 10% Increase in Trade on Social Spending per Capita, Conditional Upon Degree of Capital Mobility**



Note: This table has been created using the interaction coefficient between the *level* variable for trade and the *level* variable for capital mobility (see Table 2). The uninteracted coefficient for trade (0.3124) measures the impact of trade on social spending when capital mobility is zero. To capture long term effects, the conditional coefficient needs to be divided by the lagged dependent variable (in absolute terms), and then multiplied by the pertinent level of capital mobility.

The reduction of controls on the movement of capital, however, does expand exit options for producers; and when capital openness is interacted with trade increases (see Table 2), the long-term effects of the interaction *are* consistently negative and reach standard levels of significance for spending per capita and as a share of the budget.<sup>45</sup>

Figure 1 provides an illustration of how to interpret the impact of the interaction coefficients shown in Table 4.<sup>46</sup> The figure "unpacks" these coefficients, and allows us to trace the way trade increases affect spending at different levels of capital-account openness. The "X" axis plots the index of capital openness from zero to 100. At every 10-point interval

<sup>45</sup> Note that in the interaction model, the simple coefficients for trade and capital are necessary as controls, but substantively meaningless. The coefficient for each uninteracted variable measures its impact when the value of the other variable is zero. See Robert Friedrich, "In Defense of Multiplicative Terms," *American Journal of Political Science* 26 (November 1982).

<sup>46</sup> We are grateful to William Roberts Clark, Department of Political Science, New York University for his methodological advice and assistance in this portion of the paper.

on this scale, we estimate the effect that a ten percent increase in trade would have on per capita social spending, and these estimates are plotted on the “Y” axis.

The figure shows that if the capital account were totally closed, a 10 percent expansion of trade might have a positive effect on spending; but as is shown by the uninteracted coefficient of trade levels in Table 2, this is not statistically significant. In the “real world,” scores on the capital index ranged from 20 to almost 90, and the effects of trade turn sharply and significantly negative as the capital account is opened. At a level of 90 points, which most countries approximated by the late 1990s, a ten percent increase in trade would predict a decline of 41 dollars in per capita spending. We obtained comparable results for each of the other two specifications of spending; as capital controls are removed, trade has an increasingly negative and significant effect on spending.

We defer until the next section an extended discussion of the political variables. We only note here that, with our aggregate specifications of social spending, the effects are generally weak and, if anything, go against expectations. Against much of the literature on the OECD countries, “popularly-based” governments actually appear to spend significantly less per capita than alternative governments, although in the short-term they do spend a greater share of the budget.

Democratic regimes also have no predictable impact on aggregate social expenditures; and we found no robust interaction effects between democracy and any of the other independent variables used in the model. In contrast to Brown and Hunter,<sup>47</sup> for example, once globalization variables were entered into the model, democracy appeared no more responsive than dictatorships to demographic and political pressures and no less resistant to downturns in the economy. It is quite possible, of course, that these null and counter-intuitive results are the product of measurement error. We will argue in the following section, however, that we can get a better understanding of the effects of the political variables if we examine the way they impact different types of social spending.

#### **IV. Welfare Spending Disaggregated: Pensions, and Health and Education**

Expenditures on social security, health, and education have typically been combined in analytical overviews of social spending in Latin America.<sup>48</sup> As just implied, however, there are reasons to believe they might be influenced by different political logics. In this section, therefore, we disaggregate social spending and reexamine the effects of the globalization and political variables on social security transfers and on “human capital” expenditures on health and education.

There are several reasons why social security expenditures might be most susceptible to the “efficiency” pressures of trade integration, and perhaps less likely to be defended by democratic regimes. First, most of the spending in this category goes to pension payments.

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<sup>47</sup> Brown and Hunter (fn 16).

<sup>48</sup> See ECLAC (fn 24) and Brown and Hunter (fn 16).

These are financed in part through payroll taxes that have a direct and transparent impact on the cost of labor; and consequently, we might expect business groups to press especially hard to hold them down.

Even more important, pension benefits are typically the most regressive component of social spending.<sup>49</sup> The social security category does include anti-poverty programs and targeted assistance to the poor; but pension payments themselves flow mainly to the middle-class and to formal-sector workers, while the costs of financing of large pension-fund deficits are socialized through general taxation or inflation.<sup>50</sup> Thus, with the possible exception of a few very comprehensive pension systems such as those in Uruguay or Costa Rica, cutbacks in the pension component of social security spending may be less likely to generate wide popular protest than has been the case in many European countries.<sup>51</sup>

Conceivably, the political constraints and opportunities are different in the case of “human capital” expenditures on health and education. Although health insurance is also sometimes a component of the wage bill, these expenditures generally have a smaller direct impact on labor costs; and from the point of view of employers, they may have more substantial payoffs as “human capital” investments.

There is also a greater likelihood of strong political opposition to cutbacks in these areas. Despite inequities and the severe inadequacy of social service delivery systems, human capital expenditures do appear to reach a larger segment of the population than pensions.<sup>52</sup> In-depth country studies of Argentina, Brazil, Chile, and Colombia, for example, show that spending on health and education constitutes about 75 percent of the total social expenditures received by families in the lowest income quintile, and has a positive impact on the overall distribution of income.<sup>53</sup>

In short, as Latin American economies become more integrated into global markets, incumbent governments may face stronger political incentives to protect health and education expenditures than those for social security. In fact, the simple correlation (Pearson’s  $r = -0.52$ ) between these measures as a percent of the budget does imply a rather sharp tradeoff. Particularly in an era of “hard budget constraints,” governments appear to be under considerable pressure to establish priorities.

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<sup>49</sup> See ECLAC (fn 24) and Stallings and Peres (fn 8).

<sup>50</sup> Mesa-Lago (fn 19, 1989).

<sup>51</sup> For a discussion of the European cases, see Gosta Esping-Andersen, *The Three Worlds of Welfare Capitalism*, (Princeton: Princeton University Press, 1990), and Gosta Esping-Andersen, *Welfare States in Transition: National Adaptations in Global Economies*, (London: Sage Publications, 1999). See also Pierson (fn 12).

<sup>52</sup> See ECLAC (fn 24).

<sup>53</sup> See Rossana Mostajo (fn 15).



**Table 3. Determinants of Social Security Spending in 14 Latin American Countries, 1973-1997**

	D.sscap	D.sspub	D.ssgdp
L. GDPCAP	0.02908*** (2.62)	-0.00088 (1.03)	-0.00014 (0.68)
L. OUTPUT GAP	1.24428 (0.98)	0.37265** (2.30)	0.08093** (2.48)
L. AGE65	21.19791** (2.06)	0.17069 (0.17)	0.24539 (1.24)
L. GOVERNMENT	2.83378*** (4.02)	0.33744** (2.52)	0.08555*** (4.82)
D. GOVERNMENT	7.48964*** (7.52)	0.13620 (0.61)	0.17224*** (7.65)
L. EX.RATE	0.00372 (0.54)	-0.00270** (2.30)	-0.00020 (1.13)
D. EX.RATE	0.02053 (1.34)	0.00426 (1.46)	0.00061 (1.59)
L. TRADE	-0.90592*** (3.16)	-0.06344** (2.09)	-0.01908*** (3.05)
D. TRADE	-1.36058*** (3.97)	-0.12208*** (3.11)	-0.03658*** (4.32)
L. CAPITAL	-0.37124* (1.73)	0.01552 (0.63)	-0.00295 (0.66)
D. CAPITAL	-0.02702 (0.08)	-0.00227 (0.05)	-0.00873 (1.16)
L. DEMOCRACY	-17.09170** (2.00)	-1.44737 (1.18)	-0.37006* (1.82)
D. DEMOCRACY	-20.87167 (1.42)	-1.02922 (0.52)	-0.61415** (2.05)
L. POPULAR	-9.62654 (1.36)	2.79490*** (2.71)	0.06050 (0.35)
D. POPULAR	16.63647** (1.99)	3.96490*** (3.46)	0.55272** (2.52)
Dec-70	-42.70732*** (3.85)	-6.68163*** (4.68)	-1.04712*** (4.03)
Dec-80	-37.53505*** (4.85)	-4.80568*** (4.16)	-0.97314*** (5.71)
Lagged DV	-0.26595*** (3.03)	-0.56006*** (5.42)	-0.33047*** (4.68)
Constant	-228.76248* (1.83)	32.88103*** (3.00)	1.50973 (0.59)
R-squared	0.3754	0.3723	0.3848
Prob>Wald Chi2	0.0000	0.0000	0.0000
Observations	284	284	284

Panel-corrected z-statistics in parentheses

\* significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

**Table 4. Determinants of Health and Education Expenditures in 14 Latin American Countries, 1973-1997**

	D.humcap	D.humpub	D.humgdp
L. GDPCAP	0.02482*** (5.26)	0.00081 (1.59)	-0.00007 (0.81)
L. OUTPUT GAP	-0.53871 (0.75)	-0.13127 (1.07)	-0.00671 (0.27)
L. DEPENDENTS	-0.32490 (1.63)	-0.05597 (1.35)	-0.00592 (0.86)
L. GOVERNMENT	0.72537* (1.86)	-0.04439 (0.52)	0.04446*** (3.13)
D. GOVERNMENT	2.74380*** (4.75)	-0.29154** (2.03)	0.09617*** (5.23)
L. EX.RATE	0.00110 (0.44)	0.00178 (1.56)	0.00003 (0.26)
D. EX.RATE	0.00350 (0.67)	-0.00085 (0.36)	0.00028 (1.03)
L. TRADE	-0.18819 (1.48)	-0.01729 (0.65)	-0.00443 (0.96)
D. TRADE	-0.17520 (1.02)	0.00936 (0.25)	-0.00533 (0.81)
L. CAPITAL	-0.05147 (0.50)	0.04568** (2.38)	0.00583* (1.85)
D. CAPITAL	0.26331 (1.35)	0.09700*** (2.62)	0.00802 (1.34)
L. DEMOCRACY	7.71009** (2.02)	1.85676** (2.01)	0.22071* (1.77)
D. DEMOCRACY	2.67727 (0.53)	2.49207* (1.83)	0.01699 (0.10)
L. POPULAR	-4.87457 (1.32)	-1.40306* (1.68)	-0.16366 (1.14)
D. POPULAR	-12.89505** (2.32)	-1.75167 (1.58)	-0.44433** (2.18)
Dec-70	2.74960 (0.48)	1.76608 (1.54)	0.15769 (0.76)
Dec-80	-4.28160 (1.09)	0.97024 (1.20)	-0.07972 (0.56)
Lagged DV	-0.50365*** (6.15)	-0.47954*** (6.03)	-0.49991*** (5.40)
Constant	- 128.27304*** (3.95)	-1.97991 (0.38)	0.45990 (0.60)
R-squared	0.4609	0.3048	0.3961
Prob>Wald Chi2	0.0000	0.0000	0.0000
Observations	284	284	284

Panel-corrected z-statistics in parentheses

\* Significant at 10%; \*\* significant at 5%; \*\*\* significant at 1%

Tables 3 and 4 show how expenditures in social security and H&E are affected by the variables used in the general model. In each specification of spending, the cumulative impact of these variables remains relatively strong; the  $R^2$  ranges from .30 to .45, and the estimates for both the globalization and political variables are very much in line with our expectations.

Let us look first at the globalization variables in the two tables. Table 3 shows that the impact of the trade variable which we saw in the general model works primarily through its effects on pensions and transfers. Trade openings have a uniformly negative effect on social security spending, both in the short and long-run. The coefficient for capital openness is significant only with long-term per capita expenditure, but all but one of the others are negative as well. And although we do not display the results, the effects of the interaction are identical with those found in the general model: capital account liberalization compounds the effect of trade.

In the models for health and education expenditures (Table 4), we see a very different picture. On the one hand, although five of the six signs for trade continue to be negative, none reaches even a 0.1 level of significance. Thus, we cannot reject the hypothesis that trade has no effects on this category of expenditure. Even more interesting, both capital openness coefficients show positive and significant effects on budget shares, arguably the most direct indication of government spending priorities; and they are also significant for spending as a percent of GDP over the long-run. These results are considerably less stable than those for trade in alternative specifications of the model, so it is important to be cautious in the weight we attach to them. Nevertheless, they do provide support for the “compensation” argument.

The implications of the political variables are equally, if not even more, interesting. Unlike in the general model, a fair number of the coefficients for democracy and partisanship are significant in Tables 3 and 4, and they appear to highlight the importance of the tradeoffs we have noted between social security and human capital expenditures.

Table 3 shows that popularly-based governments have a significant short term effect in all three specifications of the model. Over the long-term the budgetary priority attached to social security is also likely to be higher during years when popularly-based governments are in power. When all else is held constant, such governments can be predicted to raise budget shares by about five percent. As argued, such spending priorities tend to be consistent with the preferences of these leaders’ trade union base and/or the ideological preferences of their party supporters.

Democracies, conversely, appear to have a negative effect on such programs. Although the impact on budgetary allocations is negligible, there are statistically significant effects on social security spending per capita and as a share of GDP in both the short and long term. Since we initially hypothesized that elected governments might respond disproportionately to middle- and working-class voters who support such programs, this came as something of a surprise. We must add, moreover, that results are – unlike trade – sensitive to the specification of the model and did not uniformly reach standard levels of significance with other estimation techniques. Even so, the results are in line with what we know about the inequitable features of such programs and indicate that, at a minimum, democracies can cut expenditures without much concern for an electoral backlash.

This speculation receives additional support when we turn to the results for health and education spending shown in Table 4. The impact of popularly-based governments is negative, now across all three specifications of social spending. This suggests that popularly-based governments are inclined to squeeze “human capital” expenditures, possibly to protect pension spending. On the other hand, transitions to democracy (D-democracy) lead quickly to an increase in budget allocations for human capital. Over the long term, democratic regimes produce spending increases in all three specifications of the model. Expenditures rise by about 15 dollars per capita (about 7 percent of the regional average), and by .45 of GDP (about 18 percent of the regional average). Democratic governments increase the fiscal share of health and education by about 4 percent (16 percent of the regional average).

Of course, we cannot be entirely sure of the causal mechanisms behind this result; democratic regimes may also be responding to pressures from healthworkers and teachers unions, which tend to be among the strongest components of organized labor. Some pressure may also be coming from “enlightened” international and domestic capitalists interested in increasing labor skills. When we contrast the impact of democracy on human capital expenditures with its impact on social security, however, it is plausible to infer that the preferences of a mass electorate are also playing a role.

## **V. Conclusions**

Like most statistical studies, our findings leave open a variety of questions, many of which can only be answered by more qualitative research methods. In the first section and at various points in the rest of the paper, we have discussed a number of explanations for the relations we have found between globalization, political pressures, and social expenditures. In many instances, however, we cannot be sure about which of a number of causal mechanisms actually affect outcomes. We have discussed this issue at some length in the case of the short- and long-term effects of trade liberalization; we cannot be certain about the extent to which cutbacks in aggregate social spending and in social security reflect producer pressures, the initiatives of government decision-makers, or the indifference or even opposition of sectors that are excluded from benefits. Similar questions can be raised about other findings as well: for example, the positive effects of capital openness on investments on health and education spending, or the inclination of “popularly-based” governments to reduce these expenditures.

To answer such questions we need a closer analysis of the organization of social service systems, who has benefited from them in the past, and who stands to gain or lose from changes. As noted briefly in the introduction, some of the most vexing challenges of “second phase” welfare reforms have less to do with the amount of financing, than with the way financing is allocated and with how delivery systems are organized. Such issues are often best analyzed through case studies and small-N comparisons which provide close examinations of the politics of the budget process and of bargaining over the design and implementation of social services.

If our analysis cannot definitively uncover the causal mechanisms that underlie the statistical findings, however, it does provide a frame of reference that might orient future research. Three sets of conclusions are of particular importance. The first concerns the

contending arguments about the effects of trade integration on the welfare state: the overwhelming weight of evidence favors the efficiency over the compensation hypothesis. Although we cannot be entirely clear about why this is so, we can infer from our findings that trade integration does change power resources in ways that lead to a reduction in pensions and other transfers, the components of social spending that provide the most direct protections from vulnerability to market forces. Even in the case of health and education expenditures, moreover, there is no evidence that expansion of trade encourages states to enlarge the size of their welfare commitments. Indeed, if anything, trade openings have a negative impact on these components of social spending as well.

Integration into global capital markets has a more ambiguous effect. On the one hand, it does appear to encourage increases (or discourage decreases) in spending on health and education, possibly as a way to upgrade the quality of the labor force available to foreign investors. But capital account liberalization also compounds the negative effects of trade openings on social security expenditures. Presumably this is because it increases the leverage of traded goods producers with interests in containing the cost of labor. As their economies become more closely linked to capital markets, they can make more credible threats to liquidate their assets and shift them elsewhere.

A second important conclusion is that it is important to distinguish among different types of social spending. The distinctions used in this study follow those conventionally used in studies of the U.N. Economic Commission on Latin America and the Caribbean. Social security transfers are, as just noted, most relevant to the efficiency and compensation hypotheses, since they both add to the wage bill and offer the most direct protection against market forces. Health and education expenditures arguably involve longer term investments in “human capital” and are likely to have a greater long-term impact on the distribution of income.

The point that is clearly indicated in this study, however, is that these categories of social spending are influenced by very different sets of political and economic factors. The good news is that the pronounced constraints that globalization appears to place on social security transfers do not extend to spending on health and education. Possibly because the health and education sectors encompass a wider set of stakeholders, decisions on spending in these areas appear to reflect a very different political logic, much more connected to electoral competition and political participation. Although qualitative case studies of social sector reforms are more concerned with restructuring than with expenditures, it should be noted that they also consistently show distinctions between the politics of pension reform and the politically more difficult challenges related to the restructuring of social service sectors.<sup>54</sup>

We have not attempted to explore the politics of social sector reform in this paper. To maintain the clarity of our presentation, moreover, we have also left for later efforts to analyze differences between expenditures in health and those in education. Given our

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<sup>54</sup> See, for example, Joan M. Nelson, “Social costs, Social-Sector Reforms, and Politics in Post-Communist Transformations,” in Joan M. Nelson, Charles Tilly, and Lee Walker, eds., *Transforming Post-Communist Political Economies* (Washington, D.C.: National Academy Press, 1997).

findings so far, however, an exploration of these questions constitutes a logical next step for further research.

Our third set of conclusions concerns the way spending is affected by domestic “political variables.” We show that democratic regimes and popularly-based governments do have an effect that is independent from the impact of globalization. These effects, however, depend a great deal on the constellation of interests affected by different types of social program, and they work in very different directions.

Like their “left” counterparts in Western Europe, popularly-based governments in Latin America are an important force for the protection or extension of welfare transfer programs. In Western Europe, however, programs directed toward the large, unionized working class have generally contributed to a reduction of inequality, whereas in Latin America’s segmented labor markets, benefits for formal-sector workers can reinforce the gap with those in agriculture and the informal sector. It is perhaps for this reason that we see “democracy” working systematically to reduce social security category.

Contrary to the findings of Brown and Hunter,<sup>55</sup> we did not find that democracy had a strong impact on *overall* levels of spending, but this is only because these measure aggregate programs with quite different social effects. In keeping with their argument that “regimes matter,” democratically-elected governments did protect expenditures on health and education. Although more nuanced examinations of constitutional design and institutional arrangements can undoubtedly tell us more about such effects, our findings suggest that Latin American democracies do generally support demands for more “progressive” forms of social spending.

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<sup>55</sup> Brown and Hunter (fn 16).

## Technical Appendix

The error correction model is given by:

$$\Delta Y_{i,t} = \alpha + \Delta X_{i,t-1} \beta_k + \phi (Y_{i,t-1} - X_{i,t-1} \Upsilon) + \varepsilon_{i,t} \quad (1)$$

Where, in our case,  $Y_{i,t}$  is social expenditures in country  $i$  during year  $t$ ,  $\Delta$  is the first differences operator,  $X$  is a vector of independent variables and  $\varepsilon_{i,t}$  is a white noise error term. The model describes a short-term equilibrium relationship given by  $\Delta Y_{i,t} = \alpha + \Delta X_{i,t-1} \beta_k + \varepsilon_{i,t}$  and a term  $\phi (Y_{i,t-1} - X_{i,t-1} \Upsilon)$ , which measures the deviation from this short-term equilibrium relationship. [Note that  $\varepsilon_{i,t-1} = (Y_{i,t-1} - X_{i,t-1} \Upsilon)$ ]. Equation 1 shows that, first, a one-off change in  $X_{i,t-1}$  produces a contemporary change in  $Y_{i,t}$ . This short-term effect is determined by the  $k$ -dimensional vector of regressors  $\beta_k$ . Furthermore, when the impact of  $X_{i,t-1}$  on  $Y_{i,t}$  throws the model off its long run equilibrium (given by the cointegrating vector  $Y^*_{i,t-1} = X^*_{i,t-1} \Upsilon$ , where the “\*” indicates equilibrium), the discrepancy or “error” ( $Y_{i,t-1} - X_{i,t-1} \Upsilon$ ) is corrected at a yearly rate of  $\phi$ .

One way to show in a more intuitive way how to interpret the different short term and long term coefficients is to transform equation (1) through a simple mathematical operation: Let  $\beta_j$  be defined as  $-(\phi \Upsilon)$ , where both parameters  $\phi$  and  $\Upsilon$  come from equation 1, then it follows that  $\Upsilon = \beta_j / -\phi$ . Equation 1 can therefore be rewritten as:

$$\Delta Y_{i,t} = \alpha + Y_{i,t-1} \phi + \Delta X_{i,t-1} \beta_k + X_{i,t-1} \beta_j + \varepsilon_{i,t} \quad (2)$$

Equation 2 is then estimated through OLS. The interpretation of the coefficients is then as follows. The regression coefficient for an independent *level* variable is a measure of the long run equilibrium relationship between a vector of cointegrated independent variables (i.e. sharing the same long run trend) and the dependent variable. As noted above, the long run equilibrium relationship is given by  $Y^*_{i,t-1} = X^*_{i,t-1} \Upsilon$ . The parameter  $\Upsilon$  (which measures this long run equilibrium relationship) is not directly observable from equation (2), but can be found by dividing  $\beta_j$  by  $-\phi$  (see above).

On the other hand, the importance of the short term effects  $\Delta X_{i,t-1}$  depends on the size of  $\beta_k$  and on how long the effects of changes in  $X_{i,t-1}$  persist through time. A one-off change in  $X_{i,t-1}$  produces an immediate (contemporary) change in  $Y_{i,t}$  that is measured by  $\beta_k$ . If at time  $t$  there is a change in  $X_{i,t}$  in the opposite direction to the change in  $X_{i,t-1}$ , then there are no more effects. But if the change in  $X_{i,t-1}$  is sustained, then the impact will continue in subsequent periods and can be measured by  $\Delta X_{i,t-1} \cdot (1+\phi)^t$ , where  $t$  is the number of periods after the initial change. Thus, for example, 3 years after the initial change  $\Delta X_{i,t-1}$ , the effect will be  $\Delta X_{i,t-1} (1+\phi)^3$ . Since  $0 < \phi < -1$ , the smaller the value of  $\phi$ , the longer the sustained changes in  $X$  will persist through time.

**Table 5. Codings for Popularly-Oriented Presidents, 1973-1997<sup>56</sup>**

Country	Presidents	Period
Argentina	Isabel M. de Perón (Peronist Party)	1974-1975 <sup>57</sup>
	Carlos S. Menem (Peronist Party)	1990-1997
Bolivia	Siles Suazo (MNR)	1983-1984
	Paz Estensoro (MNR)	1985-1989
	Paz Zamora (MIR)	1990-1993
	Gonzalo Sánchez de Lozada (MNR)	1994-1997
Chile	Salvador Allende (Socialist Party of Chile)	1973
	Patricio Alwyn/Eduardo Frei (Concertación)	1990-1997
Costa Rica	José Figueres (PLN)	1973
	Daniel Oduber (PLN)	1974-1977
	Luis Alberto Monge (PLN)	1982-1985
	Óscar Arias (PLN)	1986-1989
Dominican Republic	José María Figueres (PLN)	1994-1997
	Antonio Guzmán Fernández (PRD)	1979-1982
	Salvador Jorge Blanco (PRD)	1983-1986
Mexico	Peña Gómez (PRD)	1997
	Luís Echeverría (PRI)	1973-1976
	José López Portillo (PRI)	1977-1982
	Miguel de la Madrid (PRI)	1983-1988
	Carlos Salinas (PRI)	1989-1994
Ecuador	Ernesto Zedillo (PRI)	1995-1997
	Rodríguez Lara/ (*)	1973-1976
	Poveda/Duran/Franco (*)	1976-1979
Peru	Rodrigo Borja (Democratic Left)	1989-1992
	Velasco Alvarado (*)	1973-1975
Venezuela	Alan García (APRA)	1985-1990
	Carlos Andres Pérez (AD)	1974-1978
	Jaime Lusinchi (AD)	1984-1988
	Carlos Andrés Pérez (AD)	1989-1992

\* Popularly-based military president or junta

<sup>56</sup> If a popularly-based president takes office between January and June, that year is coded as “popular”. If the president, however, takes office between July and December, the year is coded “not popular.” A similar criterion is applied about presidents leaving office or being deposed. If a president leaves office before June, the year is coded as “not popular” (unless the next president is also popularly-based), being coded as “popular” if the president leaves office between July and December.

<sup>57</sup> Juan Perón took office in October 1973. The previous president from the Peronist party, Hector Cámpora, had been sworn in in May and resigned in July. Thus, it did not seem that they were in power long enough to introduce any significant policy changes. We have therefore coded 1973 as “not popular.” Isabel Perón became president in July 1974, replacing her husband Juan Perón who had just died. She was deposed by military coup in March 1976. We have therefore coded as “popular” only 1974 and 1975.



## Description of Variables

NAME	DESCRIPTION, MEASUREMENT, AND SOURCE
WELFCAP	Social expenditures per capita. Social expenditures include public expenditures in health care, education and social security programs. Measured in 1995 constant US dollars. Source: Created with data from the Government Finance Statistics (IMF) various issues.
WELFPUB	Social expenditures as a percentage of central government spending.
WELFGDP	Social expenditures as a percentage of GDP
GOVERNMENT	Central government spending as percentage of GDP
GDPCAP	GDP per capita in 1995 constant US dollars. Source: World Development Indicators 2000 (WDI2000), World Bank.
EXCHANGE RATE	Real Exchange Rate. Nominal exchange * (US CPI index/National CPI index) Source: For the nominal exchange rate, WDI. Formula for the real exchange rate comes from Paul Krugman (fn 30).
OUTPUT GAP	Difference between real GDP in local currency units at constant prices and the underlying growth trend, as a percentage of the trend. A Hodrick-Prescott filter (H-P) is used to estimate the underlying growth trend. The H-P filter uses long-run moving average to detrend the output series. The method is used frequently by financial and policy institutions such as the IMF and the OECD. It minimizes the sum squared of deviations of actual output around its trend, subject to a constraint on the variation of the growth rate of trend output. It calculates the trend as the solution to the following minimisation problem.
$\text{Min}_{\{y_t^T\}} \sum_{t=1}^T [(y_t - y_t^T)^2 + \lambda [(y_{t+1}^T - y_t^T) - (y_t^T - y_{t-1}^T)]^2]$	
<p>Where, for each period, the trend values <math>y_t^T</math> minimize the above equation for a given value of the smoothing parameter <math>\lambda</math>.</p>	
DEPENDENTS	Age Dependency Ratio. Measures the number of dependents over the working age population. The age dependency ratio is calculated as the ratio of dependents – the population under age 15 and above age 65— to the working age population – those aged 15-64 Source: WDI
AGE65	Percentage of the population over 65. Source: WDI
TRADE	Imports plus exports as a percentage of GDP. Source: WDI
CAPITAL	Measures the degree of freedom from govern restrictions on capital mobility. The values have been normalized from zero and one, with one being perfectly free from distortion (no legal restrictions to the flow of capital). We have multiplied the index by 100 to facilitate interpretation in terms of percentages. Source: Morley et al (fn 26).
DEMOCRACY	Dummy variable with a value of 1 in democratic years and zero in nondemocratic years. A country is considered democratic if it reaches a score of six or higher after subtracting AUTOC from DEMOC in the Polity III data set. Source: Jagers, Keith and Gurr, Ted Robert. 1996. Polity III. The values for 1995, 1996, and 1997 come from an update of this study called PolityIV.
POPULAR	Dummy variable coded 1 for years in which a popularly-oriented president was in office and zero otherwise. Source: See table 5.

## Comments

**JOAN NELSON:** This paper makes an important contribution to a topic on which there has been a tremendous amount of discussion, but little careful research. The paper offers a careful empirical approach; moreover, in covering a period of over 25 years, it provides a much longer time perspective than is usually covered. In addition, the way the paper distinguishes among categories of social spending is an important step forward.

I have several comments, questions, and suggestions. Let me first reinforce a caveat Bob Kaufman has already stated. The data in this paper show that trade opening, particularly when coupled with capital account liberalization, has a depressing effect on social expenditures. This does not automatically mean a corresponding deterioration in social services. Reduced expenditures have different implications for different categories of social programs, particularly where reform efforts are simultaneously under way to improve the equity and efficiency of services.

Pensions are a transfer, which when reduced, are clearly less adequate for pensioners. Health and education are a different story. I want to underscore that there is an extraordinary amount of inefficiency in Latin America's health and education systems. It is well known that expenditures in these sectors are strongly biased in favor of middle and upper middle class groups. It is less generally known that resources are often used inefficiently as well as inequitably. For example, in the case of primary education, in some countries it takes an average of seven years of education to get a child through the fourth grade. Generally, the most serious problems in the education and health sectors in most Latin American countries are not the result of limited funds, but of poorly allocated and inefficiently utilized resources.

Let me turn to the main finding of this paper: the support for the efficiency hypothesis (rather than the compensation hypothesis) and (indirectly) for business influence on governments to reduce social expenditures. I have no doubt that the mechanisms the paper identifies are at work and are extremely important. But the real story about business influence may be somewhat more complex. Governments' assumptions and priorities regarding economic and social policies have evolved over the twenty-five years covered by the study. The emphasis in the 1980s was very much on reducing fiscal deficits and containing spending. In the 1990s, there has been considerable emphasis on protecting social spending not only for poverty reduction but also to encourage growth. Attitudes in business circles toward social expenditures are also beginning to change. So I wonder whether the dynamics and the links between trade liberalization, business pressures to reduce social expenditures, and government decisions show a simple straight-line trend, or a more complex pattern. Do the decade dummies address this issue? (I don't fully understand how they work.) What would happen if you examined the effects of trade opening solely for the 1990s, presumably using different assumptions about economic decision makers?

As I noted initially, one of the several helpful steps this study takes beyond most earlier discussions of the topic is to distinguish the impact of economic liberalization on different categories of social spending--specifically, on pensions as contrasted with education and health (taken jointly). The authors note that the political logic associated with pensions

differs from that associated with the major social services, that is, education and health. I fully agree.

Bob and Alex suggest that a useful further research step would be to examine health and education separately. I think that's right, and I would expect rather different effects on education versus health for a variety of reasons.

From the perspective of business influence on governments, a growing number of progressive businessmen perceive education expenditures as an investment in more flexible and productive labor forces and, indeed, in some countries have been lobbying for education reforms. There seems to be little or no parallel trend regarding health programs. One reason for the contrast may be difference in sector patterns of finance. In most Latin American countries education, certainly at the primary and secondary level, is financed by direct general taxes, whereas health care for formal sector workers and their families is often covered by the social security payroll tax. Employers typically pay part--sometimes a sizeable part--of the payroll tax (though their share has been reduced in several countries). Yet where the quality of health services is poor, this is also a burden on business, in the form of reduced productivity and workdays lost through illness. Indeed, some firms regard the services provided under social security as so inadequate that they purchase private insurance or health maintenance schemes for their workers--in effect, paying twice for health coverage. So apparent business indifference (or even antipathy) to reductions in health care funding remains something of a puzzle.

Reasons to expect different links between economic liberalization and expenditures on education versus health are not solely due to differences in business attitudes. The control variable of age dependency also has different effects on the two sectors. Demographic trends reduce the youth cohort, while the proportion of elderly increases. We can expect reduced expenditure on education, but increased outlays for health. Much of that increased spending on health services, however, may come out of pocket rather than from either social security or general taxes.

The paper is very useful in beginning to explore the mediating effect of political institutions and behavior on the links between economic globalization and social sector spending. I would like to suggest another institutional and legal variable that may affect those links, via the mechanism of business influence on government decisions. That variable, or sub-variable, is campaign finance, which is rarely mentioned yet quite important in terms of defining the degree and kind of business influence.

The implicit assumption in the paper and much of the literature is that broad participation is a counterweight to special interest influence. But in relatively new or recently renewed democracies, party systems are often in flux and privatization and other neoliberal reforms may have reduced politicians' access to patronage. In such contexts, if contributions from business interests are a major (or the main) source of campaign finance, then competitive elections might actually increase the influence of business even though they also increase participation.

**COLIN BRADFORD:** As I read the paper I found that Kaufman and Segura were interested in the numerator, social spending. I began to consider whether some of their results derived from what was happening to the *denominators*, in particular, government spending as a percentage of GDP. I would like to address the paper's robust findings that trade opening leads to a reduction in social spending and is more powerful than the capital opening, and that the efficiency hypothesis works.

As an economist working in the late 1980s, I was pleased to find that Robert Gilpin (1987: 321) had included what I refer to as the gap equation in his book on international political economy.<sup>58</sup> This equation is very simple, but manages to capture a great deal of what is going on in the economy. It helps explain why there was so much pressure on government spending to decline as a share of GDP in Latin America in the 1970s and 1980s.

The gap equation consists of the savings gap, which is domestic savings minus investment in the economy, plus the fiscal gap (or the fiscal deficit), equals the trade gap, or the current account.  $[(S - I) + (T - G) = (X - M)]$  So, essentially, we have embodied in this equation the private sector savings and investment relationship, the public sector, and the external sector. In this paper, the authors are interested in what happens to social spending as a result of a trade and capital opening, correlating government spending on social programs with rises in X and M over Y.

To illustrate, suppose we have a very conservative prime minister who does not wish to borrow from abroad. He insists that investment not be larger than domestic savings, that government spending not be more than taxes, and that imports not exceed exports. Under that scenario, each of these gaps is zero.

The authors examine what happens if there is a trade opening in which X plus M over Y rises. (You can divide this whole equation by Y to obtain GDP shares rather than dealing with nominal amounts).

There are two stories that I would like to tell. One is a growth story of Latin America, as well as East Asia, in the 1970s, where, as trade progressively increased and the external sector opened, the domestic economy grew faster. The second is the story of Latin America in the 1980s, especially the big countries--Argentina, Mexico, Brazil, Venezuela where the gap equation illustrates what happens when countries incur debt and the impact of the Reagan shock forces huge debt payments in the wake of the debt crisis.

In the first scenario, the growth story, imports are much greater than exports, creating a negative balance on one side of the equation. The question then is: What is the domestic offset for that increasing imbalance? Moving from the cautious prime minister to the growth-oriented prime minister, what is the domestic offset? What becomes negative on the other side of the equation?

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<sup>58</sup> Robert Gilpin, with the assistance of Jean M. Gilpin, *The Political Economy of International Relations* (Princeton, NJ: Princeton University Press, 1987).

If  $G$  grows as a percentage of GDP, it is going to become negative. The external opening can be offset domestically with the fiscal deficit. That would be a popular solution, but it is not a good way to attract capital. So one assumes that the new prime minister who is growth oriented has somehow inherited something from the cautious prime minister, and he or she keeps the fiscal gap at zero.

If the external imbalance becomes very large, as the economy opens, internally domestic investment becomes much greater than domestic savings. And that, in fact, is the engine for growth. This was the path followed by many Latin American countries in the 1970s and by East Asia. Savings as a percentage of GDP grew, but investment as a percentage of GDP in these fast-growing countries grew at a much greater rate as a result of the opening of the economy. The imbalance in the external sector provided foreign savings through the capital account to “finance” the trade gap and to fill the gap between domestic savings and investment.

The implication of these trends is downward pressure on the public sector. In order for the private and external sector GDP shares to rise, the  $G$  over  $Y$  shares have to plummet, though taxes may be raised slightly, depending on whether the country is starting from a fiscal deficit. If it starts from this zero position,  $T$  over  $Y$  is probably going to drop, too. And that is expected because the private market side of the economy is going to grow faster than the public sector.

Now, I will explore the case of high debt. What happens if  $X$  is greater  $M$ ? In other words, after the Reagan shock, Latin America fell into a situation in which they had to pay the debt, an external obligation. So the imperative of exports being greater than imports drives backwards into the domestic relationships, because these gap relationships capture the whole economy, the private, public and external sectors.

That means in order for  $X$  to be greater than  $M$ , one side of the equation is positive; therefore, the other side of the equation has to be positive, which means that  $T$  has to be greater than  $G$  and/or that  $S$  has to be greater than  $I$ . And that is the way you finance the debt. Because  $T$  has to be greater than  $G$ , you get terrific downward pressure on  $G$ .

This macro story fits the 1970s and 1980s for Latin America. The 1990s, as Joan Nelson said, were a different story because, fortunately, social issues became more important. But the macro story in Latin America in the 1980s would result in the denominator dropping while income and output contract as part of the adjustment process and as a result of the impact on income of generating surpluses in the private sector ( $S > I$ ) or the public sector ( $T > G$ ) to pay the external debt.

The results of this macro analysis are consistent with the efficiency imperative, because you certainly would not want the excess of imports over exports to be offset by a fiscal deficit as the economy grows. This is consistent with the efficiency hypothesis, that fiscal discipline is important, because any fiscal imbalance would decrease the degree to which investment can exceed domestic savings.

There is one other aspect that I would like to explore--the combination of two sets of curious findings in the Kaufman-Segura paper. The first is that social security *per capita* drops, and the second is that, especially in times of austerity, you find that social security as a percentage of GDP tends to resist downward pressure when total government spending is dropping.

In the case of the cautious prime minister, let us say that the economy had been growing at a rate of 3 percent and population is growing at a rate of 2 percent per year. By adopting a new strategy, the new prime minister doubles the economic growth rate to 6 percent. If social security spending per capita is dropping, this means that social spending has to be growing at less than 2 percent per year for the per capita share to be dropping, even though the economy is growing at a rate of 6 percent.

If, at the same time, social security as a percentage of government expenditure is either sustaining itself or rising, that means the rate of growth of  $G$  has to be slower than the rate of growth of social security payments which, in turn, has to be slower than the rate of growth of population which is 2 per cent per annum. In this circumstance, the growth of  $G$  would have to be zero percent or approach it in an economy that's growing at 6.

This suggests that your results show a lot of compression on the public sector, in *both* growth-oriented and deflationary situations where debt is a problem. I think that this macro story helps explain how the denominator is a major explanatory factor for the issues raised in the paper.

The final thing that I would like to say, as Joan Nelson pointed out, is that the measures of capital account opening are fundamentally different than those for the current account or the trade imbalance. If you postulate that international reserve holdings by countries remain constant, then the capital account equals the current account. In other words, incoming capital flows that fund investment growth are the mirror image of the trade imbalance.

The fact that you found these powerful results for trade opening leads me to suggest that the capital flows are following the trade imbalances and that they are one and the same story. The liberalization indices should have allowed the capital to flow more easily, but they are probably not the best measures of what you are trying to show.

To summarize my main point, the macroeconomics of opening the economy and economic growth in Latin America in the 1970s and of adjustment, contraction and external debt payments in the 1980s had very different effects on income and output growth, that is, in the denominator of the Kaufman-Segura observations. In the 1970s when trade as a share of GDP rose, imports exceeded exports, which meant that investment exceeded domestic savings, fueling growth. By contrast in the 1980s, when the external debt had to be paid, exports had to be in excess of imports, savings had to exceed investment and/or taxes had to exceed government spending to create the internal surpluses to pay the external debt. In both cases,  $G$  over  $Y$  declines but for different reasons than those mentioned in the paper, having

to do with the vastly different macroeconomic circumstances in Latin America in the 1970s as compared to the 1980s.

## Discussion

**JOSEPH TULCHIN, Woodrow Wilson Center:** I would like to begin by bringing politics back into the discussion. Colin's equations highlight two of the points at which politics play a crucial role in what Bob Kaufman and Alex Segura describe.

That zero, for example, is a parsimonious numerical reflection of what happens when the IMF tells the Argentine or the Brazilian government that it must--in order to achieve a bridge loan, as happened three months ago in Buenos Aires--continue its fiscal policy of reducing and eliminating the budget deficit. So, indeed, zero is exactly what is going to happen because the only way in the short term that the government can reduce expenditure is to cut out certain kinds of spending, and it won't be by firing 25 percent of the bureaucracy.

That is a form of politics, and it brings up the role of international financial institutions, which suggests that there are external factors behind the downward pressure to which Colin referred.

The other point at which politics plays a role has to do with Joan Nelson's comment on sectoral differences. There has been some work that I think is worth mentioning by Claudio de Moura Castro of the Inter-American Development Bank which, in terms of political economy points out that there are corporate interests built into the society that are reflected in the polity as well as in the budget process. Where those corporate groups are strongest, the government is less able to apply pressure.

What Claudio de Moura Castro has done in a very elegant economic model is to demonstrate that increased spending on health in Brazil through the 1980s and up until the middle of the 1990s served only to increase inequality in health services across classes. By legislation or by state-level control, every federal dollar for healthcare went in a disproportionate manner to those who were better off; so that, in fact, inequality was increased by increased health spending in Brazil.

In a recent presentation and paper by Vilmar Faria, Fernando Henrique Cardoso's advisor on social policy, he says: 'We haven't been able to fix that yet, and so we're not rushing to increase expenditure in health, despite what the intuitive model suggests, because it would simply increase the problems we have today and multiply them tomorrow.'

So there are fundamental differences as to the impact of a dollar spent or a dollar withheld from spending on health and education. It seems to me that the efficiency hypothesis is far more persuasive in education than in health anywhere in the hemisphere, but that is a question for the equations to deal with.

**MARGARET KECK, Johns Hopkins University:** To follow up, how do you control for not seeing both trade liberalization and cuts in social spending as essentially part and parcel of the same package of policy so that one is not the cause of the other? They're both caused by either the IMF or by belief in a particular sort of model of economic governance in which privatization produces more and better.



**JAMES MCGUIRE, Wesleyan University and Woodrow Wilson Center:** I have a few comments on the measures, because I think the ways that the variables are measured could account for some of the findings and non-findings that are a little perplexing, such as the finding that leftist governments did not seem to be related very strongly to social spending.

Many of the countries, perhaps with the exception of Chile, have political parties that are centrist, where the difference between left and right doesn't seem so great. I noticed that Carlos Menem, because he's from the *Peronistas*, is considered a leftist president. But Velasco's term in Peru from 1972 to 1975 is not included as leftist, only Alan García. Perhaps these countries and presidencies, plus the dichotomization into a one-zero relationship may not give you much leverage on the actual relation between leftism, in a European sense, and the outcome you have found.

I would like to make a similar comment on the relation between authoritarianism or democracy and social spending. Again, I wonder if you didn't find much of a relation because democracy is imperfectly measured. You dichotomized the *Polity III*<sup>59</sup> classifications. If you get more than a six, you're democratic; less than a six, you're not.

That gets rid of some measurement error. On the other hand, you lose a lot of information. For example, it is hard to say whether Brazil from 1985 to 1990 was a democracy or not. It wasn't; only 600 people elected President Sarney. Mexico too obviously has some problems.

You might try changing the cutoff from six to some other level, or trying out the Freedom House scores, although I think they're worse than the *Polity III* scores. Or, you might try looking at the *Polity III* scores to see if they're credible.

Finally, I'd like to comment on the finding that there seems to be a relation between trade openness and spending in OECD countries, but not in Latin America. The OECD contains small countries like Sweden, the Netherlands and Norway that devote a great deal of money to social spending but have high trade openness.

**LUIS BITENCOURT, Woodrow Wilson Center:** I have a follow-up question. I would like to know how you considered the reliability of the information you have used, particularly with regard to social spending. The formal or official budgets of some countries are just fiction. What kind of concerns do you have regarding that?

**HOWARD WIARDA, University of Massachusetts, Amherst, and Woodrow Wilson Center:** I want to reinforce the two previous comments by suggesting that the authors need to work on some of the measures. This is an intriguing paper, but there are an awful lot of logical and interpretive flaws that need work. For example, the left-oriented presidents index that Jim Maguire mentioned, for which you have two measures: those who come from parties with close historical links to labor unions--I don't know if Fernando Henrique

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<sup>59</sup> Keith Jagers and Ted Robert Gurr, *Polity III: Regime Type and Political Authority, 1800-1994*, Computer File (College Park, MD: University of Maryland, 1996).

Cardoso falls into that category--and those from parties with a longstanding programmatic orientation toward the popular sector--again, what about Fernando Henrique Cardoso? Then, Isabel Perón is considered left-oriented, which is quite a stretch. She is left-oriented as compared with what? The *Monteneros* or the left *Peronistas* versus the right *Peronistas*? As for the Dominican Republic's Peña Gómez, who has never been elected, you have a non-existent government. Luis Echeverría of Mexico followed a leftist strategy in foreign policy but not in domestic, social or political affairs. There are other definitions of democratization that you could have used which strike me as much better, more accurate, and which would give you a time series. Bill Kelly's indices every five years, for example, are much better than the measures that you use.

The paper is very intriguing, but I wish you had had better measures for your indices, because it undermines the analysis, as I think several people, including the commentators at the table, are suggesting.

**ROBERT KAUFMAN:** I agree that there are always certain measurement problems in these kinds of analyses. As for the left-oriented presidents, I would like to make a small point that it was just a mistake that Velasco is not in the listing. He is included in the analysis as a left president.

The argument about left government is based upon the Western European idea that you distinguish between governments that traditionally have been oriented toward the left and the policies they follow. If we were to simply identify left governments by the policies they follow, we would have a tautology.

So what we wanted to do, as do European studies, is to identify the governments that have some kind of historical constituency oriented toward labor. On that basis, I think that the use of Menem or Isabel Perón is fully justified. I won't back away from that choice. The fact that they followed right-wing policies or anti-labor policies is precisely the issue that we want to explore empirically.

There are certainly judgment issues here that one can quarrel with. I scratched my head a long time over Fernando Henrique Cardoso, for example, although he does come from a party that has a social democratic ideology. Just so you feel a little more comfortable with this, I think we only have a one-year data point from the Cardoso government, so it wouldn't really affect the results in a significant way.

On the issue of measures of democracy, Alex may want to respond.

**ALEX SEGURA:** We have tried everything with democracy, because we were really puzzled by the results. In fact, in some regressions, democracy turned out to be negative and significant, which was making us very nervous. We tried a continuous measurement of democracy obtained from *Polity III* that had exactly the same effect as the dichotomous measurements, perhaps because the democracy variable in the *Polity III* data set is a bimodal variable, with values that tend to cluster around 7, 8 and 9, and values that cluster around 0, 1 and 2.

We also tried the Freedom House scores. There was a very high correlation between Freedom House and *Polity III*, so we didn't see anything there either.

In the end, we used this dichotomous measurement because we were also trying to explore interaction effects. For example, we look at the interaction between democracy and trade by examining the effect of trade on social spending in democratic and non-democratic governments. We didn't see anything there either, which, in fact, goes against some papers that have tried to show that democracy makes a difference.

We really have made a lot of effort to see why democracy didn't work, and we don't know if there is any measurement error in the democracy variable. Probably there are mistakes in the way that *Polity III* has classified countries as democratic or non-democratic.

For example, Bob and I realized that on a 0 to 10 scale, Colombia received a 10 from 1950 up to now. It is questionable that Colombia really can be coded as a high-quality democracy. The score just measures whether or not elections have been competitive, free, and inclusive, along with other such criteria. It doesn't capture many other aspects of democracy that are important. But it would have been harder for us to come up with our own measurement of democracy considering what is already out there.

**JAVIER CORRALES, Amherst College and Woodrow Wilson Center:** I have another question related to macroeconomics. Could it be that what you're really measuring is not globalization or the impact of trade but, rather, the impact of recession or economic slowdown? Part of the problem is that the 1980s and the 1990s, which are associated with negative or very mediocre growth rates, are also when most of the trade liberalization has occurred. It could very well be that you're actually showing what other economists have shown, that when there is a recession or an external shock, Latin America tends to depress government budgets much more than OECD countries because spending in Latin American countries is much more volatile. In other words, instead of doing what OECD countries do in a recession, which is increase spending to counteract the effect, Latin America always responds to recessions with a greater reduction in spending because spending is highly volatile. How do we know that what you've really measured is the effect of trade opening as opposed to two decades of negative or very slow economic growth?

**ROBERT KAUFMAN:** We have a control for GDP growth, and we also have a control for inflation and GDP shocks. While that might not fully respond to your concerns, it does suggest that we are attempting to hold these factors constant.

**COLIN BRADFORD:** Have you examined these results by decade? There is a big difference between the 1970s, which was a growth decade, and the 1980s and 1990s. The difference between the East Asia and the Latin America parameters are not that great in the 1970s. After that, it's a very different story. In the 1990s, I think you might even find a different story in some places. So, if you looked at the results by decade, they might become clearer.

**MARGARET CRAHAN, City University of New York and Woodrow Wilson Center:** I think you might want to focus even more than you have on the nature of participation, because there have been a number of studies, by Ariel Armony, Héctor Schamis, Linda Fuentes, and others--that are coming to the conclusion that the measures of democracy and the interplay of NGOs and civil society can be much better measured by effective participation and not by *Polity III* or Freedom House, etc. You have to break it down even more.

**ALEX SEGURA:** I'd like to respond to the question about splitting our sample by decades and what the decade dummies mean. On page 34 of the paper, you'll see that the coefficients for the decade dummies that correspond to the 1970s and the 1980s are actually negative. Why are the decade dummies negative? When one runs regressions with dummies, you usually have to exclude one dummy, which becomes the baseline. The dummy we have excluded is the 1990s. As a consequence, what these decade dummies mean is that, for example, if you move the regression line from the 1990s to the 1970s or the 1980s, you would see a parallel, downward movement. For example, if you run the regression in the 1980s, the result would show that social spending in the 1970s would be \$35.2 per capita lower, and in the 1980s it would be \$34.5 per capita lower.

If we had excluded in our regression the decade dummy for the 1970s, then the decade dummies for the 1980s and the 1990s would have become positive, but these decade dummies in themselves don't mean anything. They are just comparisons with the category that you have excluded. This is a technicality when you do regressions with dummies. You always have to exclude one, against which everything else is compared. So, in fact, this would confirm the hypothesis that social spending in the 1990s went up, holding everything else constant.

What we cannot say by looking at these dummies is how the other variables have changed. What is the effect of trade in the 1990s? What is the effect of participation in the 1990s compared to the 1980s and the 1970s? That is a different question.

Another further step would have been to run every regression in the 1970s, the 1980s and the 1990s. However, that would entail some very important technical problems. One of the strengths of our paper is that statistically, the estimates are quite robust because our time series is relatively long. It has 25 observations, which is not a lot, but it's large enough to provide consistent, robust estimates. If you run the regressions with only, say, ten observations in the 1970s, ten observations in the 1980s and seven observations in the 1990s, then we would have very serious questions about the robustness of the estimate. In time series cross-section analyses, the robustness of the parameters depends not only on how large your N is, but also how long your T--the time points that you have--is.

Another reason why we didn't do this is because we were already running a lot of regressions. We started with aggregate measures of social spending. That was already three or four regressions per capita as a percentage of GDP and as a percentage of public spending. Then we disaggregated it by health and education and social security. Thus, although we

know that disaggregating health and education may be a necessary further step, we didn't do it because we had already run too many regressions.

**UNIDENTIFIED SPEAKER:** This does not mean that decades don't have an effect, but that you see an impact of globalization on social spending, when you hold the effects of the decades constant.

**ROBERT KAUFMAN:** I have some small points to make first. We have gone back and forth on the question of the capital account as a policy and trade as a flow. We tried this with foreign direct investment flows and came up with essentially the same results. There are theoretical problems with using foreign direct investment flows.

The literature that we tried very hard to match includes highly influential works on the OECD, such as Jeff Garrett's. And for a variety of reasons, Garrett has opted to use capital account opening rather than flows. In addition, we had a very good capital account opening measure, so it seemed to be the best of the available alternatives.

Let me also respond to the comment made by Mimi Keck, which is part of the same ideological process, and the point that Joe Tulchin made about pressure from IFIs and the IMF. My answer is that I don't know. We can't really tell from this study. It's a question that would require a case study mode in order to see what is actually going on. There is an interesting study by Wendy Hunter and David Brown that looks at the impact of IFIs on social spending, and they find that they don't have an impact.

**UNIDENTIFIED SPEAKER:** That's when IFIs are advising more social spending.

**ROBERT KAUFMAN:** We haven't tested for that, and it's not clear that IFIs have much impact. We don't see any direct evidence of business pressure, for example; but again, that's something best examined by case studies. It may simply be that instead of acting under business pressure, governments are assuming that they have to cut spending. We can't make a determination there. Another possibility is anticipated reactions, that governments may be cutting social spending in anticipation of pressures from business. There's no way of choosing among these explanations.

I would like to respond to the age dependency question raised by several people including Joan Nelson. Using both our measure and the over 65 measure, we came out with identical results. We used this measure in part because we were trying to track the OECD's literature, which used it rather than the over-65 measure. But there's no difference.

Now, Colin, I thought that what you said was great, and, in fact, I hope you have it written down. I really would like to pick through it more carefully before I respond in detail.

I do have a few comments. First of all, we do have a control for government debt, so again, if it were strictly the kind of macroeconomic identities, I would think that would pick up at least some of what you're talking about.

Finally, we have exports plus imports, which means we don't consider the balance of trade. You're suggesting that we ought to consider the balance of trade as something driving this. Maybe in a future iteration we should do this. But I'm not sure that your explanation would fully explain the results that we have because we simply don't have a balance of trade measurement. It's exports plus imports over GDP.

**COLIN BRADFORD:** I think that's a good measure.

**ROBERT KAUFMAN:** That would be an interesting thing to pick up. We have some other hunches, coming back to some of the questions about capital account opening. We have some puzzling findings that I didn't talk about. If you look at capital account openings alone, there are some positive relationships in some of the model, which left us puzzled.

We didn't test for this, but I wondered whether there was sort of Mundell Fleming explanation, that is to say, if you've got open capital account and a fixed exchange rate, your monetary policy doesn't work, so your only real resource is fiscal policy. It may be that when social spending goes up, what we're seeing is a fiscal response to an open capital account. But again, since we don't have a measure for fixed exchange rates, we don't test that directly.

All of the comments, particularly those of Joan Nelson and Colin Bradford, were extremely helpful and very challenging. We'll go back and see if we can fix some of these problems.

**ALEX SEGURA:** I just want to add a couple of points. Someone asked us how we assessed the quality of the information we used. We used the government finance statistics from the International Monetary Fund, where of course you can find problems. This is the information that governments submit to the IMF, and, of course, they can play with the numbers. We looked at the composition of the budget, and we took expenditures on education, health, and social security and welfare. We put them together, and that was our measurement of social spending.

I was in Peru recently and was told that at some point in the 1990s police wages were included as social spending. If the Peruvians did that, we have trouble, but we cannot control for it. So this is an important issue.

**GEORGE VICKERS, Washington Office on Latin America:** Following up on Joe Tulchin's question, might it not be possible to construct an index, using something like IMF stand-by agreements as a measure of external constraints on some of these spending factors, so you could then look at the impact of IFIs? This would be an alternative to case studies.

**JOSEPH TULCHIN:** The beauty of this paper, for those of us not necessarily inclined to argue over the use of a particular variability entry, is to take the insights and the arguments that Bob and Alex provide, based on an extraordinary amount of rich data. Frankly none of the qualms about where Velasco Alvarado or Menem belong really affects the elegance of the conclusions that Bob and Alex have written.

But the virtue of it, they suggest where to dig further, where discontinuities occur. Where are there created interests that make decreasing social spending in Brazil on health harder than it might have been in Chile under Pinochet, or how does Menem's success reflect a different kind of political coalition than, say, Carlos Andrés Pérez's lamentable failure when he tried to do exactly the same thing in Venezuela four or five years earlier, pulling people out into the street and ultimately leading to his quite literal downfall. While we could be looking at the same measure, the same budgetary effort, and the same impact on the equation, political results were at 180-degree difference one from another.

So the paper, even for those of us who aren't inured to or imbibed with this kind of methodology, offers a wonderful set of keys to further research. Bob refers to it as the need for case studies. I'm reminded of a manuscript finished here just a few months ago by Kurt Weyland that considers five such case studies. The discontinuities that interest Kurt are risk-taking behaviors, why heads of state decide to do things opposite to what they were elected to do--Pérez, Menem, Fujimori, and so on. That's precisely the kind of case study detail that complements what Bob and Alex have done that seems to make this kind of work so rich and fruitful.





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