"Development Strategies and Social Spending"

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Abstract

This paper establishes a theoretical framework linking economic strategies in the developing world to the emergence and evolution of distinct social spending regimes. In doing so, the paper has three aims: First, to identify structural factors affecting the basic contours of the developmental strategies pursued in the post-War period; second, to link key features of developmental capitalism to the birth and development of social spending regimes; and third, to examine the developmental implications of those social spending regimes in an era of opening international markets. Building on recent research in development economics and on OECD research on the affinities between varieties of capitalist development and welfare states, we present an informal model based on the fixed factor approach to political economy. In the model, land, labor and capital have preferences over the initial choice of development strategies conditional on four factors: domestic market size, the relative abundance/scarcity of labor, inequality, and the openness of the international economy. These factors combine to influence the openness of the development strategy. The development strategy then shapes the preferred *type* of social spending (redistributive vs. human capital) as a function of the demands the strategy places for particular kinds of labor markets and factoral bargaining over social policy. Preliminary empirical analysis of data from the 1960s and 70s finds support for the model, showing the impact of these factors in shaping social spending regimes in the developing world. We then go on to show how these social spending regimes have affected developmental trajectories over the last 20 years in the context of globalization. Overall, the results suggest that economic policies in the 1960s and 1970s had important implications for the outlines of social policy and that those early outlines are more important than "globalization" in shaping contemporary social policy.

There is little research on social spending *regimes* in the developing world. The conventional wisdom holds that redistributive spending in such contexts is ad hoc and impervious to generalization. Though some recent research has challenged this notion by showing systematic relationships between year-on-year changes in types of social spending and globalization, we know little about how fundamental approaches to capitalism and social policy shape each other in non-OECD contexts. This paper, therefore, has three aims: First, to identify structural factors affecting the basic contours of the developmental strategies pursued in the post-War period; second, to link key features of development strategies to the birth and development of social spending regimes; and third, to examine the developmental implications of those social spending regimes in an era of opening international markets..

Building on recent research on inequality and redistributive politics as well as narrower work on OECD welfare states, we present a theoretical model in which land, labor and capital bargain initially over the overarching shape of a development strategy, defined here with regards to its internal vs. external orientation. The preferences of land, labor and capital over the development strategy are shaped by four factors: domestic market size, the relative abundance of labor, rural inequality, and the openness of the international economy. Once a strategy is chosen, we suggest that the chief challenge each nation faces is the organization of a labor force appropriate to their developmental projects. Social policy becomes a tool for the creation of such labor markets, and the choice of the development strategy and ongoing factoral bargaining shape countries' social policy regimes. While inward-oriented developmental projects required large, densely organized, highly insured industrial workforces aimed at production for domestic markets, export-oriented strategies were premised upon flexible, well-educated workforces. These dynamics are manifested empirically in divergent priorities for insurance oriented vs. human capital oriented types of social spending. Preliminary empirical analysis of data beginning in the 1960s finds support for the informal model, showing the impact of these factors in shaping development strategies and three distinct social spending regimes in the developing world. We then go on to show how these spending regimes have affected developmental trajectories over the last 25 years in the context of increasing economic openness, especially growth in world trade. We have two key findings in this regard. First, insurance-heavy spending regimes have performed poorly in the face of opening markets. Second, the initial differences across spending regimes at the beginning of the era of open markets are much more important

in shaping contemporary social policy than the globalization variables so prevalent in much contemporary research.

The results have theoretical implications for several literatures. First, they help answer ongoing questions about why apparently similar countries chose divergent economic policies over the last 50 years. Second, the findings suggest the extent to which the political and economic logics underpinning the development of social policy regime shape contemporary social policy in much of the world. Indeed, the substantial cross-national differences in spending priorities that emerge from distinct economic strategies swamp the effects associated with a globalizing international economy, which heretofore have been the focus of research on social policy in the developing world. Third and finally, the research helps explain why some countries have pursued substantial investments in growth promoting human capital while others have not. The economic growth and development economics literatures suggest a strong tie between human capital and development prospects, but to date we have not had a convincing explanation as to why countries would vary systematically in investing in human capital.

The rest of the paper is organized into four sections. In the following, we briefly review the OECD social policy literature and assess its relevance to the developing world. In doing so, we suggest the need for a theoretical account of the nexus between capitalism and social policy in the developing world that mirrors developments in the OECD literature. We also review recent research on social policy in the developing world, emphasizing the advances made in recent research but also the limitations of an approach that seeks to explain year-on-year changes without accounting for divergent social spending starting points across countries. In the second section we present our argument and derive hypotheses. In the third section we describe our data and methods in addition to presenting our results. The final section concludes with the implications of our findings and suggestions for further research.

Capitalism, Development and Social Policies

Research examining the welfare states of a handful of wealthy nations dominates the literature on capitalism and social spending. It is a body of work rich in empirical associations (between, for instance, electoral institutions and social spending, trade openness and the size of government, and the strength of left-labor alliances and redistribution), though a serious theoretical divide separates those that emphasize the

centrality of class-based (Huber, Stephens and Stephens; Korpi 1983) as opposed to sector-based (Mares 2003; Iversen 2005; Hall and Soskice 2001) conflicts in the birth and evolution of the welfare state. Both such bodies, however, find inspiration in Esping-Andersen's (1990) mapping of welfare regimes onto general approaches to capitalism. Irrespective of whether liberal, Christian democratic or social democratic welfare states are rooted in class conflict or distinctive varieties of capitalism, the close link between modes of capitalist production and redistribution is well established in the literature.

No such unifying theme runs through the truncated literature on social spending in the developing world. Moreover, a number of differences suggest that while we can take substantial inspiration from the literature on the OECD, there are limits to the degree that we can simply transplant those arguments. While large welfare states are associated with small, open, trade dependent economies in the OECD, the opposite holds in the developing world where the highest levels of social spending are associated with large, historically closed economies. Additionally, the contemporary literature on OECD welfare states assumes that struggles over market regulation and the distribution of public spending occur in the context of democratic governance; many social spending regimes in the developing world developed under authoritarian auspices. In this regard, the emergence of social spending in developing nations mirrors the birth of some OECD welfare states. As Esping-Andersen notes of the hypothesis linking democracy to the emergence of welfare states, "the thesis confronts the historical oddity that the first major welfare-state initiatives occurred prior to democracy and were powerfully motivated by the desire to arrest its realization."[1] An important implication of this argument is that models relying on the *electoral* strength of the left (e.g., power resources) are likely to provide limited traction in explaining the emergence of social spending regimes in the developing world.[2] Though we concur with existing evidence relating democracies to the *amount* or *intensity* of social spending, in many cases it was autocracies that established broad social spending *priorities*. As we will show, these priorities show substantial stability through time. Finally, some of the aspects of democratic politics that influence redistribution in the OECD seem not to in the developing world. There is no obvious relationship, for instance, between the proportionality of electoral systems and welfare effort in the developing world, despite a strong positive association in the OECD (Alesina, Glaeser and Sacerdote 2001).

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[1] 1990: 15.

That contemporary social spending in the developing world seems not to follow patterns established in the OECD has lead to confusion. Indeed, a common theme in research on the equivalent of the welfare state in the developing world is that redistribution in such settings is less coherent, more idiosyncratic and less amenable to theorizing than in the OECD. Such interpretations are probably the result of the difficulty in cumulating case studies on the impact of, say market reforms, on social spending or inequality, though it is worth noting that this is a sentiment voiced by some stymied by the quest for regularities in large-n data sets as well (Rodrik 1998). A recent spate of research has challenged the notion that social spending in the developing world is impervious to generalization by showing systematic relationships between globalization and year-on-year changes in types of social spending (Kaufman and Segura-Ubiergo 2001; Rudra 2002; Rudra and Haggard 2005; Wibbels 2006). A related set of papers (Ahlquist forthcoming; Mosley 2003; Sobel 1999) documents how developing countries tend to face capital markets that are more "disciplinarian" in approaching poorer countries than richer ones, more rapidly punishing poorer countries for spending and inflation outcomes that investors find undesirable. The emerging consensus seems to be that developmental welfare states are more constrained by trends in the global economy than their counterparts in the OECD but that some areas of social spending are more vulnerable than others.

Though important, such research is limited. Most importantly, the underlying complexion of spending across countries on the eve of market opening has been a black box. The analysis of annual changes in expenditures tells us nothing about how fundamental approaches to capitalism and social spending shape each other in developing nations. Put differently, while it is interesting that substantial economic opening has measurable, if modest, effects on social spending, such research does not explain why countries vary so substantially in their social spending priorities before the ongoing wave of market liberalization. In focusing on the recent evolution of social spending, such research provides no insight into why countries such as Brazil, Malaysia and Syria differed so sharply in their spending priorities on the eve of the debt crisis, despite reasonably similar per capita incomes and demographics (see Figure 1). As we will show, these cross-national differences in spending regimes that pre-date liberalization have a much stronger impact on contemporary social policy than the imperatives of international markets which have been the focus of recent scholarly attention.

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[2] As many have noted, moreover, the traditional left-right continuum works less well for many developing nations anyway.

Figure 1 Here

Finally, it is worth noting that social spending priorities have important implications for developmental trajectories. From the standard Barro growth model to more recent work on endogenous growth, it has become a truism in the political economy literature that human capital accumulation has important implications for developmental outcomes ranging from economic growth to the evolution of inequality (cites). In the developing world, the conventional wisdom holds that the impressive outcomes in the East Asian newly industrialized countries resulted, in part, from systematic investments in human capital, and that the developmental failures in sub-Saharan Africa and elsewhere reflect a failure to make similar such investments. Impressive correlations aside, we do not have compelling accounts as to why governments would systematically choose to make investments in human capital at the expense of, say, social security. Indeed, even after the developmental advantages of human capital investments became clear, countries across the developing world have continued to pursue social policy regimes with wildly divergent priorities. Here, the literature on redistribution offers contending perspectives, and hence, a puzzle. In the first camp, redistribution is inefficient and the source of slower growth in unequal societies (a la Meltzer –Richard 1981). In the second camp, markets for something important are incomplete, implying that redistribution can be welfare enhancing *on average* (Perotti 1993; Benabou 2000; Bourguignon and Verdier 2000). While this literature has looked at redistribution in the social insurance sense *or* in the growth enhancement sense, it has not explained why governments would choose one, the other, or some combination of the two. In linking such choices to outcomes, we aim to make a broader contribution to the literature on the political economy of inequality.

To sum up, there are three major shortcomings in current work on development and social spending in the developing world. First, there is no generalizable account as to why apparently similar countries pursued more or less open development strategies in the post-World War II era. Second, there is no compelling theoretical story linking particular modes of developmental capitalism to social spending regimes. What literature does exist on social policy has focused on the relationship between the process of market reforms, international market integration and year-on-year changes in spending categories rather than on the factors shaping fundamental social policy regimes. We provide an explanation both for why countries chose different economic strategies in the period after World War II and how those strategies shaped the emergence of social

spending regimes. Third, existing research provides limited insight into why countries would choose to engage in productive rather than unproductive forms of redistribution and vice-versa. We address these shortcomings by laying out an explicit theoretical framework endogenizing the initial choice of development strategies and showing how these choices had important implications for the broad contours of social policy as they emerged across the developing world in the post-World War II era.

The Argument

We present our argument in three steps. First we justify our contention that one of the chief challenges of post-war development is the organization of appropriate labor market incentives. Next we explore how internal macro-level structural conditions produce one of three development strategies: import substitution (ISI), export-oriented (EO), or mixed models that combine commodity exports with modest ISI policies. We informally discuss a three factor model in which the preferences of land, labor and capital vis-à-vis development strategies are conditioned by the size of the internal market, inequality in rural landholdings, the relative abundance of labor, and the openness of the international economy. Third, we suggest that development strategies impact the returns to factors and shape the preferences of land, labor and capital with regards to two types of social spending—insurance and human capital. The resulting social policy regime fosters the emergence of a labor force (and market) complementing the development strategy. Indeed, we argue that social policy is integral to the development project.

Third-wave developers and the organization of labor markets

Our starting point is the contention that the primary post-World War II development challenge is the mobilization of a work force appropriate to capitalist accumulation, given the factor endowments and state of the international economy at the time. We are not the first to emphasize the critical importance of labor markets to capitalism. Despite the centrality of capital accumulation to Gerschenkron's account of development, he also argues that "…the overriding fact to consider is that industrial labor, in the sense of a stable, reliable, and disciplined group that has cut the umbilical cord connecting it with the land and has become suitable for utilization in factories, is not abundant but extremely scarce in a backward country. Creation of an industrial labor force that really deserves its name is a most difficult and protracted process."[3] Likewise, Weber suggests

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[3] (Gershenkron 1967): p.9.

that the distinctive feature of capitalism as it emerged in what became the advanced industrialized democracies was in the organization of labor markets. He writes that "in modern times the Occident has developed…a very different form of capitalism which has appeared nowhere else: the rational capitalistic organization of (formally) free labour."[4] Polanyi (1944) and Esping-Andersen (1990) also emphasize the complementarities among the creation, standardization, and regulation of the labor force during the emergence of contemporary capitalism.

In Esping-Andersen's (1990) classic account of welfare regimes in the OECD, modern capitalism requires the presence of workers willing to sell their time, thereby "commodifying" labor. In advanced countries, wage labor markets became the dominant source of income for those not owning capital prior to the development of comprehensive social policies. Risk-averse workers employed political and industrial tactics to redistribute wealth and risk in an effort to "decommodify" labor. Indeed, it was in large part the demands of "commodified" labor for security against market volatility that underpin both sectoral (varieties of capitalism) and factoral (power resources) accounts of the rise of the welfare state. The challenge of post-World War II development in today's emerging markets reverses this order. In many cases, large pools of un- or weakly commodified labor persisted well past the middle of the 20th century. In the context of slowly opening international markets, the skill requirements in even basic manufacturing, and incipient political pressures from both elites and the poor in the aftermath of independence from colonial powers, the key challenge for policy makers was the creation of wage labor markets consistent with their developmental strategies.

Developing wage labor markets is more than just declaring them so. Potential workers often had recourse to subsistence options in the countryside; they must be provided incentives to choose market production over subsistence, either willingly or otherwise. Workers must also develop the skills to function in a wage economy, including basic literacy and numeracy, and the ability to function in a money-based system. Finally, workers' wages must be sufficient to fuel a domestic economy. Thus we view the development challenge as the organization of a market for wage labor in ways that provide incentives for certain types of investment by (domestic or foreign) capital owners given the endowments and initial levels of inequality that policy makers

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[4] Weber 1958: p.21. He goes on to suggest that "Labour must, on the contrary, be performed as if it were an absolute end in itself, a calling. But such an attitude is by no means a product of nature. It cannot be evoked by low wages or high ones alone, but can only be the product of a long and arduous process of education. To-day, capitalism, once in the saddle, can recruit its labouring force in all industrial countries with comparative ease. In the past this was in every case an extremely difficult problem (p.62)."

have to work with. We argue that governments choose social policies as part of the attempt to foster the emergence of a labor force with skills and incentives congruent with the developmental strategy.

From Endowments to Development Strategies

Gereffi defines a development strategy as "sets of government policies that shape a country's relationship to the global economy and that affect the domestic allocation of resources among industries and major social groups."[5] Consistent with this definition the extensive development literature has identified a number of coherent, post-war economic strategies. Less well recognized is that the organization and regulation of labor markets was a key element of these strategies. In some contexts, import substituting economic strategies created relatively privileged working and middle classes that could serve as both the labor input for and the ultimate consumers of domestic industrial production. In such cases, policy makers inflated urban incomes by limiting the arbitrage of urban and rural wages, maintained overvalued exchange rates, and developed social policies that served to protect the position of the privileged, emergent working and middle classes. In export-led developers (whether industrial or primary product exporters), on the other hand, policy-makers created much more fluid labor markets, encouraged the equalization of urban and rural wages, and developed social policies emphasizing worker productivity at the expense of protection or insurance. In many such cases, capital and the state actively repressed demands for insurance-oriented spending while supporting productivity boosting spending on education and health. Finally, a third set of countries followed strategies that involved a mix of the previous two. Some such cases were relatively small economies that pursued limited versions of ISI financed by the export of highly valuable commodity exports (bauxite in Jamaica, copper in Zambia, oil and phosphates in Tunisia). Other mixed cases pursued ISI policies, but they had such large pools of surplus labor that workers were unable to extract the extensive insurance policies that one sees in the quintessential internally-oriented cases. These mixed cases evince some insurance spending (mostly for white collar and state-sector workers) and modest human capital spending (though oriented toward privileged sectors as in, for instance, spending on university education).

But why were different strategies chosen in different places? Our account begins with a three factor model in which land, labor and capital bargain over the development strategy, defined here with regards to the

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[5] Gereffi 1990: 23.

openness of the domestic economy. Consistent with Rogowski's (1987) classic work, we assume that the greater the share of national income directed to a factor, the greater the political power accruing to that factor, that factors seek to maximize their income, and that there is a tradeoff between labor and land abundance (in other words, a country cannot be both labor and land abundant). We further assume that the political process mirrors a utilitarian social welfare function that translates income shares into policy. We also make two additional assumptions consistent with the cases and time period we are examining. The first assumption is that capital is relatively scarce, which is consistent with the fact that we are examining developing nations. Consistent with the Hecksher-Olin theorem and the Stolper-Samuelson corollary thereof, this implies that capital will be protectionist and internally-oriented in its development strategy preference across cases.

Finally, we assume the international system is relatively closed during the period that marks the birth of most development strategies between the end of World War II and the 1970s. Of course, the actual extent of international openness varies during this period, but throughout it is relatively closed when compared with the international economy that emerges from the third world debt crisis of the 1980s.[6] With very few exceptions, the demand for particular types of labor and the resulting nature of social conflicts are strongly influenced by conditions in the international economy. In contrast to classic accounts of economic development in Western Europe which tend to emphasize the importance of domestic factors (though see Pomeranz 2000 for an exception), conditions in the international economy loom large in accounts of post War development, whether among export-led developers (Wade 1990), import substituters (Hirschman 1968; Baer 1972), or primary commodity producers (Bates 1997). The relatively closed post-war international economy has two implications for our study. First, it conditions the relative power of land, labor and capital in a society. When factors are immobile across countries, locally scarce factors benefit from a closed international economy. Thus, policy-makers initiated development strategies and their concomitant social spending regimes in an era when labor was relatively weak in labor abundant economies and relatively strong in labor scarce economies. Given that the broad strokes of social policy are quite persistent through time (something we show below), the imprint of the initial constellation of factoral power casts a long shadow over these political economies. Second, the closed international economy reduces the costs and increases the potential benefits of import-substituting policies. This

emphasis on the role of international markets in framing foundational distributive fights belies the closed economy assumption in most of the literature on inequality and redistribution.

Given these assumptions, we argue that the preferences of land, labor and capital over the orientation of the development strategy are conditioned by three factors: the size of the domestic market, the relative abundance of labor, and inequality in rural landholdings. The size of the domestic market shapes the expected returns of capital, land and labor vis-à-vis inward- vs. externally-oriented policies. Though the underlying coalitional politics inherent in our factoral approach will vary across cases, market size conditions the potential benefits to all factors from internally-oriented strategies, which are obviously harder to pull off in small markets. The larger the market, the more likely a coalition in favor of an internally oriented development strategy will emerge and impose its preferred economic policies.

The relative abundance of labor conditions its preferences over the development strategy, social strength and the subsequent capacity of labor to shape social policies in a manner consistent with its interests. Consistent with traditional factoral models of politics, where labor is abundant (and hence internationally competitive), it will prefer externally oriented development strategies. In contrast, when it is scarce it will prefer internally oriented development strategies and the protectionism they imply. The relatively closed international economy during the era of interest provided scarce labor with additional bargaining power and hurt the bargaining power of abundant labor. Given that capital is also assumed to be scarce, scarce labor implies a capital-labor coalition in favor of an internally oriented development strategy at the expense of land, which is abundant and prefers an open strategy.

Lastly, rural inequality plays a key role in defining how difficult it is to finance an internally oriented development strategy at the expense of land. As the history of import substitution makes clear, internally oriented development strategies are typically financed through high taxes on agricultural production, state controls over agricultural exports, and/or other means of extracting agricultural surplus. Where land is equitably distributed, it is relatively difficult for a capital/labor coalition to extract rural surplus for several reasons. First, as the scale of farms shrinks and their numbers increase, the cost to a protectionist capital-labor coalition of taxing the countryside increases. When landowners are few and large, the task of tax collection (or other form of

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[6] Among the countries for which we have data on the period from 1960 to 2000 (n=60), average trade dependence went

surplus extraction) becomes easier. Second, small and medium-sized landowners are more sensitive to increased costs than wealthy, large landholders. To provide an example, if a capital-labor coalition were to finance an internally oriented strategy with a 10 percent tax on rural profits, this would hit smaller farmers harder. The marginal cost of such a tax on small and medium sized farmers in greater than it is for large landholders. In contrast, when rural holdings are concentrated, they represent an attractive target for urban coalitions. This account is consistent with failed attempts at internally oriented development strategies in a case like Korea, where the equitable distribution of land facillitated a powerful collective rejection of attempts to build internal strategies at their expense. These experiences contrast with cases like Egypt or Pakistan nevermind quintessential internally oriented cases like Brazil or Chile where greater inequality made large landholders an attractive target for internally oriented strategies.

These dynamics are likely to be most important in cases that might choose either internal or external oriented strategies on the basis of having large markets but abundant labor. In these cases, the development strategy choice becomes a function of how easy it is to extract surplus from land in order to fund an internally oriented strategy. Where land was abundant (and labor scarce) and inequitably distributed, highly concentrated returns to land made openness politically unsustainable. In contrast, where land was scarce (and labor abundant) and equitably distributed, the large number of landowners were able to resist urban-biased ISI policies. In the former set of cases, countries pursued import substituting policies financed by taxes on the rural sectors while in the latter set of cases, countries with large markets pursued externally-oriented development strategies.

The combination of a closed international economy and diverse national endowments with respect to market size, labor abundance and rural inequality produce two ideal types of development strategies: internally oriented stategies and externally oriented strategies. Internally oriented developmental strategies were typically pursued in societies that had large internal markets, scarce supplies of labor and high levels of land inequality (Diaz-Alejandro 1984; Murphy, Shleifer, and Vishny 1989). As a matter of necessity, most countries with such large markets responded to the great depression with a turn inward. As Baer explains "The depression of the Thirties resulted in renewed shortages of imported goods. The fall of foreign exchange receipts from exports forced most countries…to curtail imports. The decline resulted at first in increased use of productive capacity

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from 46 percent in 1960 to 75 percent in 2000.

underutilized in the Twenties, and later in the creation of new industrial capacity."[7] Only in the 1950s and onward, however, did ISI become explicit policy in countries such as Argentina, Brazil, Mexico, Turkey, and South Africa. In these contexts, early, uneven processes of industrialization combined with labor scarcity to produce relatively high urban wages. In most such cases, moreover, high initial levels of land inequality ensured that the prospective returns of any export-promoting policies would tend to benefit a highly concentrated rural elite. Experiments in export promotion proved politically unsustainable, particularly in democratic contexts (Mahon 1992). In these settings, policy-makers confronted a post-war environment in which a large internal market combined with labor scarcity to produce urban wages high enough to support import substitution while high rural inequality made export promotion politically difficult. The policy mix was similar in most such cases: trade protection, the creation and subsidization of infant industries, overvalued exchange rates to promote the importation of capital goods, and the extraction of surplus from agricultural areas in order to finance the project.[8] The initial result in many cases was rapid industrial growth oriented toward domestic production.

The flip side of internally-oriented development strategies were externally-oriented ones. Policymakers pursued this strategy in two distinct sets of countries: large, labor abundant, and relatively equal societies that we associate with export-led industrialization and small, labor abundant commodity exporters. We begin with a discussion of the former and move on to the latter. Not all countries with relatively large markets pursued import substitution industrialization. In cases such as South Korea, Indonesia, and other East Asian NICs, policymakers abandoned early experiments with ISI in the face of persistent complaints from the rural sector. Low levels of land inequality become crucial here. Given relatively low levels of rural inequality the strong urban bias of ISI policies proved unsustainable (Booth 1999).[9] Rural sectors strongly objected to over-valued exchange rates, industrial policies that increased costs, and trade policies that limited access to external markets and imported inputs. In the face of such constraints on furthering import substituting policies, these countries pursued export-led models, despite comparatively large internal markets.

In pursuing export-oriented strategies such cases more closely approximated the policies pursued in smaller countries that were, of necessity, precluded from ISI and heavily reliant on external markets. In all such

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[7] Baer 1972:
[8] This latter policy is possible, in part, because a closed international economy weakens the small-in-number, politically regressive landholders who are export competitive.

cases, the engine of growth was export competitiveness, irrespective of whether that impact on growth was through the externalities associated with export production itself (Wade 1990; World Bank 1993) or the related capacity to import capital goods with the resulting foreign exchange (Rodrik 1995). Indeed, despite significant variance in the role of the state in shaping export incentives across agricultural exporters and export-led industrializers (ELI), they shared a reliance on external competitiveness for economic dynamism. Initially, such strategies commonly included export incentives, generally low trade barriers (with some exceptions with respect to imports), higher interest rates, and the maintenance of weak exchange rates (Rodrik 1999).

In between these ideal types of inward- and externally-oriented development strategies will lay mixed economic strategies. These mixed strategies involve more limited attempts at import substitution combined, in many cases, with an ongoing commitment to the export of valuable commodities. In most of these cases, the combination of large markets, abundant labor, and high land inequality in a context of a relatively closed international economy predisposes them toward import substituting policies. Unlike the relatively equitable export-led industrializers, higher levels of rural inequality in these mixed cases made the financing of urban-biased ISI policies at the expense of land more feasible. Nevertheless, labor in these cases was weakened by the autarkic international economy, and the sheer abundance of labor made collective action on its part very difficult, particularly during the protracted transition to urban-based policies in largely rural societies. As such, labor was unlikely to be powerful enough to extract the high levels of insurance spending that we see in more traditional ISI cases. Indeed, given the difficulty of organizing workers in the private sector in a context of significant surplus labor, the main proponents of insurance spending will be the expanding ranks of public sector workers responsible for developing and regulating import substituting policies. Thus, while these cases are unlikely to evince the extent of insurance spending as ISI cases, there should be more than in the export-led cases. A second set of mixed strategy cases are likely to be smaller countries that benefit from highly valuable commodities such as oil or minerals. In such cases, the wealth, high levels of inequality and easy commodity revenue can generate modest import substituting policies despite relatively small domestic markets. Once again, dual labor markets are likely to develop, with insurance spending among privileged workers in the public and commodity sector.

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[9] Over-valued exchange rates, it seems, were particularly unpopular among rural producers.

From Development Strategies to Social Policy Regimes

Once development strategies are chosen, they have important implications for social policy. We can think of this impact running through two factors: first, an ongoing redistributive struggle among the competing factors for government spending that impacts their relative returns; and second, the demands development strategies make for particular kinds of labor markets, which social policy becomes a key tool in creating. On the former point, where labor was scarce (and thus empowered in the context of closed international markets), it played an important role in the broad outlines of social policy. It is worth noting that the cases (think Argentina and Chile) with post-war social spending regimes most consistent with what we see in the OECD in terms of social security and labor protections are also cases that saw relatively well organized, protectionist working classes playing a substantial role in the negotiation of insurance-based social policies in the 1950s and 1960s. In contrast, where labor was abundant, the relatively closed international environment served to reduce the bargaining and organizational power of workers. The absence of working class participation in the formulation of social policies is evident in labor abundant cases as diverse as Korea, Pakistan, and Guatemala.

Internally-oriented development strategies had important implications for the interests of capital and labor vis-à-vis the distribution of social spending between insurance and human capital. Capitalists in ISI cases have two interests that bear on social spending: first, the creation of an industrial labor force (both white and blue collar); and second, the creation of a consumer base large enough to warrant production. Both of these interests were shaped by the fact that most such cases were labor scarce. In many cases, high levels of interpersonal (as opposed to rural) inequality augmented capital's preference for insurance spending. In such contexts, the creation of appropriate labor skills represented a significant investment by national governments and firms, who were interested in insuring such investments. Social security systems became the social policy of choice in such contexts. They were designed both to generate and maintain particular sets of skills in the labor market as well as to ensure a minimum of income in order to guarantee a stable level of domestic demand (Mesa-Lago 1978: 6). When combined with other, related policies, the resulting insurance-based social spending regimes were characterized by labor market protections and high wages that increased costs, of course, but in doing so ensured the size and stability of the domestic market. Given highly concentrated production markets, moreover, capital was able to pass on the costs of such programs to consumers.

The interests of capital were complemented by those of labor.[10] Indeed, the relatively closed international economy of the 1950s-1960s created a situation in which urban labor had relatively significant influence on the construction of these policies. It is noteworthy that the governments most closely associated with labor-mobilizing, import-substituting policies (Collier and Collier 1990) are also labor scarce economies. In such cases, labor's market power was maximized both as a limited, skilled input into manufacturing production and as a key consumer of the manufactured output (Mallet 1970). Thus, once established, labor in import-substituting sectors was economically and politically privileged. In most such cases, high interpersonal inequality framed labor's preference for social security spending as it sought to insure itself against the long slide down into the rest of the labor market, which was typically characterized by much lower wages. These privileged working classes cooperated with industrial elites to lobby for the creation of social regimes that included labor market rigidities, disability and (in some cases) unemployment insurance, and strong social security systems—what we call insurance-based social regimes. Mesa-Lago captures the common, stratified dynamic well when he writes of the Latin American ISI cases that "social security…has often been manipulated to gain the electoral support of a particular clientele, to legitimate a spurious political regime, and to satisfy the needs and coopt (sic) powerful pressure groups which threaten the status quo."[11] The creation and expansion of such systems responded to the underlying demands of capital and labor—capital with its concern for insuring its investment in workers and the stability of domestic demand and labor with its concern for insuring itself from much lower wages outside of the manufacturing and public sectors.

Likewise, outward-oriented development strategies had important implications for the preferences of capital and labor over social policy. When compared with the ISI cases, export-led industrialization (ELI) projects were initiated in societies with lower initial levels of inequality and labor market stratification. Capital in ELI cases had two central interests: first, the creation of a productive labor force; and second, minimizing labor costs in order to ensure international competitiveness. With regard to the first concern, the need to export resulted in a demand on the part of capital for highly productive, flexible workforces unencumbered by the costs

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[10] One can imagine labor as maximizing its expected return from current wages and its alternatives in the labor market. Where the alternatives are sufficiently poor (conditions of high inequality), it prefers spending on insurance at the expense of human capital. When the alternatives are sufficiently good (conditions of low inequality), it prefers spending on human capital that will permit increased wages in a context of an open development strategy.

[11] Mesa-Lago 1978: 3.

associated with traditional welfare states (Amsden 1989). These approaches thus show an affinity for investments in productivity increasing education and health—what we call human capital-based social spending regimes—at the expense of social security, unemployment insurance, and the like. Case study evidence from the East Asian NICs provides some support for these claims. Taiwan (Woo 1991) and South Korea (Amsden 1989), for instance, saw rapid acceleration in primary, secondary, and vocational education enrollment rates during the 1950s and 60s just as the momentum of industrialization was gathering steam. In both cases, education spending was seen as the primary means to create skilled workers that would make imported technologies work. With regards to the need to minimize labor costs, producers in these cases held minimal market share internationally and, thus, could not pass on the costs of more explicitly redistributive spending. Such concerns militated against the labor protections and high urban wages associated with ISI-type approaches to social policy. They also fostered the arbitrage between urban and rural wages, thereby fostering long-term equality. As a result of relatively low levels of inequality, labor had few incentives to pursue demands for insurance. Given the closed international economy of the 1950s-60s, moreover, labor in these labor abundant economies was in a weak bargaining position vis-à-vis capital. In most such cases, the state and private capital formulated social policy in a political context characterized by labor's exclusion.

Similar considerations are likely to shape the formulation of social policy in the smaller, export-based economies. In the few low inequality, small, trade dependent states, policies and incentives are likely to match those in the ELI cases. Equitable distribution will make the formulation of social policies advantageous to narrow constituencies more difficult and competitive constraints will limit the extent of protective social policy. Widely spread health and education spending in a case like Costa Rica would be an example. The more numerous, unequal exporters are likely to show similar spending profiles, though the politics of social policy will differ. The same wage concerns are likely to militate against extensive insurance spending. Indeed, export competitiveness in commodities is often built on docile work forces, typically with minimal skills and low wages (with the partial exception of mining on all counts). In such cases, producer power and high levels of inequality (and the accompanying political weakness of workers) combine to minimize social investments and forcibly maintain liberal labor market policies. To the extent such systems pursue social policies, they are likely to spend on health and education though the spending should be sharply oriented toward elites. This would be evidenced

in concentrating education spending at the tertiary rather than primary level, for instance. Though data is scarce

and we will be unable to make such distinctions in the large-N analysis below, it is worth noting that in a sample

of 17 small, unequal trading states for which we can find data, governments spend on average about 16 percent

as much on primary education as they do on tertiary education.[12] Even in the context of the developing world

where maldistributed education is a common problem, these numbers are striking.

Figure 2

Figures 2 provides an overview of our causal argument and outlines the factors we expect to influence

the preferences of land, labor and capital over development strategies and social policies. None of this

necessarily abstract discussion is intended to dismiss cross-national differences within nor similarities across

development strategies. It is clear, for instance, that the Egyptian and Mexican approaches to ISI were quite

different in much the same way that some have drawn attention to diverse approaches within the EOI camp.[13]

Similarly, what we today call export-led industrializers themselves pursued policies of import substitution in the

1950s, and several of the ISI cases experimented with policy reforms aimed at promoting exports in the 1960s

and 70s. Nevertheless, as the data presented below makes clear, the distinctions in development strategies had

real implications both for the underlying nature of the economy and the formulation of social policy.

From Social Spending Regimes to Contemporary Outcomes—VERY PRELIMINARY

Having explored the origins of distinct approaches to social spending regimes, we move on to study the

evolution and developmental implications of these regimes over recent decades as the global economy has

become more open. Here we focus on the impact of social spending on growth, the evolution of inequality, and

the sustainability of each spending regime itself in the face of opening international markets. In turning to the

performance of these political economies, we are interested primarily in the capacity of developmental regimes

to negotiate the demands associated with the opening of the international economy.

Turning first to growth, much ink has been spilled on the economic benefits of education and health

spending. Significant investments in human capital have been a stock explanation for the strong economic

performance of the East Asian NICs (Rodrik 1994; Woo 1990) and others have emphasized the importance of

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[12] And this figure is inflated by El Salvador, an outlier that spends 84 percent as much on primary as tertiary education. Excluding El Salvador, the average falls to 10 percent. For comparisons sake, the OECD average is around 50 percent.
[13] On the ISI cases, see Waterbury 1993. On the EOI cases, see Booth 1999.

education spending's progressivity for generating the subsequent conditions for growth and increasing returns to industrial production, driven at later stages partly by domestic demand. Later and related evidence suggests that such spending has advantageous implications for growth only when it is widely distributed, thereby allowing for the broad accumulation of human capital across society. The skill bias associated with human capital spending in such cases can contribute to rapid shifts up the ladder of comparative advantage. The standard story of increasing returns to domestic industrial production generating widespread growth and an economic takeoff (Murphy, Shleifer, and Vishny 1989; Krugman 1991) are likely to apply to the former set of cases. Where such spending is maldistributed, it can reinforce inequality which itself has negative implications for growth. Thus, above and beyond the contested growth advantages of higher initial reliance on trade,[14] we expect human capital spending regimes to be associated with stronger growth when combined with low levels of inequality, which we consider a proxy for the distribution of human capital spending.

The opposite holds with regards to import substitution and insurance based regimes. With liberalization, imports become cheaper and the pace of industrial substitution slows (or the costs of such substitution go up), thereby decreasing the returns to industrial deepening. Irrespective of social spending regime, the result is likely to be a prolonged process of deindustrialization and poor growth as the economic basis of the previously protected and highly insured working and middle classes decline. Insurance-oriented spending is likely to exacerbate these difficulties. First, significant spending on insurance in associated with reduced commitments to education. To the extent that human capital is a key to long-term growth (see above), insurance spenders will be lacking in a key ingredient of development. Second and relatedly, high insurance spending produces a skill distribution whereby a small share of the working population is well-educated but a large majority has insufficient skills to take advantage of the increasingly skill-intensive nature of production in the global economy.[15] Third, To the extent that such spending increases inequality (see below) and inequality has a negative impact on growth in developing nations (Barro 2000), social security and other insurance expenditures have negative implications for developmental outcomes.

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[14] Easier access to external markets should foster growth in all export-led development approaches. On the positive association between trade and developmental outcomes, see Frankel and Romer (1999). For a skeptical view, see Easterly (2001) and Edwards (1997). See Rodriguez and Rodrik (2001) for a review of the literature linking on the relatinosihp between openness and growth.

Finally, our expectations with regards to the economic performance of the mixed cases are less clear. Where ISI-type policies were pursued in conjunction with a substantial resource endowment, easy revenue from the export sector is likely to lengthen the life of ISI policies, thereby contributing to prolonged economic decline in the face of liberalizing markets as uncompetitive domestic manufacturing persists (Auty and Kiisky 2001). In cases where moderate ISI was pursued in the context of large domestic markets, the move toward an open international economy is likely to result in a difficult period of policy transition, but it may be offset by the benefits of labor abundance.

Next we consider the distributive implications of spending regimes. The implications for trends in inequality will depend on the development strategy/spending nexus, the initial distribution of income, and the types of goods in which a country has comparative advantage. Turning first to the ISI cases, most of which are characterized by labor scarcity, Stolper-Samuelson tells us that liberalization will reduce the income of labor. More precisely, the opening serves to limit the income of urban workers and potentially reduce the size of the middle class, while increasing the returns to land. The resulting increase in inequality is likely to be exacerbated by social security systems which are often designed to reiterate existing social hierarchies (Esping-Andersen 1990: 22), particularly in the developing world where they are typically regressive (Mesa-Lago 1994). One implication of these protections is that they entrench inequality by limiting the arbitrage between higher urban wages and lower rural ones.[16] Insurance-based spending is likely to exacerbate the link between inequality and liberalization for four reasons. First, as trade opening exposes highly protected domestic firms to competition, it produces deindustrialization and declining formal sector employment. Insurance-based spending regimes will have a negative impact on inequality as ever smaller shares of the population benefit from such spending (informal sector workers neither pay into such systems nor benefit from them). Second, as the formal sector of the economy shrinks, the fiscal burden of such systems will mount as the supported-to-active worker ratio climbs rapidly. Typically, the poor suffer most during such fiscal crises. Third, given the organized constituencies associated with social security systems, the result is likely to be a fiscal crowding out of social policies such as education and health care that might alleviate inequality (Wibbels 2006). Fourth and finally, because most social

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[15] For detailed arguments bearing on the relationship among skills, inequality and growth, see Feenstra and Hanson(1996) and Kremer and Maskin (2005).

security systems are financed by employer contributions and passed on through higher prices for goods and services, the benefits accrued to relatively well-off recipients are shared by the poor who suffer from reduced purchasing power. Such dynamics are likely to swamp any positive income effects associated with increased returns to agriculture in such cases (these cases are land abundant), most of which have sharply maldistributed rural income anyway. In these insurance-based systems, therefore, we are likely to see mounting inequality as exposure to an open international economy mounts.

In export-led cases the picture is more complex. In general, an exogenous opening of the international economy serves to increase the returns to labor in the export-led cases, where labor is abundant. The general prediction, therefore, is of reduced inequality. That said, recent research on inequality suggests that the picture is more nuanced once we consider a country's level of income and comparative advantage (Kremer and Maskin 2005). In richer developing countries (with lots of skilled labor) that have a comparative advantage in agriculture, liberalization increases the income of unskilled workers in the agricultural sector at the expense of urban ones and inequality declines. In richer developing countries with a comparative advantage in low-skill manufacturing, liberalization increases the returns to skilled workers, decreases it to rural workers, and inequality should increase. In poor developing countries (with little skilled labor), the result should be declining inequality irrespective of comparative advantage.

Finally, we turn to the sustainability of spending regimes themselves in the face of market liberalization. We expect the opening the international economy to have differential impacts on the spending regimes themselves. Given the expectation that insurance-based regimes will perform poorly, they should face more severe pressures for fiscal retrenchment than the other cases. Those pressures will conflict with the organized constituencies likely to mobilize against any attempt to retrench social security spending. Thus, we might see some evidence of social security retrenchment, particularly where fiscal crises are most pronounced. More likely is that domestic political pressures will result in retrenchment being displaced onto human capital spending as the fiscal demands of such systems mount. As Brooks (2002) notes, the cost of some such social security systems can become so extravagant that they are privatized. Even in these cases, however, the transitional fiscal costs are likely to be high and crowding out of human capital spending is likely to persist. Such will be most

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[16] Such inequality was often further exacerbated by technological innovations in agriculture during the 60s and 70s and

likely in cases where high levels of inequality reduce the potential influence of the masses excluded from the social security system. Human capital-centric spending regimes, on the other hand, should see little conflict over social policy among domestic constituencies. While labor is empowered by globalization in labor abundant contexts, continued income growth requires the productivity enhancements implied by previous patterns of social spending. Particularly in equitable settings, the social pressure should be for more broad-based human capital spending. Because such cases should grow more quickly, moreover, they should experience less pressure for fiscal retrenchment than in the insurance-based regimes. Consistent with the West European experience, labor in these cases is likely to pressure for increased social security as societal wealth increases and populations age. Given the positive shift in the power of labor in these labor abundant economies as openness mounts, it will be in a stronger position to make such demands. The net result is likely to be a shift in the direction of more insurance spending, though it seems unlikely to come at the expense of human capital spending. Finally, in mixed cases, dynamics are likely to contribute to augmented demands for widely spread human capital spending and greater pressure on particularly narrow social security systems. As the influence of business and labor in highly protected sectors wane at the expense of those actors in the private economy, retrenchment of social security systems in likely to be easier than in the ISI cases, where the private economy is less dynamic and pension beneficiaries a more organized group. That many mixed strategy cases are labor abundant suggests that it will be in favor of open markets and demand the kind of human capital that is associated with competitiveness. These cases should see fiscal priotities shift in favor of human capital at the expense of social security.

Ultimately, the close association between development strategies and social spending regimes makes it difficult to assess the causal impact of spending alone on various developmental outcomes. The results presented below are very preliminary.

Data and Methods

To test the argument presented above, we proceed in three steps. We first provide *prima facie* evidence that the pre-debt crisis spending priorities of governments are stable and that countries' spending priorities group together in an identifiable and interpretable pattern. Second, we relate developmental strategies in the pre-debt crisis era to allocations of social spending effort across the two main functional categories of human capital

government policies prejudicial to agriculture.

(education and health care) and social security/social protection. Third, we examine the relationship between the past spending priorities of governments and outcomes today, specifically growth, inequality, and current spending priorities.

We operationalize our notion of social policy regime using social spending data. Although there are many components to the government's social policy strategy, spending variables have the advantages of obvious cross-national comparability. Other important aspects of welfare regimes include wage policies, labor market regulations and worker training. We have strong priors that these non-quantified aspects of social regimes are likely to be closely related to the spending data that we do have. Union negotiated wages and highly protected labor markets are most likely in internally-oriented cases. Decentralized wage setting and deregulated labor markets are most likely in export-led cases. A combination of the two are likely in mixed strategy cases as unions negotiate wages in high-value commodity and state sectors and dual labor markets characterize this small group of privileged workers and the rest of the economy. Thus, while we have nothing explicit to say about these crucial other elements of social regimes and are sensitive to Esping-Andersen's suggestion that "expenditures are epiphenomenal to the theoretical substance of the welfare state",[17] we are confident that our spending indicators are representative of the broader social regimes and will allow for a first cut at testing the argument outlined above.

Spending variables appear as both independent and dependent variables in the analysis below. The spending variables of interest are (central) government expenditure on education, health, and social security/welfare. We interpret the first two as investments in human capital while social security/welfare is an insurance program with typically narrow, privileged constituencies. All three measures are standardized as a percent of total government spending. This operationalization emphasizes the importance of governmental priorities. Data for these variables are taken from the IMF Government Finance Statistics (2005; n.d.), supplemented with data from CEPAL.[18] Overall spending data are taken from the World Bank's World Development Indicators (2006) (henceforth WDI). The overall structure of the dataset is an unbalanced panel time series, though for most applications we take averages and analyze the cross-section only.

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[17] Esping-Andersen 1990: 19.

Stability

In this section we seek to establish two facts crucial to our argument. First, we show, conditional on data limitations, that the distribution of social spending priorities can be meaningfully interpreted as stable strategies on the part of government policy makers, i.e., the distribution of spending does not vary dramatically from year to year. Second we show that countries can be grouped together in clusters that are directly interpretable in terms of the development strategies employed.

We theorize that developing countries' social spending priorities are directly implicated in the countries' choices of development strategies. As such, spending should not vary radically from year to year. To examine stability across all countries, we calculate the coefficient of variation in social spending using all available observations prior to 1982. We choose 1982 as our cut-off point as this marked the onset of the debt crisis which drastically altered the macroeconomic environment and fiscal position of many countries. The maximum number of observations for any country is ten. Table 1 presents descriptive statistics on the distribution of the coefficients of variation for all the major spending variables described above. All variables show extremely low variation relative to their means for most cases, implying that spending is typically not volatile, both as a proportion of the government budget.

Table 1 Here

To further consider the spending stability over time we examine a few cases of interest: South Korea, Mexico, and Tunisia. We select them because they are assigned to different clusters in the analysis below and for their longer time series coverage. In the 1970-1982 window, Mexico is a quintessential ISI case. Tunisia, thanks to oil and phosphate wealth, initially pursued a mixed development strategy with strong hints of ISI. Korea, on the other hand, is an example of export-led industrialization in a context of labor abundance, a relatively large domestic market and low levels of inequality. Figure 3 plots spending over time for each of the three countries. The top row of each figure is spending as a percent of total government spending. The middle row is spending as a fraction of GDP. The bottom row plots overall government spending as a share of GDP as well as two indices of development strategy. The first is manufacturing exports as a percent of GDP, reflecting

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[18] CEPAL and IMF data correlate at over 0.65 for all country-years where they overlap. CEPAL data supplement the data for several Latin American countries for which early spending data (pre-1982) from the IMF were unavailable or quite suspect.

the importance of the industrial export sector. The second is a variable we have labeled "ISI". This variable is the proportion of total manufacturing output *not* exported; higher values indicate a more domestically oriented manufacturing sector.[19]

Figure 3 Here

All three plots show that spending from year to year is fairly consistent, despite some variation within cases. Mexico's spending priorities are quite stable until 1978-9, when it's commitment to social security spending increases at the expense of human capital spending. The high overall level of social security spending is consistent with expectations for a country with an ISI-oriented strategy. Tunisia, with relatively large changes in its social security spending in over the course of the 1970s, displays more longitudinal variation than either Mexico or Korea, though this is not surprising given its small size and dependence on volatile oil and phosphate exports. Even in this case, however, Tunisia's increases in social spending track an overall trend toward increased government spending. It's spending on social security lies between that of Mexico and Korea, a fact consistent with its mixed development strategy. Korea most closely matches the spending pattern expected of an export-led developer. It spends a much smaller percentage of output on social security and proportionately larger amounts on human capital, especially education. Indeed Korea was rapidly shifting from a domestically oriented ISI policy to an export economy during this period, as seen in the bottom row of Figure 3. Even when compared to the mild variation in spending in Tunisia and Mexico, Korea's spending priorities are quite stable.

Both in summary fashion and through examining specific cases we see that social spending is in fact fairly stable and not prone to dramatic shifts. This is not to say that there is not important variation, but merely that the available data broadly support the notion that government spending priorities can be interpreted as indicative of spending regimes constructed on the basis of development strategies pursued by various governments.

Clusters[20]

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[19] Note that this ISI variable takes on negative values for some periods. While this is curious, we have two tentative explanations. First, some of the most export-intensive economies may be re-exporting from other countries. Second, and probably more importantly, this value is calculated by combining export data from two sources (see the appendix). This combination may result in a mismatch between total manufacturing output and total manufacturing exports. In any event, ISI correlates with manufacturing exports at -0.65 for the whole dataset and -0.7 for the pre-1982 period.

We use the tools of hierarchical[21] cluster analysis to systematically examine the data for coherent groupings of countries. Hierarchical cluster analysis is a well-developed branch of applied statistics that attempts to identify groups in data such that objects within groups are as similar as possible while the differences between groups are maximized. Consistent with the theoretical expectations outlined above, we expect that countries to split into three primary groups: those that spend on human capital, those that spend on social insurance, and those that mix the two. Our examination of clusters relies on four attributes: education, health, and social security spending, all as percent of government spending, and overall government expenditure as percent of GDP. In order to assess the extent to which distinct spending regimes were chosen in the latter third of the 20th century, these variables are averages for all available years prior to 1982. To be included, a country must have at least three observations in this period. This leaves us with a total of 48 countries in the (non-random) sample. See the appendix for further exposition on hierarchical cluster analysis.

It should be emphasized that cluster analysis, particularly as used here, is primarily an exploratory rather than confirmatory or inferential activity.[22] There are many attributes on which to measure similarity and difference across countries and, given some set of attributes, and numerous algorithms for identifying clusters. We are simply attempting to establish the existence of an interpretable pattern of similarity and difference across developing countries in the nature of their social spending behavior. Below we turn to more traditional regression modeling to establish the relationships between development strategies and social spending and between social spending and outcomes of interest in the developing world.

The most intuitive way of examining cluster results is graphically. Figure 4 is a dendogram that displays the results of agglomerative clustering.[23] The distance metric is squared Euclidian distance. The grouping

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[20] All cluster analysis was performed in R 2.1.1 (R Core Development Team 2005) using the `mcclust` and `cluster` libraries. See Fraley and Raftery (2002a) for details on the former and Kaufman and Rousseeuw (1990) (and associated R documentation) for the latter.

[21] Hierarchical methods are distinguished from partitioning methods. In the former, the analyst is attempting to discover some sort of clustering structure in the data; the number of clusters is taken as unknown. In the latter, the analyst decides a priori how many clusters there are and attempts to assign observations to clusters in some optimal manner. *K*-means clustering is the most well-known algorithm for partitioning. For an accessible introduction to traditional clustering methods see Kaufman and Rousseeuw (1990).

[22] Referring to the traditional clustering methods, Venables and Ripley argue that "there are many different clustering methods often giving different answers so the danger of over-interpretation is high." (2002:316)

[23] There are two ways to proceed in constructing clusters. The "agglomerative" approach begins with each object on its own and proceeds to combine them into groups that maximize within-group similarity and between-group difference, as measured by some distance metric. The "divisive" approach proceeds in the opposite direction, beginning with all objects in one group and splitting until each object is in its own group.[23] Frequently these methods yield different groupings.

method in figure 4 is Ward's method. This method is essentially a least squares solution to the distance minimizing problem. More qualitatively, Ward's method looks for "spherical" clusters in which clusters are assembled as multidimensional balls around some central point. In examining a dendogram, the length of the vertical lines have the direct interpretation of dissimilarity between groups. The longer the vertical line before two groups combine into one, the more dissimilar they are. Looking at the figures there are several things to note. First, there are three primary clusters identified in the dendogram. Second, additional analysis using the mixture modeling approach of Fraley and Raferty (2002b) make clear the clusters are most clearly distinguished from one another on the social security dimension (see Appendix 2 for details). Consistent with the expectations outlined above, one group of countries—the middle cluster—spends a great deal on insurance-based programs (social security/welfare), a second—the right hand cluster—spends an intermediate amount on insurance, and a third—the large left-hand cluster—spends very little on social security/welfare. Third, the members of the three clusters give face-value credence to the argument linking development strategies to social spending priorities. The high social security spenders, with the exception of Costa Rica, are all quintessential import substituters in the 1950s-70s. Likewise, with a handful of exceptions (Venezuela, for instance) the human capital spenders pursued some variant of export-led growth. The mixed spenders are the most heterogenous cluster, though most of them pursued partial variants of ISI. In countries like Jamaica, Tunisia and Togo, a valuable international commodity permitted the pursuit of some internally-oriented policies despite relatively small markets. In cases of large markets such as India, Egypt, Sri Lanka, and Bangladesh governments pursued versions of ISI, but spending was mixed either because they had relatively high inequality in a context of labor abundance. All of these cases pursued more limited strategies of import substitution when compared with the cluster of high social security spenders. Fourth, cases noteworthy for their absence due to lack of data (such as Argentina and Brazil) fall into their expected clusters when the decision rule for inclusion in the sample is loosened. Fifth, the larger clusters identified by different clustering procedures (agglomerative, divisive, and model-based) are virtually identical, lending support to the notion that there is in fact some clustering structure in the data (see appendix).

Figure 4 Here

Regression Analysis

Similar results from analysis in "both directions" is stronger evidence of clustering in the data (Kaufman and Rousseeuw

Having established the existence of three coherent clusters in the data, we now turn to regression analysis to examine the causal theory outlined above linking market size, labor abundance and inequality to the choice of development strategy, linking development strategies to early social spending patterns, and linking early social spending patterns to economic outcomes in an era of opening markets. In all cases, we analyze cross-sectional averages. There are serious shortcomings in data availability for many countries so we are cautious in the claims we draw from the analyses. We move forward in three phases. In the first we analyze the factors underpinning development strategies; in the second, we turn to the impact of development strategies on social spending; and in the third, we turn to the impact of spending regimes on economic growth, inequality and budgetary priorities during the era of open international markets.

From Endowments to Development Strategies

We use two measures of development strategies. The first, "ISI", is measured as the yearly average of the difference between manufacturing production as a share of GDP and manufacturing exports as a share of GDP from 1960-1982.[24] Higher scores reflect inward-oriented industrialization. The second measure, "Trade", is average trade as a share of GDP over the same period. [25] Higher scores reflect outward-oriented development strategies. As indicated by our theoretical discussion, the key independent variables are initial market size, labor scarcity and inequality. We measure market size as the product of initial (1960) population (logged) and income levels (logged GDP per capita). Labor abundance is measured imperfectly using the initial level of population density. In doing so, we implicitly assume a two factor economy (land and labor), an approach consistent with the importance of urban/rural conflicts at early levels of development. It is worth noting, moreover, that population density closely approximate one's intuitions as to countries' labor endowments. Argentina and Brazil, for instance, show low initial population densities—a fact consistent with labor scarce economies that historically relied on either immigration or slavery. Likewise, labor abundant economies such as India and China have much high population densities.

Finally, inequality data are taken from the WIID 2.0s dataset (WIDER 2005). We focus on the gini coefficient as it provides the best longitudinal and cross-sectional coverage. Our needs dictate that we have one

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1990). Though we present the results from the agglomerative approach, results using the divisive approach are quite similar.
[24] Many cases have data for only part of this time period. In those cases, averages are taken over whatever data is available.
[25] The two dependent variables are correlated at -.50. The exact definitions and sources are presented in the data appendix.

and only one observation on inequality for each country-year. WIID, however, provides several measures per country-year in addition to a subjective evaluation of the quality of the data involved in calculating any particular inequality value. Our selection rule is as follows: First, eliminate all observations with the lowest data quality rating; second, where there are multiple observations per year, select based on data quality; third, if there still remain multiple observations, take the average after correcting for systematic differences in the manner of data collection.[26] Inequality is measured as outlined above using the average of early gini coefficients.[27] To these variables we add a control for natural resource production (measured as the sum of fuel and metal exports as a share of merchandise exports). Some have argued that resource endowments can help finance internally oriented industrialization. Against such claims one must consider the de-industrializing impact of real exchange rate appreciation associated with heavy reliance on natural resource exports (Corden 1984). Irrespective of their impact on import-substituting strategies, extensive resource endowments are likely to result in considerable trade dependence above and beyond market size and labor abundance.

Table 2 presents the results of two models for ISI and two for Trade. In both of the first two models, market size and labor scarcity have large and significant effects on ISI (model 1) and trade openness (model 2) in the expected direction. Large markets and labor scarcity foster ISI policies while they repress the export-orientation of the economy. A one standard deviation increase in initial market size (going from Malaysia to Indonesia or Ecuador to Venezuela) increases the ISI orientation of policy by about 3.5—about the amount that distinguishes Mexico and Turkey from Bolivia, Peru and Malaysia. A similar increase in market size has the effect of reducing the openness of the economic strategy by about 15 percent or approximately the difference between Argentina and Thailand. In terms of impact, similar increases in labor abundance have effects on development strategies of similar scale, serving to increase inward-orientation and constrain outward-orientation. Natural resource endowments have the expected impact on export-driven strategies, but we do not find any evidence that they systematically help finance import substitution. In neither model do we see inequality unto itself having a significant impact.

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[26] As per Deininger and Squire (1996), we add 6.6 points to observations on the basis of expenditure rather than income and three points to observations using net rather than gross income. The paucity of data required a rather loose interpretation of "early" when it came to gini coefficients.

[27] The paucity of data required a loose interpretation of "early" when it came to gini coefficients. The measure we use is the average for the entire period before 1990.

Table 2 HERE

This latter finding on inequality is not surprising. Recall that our argument suggests that inequality is likely to matter for development strategies only when the combination of market size and labor abundance allow for either externally- or internally-oriented development strategies. Under such conditions, where inequality is low, the urban biased policies associated with ISI are likely to face considerable opposition. The opposite holds in high inequality cases, where the beneficiaries of ISI are likely more powerful and better organized. To test these notions, we add an interaction between inequality with labor scarcity in models 3 (ISI as DV) and 4 (Trade as DV). Interpreting these coefficients is complicated by a number of factors. First, multicollinearity among elements of the interaction (a byproduct of multiplicative terms) can inflate standard errors, making standard significance measures useless. Second, the coefficients on the interaction terms themselves may not have substantive meaning. The coefficient for "gini", for instance, tells us the impact of a one unit increase in inequality when labor scarcity is 0. But there are no cases in our dataset (or any in the world for that matter, given the construction of the variable) that score a 0 on labor scarcity, which varies from 4.63 to 80.8 in our sample. As recommended by Kam and Franzese (2005), we present the impact of our interactive hypothesis on "ISI" and "Trade" graphically. We do so by holding one element of the interaction constant at two theoretically interesting values ("low" and "high"), interacting it across levels of the other element of the interaction, and generating predicted values of ISI and Trade on the basis of the results reported in Table 2.[28] We hold all other variables at their mean with the exception of "market size", which we set at one standard deviation above the sample mean in order to generate predictions for large markets. It is worth noting that given the small number of observations there is considerable uncertainty around these predicted values, so they are best treated as suggestive. Nevertheless, the resulting figures (5a & 5b) provide support for our argument that the choice of development strategies in large, labor abundant economies is conditioned by levels of inequality. As inequality increases in large, labor abundant economies, the predicted score on ISI climbs (Figure 5a) and the predicted score on trade falls (Figure 5b). Such findings are consistent with case study evidence on the transition from ISI to export-led strategies in Korea and elsewhere in East Asia (Rodrik 1995; Mahon 1992). It is worth noting that

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[28] We use Tomz, Wittenberg, and King's CLARIFY software to generate these predicted values.

in none of these models do regime type (as measured using Polity IV data) or initial levels of wealth have any

bearing on development strategies.

Figures 5a and 5b Here

From Development Strategies to Social Spending

Turning to the impact of development strategies on social policy, we operationalize our notion of social

spending regimes using social spending data as described above. In each case, spending categories are averaged

for the period leading to the onset of the debt crisis. We estimate several models of social security/welfare and

human capital spending using our two measures of development strategies and a slate of controls. The controls

include measures of the relative size of the young or old population (old in the case of social security spending

and young in the case of education), per capita income (logged), and regime type (Polity IV from Marshall,

Jaggers, and Gurr 2004). Population shares control for the level of demand for the types of spending in any given

society.[29] We introduce per capita income to control for the long-standing (but controversial) argument that

societal wealth increases the demand for social spending at a faster rate than GDP growth.[30] Finally, each

country's Polity score controls for the arguments of Lindert (2004), Adserá and Boix (2002), and Brown and

Hunter (1999) that regime type mediates the relationship between capitalism and social spending—they all

suggest that democracies produce more social spending, though the precise mechanisms vary. Both dependent

variables and all of the independent variables are measured as their pre-debt crisis averages.

Table 3 Here

Table 3 presents the results for social security spending in Models 1 and 2. Model 1 includes our

measure of ISI and the controls, while Model 2 includes the measure for trade orientation. We do both to see if

ISI contributes to social security spending and if export-led strategies militate against such spending. The results

for model 1 show that all of the variables are in the right direction and significant, with the exception of the

democracy measure. A one unit increase in domestically oriented manufacturing increases social spending by

more than 1.1 percent of total government spending. An increase of one standard deviation in inward orientation

(from, say, Thailand to Brazil) predicts an increase of nearly 8 percent in the priority placed on social security in

the overall budget. Model 2 shows that outward-oriented models militate against social security spending. Each

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[29] See Lindert (2004) on demographic effects on social spending

10 percent increase in trade dependence reduces social security spending by more than half a percent of total spending. In both models, large elderly populations and higher incomes increase social security spending.

Turning to human capital spending, the results from Table 3 provide further support for our theoretical account. In these models the share of the population under 15 replaces the share over 64 to account for demographic pressure on education spending. The results for model 3 show that increased trade orientation has a strong positive impact on human capital spending. A one standard deviation increase in trade exposure (the difference between the pre-debt crisis development strategies of Indonesia and Brazil, for instance) increases predicted human capital spending by about 1 percent of GDP. Lest one be under-whelmed by a one percent increase, it would have amounted to $3.8 billion dollars of additional spending on health and education in Brazil on the eve of the debt-crisis.[31]

Figures 6a and 6b plot the ISI and Trade measures against predicted levels of social security and human capital spending. Note that these results are robust in the face of alternative measures of democracy and the addition of controls for growth and the overall size of government—none have significant impacts on human capital or social security spending.

Figure 6a & 6b Here

From Social Spending to Outcomes—VERY PRELIMINARY

Finally we turn to the impact of spending regimes on economic, social and policy outcomes over the last 20 years of opening international markets. Our first set of models estimate the impact of social spending on economic growth. The economics literature on growth is fabulously extensive and the debates increasingly focused on important methodological issues (for important recent works, see Lindert 2004; Barro 2000; Perotti 1996; Banerjee and Duflo 2003). For simplicity's sake (well, time's sake, really), we estimate panel regressions of the percentage growth of per capita income from the eve of the debt crisis until the most recent data available (typically 2003). The key independent variables are our measures of social security and human capital spending as a share of total spending. We expect the former to have a negative impact on growth and the latter to have a positive impact. We introduce a fairly standard body of controls, including initial logged per capita income (we find no evidence of a Kuznets effect when experimenting with a squared income term), government consumption

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[30] Note that the empirical findings in this regard are mixed.

as a share of GDP, regime type (as measured by Polity IV), the fertility rate, and in some models the initial level of inequality. Unless otherwise noted, all independent variables are panel averages for the years from 1983-2003. We note that there is reasonable evidence that the relationship among some of these variables might be non-linear (Banerjee and Duflo 2003) and/or that there is reason to expect indirect effects among variables (Barro 2000). Under current constraints, we will leave those problems for later and be clear that the results are nothing more than a first cut.

Table 4 Here

The results of Model 1 in Table 4 show that the greater the share of the budget devoted to social security and welfare, the lower per capita income was over the subsequent two decades. Each percentage increase in such spending reduces per capita income by 1.4 percent twenty years later. For comparison's sake, the model suggests that a country that spent as much initially on social security as Argentina (45 percent) would see per capita income grow 60.2 percent less over the 20 years leading up to 2003 than a case like Malaysia that spent 3.4 percent of the budget on social security.[32] The only other variables to achieve significance are initial logged GDP per capita and the fertility rate. Despite the strong findings with regard to insurance spending, we find no evidence in any of our models for the expected, positive impact of human capital spending (see Model 2).

Moving on to inequality, we follow a similar approach as outlined above by estimating panel regressions of current inequality on our early social spending measures and a series of controls. Consistent with standard practice, we control for initial income inequality, the initial level of per capita income and the extent of democratic governance. Again we find no evidence for a curvilinear relationship between income and inequality and so leave the squared income term out of the models. Likewise, we find no evidence that trade exposure, oftentimes found to have a negative impact on inequality (Reuveny and Li 2003), has any direct impact beyond its influence on spending regimes.

The results from model 3 suggest that, as expected, high initial levels of social security spending serve to increase subsequent inequality. Each percent increase in the priority given to such spending increases the predicted gini coefficient by .12. Going back to the comparison of Argentina and Malaysia, the difference in the commitment to insurance spending is expected to increase the gini coefficient by more than four points in the

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[31] The $3.8 billion figure is in 2000 dollars.

former compared to the latter. The actual gini increased about about 5 points in Argentina and went down by about a point in Malaysia. Again, however, we have no findings with regard to human capital spending (Model 4). Given the small number of cases and the under-specification of the models, we see no reason here to challenge the strong evidence linking human capital investments to good developmental outcomes.

Finally, Models 5 and 6 in Table 4 present results for how initial spending regimes themselves hold up in an era of opening international markets. As in the models linking development strategies to social spending regimes, we control for per capita income (logged), societal demand for social security and human capital spending (as shares of the population over 64 and under 15, respectively), and regime type. The key independent variables in each of the models are initial spending on social security as a share of total spending and initial spending on human capital as a share of total spending. The dependent variables are measured as average spending on social security or human capital in the most recent five year period for which data is available. The results suggest that initial spending levels, themselves a function of earlier development policies, have a strong impact on the outlines of contemporary social policy. As initial spending on insurance increases, so does its priority in more recent budgets (Model 5). The same holds for human capital spending (Model 6), though the coefficient is about half the size on initial human capital spending as it is on insurance spending. It is telling that social security spending climbs given that many of the high insurance spenders saw traumatic economic crises.

Taken together, these preliminary results suggest two important findings. First, the legacy of social spending priorities established in an earlier era of developmental capitalism cast a very long shadow. Spending priorities are relatively steady through time, and the evidence in this final section suggests that the last twenty years of opening international markets has only served to further entrench spending trajectories. Countries that spent a great deal on social security early on are now likely to spend even more. Likewise, countries that spent a great deal on human capital early on are now likely to spend even more. In this regard, our findings mirror those found in the OECD where welfare regimes have been reasonably robust in the face of mounting international competition (Iversen and Cusack 2000; Swank 2002; Garrett 1998). Second, the implications of the findings for the group of countries that spend large shares of the pubic purse on social security are not good. Thanks to political configurations in the post-World War II era, these cases developed social policies aimed at the creation

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[32] The actual difference in per capita income growth is actually somewhat higher than the model predicts.

of labor markets poorly suited for today's global economy. Thanks to the generally narrow constituencies for social security systems and their affiliation with unproductive labor market and spending policies, such countries have grown more poorly in recent decades and experienced increases in inequality. That initial social security spending serves to increase subsequent spending only underscores the downward spiral that such systems might face. If we take the standard findings on the economic benefits of human capital investments at their face value and consider the possibility that organized constituencies will protect social security budgets at the expense of the poorly organized constituencies for health and education spending, the prospects are even more unpleasant.

Conclusion

This paper has laid out a framework for understanding the dynamics of developmental capitalism over the last 40 years through the lens of social policy. We argue that development strategies and social policies are deeply intertwined. The relative abundance of labor, inequality, and market size all combined in a context of closed international markets in the decades following World War II to condition the initial choice of development strategies. Import substituting strategies are associated with insurance-based social spending regimes focused on social security expenditures. Export-led strategies are associated with human capital intensive social spending. Mixed development strategies that combine the export of high value commodities with import substitution produce mixed spending regimes. We provide four lines of preliminary evidence in support of our account. First, we show that there are indeed three distinct social spending clusters that roughly correspond with three development strategies. Second, we show that initial market size, labor abundance and inequality combine to impact development policy. Third, we show that development policies are linked with the hypothesized spending priorities. Fourth and finally, we show that pre-debt crisis spending regimes (particularly as they bear on social security spending) have implications for important political-economic outcomes in the current era of liberalizing markets. All of our statistical models are simple and preliminary, but the results are suggestive.

Assuming these preliminary results stand in the face of further scrutiny, they have important implications for the literature on social spending in the developing world. While some researchers have focused on the implications of international markets and market transitions for the evolution of social policy over the last twenty years, the underlying complexion of spending across countries on the eve of market opening has been a

black box. We have tried to open that black box, showing that the priorities of different social spending regimes differ markedly and systematically. Of course it is the case that cutting, expanding and reorienting of social policies is taking place across the developing world, oftentimes in response to competitive pressures and the evolving strength of various constituencies. That said, the stability in the fundamental outlines of spending regimes is noteworthy. Indeed, if we compare the scale of the effects uncovered here with those in recent cross-national research exploring globalization's impact on social spending in the developing world, what is striking is how much more important early spending regimes are for shaping contemporary social policy. For instance, our findings suggest that a country that looks like Mexico in 1960 is expected to pursue ISI and emphasize insurance spending to the tune of 26 percent of the budget and human capital spending to the tune of 19 percent on the eve of its process of market liberalization. If we turn to recent estimates of the impact of global economic forces on these starting points, we can see how small they are. Taking the midpoint for the similar results reported in Kaufman and Segura (2001: 578) and Wibbels (2006: 454-55), for instance, a substantial 10 percent increase in trade dependence over recent decades is predicted to reduce social security to the tune of .8 percent of spending in a case like Mexico. In dollar (or peso) terms that is not a trivial amount, but it is dwarfed by the fact that a country like Korea that pursued an export-led strategy in the post-war era begins the 1980s spending less than one-fourth as much on social security as Mexico.

Nevertheless, the current paper has a number of weaknesses. Most notably, we have ignored the social choice mechanism by which social spending policies are made. Given the recurrent findings linking regime type (AJR 2002; Adserá and Boix 2002; Lindert 2004) and various features of democratic institutions such as parties (Boix 1998; Lipsmeyer 2002) to social spending, this *might* be a serious shortcoming. We emphasize the word might as almost all such research has focused on the *level* of social spending while we have focused on social spending *priorities*. As suggested in our introduction, we expect the variables we have outlined here to impact broad priorities. Regime type, we expect, will impact the *level* or *intensity* of spending once market size, inequality, and labor abundance have influenced development strategies and thereby spending priorities.

Ultimately, however, we would like to explain both spending priorities and levels and will have to develop and argument linking regime type and social spending. At this point we observe only that the much cited work of Boix (2003) and Acemoglu and Robinson (2000) strikes us as incomplete. The shortcomings are two-

fold. Theoretically, both works suggest that democratization results from elite considerations of the redistributive costs associated with democracy and the threat of revolution (or the cost of repression). In both models the redistributive mechanism (whereby higher inequality raises the redistributive cost of democratization) does nearly all of the analytic heavy lifting. What exactly constitutes the threat of revolution or the cost of repression is under-specified. Likewise, there is no sense that mass propensity for and elite perceptions of revolutionary threat are likely dynamic. Empirically, we simply find too many cases in which powerful elites democratized in unequal societies in order to tightly control the rules of the democratic game. It is worth noting, moreover, that inequality and democracy seem to be *positively* related in the developing world between 1960 and 1980, the time when most social spending regimes developed. Inequality, moreover, seems to be highest in countries with large markets and scarce labor—exactly those cases that developed the most expensive social spending regimes.

Regime type aside, the paper suffers several other shortcomings. The analysis suffers from the constant struggle to come up with enough data for enough cases, particularly with regards to inequality. As a theoretical matter, we have little reason to expect the lack of data to matter, but methodologically it is nearly impossible to estimate interaction terms with much precision with such small panels. Relatedly, in developing our argument, we mention the likely impact of our mechanisms on the distribution of spending within spending categories, particularly with regards to primary vs. tertiary education. Some such data exists, though very little for the key pre-debt crisis years in our sample. Ultimately, we hope to more explicitly extend the argument to cover the distribution of beneficiaries from the broad social policies we have discussed here. Finally, we aimed to write a paper with very solid micro-foundations. We have not done so. Future iterations of the paper will explore our intuition that this is a game played among three sets of actors: capital, labor and land. In subsequent versions of the paper we plan to formalize first the impact of labor endowments, rural inequality and market size on the preferences of land, labor and capital over development strategies, and second, the impact of development strategies and interpersonal inequality on the preferences of land, labor and capital over social spending priorities. In the first instance, we are likely to build on the models of Murphy, Shleifer and Vishny (1989; 1989b). In the latter case, we will look to Moene and Wallerstein (2003) for inspiration.

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Appendix 2: Hierarchical Cluster Analysis

Hierarchical cluster analysis is a well-developed branch of applied statistics that attempts to identify groups in data such that objects within groups are as similar as possible while the differences between groups are maximized. More traditional clustering algorithms use intuitively plausible procedures based on various distance metrics to either merge or divide groups of observations into clusters. It is these that we present in the paper. Here we explore the robustness of those results using model-based clustering procedures that recently have been developed. This second generation of clustering methods uses mixture models to stochastically assign observations to clusters. The most common method is to posit the data as a mixture of multivariate Normal distributions with each component of the mixture corresponding to a different cluster. The challenge, then, is to select the parameterization of the statistical model as well as the appropriate number of clusters. Model-based clustering has the advantage of strong grounding in probability theory. It provides a principled way in which to systematically examine data for structure. It also admits "soft" classification in which individual units have some probability of being in any cluster whereas more traditional hierarchical methods typically display quite rigid groupings. We use both sets of tools here. We begin with visual displays of clustering relying on traditional "agglomerative" and "divisive" algorithms. We then turn to the Normal mixture model for further insight.

Rather than rely on stopping rules and statistics like "pseudo T^2" to test the robustness of the particular clustering solutions discussed in the text, we turn to mixture modeling approach of Fraley and Raftery (2002b). In a mixture approach, the data are assumed to represent a mixture of G k-dimensional multivariate normal distributions. The likelihood of the general (Gaussian) mixture model is expressed as

$$L(\theta_1,...,\theta_G;\tau_1,...,\tau_G \mid y) = \prod_{i=1}^{n}\sum_{j=1}^{G}\tau_j\phi_j(y_i \mid \theta_j)$$

Where y is an $n \times k$ matrix of n observations over k variables and G indexes the number of clusters. The parameter τ_j represents the weight placed on the jth component or, equivalently, the probability that an observation is in the jth cluster; ϕ_j is a multivariate normal density with parameters $\theta_j = (\mu_j, \Sigma_j)$. The shape of the clusters is governed by the covariance matricies Σ_j.[33] Estimating this model for various values of G and parameterizations of Σ_j admits comparison across non-nested models and selection via BIC maximization criterion (Fraley and Raftery 2002b:; Raftery 1995). We examine two estimation methods. In the first, we place no restrictions on the cluster shape. In the second, we only consider "spherical" clusters paralleling the agglomeration rule applied above.

First, if we allow for six different parameterizations of Σ_j, a model with two clusters, and a non-spherical shape yields the maximum BIC value. Examination of the BICs of the six different parameterizations considered over nine clusters show that several models yielded their maximum BICs under three clusters. If we consider only spherical models, the mixture model reaches its maximum BIC with three clusters.[34] Classification under this rule exactly matches the results from the agglomerative clustering presented in the text. Using the mixture models we have greater confidence that the three-cluster solution is the most

To examine these clusters graphically, Figure A.1 below plots the results for the three-cluster solution. Close examination of the scatter plot yields the important insight discussed in the text: the clusters are most clearly distinguished from one another in the rows/columns indicating the social security dimension. To examine this more directly, Table A.1 below shows average within-group levels of spending along the various dimensions. Cross-country differences in social insurance spending are the critical cleavage factor here. Differences in overall government spending are also emphasized.

Figure A.1: A scatterplot matrix of the clustering results from the BIC maximizing parameterization with three clusters. The "ISI" cluster is represented by the green triangles. The clusters are most distinct in the government spending – social security dimension.

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[33] One of the advantages of the mixture modeling approach is its flexibility in approaching the "geometry" of the clusters, i.e. spherical, ellipsoidal, of equal or variable volume, etc. In the Fraley-Raftery implementation employed here, Σ_j is parameterized using eigenvalue decomposition and the likelihood is maximized via EM (Dempster, Laird, and Rubin 1977).

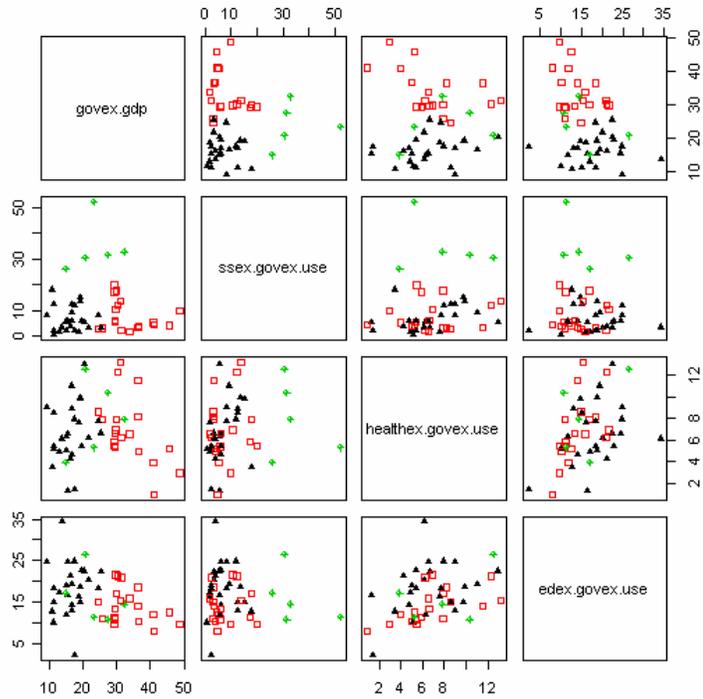[34] Both spherical models yield exactly the same classification.

Table A.1: Mean within-cluster values for the BIC-maximizing clustering solution. Differences in social security spending are most critical, though there are important differences in overall spending as well.

| Cluster | Mean within-cluster values | | | |
	GS (%GDP)	Soc. Sec (%GS)	Health (%GS)	Ed (%GS)
3 cluster solution				
1	19.9	37.6	8.5	13.3
2	18.0	8.6	6.4	16.6
3	38.9	4.5	4.4	12.5

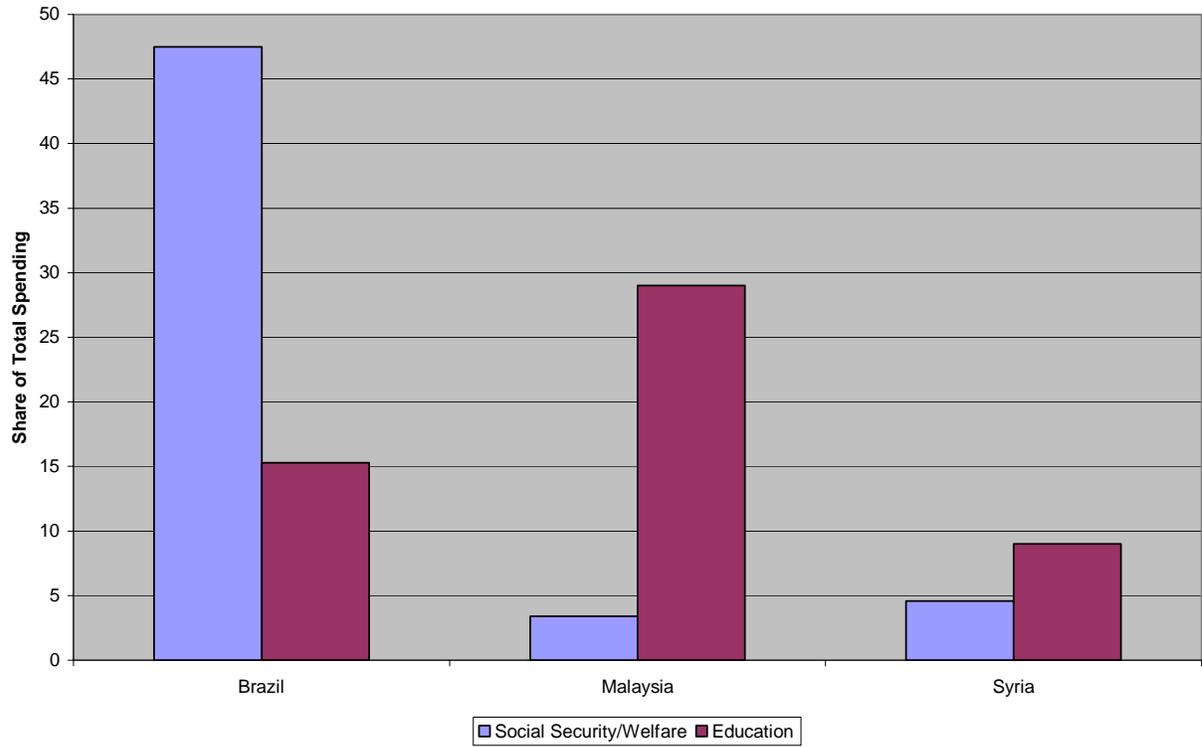**Figure 1: Social Spending Priorities in Three Cases, Pre-Debt Crisis**

Figure 2: Schematic of the Argument

Figure 2b: Development Models and Social Spending as a
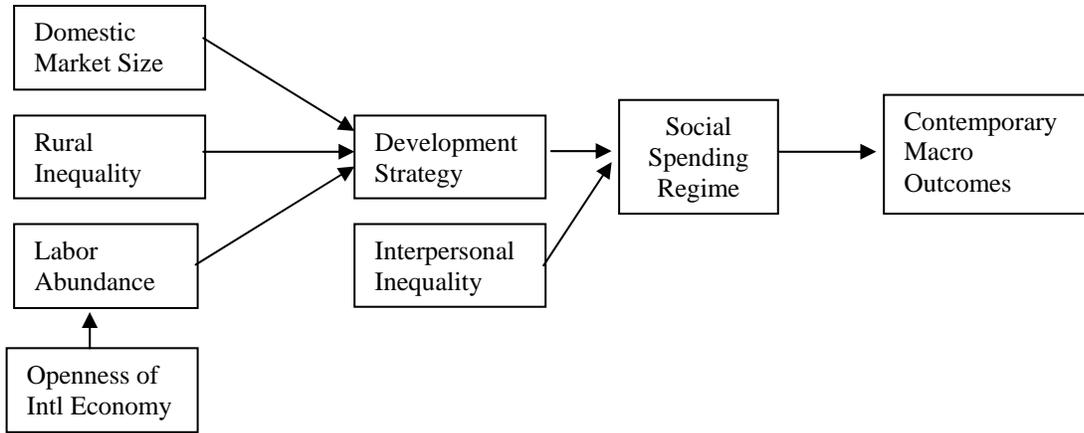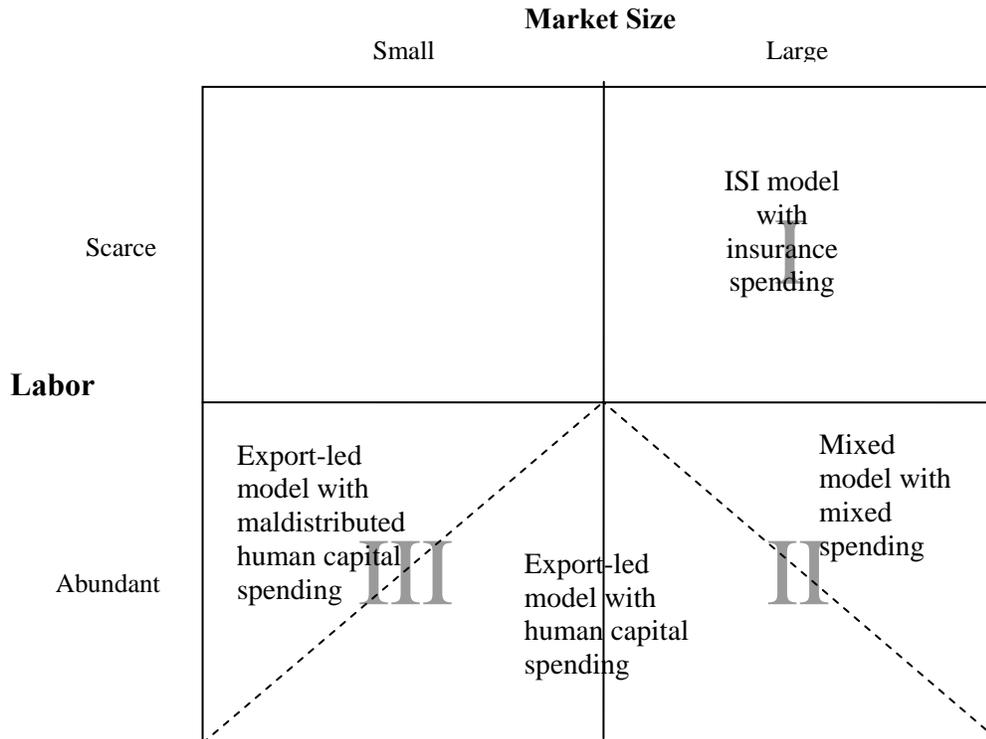Function of Market Size, Labor Abundance and Inequality

Note: The dotted lines are axes of inequality. Above the axes are high inequality cases and below the axes are low inequality cases. The key to making this work is that the international economy is assumed to be closed, a fact consistent with the historical development of initial spending regimes in the 1950s-70s.

Figure 2c: Thinking about Cases
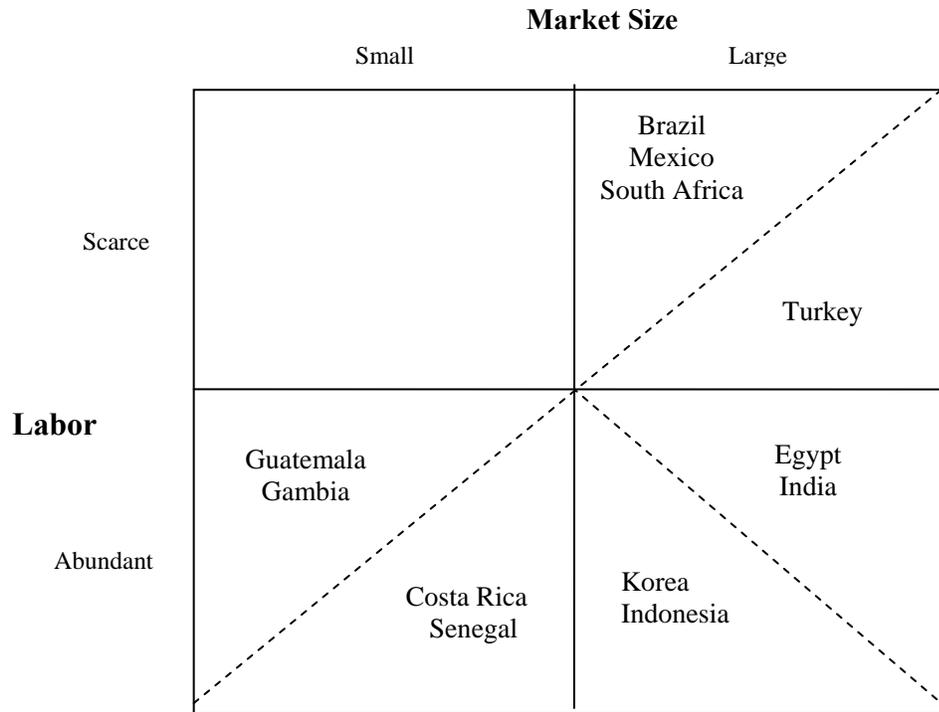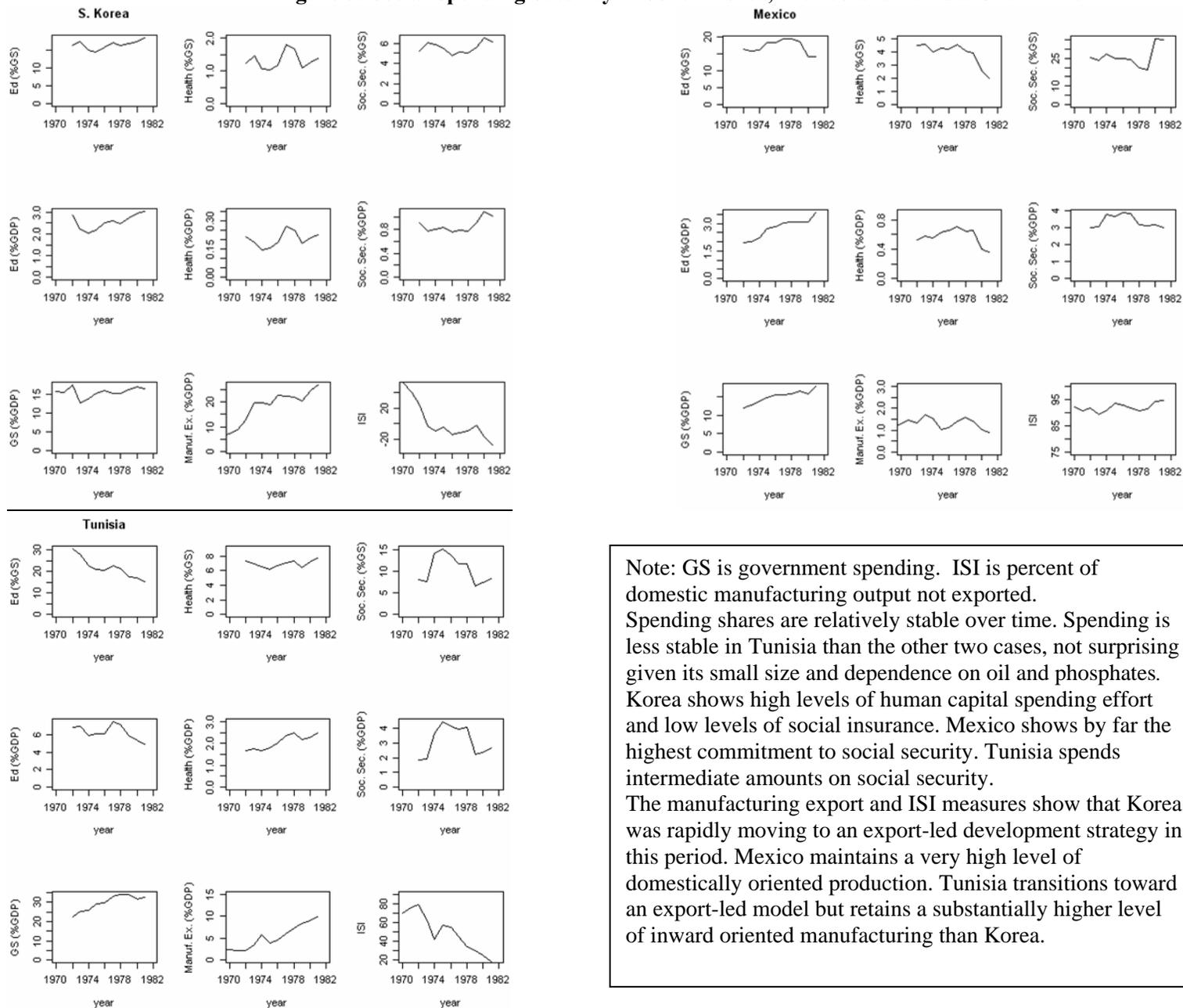
Market Size

	Small	Large
Scarce		Brazil Mexico South Africa Turkey
Labor		
Abundant	Guatemala Gambia Costa Rica Senegal	Egypt India Korea Indonesia

Figure 3: Social Spending Stability in South Korea, Mexico and Tunisia Over Time

Note: GS is government spending. ISI is percent of domestic manufacturing output not exported.

Spending shares are relatively stable over time. Spending is less stable in Tunisia than the other two cases, not surprising given its small size and dependence on oil and phosphates. Korea shows high levels of human capital spending effort and low levels of social insurance. Mexico shows by far the highest commitment to social security. Tunisia spends intermediate amounts on social security.

The manufacturing export and ISI measures show that Korea was rapidly moving to an export-led development strategy in this period. Mexico maintains a very high level of domestically oriented production. Tunisia transitions toward an export-led model but retains a substantially higher level of inward oriented manufacturing than Korea.

Figure 4:

Agglomerative Clustering Dendogram of Social Spending as % Gov't Spending

dist(spending.govex)^2
Squared Euclidean distance with Ward's method
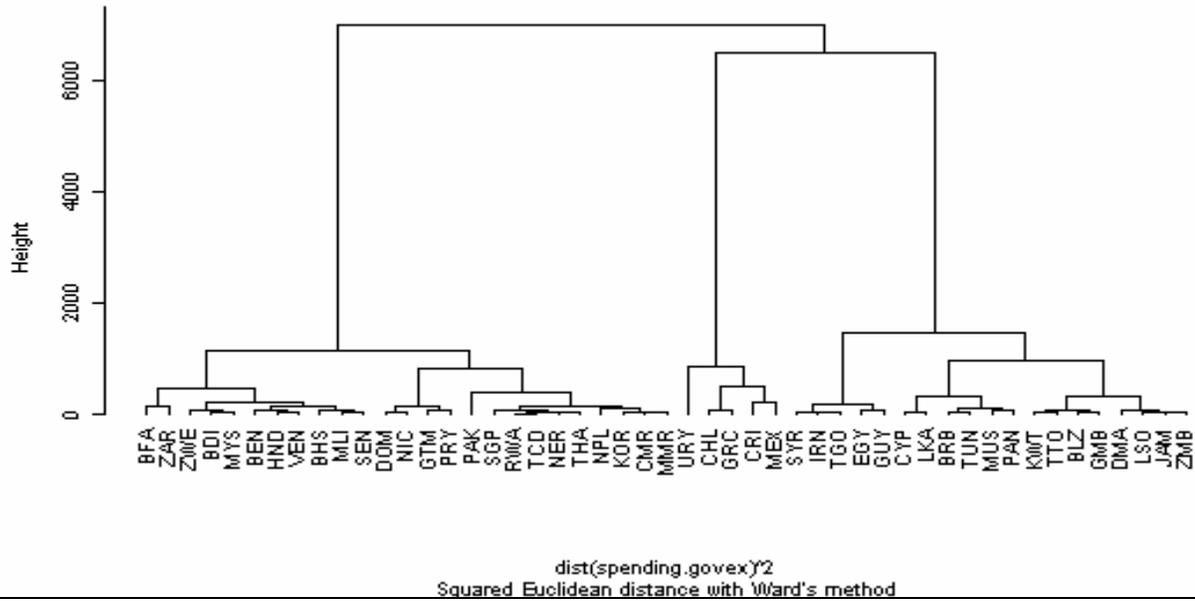
Note: Countries are clustered in four dimensions: total government spending as % GDP and education, health, and social security spending as % government spending. All variables are averages for all available observations before 1982. There are three evident clusters in the data. The central cluster corresponds to clear ISI cases and w/more permissive data inclusion rules includes Argentina and Brazil. The left-hand cluster corresponds to export-led development models whether of the industrial or commodity variety. The right-hand cluster corresponds to countries that pursued mixed policies, often in the presence of significant natural resource endowments.

Figure 5a & 5b:

The Impact of Inequality and Labor Abundance on ISI in Large Markets

The Impact of Inequality and Labor Scarcity on Trade in Large Markets
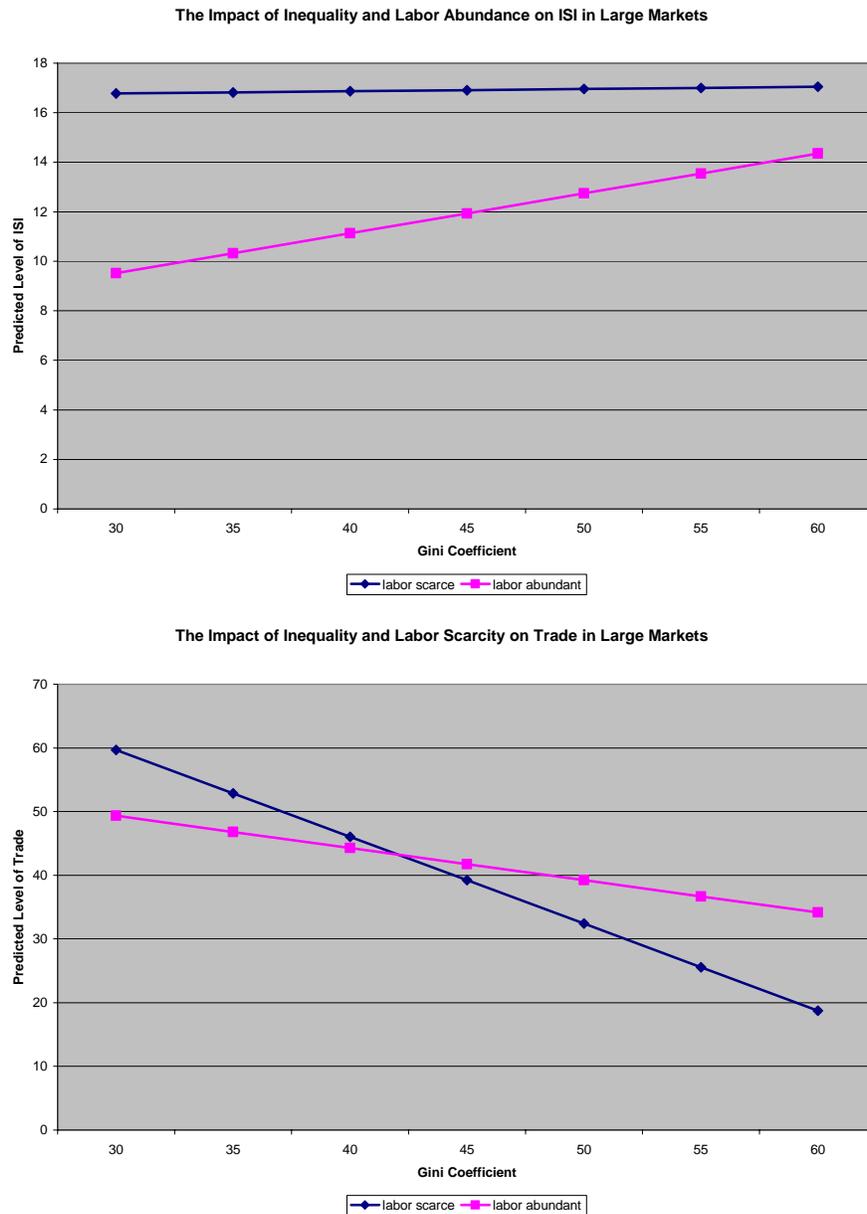
Note: The figures are derived from the results reported in Table 2 by setting market size at its 75th percentile, setting labor abundance at one standard deviation below its mean (labor abundant) and one standard deviation above its mean (labor scarce), and calculating the predicted values on ISI and TRADE across levels of inequality. Figure 4a shows that large, labor scarce economies are predicted to pursue ISI irrespective of levels of inequality. In labor abundant economies, on the other hand, the predicted level of ISI increases with levels of inequality. Figure 4b shows that increased inequality reduces trade exposure in both labor abundant and labor scarce economies. One can think of South Korea or Indonesia as representing the left hand extreme on the pink line and Nigeria or Turkey as the right hand extreme. The basic point is consistent with our argument that ISI will be pursued in large markets unless labor abundance and low levels of inequality combine to make urban-biased ISI policies unsustainable. In such cases, export-led development is more likely.

Figure 6a & 6b:
Plot of ISI against Predicted Social Security Spending

Trade against Predicted Human Capital Spending

Table 1:
Coefficients of Variation for Social Spending Variables

	Gov't Spend (% GDP)	Soc. Sec. (% GS)	Soc. Sec. (% GDP)	Health (% GS)	Health (%GDP)	Ed (% GS)	Ed (%GDP)
Min	0.03	0.05	0.03	0.06	0.03	0.04	0.06
1Q	0.10	0.14	0.18	0.12	0.10	0.10	0.10
Median	0.13	0.26	0.25	0.17	0.16	0.15	0.14
Mean	0.15	0.36	0.30	0.20	0.19	0.17	0.16
3Q	0.19	0.49	0.38	0.23	0.21	0.21	0.21
Max.	0.61	1.07	0.74	0.88	0.98	0.43	0.37
N=	83	50	53	52	55	52	55

Note: GS is Government Spending.

Table 2: The Impact of Market Size, Labor Scarcity and Inequality on Development Strategies

	Model 1: ISI	Model 2: Openness	Model 3: ISI	Model 4: Openness
Market Size	.325***	-1.558***	.318***	-2.287***
	(.085)	(.579)	(.092)	(.658)
Labor Scarcity	.147***	-.507**	.306	1.869
	(.044)	(.254)	(.338)	(2.113)
Inequality	.174	.728	.136	.905
	(.107)	(.618)	(.204)	(.536)
Labor Scarcity*Inequality			.001	-.045
			(.006)	(.046)
Natural Resources	-.059**	.553***	-.059**	.334*
	(.025)	(.148)	(.025)	(.178)
N	53	53	53	53
Adj. R-squared	.40	.26	.39	.26

Note: ISI = (manufacturing/gdp)-(manufacturing exp/gdp). Trade = trade/GDP. See Figures 4a and 4b for ways to interpret the interaction effects in Models 3 and 4.

***=significant at .01; ** at .05; * at .1

Table 3: The Impact of Development Strategies on Social Spending

	Model 1: Social Security	Model 2: Social Security	Model 3: Human Capital	Human 4: Human Capital
ISI	1.062***	.936***		-.023
	(.201)	(.195)		(.045)
TRADE		-.062***	.022***	.020***
		(.023)	(.005)	(.006)
GDP per capita (ln)	5.676**	5.955***	1.189***	1.636***
	(2.420)	(2.278)	(.422)	(.473)
Pop>64	2.205**	1.763**		
	(.925)	(.886)		
Democracy	.083	.175	.017	.013
	(.221)	(.211)	(.047)	(.046)
Pop<16			.029	.041
			(.068)	(.068)
N	50	50	55	51
Adj. R-squared	.62	.66	.32	.36

Note: ISI = (manufacturing/gdp)-(manufacturing exp/gdp). All variables are measured as their pre-debt crisis averages from 1960. Results are robust to the inclusion of growth, government size, and total years under democracy.

***=significant at .01; ** at .05; * at .1

<table>
Table 4: Social Spending Regimes and Outcomes

	Model 1: PC Income Growth	Model 2: PC Income Growth	Model 3: Inequality	Model 4: Inequality	Model 5: Insurance Priority	Model 6: Human Capital Priority
Insurance Spending	-1.398*		.117**		1.037***	
	(.725)					
Human Capital Spending		-.962		.364		.598***
		(.955)				
Initial GDPPC	-22.760**	-32.191***	-1.871	-4.678	7.392	8.081
	(10.173)	(9.591)				
Initial Gini			.709***	.728***		
Size of Government	.375	.752				
	(1.445)	(1.438)				
Inflation	-.045	-.063**				
	(.029)	(.030)				
Pop > 64					-.882	
Pop < 15						.025
Fertility Rate	-1.193***	-1.317***				
	(.299)	(.299)				
Democracy	2.550	1.493	-.217	-.130	.561**	-.186
	(1.632)	(1.495)				
N	56	57	29	34	51	52
Adj. R-squared	.34	.33	.66	.59	.81	.49
</table>

Note: Insurance Spending and Human Capital Spending are the key independent variables. In both cases they are measured at their pre-debt crisis levels. All of the dependent variables are averages for the post-1990 period.