**Welfare States in Developing Countries:  Unique or Universal?**

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**Abstract:**

Do varieties of welfare capitalism exist in the developing world?  This analysis challenges scholars of comparative political economy and international political economy who treat the political economies of less developed countries (LDCs) as more or less identical to one another or, at the other extreme, as nations marked by tremendous diversity. This paper is one of the first attempts to highlight systematic differences among the political economies of the developing world, particularly with respect to their distribution regimes.  Using cluster analysis, the results illustrate that welfare efforts in LDCs are either directed towards *promoting* market development (a productive welfare state), *protecting* select individuals from the market (a protective welfare state) or both (a dual welfare state).  The discovery of distinct patterns of welfare regimes in LDCs presents hitherto unknown implications for the influence of domestic politics and policies in late twentieth-century globalization.

Existing scholarship overlooks the possibility of varieties of welfare capitalism in the developing world. In contrast, discussions abound regarding identifiable and systematic differences in domestic institutional arrangements within the advanced capitalist countries, particular with respect to their distribution regimes. Is it feasible that distribution regimes of relatively poor countries also fall into distinct patterns? By implication or design, studies in comparative political economy (CPE) and international political economy (IPE) treat less developed countries (LDCs) as more or less identical to one another or, at the other extreme, as nations marked by tremendous politico-economic diversity. It is startling that neither scholars nor policy-makers have a clear sense of 'peer groups' among developing nations, outside of broad, amorphous categories such as region or level of economic development. This analysis challenges long-standing conceptions of LDC political economies by providing theoretical and empirical support for 'systematic divergence' in their choice set of social welfare policies. The discovery of distinct patterns of welfare regimes in LDCs presents hitherto unknown implications for the influence of domestic politics and policies in late twentieth-century globalization.

The gross lack of efforts to investigate commonalities among developing countries has its roots in CPE convergence debates that for decades focused only on developed nations. Convergence is defined as "the tendency of societies to grow more alike, to develop similarities in structures, processes and performances" (Kerr 1983:3). From the 1960s until the early nineties, scholars believed that only post-industrial societies could experience convergence, since (successful) industrialization requires a particular arrangement of social and economic forces.[1] The inference was that LDCs were marked by 'extreme divergence'. In other words, developing nations should be vastly different from one another because they are in the early stages of economic development.

An IPE strand of the convergence debate emerged in the early to mid nineties that, in time, came to include less developed countries more directly. Concerns of 'convergence' began assuming

central importance in the literature, given trends towards market integration. Regardless of the level of economic development, the issue was whether nations harmonize their domestic practices and social arrangements in response to the challenges of growth and prosperity in the global economy. As the debate evolved, the identification of set constellations of production and distribution regimes in the developed world became the key to the abandonment of the convergence hypothesis in favor of 'systematic divergence' (Esping-Anderson 1990; Hall and Soskice 2001; Huber and Stephens 2001; Kitschelt et al 1999). In LDCs, however, the systematic divergence hypothesis has never been explored. Instead, a small body of empirical research argued for convergence in LDCs through observations that expanding trade and capital flows encourage the widespread adoption of conservative fiscal policies to constrain purportedly unproductive, or 'inefficient', social spending (see, for example, Wibbels 2006; Rudra 2002; Kaufman and Segura 2001).

The critical issue here is that without vetting the third alternative, or the systematic divergence hypothesis, the extent of extreme divergence or convergence in developing countries cannot be confirmed. Scholars thus far have neglected any consideration of nationally negotiated social pacts in LDCs, and instead simply analyzed the *level* of social spending or, as in early CPE, did not look beyond the level of economic development to evaluate commonalities.[2] In the developed countries, one of the important ways in which scholars have successfully rejected the convergence hypothesis (and by default, extreme divergence) is based on the identification of three distribution regimes that provide for various levels of social welfare alongside market expansion.[3] Without similar consideration of LDCs' domestic institutional arrangements, it is simply impossible to know the prospects for convergence, extreme divergence or whether these states, too, are capable of managing distinct distribution regimes in late twentieth-century globalization.

By exploring the possibility of distinct welfare regimes in developing countries, this investigation critically analyzes the convergence and extreme divergence hypotheses and ultimately

finds that both camps err in their predictions. LDCs neither fall into uncountable country-specific patterns (extreme divergence), nor do they maintain relatively identical political economies due to pressures from international markets (convergence). Rather, building on Esping-Andersen (1990), this analysis identifies systematic divergence, or the existence of two ideal types of welfare states in the developing world. Efforts are primarily directed towards promoting market dependence of citizens (a *productive* welfare state) or protecting certain individuals from the market (a *protective* welfare state). Cluster analysis reveals a third group with elements of both: the weak *dual* welfare state. Findings from this analysis ultimately challenge the standard view that welfare states are part of 'late' capitalist development and take various forms only in the industrialized world. In effect, uncovering discrete pathways to LDC social progress and development opens up several new lines of research in political science, as well as subsequent policy-related analyses on equity, growth and poverty.

This study evaluates convergence by using other developing countries as a comparative reference point. Data limitations prohibit the observation of convergence over time. Indeed, this is how studies questioning convergence and systematic divergence in the industrialized nations were initiated and critical similarities and differences unveiled (Brickman et al 1985, Esping-Andersen 1990; Hall and Soskice 2001). But even more fundamentally for both IPE and CPE, the existence of systematic divergence late into twentieth century globalization suggests that domestic structures and policies of LDCs are not likely to easily erode in the near future, as is hinted in the current literature.

The structure of this paper is as follows. In the next section, I discuss the shortcomings of the existing comparative and international political economy literatures in recognizing the prospects for systematic divergence in developing countries. The second section presents the primary argument and identifies systematic variations in LDC welfare regimes. Section three uses cluster analysis to provide a statistical test of the proposed typology of LDC welfare regimes. Section four sets the

stage for future research by suggesting a causal story behind the cluster results. The final section

discusses implications, caveats and next steps.

**Existing Literature**

Existing research presents conflicting expectations of convergence in less developed countries.

The early CPE discussions of convergence in nations of the Organization for Economic Cooperation

and Development (OECD) advance two impressions of LDC political economies: (1) the types are

endless;[4] and (2) welfare states are precluded because of low economic development. First, the logic

implies that, if nations with high standards of living exist in a homogenous world, then countries with

low standards of living must live in a vastly heterogeneous one. Leveling forces of industrialization

are hypothesized to produce convergence in OECD social structures and policies, such as pluralistic

decision-making, the ability of the state to extract resources, and a preponderance of committed

industrial workers (for examples, see Form and Bae 1988; Kerr 1964). The existence of welfare

states is also one of the by-products of industrialization. Only nations at high levels of economic

development can form a welfare regime (Wilensky 1975; Cutright 1965). While these arguments are

plausible, CPE scholars have not tested their arguments as they apply to the LDCs, and IPE takes

opposing positions.

International political economy scholars imply that the challenges of growth in a globalizing

economy ensure significant similarities between the political economies of the many LDCs, and the

existence of an 'LDC welfare state' is implicitly assumed (Avelino et al. 2005; Cerny 1995; Rudra

2002; Garrett 2001; Wibbels 2006). Since LDCs face similar economic challenges (e.g., demand for

capital, large pools of surplus labor), they are expected to converge on neoliberal policies for the

purposes of attracting capital and promoting exports. The negative correlation between expanding

markets and social spending in LDCs provides confirmation of this hypothesis (Wibbels 2006; Rudra

2002; Garrett 2000).[5] However, by focusing on social spending per se, IPE scholars presuppose the

existence of the LDC welfare state without investigating its particulars. With little sense of the welfare state's salient characteristics, it is unclear how or why less social spending is necessarily associated with an embrace of market-friendly neoliberal policies. Leaders may very well engage in low (or decreasing) social spending while promoting 'illiberal' welfare measures, such as public employment or labor market protections.[6] The LDC convergence question thus remains unresolved.

Ultimately, the problem in both camps is that the systematic divergence hypothesis has not been explored in LDCs. The discovery of distinct patterns of production and distribution regimes has more or less put to rest expectations of convergence in the developed nations, but left open the question as applied to LDCs. Nevertheless, these advancements in the OECD literature hold important lessons for developing countries, as is often the case. First, studies indicating systematic divergence in the advanced economies suggest that the level of development does not necessarily predetermine the configuration of national political economies. Both Esping-Andersen (1990) and Hall and Soskice (2001) reveal that national political economies are what determine economic performance and social well-being, and not the reverse. Second, the detection of either distinct patterns of distribution regimes *or* productions regimes can confirm the systematic divergence hypothesis. This analysis focuses on distribution regimes to continue engagement with convergence debates in IPE literature. Finally, as Esping-Andersen (1990) demonstrates, the theoretical substance of welfare states is of import to political economy, along with the level of expenditures.

**Contemplating Systematic Divergence in LDCs: Patterns of Welfare Regimes**

Resolving the convergence debate in developing countries has significant implications for policy and politics, particularly given trends in market integration. If early CPE is indeed correct and extreme divergence prevails, policy decisions of LDC governments are without any (extraterritorial) bounds.[7] This would impose strong limitations on researchers and policy-makers committed to encouraging development in lower-income countries. Exemplars of history, the missions of

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international financial institutions, and generalized policy prescriptions lose persuasion in favor of 'wait and see'.  The opposite occurs if IPE scholars are correct and convergence exists, suggesting that domestic structures and processes are meaningless, and policy responds primarily to international economics.  However, if systematic divergence characterizes the developing world, policy-makers are responsive to local needs and politics (divergence exists), as well as some transnational forces, such as survival in a global economy (it is systematic).

*Questioning CPE convergence scholars*

This analysis challenges the contention of CPE scholars that welfare states are necessarily a post-industrial phenomenon.  The historical experience  of the OECD nations coupled with specific challenges of twentieth century globalization have made it impossible for LDC governments to ignore *embedded liberalism*, or calls to maintain social stability alongside market expansion (see Ruggie 1982; 1994).  The repercussions of nineteenth-century globalization, which focused on using state intervention to maintain "market-driven equilibria" instead of social protections, are well known: domestic unrest; economic breakdown; and   inter-state rivalries ultimately leading to World War I (Polanyi 1944).[8]  Largely in reaction to this experience, governments of OECD nations in the post-World War II period formalized their welfare regimes for the purposes of social welfare and stability (i.e. twentieth-century globalization).[9]  It is thus plausible, as Collier and Messick (1975) show, that the successful workings of welfare systems in advanced economies have provided important precedents for today's LDCs.[10]  In contrast, when today's advanced economies first embarked on the journey to industrialization, no real precedents for a welfare state existed.

Post-World War II globalization has been accompanied by new challenges, particularly for late entrants to the international market, rendering the economic and political costs of ignoring embedded liberalism very high.   First, the "magnitude, complexity, and speed" of today's global financial, commodity, and service market operations carry risks and uncertainties to citizens of *all*

nations.[11] Compared to the advanced economies, LDCs are in a position of 'maximum uncertainty', since only a few developing nations can actually influence the markets in which they trade and invest (Waterbury 1999). Second, social reactions to the market are a common thread in both developed and developing countries. This is evidenced in LDCs by the large number of labor and capital strikes in response to the adoption of neoliberal policies. Third, although labor as a class is not strong and suffers from collective action problems, there are pockets of labor groups which can and have affected social policies. Fourth, the relatively recent spread of democracy and its link to embedded liberalism should not be underestimated. The expansion of the right to vote puts all those negatively affected by globalization in a better position to insist that international market expansion be moderated with the pursuit of other objectives.

In conclusion, nineteenth-century style state interventionism in the current era is just as unlikely in the developing world as it is the OECD nations. The contention that embedded liberalism is common practice among LDCs casts doubt on CPE predictions regarding (the lack of ) welfare states and extreme divergence.

*Questioning IPE convergence scholars*

The first part of the IPE convergence argument seems plausible; challenges to growth in a global economy are likely to affect domestic social policy decisions. But how convincing is their reasoning that international market pressures ultimately force universal acceptance of market-friendly social policies? While some combination of markets and domestic interventionism for social welfare has been common to all countries post-WWII, the different historical, economic and political realities of LDCs suggest that their national social systems will differ not only from the OECD countries, but systematically vary from one another as well. This investigation rests on the premise that LDCs maintain some form of capitalist market economy. In all the countries in the sample, private enterprises exist, and the market remains the principal means of distribution.

The capacity to 'commodify' is likely to be the key factor differentiating LDC welfare states. This refers to the degree to which government-backed social policies ensure that the majority of people depend on wage-labor, with wage levels largely determined by market forces (see Esping-Andersen 1990). Commodification in this particular sense does *not* apply to the OECDs since the workforce is already 'proletarianized'.[12] Advanced welfare states in the postwar era have instead focused on counterbalancing proletarianization with 'decommodification', or permitting people to make their living independent of pure market forces (Esping-Andersen 1990).

Esping-Andersen (1990:2) argues that the first step in conceptualizing the welfare state involves locating the primary source of tension that gave rise to its particular political economy, or to the "state's larger role in managing and organizing the economy". In the early European experience, proletarianization was the major source of conflict (Esping-Andersen 1990; Koo 1990). However, concerns about *the absence* of proletarianization, particularly in the postwar era, have been the focus of LDC political economies (Koo 1990). This is chiefly because the progressive shift of the labor force from primary agricultural activities to secondary manufacture and tertiary commerce and services has not occurred as it did in Europe.[13] At issue, then, is not the elimination of *internal* 'class, inequality and privilege' as it has been in the OECD nations (Esping-Andersen 1990), but rather minimizing *external* divisions between the rich and poor economies by expanding wage-labor and 'catching up' with the industrialized nations.

Significantly, business as well as labor is dependent upon LDC welfare states that focus on commodification. Proletarianization in the current era arguably requires relatively greater state intervention. The demand for skilled labor has increased, and a minimal level of education appears to be a prerequisite for entering today's markets (Thompson 1995; Feenstra and Hanson 1996; Blunch and Verner 2000; Tendler 2003). Wood and Ridao-Cano (1999), for example, find that even in basic manufacturing sectors, workers in LDCs are generally low-skilled (not unskilled). This is in direct

contrast to the experiences of early industrializers, where private entrepreneurs needed much less state intervention to begin production (Gerschenkron 1962). Several scholars have argued that a 'de-skilling' of the workforce occurred in Europe during early industrialization, and literacy rates actually declined (Stone 1969; Nicholas and Nicholas 1992; Sanderson 1972).[14] Households, churches, and Sunday schools, rather than the state, provided primary education (Nicholas and Nicholas 1992).[15] According to the evidence presented by Goldin and Katz (1998), the complementarity between skill and technology did not begin until as late as the twentieth century.[16]

*Point of divergence*

Despite the intense need for LDC governments to focus on expanding wage-labor, some countries in the postwar era place substantially greater priority on decommodification *prior to* full-scale commodification efforts. First, the latter is politically much more difficult to achieve in some LDCs because of the mistrust that emerged towards international markets in the 1930s. Colonial interference and declining terms of trade for agricultural exports in that decade hampered the complementarity (real or perceived) between international market participation and the rapid expansion of formal wage-labor, at least in the early stages. Second, precedents set by the experiences of the OECD nations matter (Collier and Messick 1975); pressures on all governments to provide some degree of protection from market dependence intensified in the postwar period. Finally, LDC labor is more dependent on a 'decommodifying' welfare state than its early European counterparts. The former relies on the state to represent its needs because workers suffer from both persistent collective action problems (see Bellin 2000), and the prolonged absence of a guaranteed minimum income.[17] Developing states are inclined to intervene to provide this minimum income (through public works projects, public employment, labor market protections, etc.), since the transformation of surplus labor into formal wage labor has been occurring through the market process at an extremely slow rate.[18]

In sum, it is feasible that some developing countries prioritize protection from markets even *before* full-scale proletarianization has been achieved (i.e., a protective welfare state). If this is the case, not all LDCs will have 'productive welfare states' which direct welfare efforts primarily towards encouraging wage-labor. The implication is that the relationship between commodification and decommodification in LDCs may not be linear as it has been in the developed economies (see Figure 1).

*Delineating Different Welfare Regimes in Developing Countries*

 A blueprint for an LDC welfare state that promotes either commodification or de-commodification per se never existed. In the postwar era, referring back to the "primary tension that drives political economies", LDC welfare states took qualitatively different forms depending on *how* governments chose to address the lack of proletarianization and pursue their primary objective of creating a modern industrial order.[19] Government intervention in the economy was guided by one of two goals: making firms internationally competitive; or insulating firms from international competition.[20] Why political leaders pursued one strategy over another is based on a whole host of factors and explored elsewhere (see Waterbury 1999).[21] Central to this investigation is that ruling elites pursued social benefits compatible with the chosen development strategy, and key to this compatibility was the cooptation of potentially powerful groups.[22]

*Protective welfare states* have roots in a political economy that historically eschewed emphasis on international markets and ultimately focused government efforts on decommodification. The focus upon insulating domestic firms from international competition allowed politicians to exercise maximum discretion and control over the economy, particularly in the early stages. Absent the threat of international market competition and pressures of cost-containment, rulers could provide allowances to *both* workers and firms in the major industrializing sectors. Politicians had the

flexibility to employ direct and immediate benefits to workers contrary to employers' economic interests, mostly because the latter were compensated through other means (e.g. tariffs, subsidies).

Protective welfare states are consequently a curious fusion of elements of socialism and conservatism. Like the OECD social democratic model, protective welfare states have a strong distrust of markets. Both regime types claim to detest the dehumanizing effects of unfettered capitalism. Commonalities with the statist variant of the conservative model also exist, particularly with its emphasis on the preservation of authority (see Huber 1996). Conservative forces in the protective welfare states fear that international markets can destroy their power and privilege.[23] Leaders thus prefer social rights that simultaneously promote loyalty to the state and create divisions among social groups such as labor and business. Full-scale commodification certainly would make it difficult for the state to be *the* most dominant factor in the expanding international economy.

Yet protective welfare states in developing countries are distinct from both the social democratic and conservative welfare models in that emphasis on decommodification occurred prior to proletarianization and, consequently, social rights have been directed towards a small clientele. Welfare policies may not be redistributive and beneficent, even though they are often thought of in this way. Richard Titmuss (1965:27) long ago stated that "when we use the term social policy we must not […] automatically react by investing it with a halo of altruism, concern for others, concern about equality and so on." Before proletarianizaton occurs, making rights conditional upon labor market attachment, some work performance and actuarialism results in welfare benefits for only a small, privileged stratum.

*Productive welfare states*, in contrast, prioritize commodification, and initially evolved from systems which actively encouraged participation in export markets. The goal of encouraging international competitiveness of domestic firms creates an emphasis on cost-containment and requires governments to surrender some control over the economy.[24] The range of social policies is then

much more limited as rulers are constrained from pursuing worker benefits that are independent of employer interests. In other words, those policies prevail that can successfully serve the interests of workers and capital simultaneously.

Productive welfare states thereby share certain elements with the liberal model. In contrast to its counterpart, this regime-type embraces some of the nineteenth-century liberal enthusiasm for the market and self-reliance. The particular property of the liberal paradigm that ultimately comes to distinguish the productive welfare state is the emphasis upon strengthening the commodity status of labor in a globalizing economy. At the same time, the fundamental point of departure from the liberal model is that the state-market relationship is complementary rather than adversarial. Considerable public intervention aims to enhance international market participation. Social policies are circumscribed by this goal and promote worker loyalty without hindering business activity. In contrast, the OECD nations were never driven to be 'productive welfare states' per se because the proletarianization occurred gradually, spanning over two centuries, and required relatively less state intervention.[25]

The tension in this model lies in reconciling the push for dependence on wage-labor with demands for emancipation from the market. As argued earlier, an excessive focus on commodification puts system survival at stake. Furthermore, although labor market dualism will be less prominent given government measures to provide capital with an abundance of productive workers, a clear class hierarchy still exists. Efforts to keep pace with an already industrialized international economy results in the rapid, simultaneous expansion of white-collar and blue-collar work (see Koo 1990). The ongoing controversy then is the extent to which protective welfare policies can be selectively employed to ensure system longevity. Governments of productive welfare states can attempt to address this problem through repression or by offering some minimum level of protective social benefits, usually for white-collar workers. While it is feasible that a protective

welfare state could eventually evolve into a productive welfare state, *the reverse is unlikely to occur.*[26]

## Cluster Analysis:  Testing Contrasting Hypotheses

Do developing countries display convergence or extreme divergence?  Or, as this analysis posits, are the LDCs characterized by systematic divergence?   Is it possible to discern a distinct statistical pattern that lends support to the idea that different welfare models in the developing world do exist and that they correspond to the protective and productive typology outlined above?

Cluster analysis is a quantitative method that can help discriminate between the above hypotheses.  By allowing the classification of objects into relatively homogenous groups, this method can determine the number of LDC distribution regimes, if any.  Each group identified by cluster analysis is as internally homogenous as possible, but as distinct as possible from all other groups. The technique is applied to find similarities between units under classification, rather than interrelationships among variables (factor analysis).  The objective is to group $n$ units into $r$ clusters where $r$ is much smaller than $n$ (Lewis-Beck et al 2004).  Cluster analysis is one of the most popular means of constructing a typology.   Although it originated in psychology and anthropology, it has since become a valuable tool in biology, geography, political science, sociology, economics and mathematics.

To begin the search for natural groupings in the data, a clustering method must be selected. Partition, or non-hierarchical, methods do not apply here, since the number of clusters is not known *a priori*.  Instead, I apply the hierarchical agglomerative linkage method, which considers each observation as a separate group.  Next, the agglomerative algorithm considers $N(N-1)/2$ possible fusions of observations to find and combine the closest two groups.   This process repeats itself until all observations belong to a single group, and a hierarchy of clusters is created.   To begin this procedure, however, computation of a similarity or distance matrix between the entities is required. I

apply the most common representation of distance, or the Euclidean distance (Aldenderfer and Blashfield 1984; Everitt 1974) to calculate the distance between the units. To give a simple example, if two cases are identical, then the Euclidean distance between them will be zero. The final product is a tree-like representation of the data, or dendrogram, which illustrates the successful fusion of countries. It is completed only when all the countries are in one group.

Several agglomerative linkage methods exist in cluster analysis. The most common are single linkage, complete linkage, average linkage and Ward's method. These represent different mathematical procedures to calculate the distance between clusters. However, following standard practice in the social sciences, and given the disadvantages of single and complete linkage (see Panel on Discriminant Analysis, Classification and Clustering 1989), Ward's method is used and the weighted average linkage method is applied as a robustness check.[27] Ward's method is designed to optimize the minimum variance within clusters, and works by joining groups that result in the lowest increase in the error sum of squares (Ward 1963; Aldenderfer and Blashfield 1984). At each stage, after the union of every possible pair of clusters is considered, the method fuses the two clusters whose increase in the total within-cluster error sum of squares is minimal. Several studies have observed that, in comparison to the above-mentioned alternatives, Ward's method ranks first in the recovery of true clusters (Blashfield 1976; Tidmore and Turner 1983).

Cluster analysis will confirm the systematic divergence hypothesis if it reveals a distinct number of LDC welfare regimes corresponding to the productive-protective dichotomy. However, if early CPE speculations of extreme divergence are correct, then cluster analysis will demonstrate no identifiable pattern. The number of clusters will be large, far outnumbering the two patterns predicted in this analysis. Finally, the third possibility, IPE's predictions of convergence, will be confirmed if all developing nations fall into one cluster. At this point, however, the IPE literature lends itself to significant ambiguity. Are LDCs likely to converge upon productive or protective welfare states?

Recall that the central process underlying convergence tendencies is the challenge of growth in a global economy. On the one hand, most IPE scholars implicitly assume international market pressures will drive LDCs towards embracing social policies most similar to OECD liberal welfare states, which would result in productive welfare states. But at the same time, as this analysis points out, since the 1930s many LDCs have found that insulating themselves from international markets has been the best way to respond to the challenges of growth in the postwar era. Consequently, it is feasible that LDCs may instead have evolved into protective welfare states.

*Variables*

The primary goal is to assess welfare priorities in LDCs and whether they follow the predicted pattern of privileging commodification or decommodificaton.[28] Simply applying the most common method--examining government budget priorities -- is insufficient in developing nations for three reasons. First, to be consistent with Esping-Andersen (1990:19), "expenditures are epiphenomenal to the theoretical substance of welfare states." Second, as the World Bank (1990) and the International Labor Organization (ILO) (see Figueiredo and Shaheed 1995) have pointed out, governments of developing nations often employ less resource-intensive means to protect their workers, such as labor market policies and public employment.[29] Third, it is impossible to know whether spending is serving the desired goals, or serving clientelistic needs, as is frequently the case in LDCs (see Nelson 1999, *World Development Report* 2004). This issue is particularly salient in evaluating goals for commodification. If government spending is high, but the allocated resources are misused and have little effect on improving the health and education of (potential) workers, then the LDC cannot be a productive welfare state.

The difficulty here is the dearth and reliability of data that can capture such occurrences across LDCs. One solution, although imperfect, is to include a combination of policy, spending, and outcome variables. The other alternative is to wait for more effective institutions to evolve and, as a

consequence, more reliable data.  In such a case, the hazard is that policymakers and citizens of

LDCs are likely to face the consequences of a vicious cycle involving insufficient data, neglect of

important research and the persistence of weak, ineffective institutions.  Put simply, more effective

welfare institutions may be dependent upon analyses such as this one, which attempt to make use of

available data.

Exercising the first option, I build on the insights of the most renowned experts of welfare in

both developed and developing countries, Esping-Andersen (1990) and Dreze and Sen (1989)

respectively, to determine the most appropriate indicators of LDC welfare states.[30]  Spending and

outcome variables are used to capture extensive public efforts aimed directly at expanding the basic

capabilities of the population to suit wage-labor markets.  An emphasis on decommodification is

detected by pervasive policies and government spending geared towards protecting individuals from

the risks and uncertainties of the market.  Protective welfare policies are then more commonly

associated with (but not limited to) social-insurance type variables.  According to Esping-Andersen

(1990: 22), decommodification ultimately "strengthens the worker and weakens the absolute

authority of the employer".  While it is reasonable to expect some overlap between 'productive' and

'protective' variables in practice,  the division is driven by two very different logics and  produces

distinct socio-political outcomes (Dreze and Sen 1989, Esping-Andersen 1990).[31]  See Appendix A

for more detailed explanations of the data sources and variables discussed below.

*Variables representing productive welfare states*

Degrees of commodification are determined by the level of public investment in primary and

secondary education, and basic healthcare, as well as literacy rates, rates of infant mortality, and the

percentage of infants vaccinated against diphtheria, pertussis, and tetanus (DPT).[32]  I use the

conventional method of observing government expenditures on education and health as a proportion

of the total public budget since this is the most precise measure of *government commitment* (see

Rudra and Haggard 2005).   To put this in perspective, if education spending, for example, is measured instead as a percent of GDP,  countries like Korea and Singapore fall in the same percentile range as developing countries such as Mali, Malawi and Liberia.  But measuring spending relative to the total budget more clearly reveals qualitative differences between LDC welfare states, and it unveils a considerable variance between countries.  As a compromise, I apply spending as a percentage of GDP and per capita spending as robustness checks.

The outcome variables (literacy, mortality, and immunization rates) help the analysis for two reasons.  First, outcome variables reflect past policies.  Nations with a legacy of responsiveness to international markets are likely to have pursued market-promoting social policies at an early date.  In other words, if LDCs have high 'outcomes', it suggests previous leaders have emphasized commodification.  This is particularly relevant since, as mentioned earlier, once the process of proletarianization is complete, it cannot thereafter become a protective welfare state.  Second, outcome variables can help see beyond the numbers. Public officials might be engaging in high levels of clientelism, using resources for patronage purposes rather than affecting positive outcomes. From this perspective, high levels of spending alongside low outcomes are telling, indicating weak government commitment towards a productive welfare state.  However, since other factors might determine outcomes in addition to government spending (efforts of nongovernmental organizations, GDP, etc.), I drop all of the outcome variables and run the model again as a check.  The cluster groupings are almost identical, although, as predicted, the differences between clusters are less obvious *but still statistically significant* (see Appendix B).

*Variables representing protective welfare states*

Five variables capture the extent to which LDC governments aim to protect workers from market risks and uncertainties:  the extent of public employment; spending on social security and

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welfare (pensions, family allowances, unemployment, old age, sickness and disability); housing

subsidies; labor market protections; and investment in tertiary education.  As a final point, while

means-tested poor relief should also be included under protective welfare policies, cross-country

comparable data are virtually non-existent.[33]

Public employment is one of the most pervasive methods of market protection in LDCs (see

Rodrik 2000).  In some cases, it provides short-term security in earnings, such as hiring for public

work projects, but in the larger number of instances, the public sector provides "secure" jobs (Rodrik

2000, Gelb et al 1991).  As Robinson states:

> The permanent  status that many, in some cases the majority of, civil service employees enjoy
>
> means that apart from dismissal for grave disciplinary reasons they are assured of
>
> employment until retirement, providing a degree of protection and privilege not found in the
>
> private sector (Robinson as quoted in Rodrik 2000:231)

Given that cross-country comparable data on public employment is extremely sparse, the percentage

of government budget spent on employee wages and salaries is used to estimate this variable.

Analyzing spending on social security and housing as means to guard against income risks is

common in the broader welfare literature.  In LDCs, pensions tend to be the largest component of this

spending, ensuring a steady flow of income over a lifetime, regardless of market shocks and

uncertainties.  Unemployment, family allowances, and sickness protections, though less common,

provide security in the face of short-term absence from the market.  Housing subsidies also help

stabilize incomes (Chapman and Austin 2002, Renaud 1984).  Higher-skilled workers, and especially

civil servants, often receive housing as part of their wage package.

Labor market protections are common LDC welfare measures that help 'guarantee' incomes

by placing institutionalized restrictions on firms' hiring and firing decisions (Betcherman et al 2001).

Data for such protections, however, are beset with problems (Rama and Artecona 2002).  One

reliable, albeit crude, indicator is the ratification of ILO conventions by nations. Enforcement standards are relatively nil, and ratifications do not necessarily translate into policy innovations. However, recent research has shown that ratification has a significant effect on labor costs (Rodrik 1996) and can reflect internal political factors such as government preferences or the power of left wing parties (Brookmann 2001). It is fair to assume then that labor market protections will be relatively low in countries that have ratified a very low number of ILO conventions (e.g, US, Korea, Singapore). [34]

Lastly, the provision of free or heavily subsidized tertiary education when primary or secondary level education access is less than universal awards strong promise of future income security to those who have access to the former (see World Development Report 2003).[35] Particularly since high-skilled labor is in relatively high demand yet scarce supply in the majority of LDCs, such workers can secure great advantages in the bargaining process.

**Analysis Results**

The results of the cluster analysis are shown in Tables 1-3. Because cluster analysis has a low tolerance for missing data, the final sample size is 32. This sample is still marked by regional and economic diversity, and thus remains fairly representative of LDCs. Each variable represents data averages for 1990 through 1997 (the latest date to which cross-national data is available for a large number of LDCs). Results are analyzed in the following three steps: (1) assess how many cluster groups exist; (2) determine which countries fall into each cluster; and (3) evaluate the characteristics of each cluster and its member countries to assess whether or not they confirm systematic divergence.

The first critical step is to determine the number of clusters present in the data. The number is a question of particular interest, since it could provide support for CPE, IPE or systematic divergence.

If, as implied by CPE, no cluster structure is shown, then efforts to identify a few broad categories of welfare states among LDCs are meaningless. The distinctions between countries are greater than the similarities between them. At the other extreme, a single cluster would imply that developing countries as a whole are a relatively homogenous group. The IPE view then prevails, and state intervention to "create a modern industrial order" has had more or less the same welfare consequences in all developing countries.

Over thirty 'stopping rules' (procedures to determine the number of clusters in a data set) are applicable in cluster analysis. Fortunately, Milligan and Cooper (1985) conducted a well-known study to distinguish among them and assess which criteria provide the most valid test for the existence of a cluster. Their experiment suggests that the Duda and Hart (1973) procedure was one of the best. Duda and Hart Je(2)/Je(1) estimates are presented in Appendix C.[36] Results from this method surprisingly indicate that a *three*-group solution is most distinct in this hierarchical cluster analysis, contrary to the expected two ideal regime-types. The next step is to determine which countries are in each cluster. Table 1 presents the country members of the three clusters. This pattern reveals that, although region plays a role, it is not a predominant factor in the groupings. While only Latin American countries comprise cluster two, the members of clusters one and three represent Africa, the Middle East, East Asia,[37] Latin America and South Asia. Income effects appear to play a relatively larger role, although, again, not a decisive one. Cluster three contains only low-income and lower-middle income countries. However, cluster one reveals a more economically diverse set of countries, ranging from lower-middle income to high income LDCs. This finding shows that poorer nations can also successfully promote commodification. Cluster two similarly contains both low-middle and high-middle income countries.

The existence of three clusters fundamentally challenges the extreme divergence and convergence hypotheses. The next logical question is whether the statistical analysis supports

systematic divergence, or predictions of the two ideal types--productive and protective welfare states. To assess this, the clusters are ranked according to their levels of welfare efforts towards protection and production. Decile data are computed for each welfare variable, and then each cluster (and country) is ranked from 1 to 10. For example, the first decile is the point with 10% of the data below it and 90% above it. It is given the lowest score of '1'. The ninth decile is the point with 90% of the data below it, while the score given to values within the top 10% is '10'. Table 2 displays these values. The greatest weight is placed on the cluster averages, since the statistical procedure uses alogorithms to differentiate the most homogenous *groups*. It is noteworthy that differences between deciles tend be quite significant.[38] The average for each country within the cluster is important, but each welfare category contains information that should not be overlooked. See Appendix D for a graphical representation of the results (dendrogram).

Focusing on the cluster averages, several patterns emerge. Clusters one and three appear to favor the productive and protective components of welfare, respectively. Cluster two, in contrast, favors neither welfare state category. This discovery reveals that some LDC welfare states take dual roles in the postwar economy, raising questions about whether dual welfare state status is transitory. A detailed breakdown of the clusters is given below.

Cluster one clearly privileges commodification over decommodification. As would be expected, several of the East Asian economies, as well as some Latin American countries noted for their emphasis on education (e.g., Costa Rica) fall into this category. The average scores for commodification are higher than the average scores for decommodification in most of the member countries. Panama and Paraguay appear to be anomalies, since their scores do not appear to reflect the prioritizing of productive welfare activities. However, this turns out not to be too surprising for, as we shall see, further robustness checks reveal that these two countries (along with Greece) appear to be sensitive to model specification and fluctuate between clusters one and two.

In cluster three, empirical evidence for the LDC welfare paradox is highly suggestive: poorer countries, which arguably need productive welfare states the most, appear to be expending the least effort towards this goal. Attention to housing and tertiary education seems to factor in most prominently in the protective welfare states. The outcome variables are telling. For several LDCs (e.g., Egypt, Lesotho, Morocco), despite their high spending on primary education, literacy rates remain low. This suggests that funds are being used for clientelistic purposes or are simply incommensurate with the level of need. Health spending also appears to be regressive in relation to outcome variables. On the other hand, several LDCs in this category rank in the top percentiles for protective categories such as wages and salaries and tertiary education.

Finally, cluster two appears to place emphasis on productive and protective activities, yet average scores for both welfare categories are moderate (i.e., 'five'). This cluster is more appropriately labeled a *weak* dual welfare state, since these countries place more emphasis on the proletarianization process than the protective welfare states, but significantly less than the productive welfare states. In terms of commodification, the difference between cluster two and cluster one is that *both* health and education are stressed in the latter.[39] Uruguay is an exception. However, its level of health spending is low relative to cluster one. Brazil's profile is also distinct in that, although education spending is low, and outcome variables are not as high as other members of cluster two, its literacy rates outrank similar middle-income LDCs in cluster three. Most striking is that, on the protective side, cluster two ranks in the highest percentile for labor protections (ilocnv) and social security and welfare. On the other hand, average scores for housing, wages and salaries, and tertiary spending are considerably lower than in clusters one and three.

The existence of cluster two is an important revelation. Based on the theoretical discussion, we can expect that governments of weak dual welfare states in the early postwar period were not completely hostile to international markets. It is certainly possible to be primarily inward-oriented

but, at the same time, encourage some export competitiveness.  Cluster two, then, represents a

combination of the two ideal regime types:  social policies that respond to the demands of capital *and*

the needs of labor groups.  Consequently, relative to the other two clusters, we might expect

heightened political competition for scarce public resources.  Partisan politics, for example, may be

vibrant in these countries.  One optimistic scenario is if partisan politics can successfully steer greater

productive welfare efforts, they can offset the tendency towards elitism engendered by early

decommodification policies.  This raises questions about the transitory nature of this cluster; weak

dual welfare states could get mired in partisan politics that ultimately perpetuate the status quo (if

capital and/or protected labor wins) or they could move incrementally towards productive welfare

status (if structurally unemployed labor groups win).

*Robustness Checks*

Do the cluster results hold up to changes in the conditioning information?   Results for the

cluster groupings and member countries are highly robust to three important changes.  First, I run the

analysis using an alternative to Ward's method.  One common problem associated with Ward is that

it tends to heavily influenced by outliers (Ketchen and Shook 1996).  To check this, I use instead the

weighted average method, which gives groups equal weighting in determining the combined group

regardless of the number of observations in each group.  Given that differing clustering methods most

often produce different results, Lorr (1983) suggests that similar results from two distinct methods

provide great confidence that the underlying structure is being recovered.  As a second and third

robustness check, I substitute the welfare variables measured relative to GDP and GDP per capita in

place of those measured as a proportion of  total public expenditures.  With the exceptions of Greece,

Paraguay and Panama, which fall into cluster two (instead of cluster one), the results are identical in

both models.

**Initial Interpretation of the Results**

The statistical estimates suggest that developing countries tend to favor productive or protective welfare states. Scholars from a variety of disciplines have long recognized the intrinsic and instrumental values of *both* productive and protective types of social legislation (see, in particular, Dreze and Sen 1989). So why, then, the ultimate trade-off between commmodification or decommodification efforts in LDCs? Close attention to how historical legacies of managing state-international market tensions have affected welfare states sheds some insights on these results. Building on the neoclassical political economy (NPE) and historical institutionalist literatures, it can be understood that the initial choice of development strategy and complementary welfare policies create distributional coalitions, which thereafter have a vested interest in maintaining existing institutions and reinforcing them.[40] This analysis thus presents the possibility that institutional continuity is linked to the role of positive feedback effects from the original distribution regimes.

The NPE approach maintains that state intervention encourages the formation of narrow interest groups that engage in rent-seeking behavior.[41] Government intervention in protective welfare states initially creates social policies that cater to the groups empowered (directly and indirectly) by minimal international market exposure (i.e., workers in the civil services, military, urban formal sector and salaried workers). These distributional coalitions make it increasingly difficult for the government to engage in the significant amount of redistribution required to promote commodification. Productive welfare states, on the other hand, introduce benefits acceptable to employers struggling to compete in the international economy. Demands for greater labor benefits are subsequently met with stiff political resistance. Leaders are ultimately loath to pursue policies that alienate their traditional support groups and increase social instability. As a consequence, this self-reinforcing process suggests that once welfare regimes are institutionalized, actors and interests may undergird their existence.[42]

Testing the precise causal relationship linking industrialization strategies, welfare regime types, distributional coalitions, and path dependence is beyond the reach of this paper. However, one way to assess if there is some link between LDCs' initial decisions regarding extent of participation in international markets and the welfare regimes that evolve (and persist) is to compare early development strategies with the recent (1990s) cluster groupings. Signs of such a connection can be taken as a preliminary indication that social actors who benefited from the original welfare arrangements made reversals increasingly unlikely.

To get some sense of initial postwar development strategies, I examine the level of manufactured exports (as a percentage of GDP) in each country at the earliest dates available and compare this to their 1990s commodification-decommodification scores.[43] After crises erupted in many LDCs following initial experimentation with import-substitution, most settled upon their distinct industrialization strategies by the late sixties and early seventies. Unfortunately, export data from the 1970s is the earliest available for most developing countries. Economies that focused on orienting firms towards international markets are expected to reflect high levels of manufactured exports. Figure 2 lends support to the assertion that more inward-oriented LDCs (low manufactured exports) in the earlier decades tend towards protective welfare regimes (low commodification scores) in the present. The chart thus provides first indications of a connection between early development strategies, the implementation of (initially) compatible social policies, and the distributional coalitions that evolve to defend it. Of course, correlations do not account for control variables that might also affect these outcomes (e.g., inequality, country size, political freedoms, partisanship) and possibly explain outliers.[44]

This exposition does not allow any analysis of institutional change. Clearly some LDCs have experienced changes in their welfare regimes such that they no longer correspond to their early development strategies. For example, countries such as Colombia and Costa Rica pursued mostly

inward-oriented development strategies in the early postwar era, and yet they are productive welfare states.[45] Already steps ahead, research on OECD distribution regimes has convincingly shown how endogenous political dynamics can alter supporting coalitions and their functional roles to produce very different institutional arrangements (see Pierson 2004; Thelen 2004). The role of distributional coalitions in creating 'lock in' has only been implied here; more rigorous theoretical analysis and testing of *both* institutional reproduction and transformation are required. It would also be worthwhile to analyze how democracy alters or reinforces tendencies towards path dependency.

**Implications and Next Steps**

This study challenges prevailing CPE and IPE conceptions of developing political economies by illustrating systematic divergence in their welfare states. Contrary to CPE expectations, welfare states are not necessarily by-products of post-industrial development, and they cluster into three distinct welfare regime types. Findings from this analysis also question IPE convergence predictions by demonstrating that LDCs maintain qualitatively different kinds of distribution regimes in the current era of globalization. As suggested by IPE, pressures of international market competition impose important constraints on policy-makers in terms of the choices made on how best to strengthen their position in the global economy. But, at the same time, the variation among the types of welfare states implies that local needs and politics continue to serve as important sources of diversity. The LDC welfare state thus remains a key institution to manage the tensions and dilemmas that emerge from exposure to the international economy. The existence of three clusters of welfare regimes well into the twentieth century intimates that LDCs, similar to the developed nations, demonstrate a sustained capacity to formulate systematically different social policies to align economy and society.

Before stressing the broader implications, however, it is important to be clear about the theoretical and empirical limitations of the analysis. The proposed causal explanation linking LDC

policy-makers, development strategies, distributional coalitions and welfare-regime type is tentative and begs further exploration. Empirically, findings from this study can only be suggestive. The unavailability of data impresses strong limitations on the number of observations included and, consequently, the kinds of econometric tests employed. Future research would greatly benefit from more extensive and reliable time-series data.

Nonetheless, this first attempt to uncover 'varieties of welfare capitalism' in LDCs based on existing data is provocative. To the extent that the analysis has hit upon key differences in welfare regimes, important policy and research implications emerge. First, it illustrates how and why popular social policy reforms touted by international financial institutions (e.g., increased investment in education, labor market liberalization) may be more successful in some countries than in others. Second, the possibility of distinct LDC welfare regimes signals that developing countries should also be included in some of the central, ongoing debates in political economy (e.g., varieties of capitalism, political economy of welfare state development). For consideration in the varieties of capitalism literature, this analysis suggests that key strategic interactions or relationships, may be just as important and identifiable in LDCs as well as in the OECD nations. For example, strategic interactions may occur in protective welfare states between domestic capital, the *protected* labor strata, and government. Productive welfare states, on the other hand, may be influenced by strategic interactions between governing elites and the owners of domestic and foreign capital. The welfare models not only set the broad parameters of social policy debates, they can also help identify which actors will be at a strategic advantage. In this way, a new approach to exploring how "politics matters" in LDCs can be pursued. Such analyses can provide greater nuance to understandings of LDC domestic politics by highlighting axes of social conflict beyond the traditional capital-labor dichotomy.

The stage is set to ask even more specific policy-oriented questions. From a policy perspective, we want to know the trade-offs, if any, between equity, growth and poverty in one political economy versus another. Do the productive welfare states have less poverty but more social stratification problems than the protective ones? Conversely, do higher poverty levels drive nations towards protective or productive welfare states, or vice-versa?

Finally, for IPE, an important future research implication is that we now have added tools to address the globalization question. This analysis suggests that simply analyzing the level of government expenditures in the globalizing LDCs, as previous studies have done, can be meaningless. Rather, recognizing the different domestic arrangements related to welfare in LDCs provides a more precise way to assess whether the historic choices of these nations (productive, protective, dual) will continue to remain durable in the face of rising international market competition. As stated above, the cross-sectional nature of this analysis provides important insights into LDC political economies, but it prohibits a more complete test of IPE convergence theories. The fundamental challenge ahead is to determine whether or not developing nations can maintain their welfare institutions *into the twenty-first century*, particularly as international market pressures intensify with the entrance into the market of such potential powerhouse countries as China and India.

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[1] These analyses follow from stagist or modernization theories of the 1960s.

[2] Gough et al (2004) are an important exception that discusses LDC welfare regimes. However, they do not focus on locating their typology within the traditional political economy debates discussed in this analysis, and they introduce an impressive list of descriptive factors that are difficult to

operationalize across all cases (e.g. insecurity).  Additionally, Kurtz (2002) presents an interesting analysis of welfare regimes in Chile and Mexico.

[3] The discussion of Esping-Andersen's (1990) three welfare regime types is presented in more detail later.  Note that the identification of different production regimes in advanced nations has also been used to question the convergence hypothesis (see Kitschelt et al 1999).  However, as explained later, this analysis focuses on the existence of distribution regimes to discriminate between convergence and divergence hypotheses.

[4] The literature on strong and developmental states serves as an exception to the assumption of extreme divergence amongst developing countries.  However, the problem is that this literature effectively depicts the political economies of a select few Northeastern Asian countries; by default, the rest of the developing world falls into a single residual category defined by the absence of some basic characteristics essential for growth. In other words, in this literature, the majority of LDCs are identified on the basis of what political institutions they do *not* have rather than what they do have.

[5] Social security policies in particular are regarded as poor market disciplining devices on labor.  The upward pressure on labor costs and dampening effects on work incentives discourage exports.  The revenue generation required for social security through taxation is expected to discourage both productive and financial capital.  Although tests of this convergence thesis in the developing world are limited, IPE discussions of convergence as applied to nations more generally are vast (for examples, see Gill 1995; Evans 1997; Cerny 1995; Steinmo 1994).

[6] Note that reductions in public employment and labor market deregulation are basic components of the structural adjustment programs (i.e., neoliberal reforms) advocated by the International Monetary Fund and World Bank.

[7] Recall that proponents of the convergence hypothesis in CPE suggest that that high levels of economic development provide the primary context to which policy makers respond.   This is

'extraterritorial' in the sense that decision-making in the OECD nations is driven by similar forces and thereby transcends national boundaries. By inference, then, low levels of economic development provide no specific context to which policy-makers respond.

[8] Examples of nineteenth-century state intervention are tariffs, access to capital, and encouragement of large-scale industries (Gerschenkron 1962).

[9] See Pitruzzello 2004 for a discussion of the differences between nineteenth- and twentieth-century globalization.

[10] I am grateful to Benjamin Cohen for emphasizing this point.

[11] See Keohane and Nye's (2000) discussion of what is new (and not new) about contemporary globalization.

[12] Differing from commodification, proletarianization refers specifically to the outcome, or the *successful* dependence of the majority of the workforce on (formal) wage-labor for survival; a stage long past in OECD nations.

[13] See data presented by Erickson and Peppe (1976) that confirm this trend in OECDs. See Browning and Roberts (1990) for an alternative argument. In most LDCs, secondary sector employment remains limited, while the tertiary sector, distinguished by large numbers of informal sector workers, has been forced to absorb much of the rural surplus (Koo 1990; Evans and Timberlake 1980; Erickson and Peppe 1976).

[14] This term refers to the replacement of skilled workers by a large class of unskilled, subliterate factory operatives. See Nicholas and Nicholas 1992.

[15] Some argue that, because of the laissez-faire tradition, states hesitated to intervene in education. Initiatives to do so began in the late 1800s (Kiesling 1983). To give one important example, the first real non-private school in England was introduced as late as 1944 with the 1944 Education Act. This

permitted local authorities to establish and maintain both primary and secondary schools. (Morrish 1970: 83)

[16] Goldin and Katz (1998:694) describe technology-skill complementarity as when the "skilled or more educated labor is more complementary with new technology or physical capital than is unskilled or less educated labor."

[17] For many of the early industrializers, agriculture played a strong role in industrialization, while in the LDCs, as Bates (1981) argues, the popular strategy of rapid industrialization often came at a cost to the efficiency of the agricultural sector. The end result is a large surplus labor economy in which the absorption rate of labor is persistently low. This is not to deny that much of Europe had a large surplus (rural) population when welfare policies were first adopted. However, as Pandit and Casseti (1989) show, the level and rate of absorption of labor into the manufacturing sector has been considerably slower in the developing world compared to the now developed countries. This has been further exacerbated by trends in the twentieth century towards greater mechanization (Baer and Herve 1966).

[18] These government measures are decommodifying in the sense that workers become less dependent on the market.

[19] Kurtz (2002), Kuruvilla (1996), and Huber (1996) make related arguments about the connection between industrialization strategy and social policies. It is Bates's (1981) proposition that an LDC government's primary social objective is to create a modern industrial order.

[20] While state intervention could be directed towards both goals, historically LDCs have tended to advance more in one area while retreating in the other.

[21] One possible objection is that the causal arrows could be reversed and high levels of human capital (commodification) influenced LDCs to be more accepting of international market participation. While there might be some merit to this claim, a relatively highly educated workforce was no

guarantee that LDCs would pursue outward-oriented strategy. Argentina and Uruguay, for example, had the highest rates of literacy (91%) in the developing world in the 1960s; however, they pursued the alternate strategy and rejected emphasis upon international market participation.

[22] This was feasible since the planned nature of industrialization meant that governments more or less knew who the winners would be.

[23] See, for example, Esping-Andersen's (1990: 41) discussion of statism and how it was feared that capitalism would destroy power and privileges.

[24] For example, even if governments intervene in the setting of price and wages, their decisions will be constrained by considerations of international market performance.

[25] Recall that proletarianization was supported initially by private and nongovernmental institutions (see note 14). Much of the OECD welfare states literature takes commodificaton as a given, and focuses instead on government attention to developing a highly skilled workforce and training systems. See, for example, Hall and Soskice 2001.

[26] In other words, if productive welfare states are successful, they cannot become 'protective', since the latter emphasizes decommodification *before* commodification.

[27] I use the weighted average linkage method so that if some of the clusters are small, the results will not be biased. This method gives equal weight to groups with small numbers of observations.

[28] Significantly, the concept of decommodification applied in this analysis is necessarily broader than Esping-Andersen's interpretation. For critiques of Esping-Andersen (1990), see for example, Room (2000).

[29] Arguably, while these policies command relatively less government resources, they may ultimately be more expensive for the larger society in LDCs.

[30]The productive-protective dichotomy builds on Dreze and Sen's (1989:16) distinction between 'promotion' and 'protection'.

[31] For example, some scholars argue that protective welfare benefits (e.g., pensions, labor protections) make workers more productive in the marketplace. The productive-protective dichotomy deals with ideal types and, in reality, we should expect some overlap, or modal tendencies of population distributions, between the polar alternatives.

[32] Note that immunization against measles is also included and does not affect the cluster groupings (not shown here).

[33] This should not affect the findings from this analysis, because such policies are usually allotted a very small budget in LDCs (Subbarao et al 1997). Targeting options in LDCs are expensive due to the administration costs of identifying, reaching and monitoring the target population (Grosh 1994).

[34] As a robustness check, I also run 'labor regulation data' constructed by Botero et al (2004). The drawbacks for using this data set are that it focuses on one year, and data is missing for three LDCs from the sample. Excluding the major outliers, the correlation between the ILO data in the sample and Botero, et. al. is 0.65. The final results differ in that Panama, Paraguay, Greece, Colombia and Thailand fall from cluster 1 (productive) to cluster 2 (dual).

[35] Demographics play an important role in determining levels of public spending on education and social security. Note that, in addition to assessing the different levels of education spending (primary, tertiary) as a percentage of total government expenditures, they are also measured as a percentage of GDP, and spending per student relative to GDP per capita. Although the final cluster results are minimally affected by the alternative specifications, the latter is emphasized since it is the only measure that takes demographics into account. Several countries in Africa and South Asia, for instance, show average levels of spending on primary education. Yet because these LDCs have the highest growth rates of school-age population, the number of children actually benefiting from state assistance is quite small, and the lack of funds is creating an education crisis. Evaluating LDCs on the basis of per student spending provides a more accurate assessment of commitment to primary

education. Zambia, Bangladesh, and Malawi are excellent examples. This measure also effectively captures disproportionate spending on small populations of students enrolled in tertiary education. For social security and welfare, however, controlling for number of beneficiaries was more complex, since the data does not tell us the number of aged persons receiving these benefits. In addition, this category is not limited to pensions. Nonetheless, to get a general sense of the impact of elderly demographics, a variable is created by dividing the social security and welfare data by the proportion of aged persons over 65. The results are very similar, with only Panama dropping from cluster 1 to cluster 2.

[36] Duda and Hart's ratio criterion is Je(2), which is the sum of squared errors within a cluster when the data are broken into two clusters. Je(1) provides the squared errors when one cluster exists. The three-group solution is most distinct here since the sum of squared errors (Je(1)) increases substantially in the four-group solution. The conventional rule for deciding the number of groups is to determine the largest Je(2)/Je(1) value (0.6622) that corresponds to a low pseudo T-squared value (5.1) and has a higher T-squared value above and below it.

[37] Indonesia is originally included in the cluster 3 but has to be dropped from the analysis because data necessary for robustness checks are missing.

[38] For example, LDCs falling in the sixth decile for primary education spend almost 30 percent more per student per capita than LDCs in the fifth decile.

[39] Notice that, in cluster 1, the spending or outcome variables (or both) in health and education are high.

[40] This proposition derives from arguments that state intervention creates distributional coalitions (see Colander 1984), and also builds on the institutionalist theories of path dependence (see Thelen 1999; 2004).

[41] Rent-seeking refers to lobbying activities triggered by different licensing practices of governments. The increased income gains of the beneficiary occur at a loss to the greater society. See, for example, Collander 1984.

[42] This path dependence can be disrupted by significant events such as repressive dictatorships or economic crises. See, for example, Collier and Collier 1992.

[43] I focus on manufactured export ratios instead of trade ratios to obtain a more precise indicator of industrialization strategy. For instance, LDCs that export primary products but adopt inward-oriented industrialization strategies have high trade ratios that would make them appear outward-oriented. The commodification-decommodification scores were calculated by subtracting each country's decommodification score from its commodification score in Table 2.

[44] Note that, as the previous section details, categorization of Paraguay and Panama in cluster 1 is not robust.

[45] Significantly, these countries contrast with LDCs that remained protective welfare states in the nineties, even after switching to outward-orientation strategies as early as the 1980s (eg., Turkey, Morocco, India).

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**Table 1: Cluster Groupings**

| Cluster 1 | Cluster 2 | Cluster 3 |
|---|---|---|
| Chile | Argentina | Bolivia |
| Columbia | Brazil | Dominican Republic |
| Costa Rica | Mexico | Egypt |
| Cyprus | Uruguay | El Salvador |
| Greece | | India |
| Israel | | Iran, Islamic Rep |
| Korea,.Rep. | | Lesotho |
| Kuwait | | Morocco |
| Malaysia | | Tunisia |
| Mauritius | | Turkey |
| Panama | | Zambia |
| Paraguay | | Zimbabwe |
| Singapore | | |
| Sri Lanka | | |
| Thailand | | |
| Trinidad and Tobago | | |

**Table 2: Cluster Analysis***

| | Country | Commodification | | | | | | Decommodification | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Immunization | Infant Mortality | Literacy | Primary+ Secondary Education Spending | Health Spending | Country Average | Housing Spending | ILO Conventions | Wages and Salaries Spending | SS & Welffare Spending | Tertiary Education Spending | Country Average |
| **Cluster 1 (Productive)** | Chile | 9 | 8 | 8 | 2 | 10 | 7 | 7 | 7 | 3 | 10 | 2 | 6 |
| | Colombia | 2 | 6 | 6 | 7 | 9 | 6 | 5 | 8 | 2 | 4 | 3 | 4 |
| | Costa.Rica | 7 | 8 | 8 | 5 | 10 | 8 | 1 | 7 | 10 | 8 | 5 | 6 |
| | Cyprus | 10 | 9 | 9 | 9 | 5 | 8 | 8 | 7 | 8 | 9 | 1 | 6 |
| | Greece | 4 | 9 | 9 | 3 | 7 | 6 | 3 | 9 | 4 | 8 | 2 | 5 |
| | Israel | 10 | 10 | 7 | 9 | 6 | 8 | 8 | 6 | 1 | 9 | 4 | 6 |
| | Korea,.Rep. | 5 | 10 | 10 | 6 | 1 | 6 | 4 | 1 | 1 | 5 | 1 | 2 |
| | Kuwait | 7 | 9 | 3 | 8 | 3 | 6 | 6 | 3 | 4 | 5 | 9 | 5 |
| | Malaysia | 8 | 8 | 5 | 8 | 4 | 7 | 9 | 3 | 5 | 3 | 8 | 6 |
| | Mauritius | 6 | 7 | 5 | 7 | 8 | 7 | 7 | 4 | 7 | 7 | 9 | 7 |
| | Panama | 5 | 6 | 7 | 4 | 10 | 6 | 6 | 9 | 9 | 9 | 4 | 7 |
| | Paraguay | 1 | 5 | 7 | 2 | 4 | 4 | 5 | 5 | 9 | 6 | 7 | 6 |
| | Singapore | 8 | 10 | 8 | 5 | 5 | 7 | 9 | 3 | 8 | 1 | 5 | 5 |
| | Sri.Lanka | 7 | 7 | 6 | 7 | 3 | 6 | 3 | 4 | 3 | 7 | 8 | 5 |
| | Thailand | 8 | 5 | 8 | 6 | 8 | 7 | 6 | 2 | 7 | 1 | 3 | 4 |
| | Trinidad.and.Tobago | 6 | 7 | 10 | 3 | 8 | 7 | 10 | 2 | 9 | 7 | 7 | 7 |
| | **Cluster Average** | **6** | **8** | **7** | **6** | **6** | **7** | **6** | **5** | **5** | **6** | **5** | **5** |
| **Cluster 2 (Dual)** | Argentina | 3 | 8 | 9 | 6 | 1 | 5 | 3 | 9 | 4 | 10 | 2 | 6 |
| | Brazil | 2 | 4 | 5 | 2 | 5 | 4 | 1 | 10 | 1 | 9 | 5 | 5 |
| | Mexico | 5 | 5 | 6 | 1 | 2 | 4 | 4 | 10 | 4 | 8 | 3 | 6 |
| | Uruguay | 9 | 7 | 10 | 4 | 4 | 7 | 1 | 10 | 2 | 10 | 3 | 5 |
| | **Cluster Average** | **5** | **6** | **8** | **3** | **3** | **5** | **2** | **10** | **3** | **9** | **3** | **5** |
| **Cluster 3 (Protective)** | Bolivia | 1 | 1 | 4 | 1 | 3 | 2 | 2 | 8 | 7 | 8 | 8 | 6 |
| | Dominican.Republic | 1 | 3 | 4 | 1 | 9 | 4 | 10 | 4 | 5 | 2 | 1 | 4 |
| | Egypt,.Arab.Rep. | 4 | 2 | 1 | 8 | 2 | 3 | 8 | 8 | 4 | 4 | 6 | 6 |
| | El.Salvador | 3 | 4 | 2 | 1 | 9 | 4 | 5 | 1 | 10 | 3 | 1 | 4 |
| | India | 1 | 2 | 1 | 4 | 1 | 2 | 8 | 5 | 1 | 2 | 8 | 5 |
| | Iran,.Islamic.Rep. | 10 | 4 | 2 | 3 | 7 | 5 | 9 | 1 | 10 | 5 | 7 | 6 |
| | Lesotho | 3 | 1 | 3 | 10 | 9 | 5 | 5 | 1 | 7 | 1 | 10 | 5 |
| | Morocco | 6 | 2 | 1 | 10 | 2 | 4 | 2 | 6 | 8 | 4 | 8 | 6 |
| | Tunisia | 9 | 5 | 1 | 9 | 6 | 6 | 7 | 8 | 7 | 6 | 9 | 7 |
| | Turkey | 2 | 3 | 4 | 5 | 3 | 3 | 3 | 5 | 9 | 2 | 5 | 5 |
| | Zambia | 4 | 1 | 2 | 2 | 6 | 3 | 2 | 6 | 2 | 1 | 10 | 4 |
| | Zimbabwe | 6 | 3 | 5 | 10 | 6 | 6 | 10 | 1 | 8 | 5 | 10 | 7 |
| | **Cluster Average** | **4** | **3** | **3** | **5** | **5** | **4** | **6** | **4** | **7** | **4** | **7** | **6** |

* Cluster analysis results using wardslinkage command in Intercooled Stata 8. Stopping rule is Duda and Hart. Averages are rounded to the nearest integer to facilitate comparability. Housing, health, social security and welfare are ranked according to percentage of total government spending. Education variables are ranked as spending per student (refer to endnote 35). Note that, as explained later in the text, Panama, Paraguay, and Greece's membership in cluster 1 is not robust.

**Figure 1:** The Era of Embedded Liberalism: Welfare States in Developed and Developing

Countries*
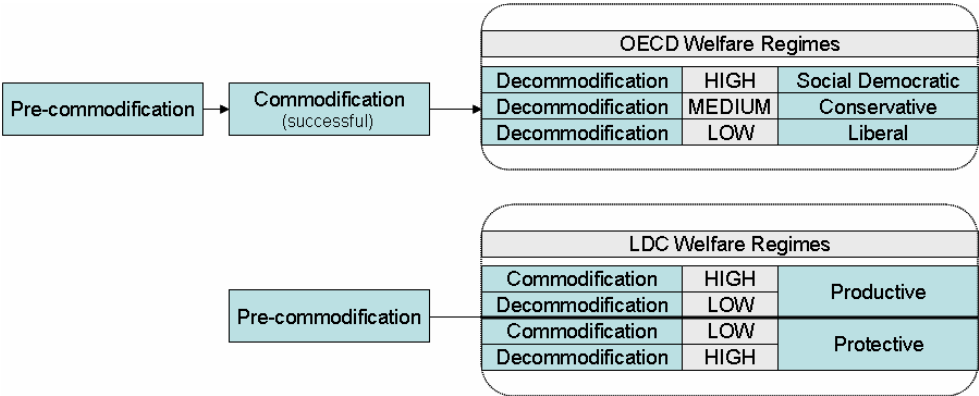


   *Note that the OECD decommodification rankings (low, medium, high) are from Esping-

Andersen (1990: 52).

**Figure 2: Welfare Regimes and Early Development Strategies**
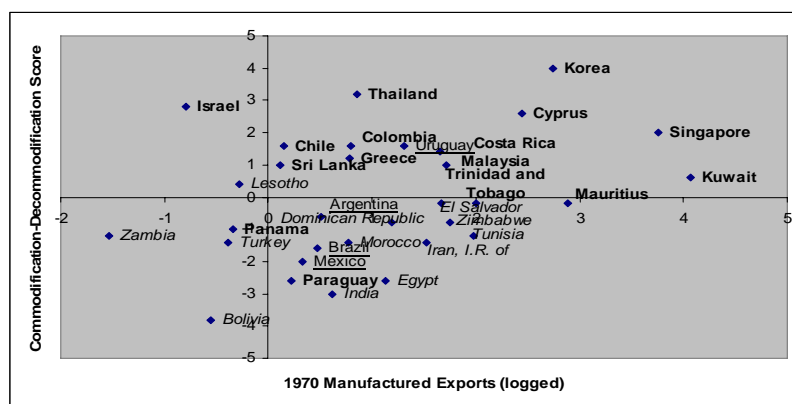


* Productive welfare states are represented in bold, dual welfare states are underlined and protective

welfare states are italicized.