

**Globalization, Political Institutions, and Social Spending Change  
in the Developing World, 1980-1999\***

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## **Globalization, Political Institutions, and Social Spending Change in the Developing World, 1980-1999**

How has the globalization of markets for goods, services, and capital affected the social spending commitments of middle income countries? Current debates suggest that economic globalization can either lead to a race to the bottom in which states lose their policy making autonomy or to a renewed commitment by the state to provide social benefits to its citizens. Such arguments assume that governments are able to easily change existing social spending commitments to meet the demands of the new global economy. Comparative research on welfare or social policy suggests that domestic political institutions are important determinants of policy outcomes. To what extent do domestic political institutions constrain the ability of governments to adjust their social spending commitments in response to globalization pressures? Even if economic globalization should result in adjustments in social expenditures in middle income countries, the extent to which those adjustments occur are likely to be determined by the domestic political institutions for decision-making.

This paper addresses these theoretical questions by analyzing education, health and social security spending in the developing world. The paper argues and the statistical evidence demonstrates that adjustments to public education, health care, and social security and welfare spending are in part mediated by domestic political institutions. Increased trade integration leads to more investment in human capital, especially in authoritarian regimes, but reduces expenditures on social security and welfare. In democracies, political institutions that lead to more partisan veto players result in more spending on health and social security and welfare, potentially due to compromise and logrolling. However, when political institutions centralize decision-making with fewer institutional and partisan veto players, social spending commitments are more likely to change; centralization provides more flexibility and more significant spending change. The next section discusses the hypothetical effects of political regime type and political institutions on social spending. Then, I describe the data and present results of various models that address the questions posed above. The paper concludes with a discussion of the substantive and methodological implications of the paper and outlines future paths of research.

### **Education, health and social protection spending in the developing world**

In this sample of developing countries, some governments increased social spending commitments since the 1980s, while others cut back. Figure 1 depicts variation in social spending for the period 1980-1999. The graph suggests that there is little variation among developing countries in their public education and health care expenditures, while social protection spending appears more variable. The variation in human capital investment over the 1980s and 1990s is relatively constant, suggesting that countries have neither converged nor diverged significantly. In contrast, the standard deviation for social protection shifts upward in the 1990s, representing more variation among countries during the 1990s than the 1980s. The variation in spending commitments can also be illustrated by a comparison of a subset of countries in the sample. Figure 2 illustrates the pattern of total social spending (the combination of education, health and social protection) from 1980-1999 for several countries. In some countries, like Brazil and Uruguay, spending steadily increased throughout the period. In others, such as Chile, spending was lower in 1999 than in 1980. The graph reflects the diversity of

spending commitments both in the level of and changes in spending during this period of heightened economic integration. This paper suggests that though economic integration creates similar market conditions for states, this variation in social spending can in part be explained by the constraints imposed by domestic political institutions that prevent rapid adjustment to integrated market conditions.

[Figure 1 here]

[Figure 2 here]

This paper also argues that social spending, as a broad category of government expenditures, should be disaggregated as much as possible because governments and markets may view the relative value of certain types of spending differently. For instance, education and health care are generally viewed as important components of human capital formation. Education, in particular, is important for promoting long term economic growth (Barro 1991). In a similar vein, the World Bank recognized in the early 1990s that investment in health care and healthy workers is important to economic competitiveness and growth (World Bank 1993; Nelson 1999). While the “Washington consensus” implied that governments in emerging markets, especially in Latin America, should reduce fiscal deficits, public education and health care expenditures were considered as “quintessentially proper objects of government expenditure” (Williamson [1990] 2000, 19). In contrast, social protection, including old-age and disability pensions and unemployment benefits, is often viewed as a consumption subsidy and potential drag on competitiveness and growth. Thus, while public education and health care are generally recognized as appropriate and necessary state expenditures, state social protection is less clear-cut. For these reasons, social spending as a spending category should be disaggregated into its component parts: education, health care, and social insurance.

### *The effects of globalization on spending in middle income countries*

The globalization of the last three decades has involved higher levels of current and capital account openness. Such globalization has led to the development of two broad theoretical expectations about the effects of globalization on the size of the state and state expenditures on social programs. Several authors argue that integration into global markets constrains the size of the state and state expenditures on social programs. Such arguments predict a convergence of government size and spending as states race to the bottom and become preoccupied with reducing state intervention in the economy to improve international competitiveness (Friedman 2000; see related Strange 1996).

Empirical studies, however, suggest that the policy response to increasing globalization of markets has not been uniform, especially in developed economies. Instead, increased economic integration may lead to increased state size and expenditures as governments (especially in small, developed countries) experience new pressures to compensate citizens for the new risks experienced due to economic integration (Cameron 1978; Katzenstein 1985; Garrett 2001). Furthermore, where corporatist institutions protect the voice of the left and organized labor, governments have been able to resist pressures to reduce compensatory social security and welfare spending (Garrett and Lange 1991; Garrett 1998; Rudra 2002). Even in developing countries, increased trade openness is associated with growth in total social spending

(Rodrik 1998). The theoretical explanation for such findings is that states integrated into global markets must compensate their workers for the dislocations and risks associated with trade openness. At the same time, however, the rapid trade and financial liberalization of the last two decades has resulted in slower growth of total state expenditures and compensatory social spending (Garrett 2001; Kaufman and Segura 2001), which suggests an upper limit of state growth in an open economy (Rodrik 1997).

Most of these studies analyze either the aggregate size of the state, state consumption, total social spending, or spending on social security and welfare transfers (with the exception of Kaufman and Segura 2001). As implied by the discussion of the differences between public education and health care spending and social security and welfare spending, not all social expenditures are the same. Similarly, different types of economic integration should exert different pressures on each type of spending. In particular, *public health and education spending should be enhanced in countries with higher levels of trade integration and net foreign investment*. Because public health and education are considered legitimate functions of government and are recognized to promote economic growth, trading states will need to improve their human capital to maintain competitiveness. Thus, trade openness should provide an added incentive for middle income states to improve government performance in this area, especially as they begin to feel increased competition from exports from low income countries. Middle income countries will need to upgrade skills to move into labor-intensive, semi-skilled production, if they hope to maintain competitiveness. The positive effect of trade openness on human investment expenditures such as education and health care has been one of the few consistent findings of the empirical literature (Rodrik 1998; Dion 2000; Kaufman and Segura 2001).

In contrast, social insurance and welfare expenditures can hurt export competitiveness if labor taxes are too high. Because labor is often abundant in middle-income countries, they usually export labor intensive goods for which they have a comparative advantage, in accordance with the Heckscher-Ohlin Model. Thus, keeping labor costs low is particularly important for maintaining a competitive edge for exports. Further, many middle income countries are beginning to feel wage competition from low income countries, which puts added pressure on governments to keep wages low. Though trade integration can cause market dislocations that generate demands for social insurance benefits (such as unemployment), unless social insurance institutions are already established, the dislocations will not be translated into higher expenditures. Though many middle-income countries have some form of social insurance (principally pensions and worker's compensation), few have unemployment insurance that would result in automatic spending increases as dislocations occur due to trade integration. *Given the characteristics of the labor markets and social insurance institutions in middle income countries, trade integration is likely to put pressure on governments to keep wage taxes and social insurance and welfare expenditures low*. In general, studies of spending in Latin America suggest that the relationship between trade and education and health spending is categorically different from the relationship between trade and social insurance expenditures (Dion 2000; Kaufman and Segura 2001). Market demands are likely to encourage middle-income countries with high levels of trade integration to invest more in public education and health care in order to maintain their competitiveness and at the same time reduce spending on social security and welfare.

Though foreign direct investment (FDI) reflects capital account openness, rather than current account openness, increasing levels of FDI in middle income countries should produce similar effects on social spending as increasing levels of trade integration. Investors who locate production or services in middle income countries are looking for inexpensive labor that meet their minimum human capital needs. Thus, as FDI relocates to middle income countries, governments should invest more in human capital and feel pressure to keep labor costs low. *Foreign direct investment should lead to increased expenditures in public education and health and stable or reduced expenditures in social insurance and welfare.* At the same time, however, foreign investors are sensitive to overall economic performance and government deficits (Mosley 2000), and thus, even education and health expenditures are likely to have an upper ceiling. The overall effects of FDI may be modest in middle-income countries, however, since FDI is still much more common among advanced economies and rates of investment are generally lower in emerging markets (Hirst and Thompson 1999).

Finally, capital account openness has led not only to increased foreign direct investment but also increased short and long term portfolio investment. In middle income countries, where capital is scarce, foreign investment capital can be an important source of government and private sector financing. International investors seek secure investment opportunities and profitable returns. Such investors care less about specific skills or the precise price of labor and more about the overall economic output of the economy and overall fiscal deficits that are more likely to determine interest rate premiums and profit outlooks (Mosley 2000). Increased capital account openness and flows should constrain overall government expenditures. Governments in middle income economies that depend heavily on foreign capital will try to keep overall expenditures low and budget deficits small. *Large international capital flows associated with high degrees of capital account openness should lead to lower expenditures in education, health and social insurance as governments seek to reduce budget deficits.*

Overall, economic globalization is likely to have diverse effects depending on the type of economic integration and the type of social spending. Increasing trade and foreign direct investment are likely to result in higher levels of investment in public education and health care, while simultaneously constraining social insurance and welfare expenditures and transfers. In contrast, overall capital account openness is likely to increase government concerns regarding budget deficits, and thus governments should try to spend less on all types of social programs. However, the extent to which governments will adjust their social spending commitments to meet the new demands of economic integration will in large part be determined by domestic political institutions.

#### *The constraints of political institutions and veto players in middle income countries*

Despite the theoretical reasons why economic integration should lead to changes in social spending in middle-income countries, domestic political institutions may constrain the abilities of governments to radically change their social spending commitments. In middle income countries, political regime type and democratic political institutions are both likely to constrain adjustments to social spending. Each constraint will be discussed in turn.

Since most of the existing studies of globalization and social spending have focused on advanced industrialized democracies, few studies have addressed the potential differences in

social spending between authoritarian and democratic regimes in the context of globalization. Those studies that have addressed the question have produced mixed results (cf. Brown and Hunter 1999; Hunter and Brown 2000; Dion 2000; Kaufman and Segura 2001; Rudra and Haggard 2001; and Avelino, Brown and Hunter 2001). Theoretically, there are two ways to treat the differences between authoritarian and democratic regimes with regard to globalization and social spending.

First, democracies are hypothesized, on average, to spend more on social policies than authoritarian regimes. The theoretical basis of this argument points to the preferred social spending commitments of the median voter in each type of regime. Because the support base of authoritarian regimes tends to be more restricted than that of democracies, the median voter in an authoritarian regime tends to have a higher income than the median voter in a democracy. The median voter in an authoritarian regime will prefer a lower tax rate and lower social and redistributive expenditures by government than the median voter in a democracy. In contrast, because democracies incorporate (in theory) all voters, the income of the median voter in a democracy is lower than that in an authoritarian regime. Thus, the median voter in a democracy will demand more social and redistributive spending by the state than the median voter in an authoritarian regime (Boix 2003, see also Romer 1975, Meltzer and Richard 1981). This logic explains claims that democracies will spend more on social programs in response to “demands” from voters (Brown and Hunter 1999). Not only do voters in democracies have formal institutions for expressing their demands for social spending, but the median voter will express a preference for higher spending than the average supporter of an authoritarian regime, due to its exclusionary nature (Boix 2003). Democracies, on average, should spend more on public education, health care, and social insurance than authoritarian regimes.

Second, democratic and authoritarian regimes can be discussed not only in terms of their median voters but also in terms of political institutions and the number of veto players. Though authoritarian regimes are seldom unitary actors, democracies tend to have more constraining political institutions and veto players than authoritarian regimes (Tsebelis 2002, chapter 3). Authoritarian regimes can have multiple veto players, especially if authority is shared among officers of diverse military branches or a formal junta (Remmer 1989; Biglasier 2002; Tsebelis 2002). Unfortunately, due to the nature of such regimes, seldom is there sufficient data regarding decision-making and the preferences of veto players within the regime. It seems safe to argue, however, that decision-making, on average, will be less constrained by veto players, than in a democratic regime. For instance, even if decision-making power is shared among the highest officers of three branches of the armed forces, the policy preferences of those three officers (given their educational, income, and career backgrounds) are likely to be more similar than the policy preferences of the leaders of three political parties in the legislature. The ideological distance among partisan veto players is likely to be smaller in an authoritarian regime. Further, authoritarian regimes are likely to have fewer institutional veto players than democracies, since many authoritarian regimes lack effective institutional checks and balances. It is precisely this streamlined decision-making, combined with repressive capacity, that led many observers to claim that authoritarian regimes were more likely to implement economic stabilization and costly structural adjustment programs that often included changes in government spending priorities in the 1980s and 1990s. Decisive and centralized decision-making in authoritarian regimes theoretically enables such regimes to make more dramatic or necessary changes to economic policy, including social spending. *While democracies may spend more on social programs in*

*general, authoritarian regimes are hypothesized to respond to globalization more rapidly.* Where globalization pressures should lead to adjustments in social spending commitments, authoritarian regimes should adjust their social spending more readily than democratic regimes.<sup>1</sup>

On the other hand, subsequent analyses have suggested that the importance of the democratic-authoritarian dichotomy may have been overemphasized with regard to first generation of structural reforms and that more subtle differences, including those differentiating democracies are likely to be important (Nelson 1990; Haggard and Webb 2000 [1993]). Given the importance of political institutions in advanced industrialized economies, there are likely to be important differences in social spending among developing democracies. The literature on political institutions and welfare states in advanced industrialized democracies suggests three hypotheses that may be relevant for developing countries. First, recent studies suggest that “inclusive electoral institutions” (Swank 2002) or “cooperative veto players” (Birchfield and Crepaz 1998; Crepaz and Moser 2004) will generate higher levels of social insurance and transfer spending in OECD countries. According to these authors, *as the number of political parties in the government or legislature increases, the likelihood of higher social and redistributive spending also increases.* The use of proportional representation, which is directly linked to the number of political parties, is also likely to result in higher levels of social expenditures (Swank 2002; Crepaz and Moser 2004). The logic of this argument suggests that as the number of parties in government and the legislature increases, policy making necessarily entails a degree of logrolling which leads to higher expenditures on social programs. While this may be true in advanced industrialized democracies over the last thirty years, it may also be the product of the stable party systems and reservoirs of trust among parties. Such cooperation and logrolling may be less likely in new or young democracies, especially if the parties or party systems are weak or if the ideological distance between the parties is extreme. Even in Chile, with one of the longest democratic histories in Latin America, ideological polarization of the multiparty system led to military intervention in 1973 rather than logrolling.

Second, the “dispersion of decision-making authority” (Swank 2002) and “competitive veto players” (Birchfield and Crepaz 1998; Crepaz and Moser 2004) both are argued to depress the level of social expenditures. Political institutions that provide veto points through which political actors can oppose or block legislation, such as presidentialism, bicameralism, federalism, and the use of referendums, lead to the development of minimalist welfare states and lower social insurance and transfer expenditures (Huber, Ragin, and Stephens 1993; Swank 2002; Birchfield and Crepaz 1998; Crepaz and Moser 2004). These studies demonstrate that *political institutions that provide veto points that enable political actors to influence decision-making result in lower levels of social expenditures.* These results are all based on statistical studies of pooled time series data on social spending in OECD countries, where such political institutions (and levels of welfare spending) are highly stable over time. It is likely that the negative relationship between the number of veto players (defined solely in terms of the political institutions described) and levels of social spending is driven in large part by cross-national variation; countries with more institutional veto players tend to have more limited welfare states.

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<sup>1</sup> In a similar vein, Brown and Hunter (1999) found that total social spending in authoritarian regimes was more responsive to economic conditions (precisely, economic growth) than in democracies in Latin America.

According to the same logic, the concentration of decision-making can also facilitate cuts in public education, health care, social insurance and welfare spending. In OECD welfare states, the concentration of decision-making (i.e., fewer competitive veto points) is associated with higher levels of welfare state retrenchment (Huber and Stephens 2001; Hicks and Zorn 2001). Studies of pension and health care reform in Latin America and Eastern Europe over the last decade also suggest that where decision-making authority in democracies is concentrated and there are few veto players, neoliberal reform or cuts in social programs are more likely (Huber 1999; Kay 1999; Madrid 2003; Haggard and Kaufman 2001; Orenstein n.d.). The concentration of decision-making increases the likelihood of both increases *and* decreases in social spending commitments; more institutional veto players reduce the likelihood of both increases *and* decreases in social spending commitments.

Given that the concentration of decision-making predicts both increases and decreases in social spending, a third theoretical effect of political institutions is warranted. *Perhaps political institutions and veto players best predict the amount of change in spending commitments rather than the level of social spending.* As elaborated by Tsebelis (1995; 2003), partisan preferences predict the content of policies, while institutions predict the amount of change in policies. Where political institutions generate more institutional and partisan veto players, policy stability or limited changes in policy becomes more likely. Institutional veto players are those generally recognized by the literatures discussed above: presidentialism, bicameralism, federalism, referendums, etc. Partisan veto players refers to both the number of partisan actors (such as the “cooperative veto players” discussed by others), but also the ideological differences between them. Though Tsebelis (2002) conceives of policy stability in terms of significant legislation, the same argument should apply to spending stability. *Where political institutions produce fewer institutional and partisan veto players, policy makers should be able to enact more significant changes in policy and spending.* Governments with more numerous institutional and partisan veto players will be less likely to make significant changes to their public education, health and social insurance expenditures, even in the context of economic globalization pressures.

## **Data description**

The dataset consists of unbalanced panels of time series cross section (TSCS) measures of social spending and the independent variables for forty-nine developing countries between 1980 and 1999 (see Appendix for full list of countries).

### *Dependent variables: Disaggregating social spending*

In the literatures, “social policies” and “social programs” are general terms used to encompass a wide variety of policies, such as education, health, housing, social assistance, social security, and welfare. In this paper, social spending is disaggregated into three categories of spending: education, public health care, and social security and welfare.<sup>2</sup> Though education, health and social security and welfare all fall under the broad category of social spending, the economic, demographic, and political dynamics that generate each type of spending may differ, as suggested above. In particular, education and health care spending are usually considered

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<sup>2</sup> The spending data in local currencies come from International Monetary Fund (2002) and were adjusted using local currency GDP figures from the World Bank (2001).

important investments in human capital, whereas social security and welfare spending is viewed alternately as compensation or redistributive spending. The *education, health, and social security and welfare spending* measures are a *percentage of gross domestic product (GDP)* in order to capture the state's commitment of resources.<sup>3</sup> Each measure reflects public spending at the national level and does not include subnational nor private investment or spending. In addition, in order to assess the causal impact of democratic political institutions, several models of *social spending change* are estimated. Social spending change, like policy stability (Tsebelis 2002), measures the magnitude of the annual change in social spending commitments without regard to the direction of change. Since a significant portion of the literature on political institutions, veto players, and policy change suggests that institutions can best predict the amount of change but not the direction of change (cf. Tsebelis 1995; 2002), the absolute value of the annual change in spending (ignoring the sign of the change) is the theoretically appropriate measure to test the hypothesis.<sup>4</sup>

*Independent variables: Theoretical explanations of social spending social spending commitments and spending change*

The hypothesized effects of globalization are measured using data on the actual degree of integration of markets for goods, services, and capital, rather than measures of government policies regarding such integration. The first of the three measures used captures the integration into markets for goods and services. *Trade* is measured by *imports and exports as a percentage of GDP*. Trade openness may stimulate investment in human capital as countries attempt to improve their productive capacity and international competitiveness. At the same time, trade openness may put downward pressure on social security and welfare expenditures, which are often partially funded through labor taxes.

Globalization has also increased the integration of financial markets, and especially in the 1990s, new reductions in capital controls in many countries. Many of the previous studies have measured financial integration with very simple measures of capital account openness, sometimes collapsing all cases into either open or closed according to a coding of capital controls imposed by a country (e.g., Kaufman and Segura 2001). Instead of measuring the potential integration of a country's capital market into the world economy, *gross private capital flows as a percentage of GDP (Gross K flows)* is used to measure the openness of countries' financial markets. This measure, which is also used by Rudra and Haggard (2001), measures actual flows of capital rather than the degree of government regulation of capital movements.<sup>5</sup>

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<sup>3</sup> Studies using alternative measures, such as spending per capita or as a percentage of total government expenditures, find substantively similar results to those of spending as a percentage of GDP (Hunter and Brown 2000; Rudra 2002). Spending as a percentage of GDP is used here because it is generally acknowledged to represent the *commitment* of government to spending, rather than the per capita availability of resources.

<sup>4</sup> Social spending stability is intended to represent the same tendency to maintain the status quo in the presence of many veto players that "policy stability" represents for Tsebelis (2002). Where policy stability represents the number of significant laws, "spending stability" represents little to no change in spending commitments. Since data comparable to that used to measure policy stability is not available for developing countries, I submit that spending stability is a suitable substitute.

<sup>5</sup> On limitation of this measure, as pointed out by Rudra and Haggard (2001), is that it does not indicate the direction of even the majority of capital flows. It is possible, however, that net capital exporters vary in important ways from net capital importers. Mosley (2000) argues that flows may be the appropriate measure of financial integration in developing countries where investors punish poor government performance with changes in investment levels, whereas interest rate differentials are the price governments pay in advanced industrialized economies.

Like the measure of trade, gross private capital flows represents the actual degree to which a country's market is integrated into the global market, rather than its potential to become integrated. Financial market globalization is hypothesized to create downward pressure on all government expenditures because international investors are sensitive to budget deficits and their effect on investment returns.

The third measure of global integration captures the degree to which countries host foreign direct investment. *Net foreign direct investment (FDI) as a percentage of GDP* should reflect the degree to which the national economy depends on such investment to maintain its competitiveness. High levels of FDI in developing countries should lead to greater investment in human capital and reductions in social security and welfare expenditures.

Political regime type and domestic political institutions are operationalized in several ways. To test the hypotheses that democracies spend more on social programs but that authoritarian regimes respond to globalization more due to fewer veto players, a dichotomous measure of democracy is constructed from the Polity IV measure (Marshall and Jaggers 2000). The original polity score is an ordinal measure in which one unit changes in the score are neither easily interpreted nor equal at all points along the scale. Instead, *democracy* is measured with a value of one for each country-year that received a Polity IV score greater than six.<sup>6</sup> While there is some loss of information in this construction, the dichotomous variable makes interpretation much more straightforward. That is, the parameter estimate for the democracy measure indicates the difference in the average expenditures of democracies as opposed to non-democracies. The dichotomous measure also facilitates modeling interactive effects with globalization or democratic institutions. It is hypothesized that authoritarian regimes will respond to globalization pressures by increasing investment in human capital and decreasing social security expenditures more readily than democratic regimes.

Additional models are estimated in order to test the argument that inclusive electoral institutions promote higher social spending while the dispersion of decision-making reduces spending commitments (Swank 2002; see also Huber, Ragin, and Stephen 1993; Crepez and Moser 2004; Birchfield and Crepez 1998). To be consistent with these alternative conceptions of veto players, inclusive electoral institutions are measured by a dummy variable for the use of *proportional representation* and also *the effective number of political parties*, as calculated by the Laasko and Taagepera index. Dispersion of decision-making (Swank 2002) or competitive veto players (Crepez and Moser 2004) is measured by a dummy variable for *federalism*. A dummy variable for *unified government* (if the executive's party controls a majority in the legislature) is used to measure the centralization of decision-making or absence of competitive veto players. Finally, *executive control of legislature* is the percentage of legislative seats held by the executive's party, which also measures centralization of decision-making capabilities.<sup>7</sup>

To test the hypothesis that centralization of decision-making combined with fewer partisan veto players is associated with more annual social spending change, another set of models include a composite measure of *political centralization*. This measure captures the degree to which political decision-making is centralized due to a lack of *de jure* institutional veto

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<sup>6</sup> This coding is also consistent with that of Kaufman and Segura (2001).

<sup>7</sup> All of these institutional measures are based on data available from the World Bank (2004).

points and less partisan fragmentation within decision-making institutions for years that countries are democratic. It is an index that measures the “feasibility of policy change” with a combination of “the number of independent veto points over policy outcomes and the distribution of preferences of the actors that inhabit them” (Henisz 2002). The number of independent veto points refers to the number of independent branches of the national government with policy-making powers, namely executives and upper and lower chambers of legislatures. Henisz also incorporates the extent of preference (i.e., partisan) alignment across the branches of government, a measure of institutional hazards within each branch, and preference heterogeneity within the legislative branches. This measure is consistent with Tsebelis’s understanding of veto players (1995, 2002). To facilitate interpretation and modeling of the interaction of institutions with globalization pressures, Henisz’s measure has been inverted so that as the measure of political centralization increases, the ability of policy makers to adopt legislative changes in social spending increases.<sup>8</sup> Therefore, it is hypothesized that democracies with more political centralization will be more likely to experience significant changes (both *positive and negative*) in social spending from year to year (or less social spending stability).

### *Control variables*

The literature of social spending in the developed and developing world suggests the need for several control variables. First, Theories of welfare state development in OECD countries have long acknowledged that social policies expand as countries become more industrialized or economically developed (Cutright 1965). Gross domestic product per capita (GDP per capita) measures the level of economic development.<sup>9</sup> Second, economic, or GDP, growth may give states room to invest more in public education and health care, while economic recessions may result in increased demands for social protection (cf. Brown and Hunter 1999). Third, demographic trends generate demand for certain types of social programs. Countries with a young population, or population under 15, should be expected to spend more on education, while countries with aging populations, or a large population over 65, should spend more on social protection. High concentrations of young and old relative to the size of the working age population (the age dependency ratio) should generate demand for health care. Fourth, dependence on foreign aid from foreign donors or international financial institutions, measured by official development assistance (ODA) as a percentage of GDP, should lead to increased investment in human capital and some restriction in social protection (Hunter and Brown 2000; Madrid 2003). This measure includes net transfers of goods and services, loans with at least 25 percent grant, and technical assistance from any member of the Development Assistance Committee (World Bank 2001). Finally, high indebtedness is likely to constrain the ability of governments to devote adequate resources to social programs, like health and education, in the developing world (Hunter and Brown 2000). Total debt service as a percentage of exports of goods and services measures the sum of principal and interest payments on long-term and short-term debt to the IMF (World Bank 2001).<sup>10</sup>

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<sup>8</sup> Henisz calls his measure *political constraints*, since it measures the dispersion of decision-making and the number of veto points in a polity. The political constraints values have been inverted to represent *political centralization* so that as the measure approaches one, the polity has fewer institutional and partisan veto players and therefore, more centralized decision-making.

<sup>9</sup> The economic, trade, finance, and demographic data are all from World Bank (2001).

<sup>10</sup> The most significant omission is a measure of partisanship. Though some cross-national datasets have partisanship measures (e.g., the World Bank’s Database of Political Indicators), the codings are not consistent or

## Models and results of level of social spending and social spending change

Pooled data like that used in this study often violate the assumptions of ordinary least square (OLS) regression analysis. In particular, pooled data often suffer from spherical errors that exhibit some combination of panel heteroscedasticity, contemporaneous correlation across panels, and autocorrelation (Stimson 1985; Beck and Katz 1995; Beck and Katz 1996). In the presence of such an error structure, OLS point estimates will be unbiased, but standard errors will not be efficient. Considerable debate regarding the appropriate models and estimation procedures remain, and many of the most popular “corrections” are only appropriate for certain data structures. For instance, the most common correction for addressing panel heteroscedasticity and contemporaneous correlation across panels cannot accommodate unbalanced panels and requires that the number of time periods exceed the number of cross-sections.<sup>11</sup> An alternative correction is the Huber/White robust standard errors used here.<sup>12</sup> Fixed unit effects can be highly collinear with independent variables that do not vary significantly within unit, like political regime type and institutional measures. In such cases, the fixed effects can bias downward the effects of independent variables (Beck 2001), and they are not included here.<sup>13</sup>

Similarly, there are no clear cut guidelines for the best way to address autocorrelation, and many of the options entail trade-offs in either consistency or efficiency. Given the high likelihood of autocorrelation in political economy data, these decisions are not trivial. Beck and Katz (1995) recommend modeling the autocorrelation with a lagged dependent variable. Given these issues, the data were initially evaluated for autocorrelation in two ways. First, the Lagrange multiplier (LM) test recommended by Beck and Katz (1996) was performed on models of the dependent variables with and without lagged dependent variables as regressors. Second, the models were also estimated using the Prais-Winsten transformation with a common autoregressive parameter, instead of a lagged dependent variable. All results indicated a high degree of first order autocorrelation in the dependent variable that was only adequately addressed by a lagged dependent variable.<sup>14</sup> Therefore, a lagged dependent variable is included in the models of the *level of social spending*, despite the fact that lagged dependent variables tend to reduce the effects of other theoretically relevant variables (Achen 2000).

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accurate (cf. Rudra and Haggard 2001). Further, cross-national quantitative studies of partisanship and social spending in Latin America have yielded inconsistent and unexpected partisanship effects across specifications (cf. Kaufman and Segura-Ubierno 2001; Wibbels 2006; Huber, Mustillo, and Stephens 2008).

<sup>11</sup> Panel corrected standard errors (PCSEs, Beck and Katz 1995 and 1995) require that the number of time period exceed the number of cases, and recent studies suggest that PCSEs perform poorly when the number of panels greatly exceeds the number of time periods (Pagter Kristensen and Wawro 2003).

<sup>12</sup> Errors were estimated using Stata 8.0's “robust” option which uses the Huber/White transformation to estimate the robust standard errors.

<sup>13</sup> When the models presented below included fixed effects, the variance inflation factors often exceed 10 and institutional variables would become perfectly linear with certain unit effects.

<sup>14</sup> In nearly all instances, the results indicated a parameter estimate of the serial correlation that exceeded 0.9. Further, analysis of the residuals of both the dynamic models and the static models with the Prais-Winsten correction indicated that the serial correlation was first order. However, only the models with the lagged dependent variable did not have any residual autocorrelation in their errors. The residuals from the Prais-Winsten regression models still demonstrated evidence of autocorrelation. Thus, the lagged dependent variable is used despite its drawbacks (cf. Achen 2000).

*Results for the level of social spending and political regime type*

Models of level of spending for education, health, and social security and welfare expenditures and globalization and political regime type were estimated separately. The results are presented in Table 1. The effects of economic globalization on social spending commitments in developing countries are mixed. Trade integration has a positive effect on public health and education expenditures, suggesting that governments with open markets feel pressure to invest in human capital to main competitiveness. In contrast, trade integration seems to put downward pressure on social security and welfare expenditures, though the effect is not statistically significant. These results are consistent with earlier studies that find that trade integration results in more investment in human capital but less spending on social security and welfare (Dion 2000; Kaufman and Segura 2001).

[Table 1 here]

The results for the measures of financial integration are not always consistent with the theoretical expectations, nor are the results usually statistically significant. Net foreign direct investment does not appear to have a theoretically consistent nor appreciable affect on any type of social spending. Perhaps governments in developing countries, where foreign direct investment has not reached the levels of that in OECD countries, do not yet feel constrained by the foreign investment. Contrary to the theoretical expectation that capital flows would lead to governments restricting all types of spending due to budget deficit concerns, capital flows appear to have a consistent positive effect on levels of education, health, and social security and welfare spending. Authoritarian and democratic regimes seem equally likely to spend more on social programs when capital flows are large.

[Figure 3 here]

The results for the effect of political regime type and social spending largely reflect the hypothesized patterns suggested by both the literatures on the median voters and the number of veto players in each type of regime. On average, democracies tend to spend more on all forms of social expenditures than their authoritarian counterparts, as demonstrated by the consistently positive and usually statistically significant effects of democracy on spending levels. Theoretically, the median voter in democratic regimes demand a higher degree of state social spending than the median supporter of an authoritarian regime. At the same time, however, to the extent that higher trade integration promotes greater investment in public education and health care, authoritarian regimes appear to adjust their investment in human capital accordingly. As states become highly integrated into global markets, authoritarian regimes outspend comparable democracies in the areas of public education and health. Figure 3 depicts the relationship between trade integration and education and health spending in authoritarian and democratic regimes. Figure 3 clearly illustrates that in closed markets with little trade integration, democratic regimes invest more in health and education than authoritarian regimes. In a closed economy, the median voter in a democracy demands more spending than that in an authoritarian regime. However, when the economy is more integrated into the global market, authoritarian regimes increase their investment in human capital in order to maintain competitiveness. Authoritarian regimes are able to abandon the preferred investment spending of the median supporter and increase spending on education and health care because of their centralized

decision-making and ability to repress dissent. What the model cannot predict, however, is how long authoritarian regimes can sustain levels of social spending in excess of the demands of their supporters before the authoritarian regime encounters a serious withdrawal of support from its domestic support base. Overall, though democracies on average spend more on social programs, that authoritarian regimes can be prompted by trade integration to invest more in human capital than democracies. However, given these differences between democratic and authoritarian regimes, what role do political institutions play in explaining differences among democracies? It is to that question that I now turn.

### *Results for the level of social spending and democratic political institutions*

In order to test the hypotheses regarding domestic political institutions and the level of social spending in developing countries, I estimated fifteen OLS equations identical to those for the first analysis, but included an interactive term between democracy and a measure of the political institutions in that democracy. Due to problems of colinearity, the equations could only be estimated with one institutional measure at a time and without interactions between globalization and the institutions. Table 2 summarizes the results of these tests by listing the democratic institutional characteristic and the direction and significance of its effect on the level of education, health, and social security and welfare spending. The results provide limited and inconsistent support for some of the institutional arguments found in the literature.

[Table 2 here]

First, inclusive electoral institutions (or cooperative veto players) as measured by the use of proportional representation in elections and the effective number of political parties in the legislature were hypothesized to increase social spending due to inter-party bargaining and logrolling (Swank 2002; Birchfield and Crepaz 1998; Crepaz and Moser 2004). More inclusive electoral institutions do seem to result in significantly higher expenditures on health care and social security and welfare, though they have no significant effect on national education spending. Since previous studies of the OECD have focused on social insurance and welfare transfers, these results are consistent with their findings. Perhaps health care and social security and welfare spending are more contentious than education spending, and therefore debates about those types of spending result in more bargaining and logrolling than education.

The education results suggest interesting relationships between dispersion of decision-making authority and levels of human capital investment. Federalism is associated with lower levels of national government education expenditures, suggesting that the responsibility for education spending has devolved to subnational governments in federal systems. This would explain lower national government spending on education in federal systems than in unitary systems. At the same time, however, the centralization of decision making in the national government has positive effects on education investment. Though there appears to be no significant relationship between unified government and education spending levels, this result may be due in part to the nature of the measure; unified government is a dummy variable to estimate the difference in average expenditures levels. When the national executive controls more seats in the legislature, however, expenditures on education are likely to be higher than when the executive's control is weak. This result suggests that unified governments with larger margins of legislative control spend more on education than executives that have little support in

the legislature. Together, the effects of the executive control of the legislature and federalism are the social spending results most consistent with the institutional hypotheses suggested by studies of dispersion of decision-making authority in OECD countries.

In contrast, the dispersion of decision-making authority does not appear to have the hypothesized effects suggested by research on OECD countries on levels of health and social security and welfare commitments in developing countries. The results are largely not significant and are inconsistent with the theoretical predictions. For instance, unified government and executive control of the legislature are not translated into higher expenditures on health and social security, as theory and studies of the OECD would predict. Furthermore, federal states may spend slightly more on health and social security and welfare at the national level. Rather than a rejection of the importance of political institutions in explaining social spending in developing countries, these results suggest that the relationship is misspecified in models that try to explain the level of social spending. Perhaps the dispersion of decision-making authority does not consistently and accurately predict the level of social spending in developing countries because institutions themselves are better predictors of the amount of change in a system rather than the direction of the change. In order to test this argument, the following section presents results of an alternative specification of the relationship between democratic political institutions and social spending.

#### *Results for social spending change and democratic institutional and partisan veto players*

As suggested above, theory and empirical research both suggest that political institutions shape *both* the expansion and the retrenchment of social policies. In particular, fewer institutional veto points and fewer partisan veto players *together* are likely to result in more policy change (Tsebelis 2002). If such political constraints by veto points and players equally limit increases *and* decreases in social spending, then the size and significance of the effect of political constraints will be ambiguous in the models of levels of social spending where effects on both increases and decreases in the dependent variable cancel each other. In order to test whether more political centralization (or joint decrease in the number of institutional and partisan veto players) increases the pace of changes in social spending commitments, *social spending change* (or the absolute value of the first-difference change in the level of spending) is modeled. The same tests for serial correlation were performed on the models of social spending change, and in no instance were the errors autocorrelated. These models are estimated using the lagged first differences of the independent variables, with fixed country effects. In the results for these models, the effect of the interaction between democracy and political centralization should be strong and positive, indicating that more centralization results in more spending change. The results for these models are presented in Table 3.

[Table 3 here]

The results for the models of social spending change provide consistent evidence that as political centralization increases, the likelihood of spending change increases. The effects of political centralization are positive across all the estimated models and are often statistically

significant.<sup>15</sup> In other words, as the number of institutional and partisan veto players in democracies decrease, the amount of spending change increases. The most change in spending for all types of social spending is in democratic regimes with the highest political centralization (see Figure 4). The results confirm our general understanding of patterns of social spending; social spending commitments are relatively stable and changes are modest. Public social security and welfare spending are the most likely to experience large annual changes in spending commitments.

[Figure 4 here]

Table 3 also presents results for models that include interactions between political centralization and the globalization variables. In nearly all instances, the interactions between political centralization and globalization measures are not statistically significant, in part due to the high collinearity among political centralization, the globalization measures, and the interaction terms. The interactions indicate that spending change varies according to whether markets are opening or closing and the level of political centralization.<sup>16</sup> In substantive terms, political centralization is a more important determinant of the amount of social spending change than any of the forms of globalization, even when interactions between institutions and globalization are modeled. Based on the amounts of change predicted by the models including the political centralization and market openness interactions, extremely centralized democracies are likely to experience twice as much change in all types of social spending than democracies with the least amount of centralization in the sample, at all levels of economic integration. At the same time, adjusting the amounts of capital flows, trade and net FDI from rapid closing of markets (the fifth percentile), no change in market openness (zero change), and rapid opening of markets (the ninety-fifth percentile) has little effect on the predicted amount of social spending change, even when the interaction between market openness and political centralization is taken into account.<sup>17</sup> Together, these results suggest that even though globalization may create pressures for social spending change, the amount of change in middle-income democracies is ultimately driven by domestic political institutions and particularly the extent to which domestic political institutions centralize decision-making and prevent veto players from exercising a veto.

## Implications and discussion

The preceding analysis has demonstrated that globalization and domestic political institutions help determine government commitments to social spending, and both sets of factors can have diverse impacts on different types of social spending. Trade integration, which is thus far much more extensive than financial integration in middle income countries, leads to increased investment in public education and health care and to reductions in compensatory social insurance and welfare spending. These results suggest that the responses to trade integration in middle-income countries leads to more investment in human capital to maintain competitiveness in world markets. Simultaneously, trade integration and increased competition also creates pressures to reduce social security and welfare expenditures, which are often considered to hurt

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<sup>15</sup> Political centralization is collinear with democracy and with the political centralization and globalization interaction terms, which affects the statistical significance of all collinear terms.

<sup>16</sup> This is suggested by the changes in direction (or sign) in the coefficients for the interaction terms compared to the globalization figures alone.

<sup>17</sup> Graph of the predicted effects available upon request.

competitiveness. These effects are even more pronounced in authoritarian regimes, where decision-making is more centralized and isolated from social pressures, than in democracies. Though democracies tend to invest more in human capital than comparable authoritarian regimes in relatively closed markets, democracies that are highly integrated into global markets invest less in human capital than open-market authoritarian regimes. The results presented here provide mixed support for arguments regarding the effects of financial integration on social spending. Increased capital flows tend to be associated with increases in all types of social spending, especially in democracies, contrary to expectations. Theory suggests that governments sensitive to private capital flows will try to reduce government expenditures to appease foreign investors. Perhaps the results reflect the decision of middle-income countries to maintain social spending, despite increased capital openness, for the associated benefits of economic growth, competitiveness and social stability. Increased foreign direct investment is associated with increased investment in human capital in authoritarian regimes and democracies, and reductions in social security and welfare spending in democracies. These results are consistent with expectations that governments will invest in human capital and reduce social security expenditures in order to attract or appease foreign direct investors. Both authoritarian regimes and democracies pursue the same social spending agenda as net foreign direct investment increases.

The preceding analysis also suggests that domestic political institutions in democracies sometimes affect the levels of social spending but often not in ways consistent with theoretical expectations. Though a larger number of political parties in the legislature is associated with higher levels of spending on health care and social security, the number of political parties in the legislature has little effect on the level education expenditures. It is not clear why inclusive electoral institutions should benefit health and social security spending but not education. Likewise, the dispersion of decision-making authority among institutional veto players has little ability to consistently explain the levels of spending on education, health, and social security. Powerful executives do not automatically translate into larger social spending budgets, and federal systems do not necessarily invest more in education, health, or social security. Political institutions in developing countries do not seem to automatically translate into certain levels of social spending, as they do in the industrialized democracies.

While political institutions may not be useful for predicting the level of spending likely in developing democracies, political institutions do shape probability that governments will change commitments to social spending. When political institutions centralize decision-making and provide few institutional and partisan veto players, governments are more likely to adopt larger annual changes in all types of social spending budgets. When executives have control of the legislature and there are few political parties in the legislature, the likelihood of larger changes in budget commitments increases, controlling for economic context. Even where globalization would produce a need for a new level of education, health or social welfare spending, the ability of democratic governments to adjust their commitments to social programs is constrained by the structure of domestic political institutions. Furthermore, the differences between democracies with few and many institutional and partisan veto players are substantively more important than differences due to changes in economic integration. The amount of annual change possible is best predicted by the political institutions, rather than economic globalization.

The analysis presented here also leaves several important questions unanswered. For those familiar with the rich empirical work on social welfare in OECD countries, the omission of measures of organized labor density, social corporatism, or social democratic party strength will be particularly troubling (Stephens 1979; Huber, Ragin, and Stephens 1993; Boix 1998; Garrett 1998; Huber and Stephens 2001). The organizational strength and capacity of organized labor and corporatist institutions of interest representation have clearly played an important role in the development of the welfare state (Stephens 1979; Huber, Ragin, and Stephens 1993) and help explain the resistance to globalization pressures in some instances (Boix 1998; Garrett 1998; Hicks 1999; Huber and Stephens 2001; Swank 2002). Unfortunately, comparable cross-national measures of labor organization, corporatism, and social democracy are not available for developing countries.<sup>18</sup> Likewise, partisanship of democratic governments should matter. Social democratic and Christian democratic governments should spend more on welfare than conservative governments, for instance (Huber, Ragin, and Stephens 1993; Boix 1998; Hicks 1999; Huber and Stephens 2001). Again, the dearth of available data precludes the testing of such relevant hypotheses in the developing world.<sup>19</sup> Theoretically, the partisanship of government should explain part of the variation in the levels of social spending found in developing countries, even if political institutions will still constrain the extent to which political parties are able to implement their preferred level of investment in human capital or redistributive social welfare spending. Until such data are collected systematically, explanations of social spending in the developing world are likely to be incomplete. Clearly globalization and political institutions create both opportunities for governments in developing countries to invest in human capital or constraints on social security and welfare spending, but as important as they are, those are only part of the answer to the puzzle.

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<sup>18</sup> See Rudra (2002) for an attempt to construct a substitute measure for labor power in the developing world. Though the measure apparently performs similarly to measures of labor corporatism, it is better conceived of as a measure of broad labor market structure.

<sup>19</sup> See Kaufman and Segura (2001) for a admirable attempt to overcome this data problem for Latin America.

**Appendix: Developing countries included in analysis (n=49)**

Albania	Hungary	Poland
Argentina	Iran	Romania
Bahrain	Jamaica	Russia
Barbados	Kazakhstan	Seychelles
Belarus	S. Korea	Slovak Republic
Bolivia	Latvia	South Africa
Brazil	Lebanon	Sri Lanka
Bulgaria	Lithuania	St. Kitts & Nevis
Chile	Malaysia	Syria
Colombia	Maldives	Thailand
Costa Rica	Malta	Tonga
Croatia	Mauritius	Trinidad & Tobago
Czech Republic	Mexico	Tunisia
Dominican Republic	Morocco	Turkey
Egypt	Panama	Uruguay
Estonia	Paraguay	Vanuatu
Guyana		

**Table 1: Levels of social spending and political regime type, 1980-1999**

	Education		Health		Social security & welfare	
Dependent variable $t-1$	0.924*** (0.020)	0.927*** (0.020)	0.954*** (0.019)	0.950*** (0.020)	0.948*** (0.020)	0.948*** (0.020)
Democracy $t-1$	0.008 (0.050)	0.149* (0.091)	0.046 (0.042)	0.105* (0.073)	0.082 (0.085)	0.383* (0.189)
Capital flows $t-1$	0.084* (0.057)	0.075* (0.057)	0.090 (0.095)	0.058 (0.091)	0.141* (0.102)	0.148* (0.107)
Trade $t-1$	0.090 (0.104)	0.169* (0.121)	0.147* (0.084)	0.275** (0.112)	-0.126 (0.151)	-0.043 (0.212)
Net FDI $t-1$	0.940 (1.034)	1.066 (1.855)	0.768 (1.045)	-1.645 (2.064)	0.776 (2.257)	4.232 (4.069)
Dem* Capital flows $t-1$		0.070 (0.237)		0.395 (0.443)		0.191 (0.320)
Dem*Trade $t-1$		-0.194* (0.145)		-0.179* (0.137)		-0.316 (0.264)
Dem*Net FDI $t-1$		-0.653 (2.279)		2.495 (2.514)		-5.681 (4.914)
Log GDP per capita $t-1$	-0.004 (0.013)	-0.009 (0.014)	-0.014 (0.012)	-0.019* (0.011)	0.038* (0.025)	0.029 (0.024)
GDP growth $t-1$	0.542 (0.522)	0.456 (0.507)	0.000 (0.549)	-0.050 (0.556)	0.232 (0.856)	0.021 (0.851)
Development aid $t-1$	1.033 (0.835)	0.879 (0.847)	-0.327 (0.754)	-0.519 (0.708)	1.550 (1.556)	1.425 (1.551)
Debt service $t-1$	0.189 (0.193)	0.156 (0.196)	0.098 (0.142)	0.121 (0.147)	-0.117 (0.419)	-0.206 (0.437)
Population under 14 $t-1$	18.572 (42.248)	14.612 (42.451)				
Age dependency ratio $t-1$			-10.839 (18.187)	-13.233 (17.697)		
Population over 65 $t-1$					7.187** (2.906)	7.236** (2.921)
Intercept	0.050 (0.222)	0.029 (0.219)	0.063 (0.192)	0.051 (0.185)	-0.182 (0.172)	-0.236* (0.176)
R <sup>2</sup>	0.904	0.905	0.939	0.940	0.970	0.970
Mean VIF	1.51	3.24	1.49	3.18	1.91	3.48
N	450	450	451	451	454	454

\*  $p < .100$ , \*\*  $p < .01$ , \*\*\*  $p < .001$  one-tailed test. Robust standard errors in parentheses.

**Table 2: Levels of social spending and various domestic political institutions, 1980-1999**

	Education	Health care	Social security & welfare
<b>Inclusive electoral institutions (hypothesized effect)</b>			
Proportional representation (positive)	Negative	<b>Positive*</b>	<b>Positive*</b>
Effective number of political parties (positive)	Negative	<b>Positive*</b>	<b>Positive**</b>
<b>Dispersion of decision-making authority (hypothesized effect)</b>			
Unified government (positive)	Negative	Negative	Negative**
Executive control of legislature (positive)	<b>Positive*</b>	Negative	Negative
Federalism (negative)	<b>Negative</b>	Positive	Positive

Cells summarize results for 15 separate OLS regressions with robust standard errors.

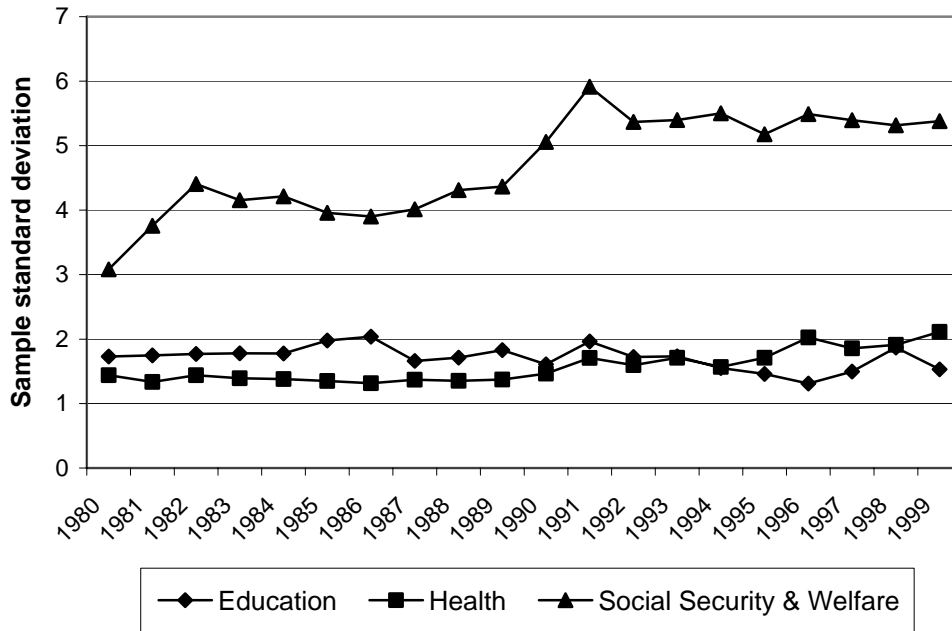
Independent variables for each model include: lagged dependent variable; democracy<sub>t-1</sub>; capital flows<sub>t-1</sub>; trade<sub>t-1</sub>; net FDI<sub>t-1</sub>; Log GDP per capita<sub>t-1</sub>; GDP growth<sub>t-1</sub>; development aid<sub>t-1</sub>; debt service<sub>t-1</sub>; beneficiary population<sub>t-1</sub>; and an interaction between democracy and the political institution listed in the cell. Only one institution is included in each equation due to colinearity. \* p < .100 and \*\* p < .010, one-tailed test.

**Table 3: Social spending change and the effect of globalization and political centralization, 1980-1999**

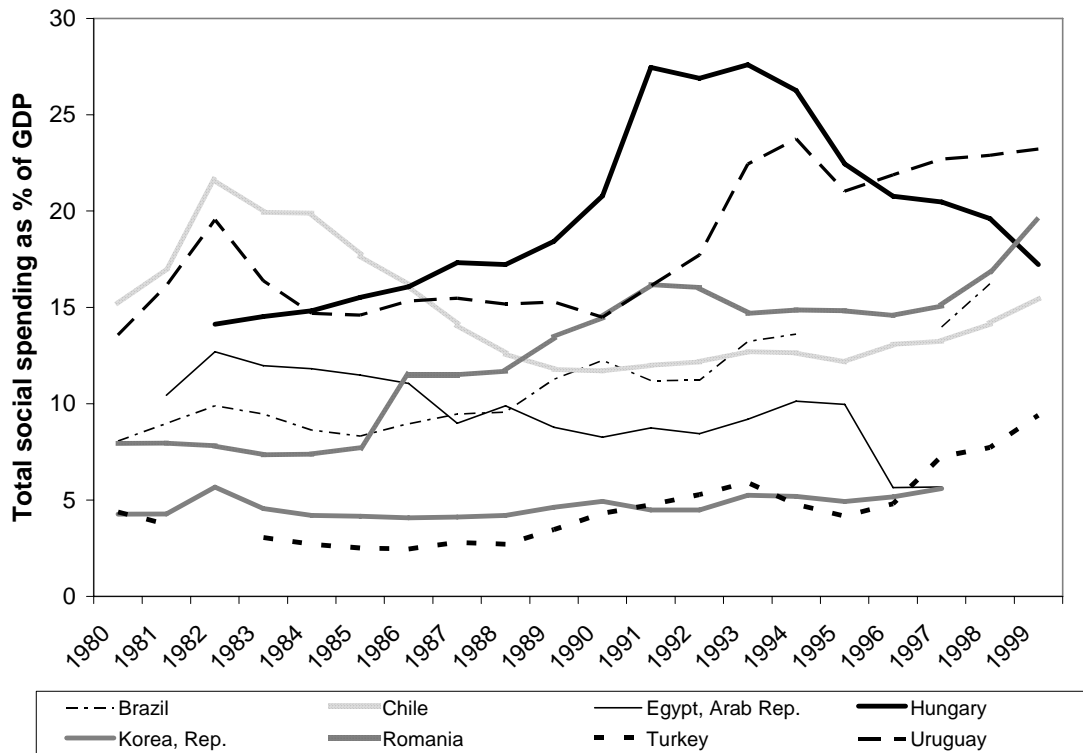
	Education spending change			Health spending change			Social Security spending change		
Political centralization <sub>t-1</sub>	0.445** (0.169)	0.286* (0.171)	0.146 (0.176)	0.307* (0.175)	0.090 (0.168)	0.086 (0.167)	0.346 (0.370)	0.205 (0.313)	0.173 (0.316)
Democracy <sub>t-1</sub>	-0.208* (0.096)	-0.127* (0.096)	0.039 (0.116)	-0.136* (0.098)	0.005 (0.107)	0.003 (0.108)	-0.259 (0.253)	-0.393* (0.242)	-0.380* (0.241)
GDPgrowth <sub>t-1</sub>	-1.369**** (0.351)	-1.093** (0.365)	-0.479* (0.263)	-1.113** (0.370)	-0.474* (0.240)	-0.484* (0.252)	-0.287 (0.561)	0.667 (0.526)	0.691 (0.546)
ΔK flows <sub>t-1</sub>		-0.045* (0.031)	-0.060 (0.077)	-0.060 (0.077)	0.065* (0.039)	-0.003 (0.076)		0.049 (0.082)	0.072 (0.206)
ΔTrade <sub>t-1</sub>		0.059 (0.167)	0.047 (0.179)		0.210 (0.187)	0.118 (0.148)		-0.539* (0.380)	-0.330 (0.360)
ΔNet FDI <sub>t-1</sub>		-0.119 (1.144)	2.067 (1.613)		0.100 (1.341)	-0.729 (1.377)		-1.313 (2.600)	-6.199 (5.558)
Political centralization* ΔK flows <sub>t-1</sub>			0.016 (0.089)			0.112 (0.090)			-0.010 (0.207)
Political centralization* ΔTrade <sub>t-1</sub>			0.062 (0.543)			0.434 (0.766)			-0.994 (1.333)
Political centralization* ΔNet FDI <sub>t-1</sub>			-5.362* (3.404)			1.940 (3.391)			12.298 (10.836)
ΔDevelop-ment aid <sub>t-1</sub>		0.971 (0.961)	1.067 (0.962)		0.095 (1.304)	0.098 (1.288)		-1.274 (2.400)	-1.597 (2.488)
ΔDebt service <sub>t-1</sub>		0.078 (0.187)	0.076 (0.187)		0.150 (0.151)	(0.145) (0.152)		-0.020 (0.563)	-0.021 (0.567)
ΔPopulation < 14 <sub>t-1</sub>		730.214 (754.480)	775.947 (753.118)						
ΔAge dep. ratio <sub>t-1</sub>					-146.289 (141.687)	-135.596 (137.094)			
ΔPopulation > 65 <sub>t-1</sub>								17.047 (48.659)	18.169 (49.059)
R <sup>2</sup>	0.2899	0.2744	0.2774	0.3077	0.3345	0.3377	0.2922	0.3258	.3301
N	492	438	438	493	439	439	496	442	442

\* p < .100, \*\* p < .01, \*\*\* p < .001 one-tailed test. Fixed country effects. Robust standard errors in parentheses.

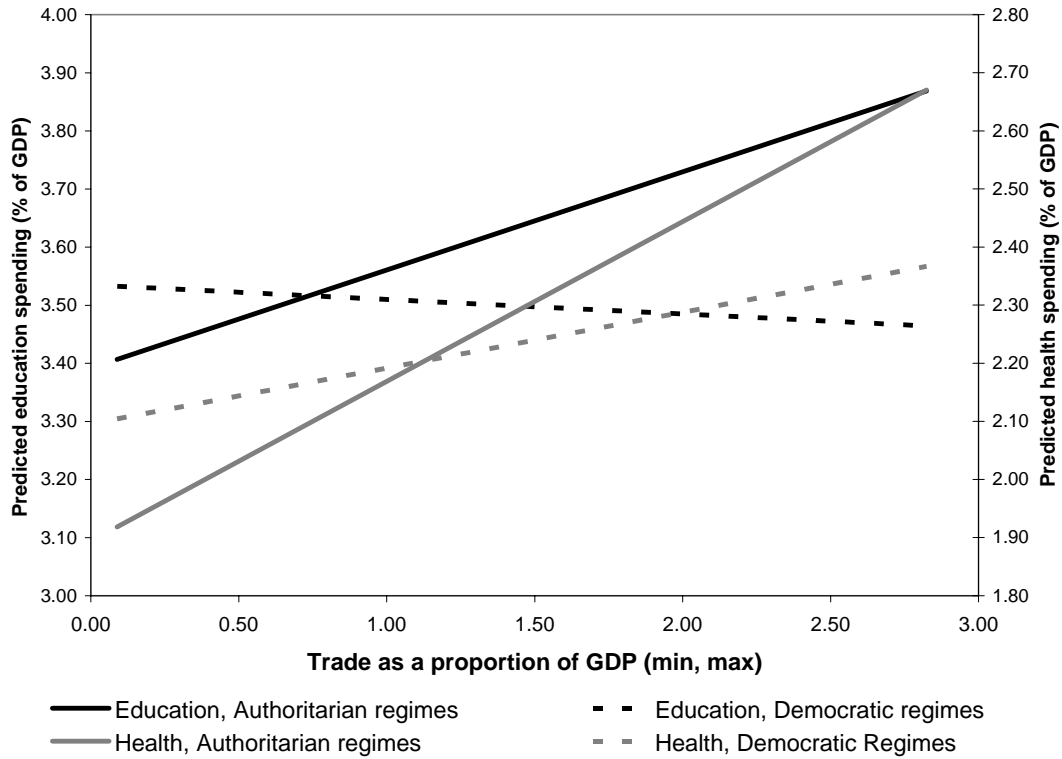
**Figure 1: Variations in social spending in developing countries, 1980-1999**



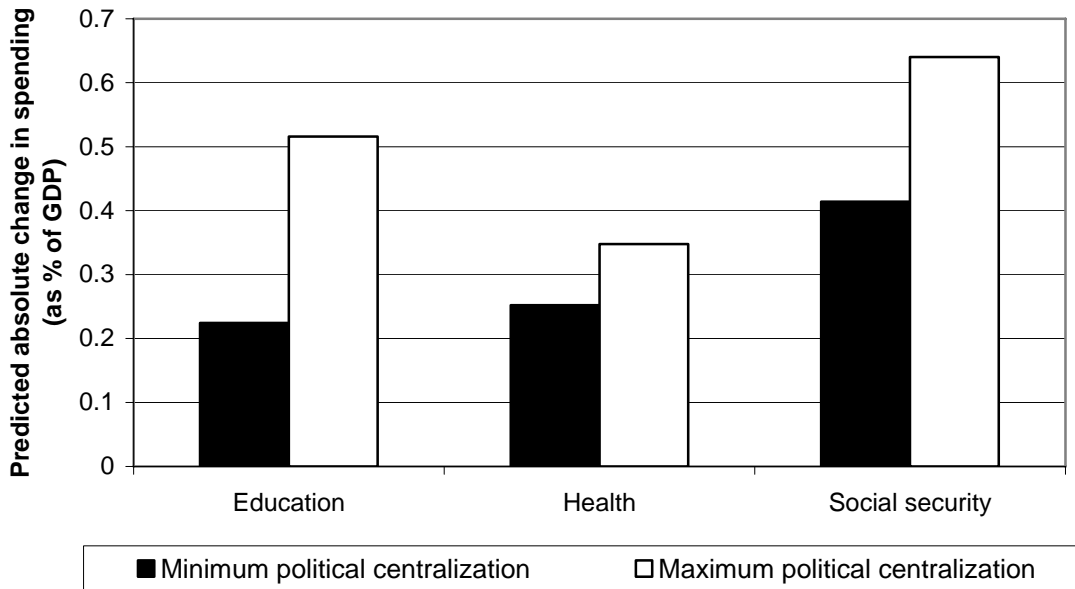
**Figure 2: Total social spending in a sample of developing countries, 1980-1999**



**Figure 3: Predicted level of public education and health care spending and trade**



**Figure 4: Predicted absolute changes in public education, health, and social security and welfare spending**



Predictions based on minimum models presented in Table 3. Control variables set to their means.

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