Neoliberalism's relationship with economic growth in the developing world: Was it the power of the market or the resolution of financial crisis?

Joseph N Cohen

City University of New York, Queens College

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Joseph Nathan Cohen
Assistant Professor of Sociology
City University of New York, Queens College
65-30 Kissena Blvd
Flushing, NY   11367
joseph.cohen@qc.cuny.edu
www.josephncohen.com

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The developing world adopted neoliberal reforms while mired in economic crisis, and enjoyed a sustained economic recovery after these reforms were implemented. This record seems to vindicate arguments that market-, as opposed to government-, dominated economies promote better aggregate resource allocation and decision-making, and in turn economic prosperity. A range of econometric studies support these conclusions, finding statistically significant relationships between liberal economic policies and faster economic growth supports these conclusions.

In this paper, I argue that such conclusions neglect important contextual factors that, once considered, alter the apparent relationship between liberalism and growth in important ways. Economic liberalism differentiated fast- from slow-growth countries in one period – the early 1990s – when Western governments and global investors were channeling capital to countries that embraced neoliberal reforms. These capital influxes were desperately needed to resolve the systemic financial crises in which developing countries were mired, and reversed a situation in which capital was fleeing the developing world *en masse*. Capital influxes and public debt refinancing helped resolve several economic problems, including chronic budgetary crises, runaway inflation and collapsing foreign exchange rates, all of which placed economies in a state of paralysis. When neoliberal policies' effects on growth are tested net of the concurrent relief of public financial distress and boom in foreign investment, they exert no discernible effect on growth.

These results are taken to suggest that macrofinancial problems, and not the inherent backwardness of state-managed economies, stood at the root of the economic malaise from which neoliberalism emerged. If true, this interpretation questions the wisdom of free market

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reforms that do not restore the fiscal health of governments and extricate economies from financial crisis.

This paper proceeds in six sections. Section One describes the protracted economic crisis from which neoliberalism emerged in the developing world, and profiles some of the arguments justifying these reforms on the grounds that market-dominated economies were more likely to make better aggregate resource allocations and economic decisions compared to government-dominated ones. Section Two levies three methodological criticisms against studies that purport to show a positive relationship between economic liberalism and growth, related to measurement, sample representation, and omitted variable bias due to the ahistorical nature of their analyses. Section Three provides methodological details, including the redresses used to deal with the criticisms levied in Section Two. Section Four establishes the empirical basis for the historical narrative presented in Section One. Section Five presents the regression analysis. Section Six discusses the implications of these results in terms of how we interpret neoliberalism's effects on the developing world's quest for prosperity.

1. Background

Between WWII and the 1980s, the world's economies were governed by policy strategies in which governments played a powerful and highly-active role in shaping the behavior of economic markets. These strategies materialized concretely in a wide range of "government interventions" in economic markets: high taxation and spending, public ownership of economic enterprises and strategic resources, barriers on international trade and capital exchange, heavy domestic market regulation, high levels of public employment and a rich range of government-sponsored social programs. *Neoliberalism* was a political and ideological counter-movement

against governments' expansive postwar economic roles, which advocated a return to the small "hands-off" economic governance that prevailed prior to the world wars.

The details of neoliberalism's rise are treated at length elsewhere (Yergin and Stanislaw 2002; Harvey 2005; Centeno and Cohen 2010). What is clear is that this movement became highly influential by the 1980s, leading to a range of policy reforms that came to define the organization of the world's economies during the 1990s and 2000s. Globalization, deregulation, privatization, welfare state cutbacks, regressive taxation and overall government downsizing are trends that require the government's assent, and this assent was secured in a period in which policy-makers came to see liberalization as important, if not necessary, to extricate themselves from the economic quagmire into which they fell during the 1970s and 1980s.

The serious economic crisis from which neoliberalism was born is important in understanding why these policy reforms gained wide purchase. In the 1970s, the concatenation of several (geo)political, economic and social problems caused the rich world to fall into an economic crisis characterized by high inflation, economic stagnancy and high unemployment (see Block 1977; Barsky and Kilian 2001; Yergin and Stanislaw 2002; Harvey 2005). These problems spilled over into developing countries, but their immediate impact was conditioned by their economic insularity and a sovereign lending bubble that provided them with abundant, cheap and easy credit. Easy credit from Western lenders enabled developing countries to weather the 1970s stagflation crisis while avoiding much stagnation, but these countries amassed massive debts that became harder to finance and roll over as global interest rates rose. Mexico's threatened default in 1982 triggered a panic in sovereign lending markets, which, combined with the ongoing fragility of the global financial system, produced a serious stagflation in developing countries (for detailed examinations of these crises' causes, see Cuddington 1989; Sachs 1989).

The debt crisis left many developing world governments in a state of virtual bankruptcy, creating a range of serious economic and political problems. Many of them fell into a state of paralysis, unable to borrow enough money to finance their operations and often trapped in a political gridlock that prevented them from setting decisive policy courses (see Snider 1996; Mainwaring, Bejarano, and Pizarro Leongómez 2006). As a last resort, many of them printed money to sustain government finances, feeding a well-entrenched inflationary spiral. Government bankruptcy, paralysis and high inflation unleashed a wider range of problems that caused economic hardship in the developing world over the 1980s. In the absence of a functional government, working money and credit systems, and unstable access to foreign resources, economies tend not to work well.

Advocacy for deep liberalization reforms gained credence and support in this context, and this influence came from several quarters. One source of pro-neoliberal discourse came form theoretical economists generally associated with the Chicago School. These movements attacked government intervention as a faulty principle of economic governance, arguing that it was likely to be ill-informed, ill-directed, ill-timed, ineffective or even counter-productive (Hayek 1945; Friedman 1968; Kruger 1990). The system was characterized as being vulnerable to corruption or anti-economic political influences (Kruger 1974; Dornbusch and Edwards 1989). Regulations were often characterized as producing waste (reviewed in Guash and Hahn 1999).

A second source of advocacy stemmed from interpretations of East Asian countries' apparent economic successes during the 1980s (reviewed in Bruton 1998). The economic successes of these countries' export-led development strategies were held up as examples of unfettered markets' capacity to fuel development. Although there was a wide-ranging literature that suggested East Asia's Tigers were not hands-off, but rather took a fairly active in managing

the economy, "[economists] at large seemed reluctant to acknowledge such a role" (Bruton 1998: 924).

A third source of advocacy, which includes the often-cited "Washington Consensus" (Williamson 1990) was more firmly oriented towards the resolution of the debt crisis itself. Despite many studies that characterize this consensus as a raw, forceful endorsement of neoliberal policies writ large, Williamson (1990) explicitly states that the reforms advocated by it – fiscal austerity, tax reforms, easing capital market price controls, trade and inward investment liberalization, privatization, deregulation and property rights protection – were not being implied to secure long-term growth.[1] Likewise, they did not advocate wholesale cutbacks for government programs and power.[2] Rather, the Consensus was engaging the issue that developing countries' governments were hemorrhaging money and their politicians could not agree on policy changes that would stop the bleed. Potential donor governments and private investors were reluctant to extend new loans to these governments out of fear that, without serious fiscal changes, such loans would be tantamount to pouring money down a black hole. As a result, capital rushed out of the country, governments often had to print money to cover their obligations, and confidence in the financial system was negligible.

By the end of the 1980s, and the conclusion of the Cold War, the major potential financiers of a developing world bailout, particularly the US government and IMF, developed programs in which distressed government would have their debt issues underwritten in exchange

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[1] "Dornbusch … has recently raised the question of whether the Washington agenda described above can be relied on to restore growth once stabilization has been achieved. He points to the disappointing experiences of Bolivia and Mexico, where determined and effective stabilization has not yet resulted in a resumption of growth. If he is right in his contention that entrepreneurs may adopt a wait-and-see policy after stabilization rather than promptly committing themselves to the risks involved in new investment, the important question arises as to what must be added to Washington's policy advice in order to restore growth" (Williamson 1990)

[2] For example, the Consensus saw education, health care and public infrastructure investment as appropriate subjects of state intervention

for liberalization-oriented reforms (Edwards 1995; Kolodko 2000: 299 - 301; Dreher 2002). Developing world politicians could deflect some of the anger that would inevitably arise as a result of spending cuts, tax changes and public sector cutbacks to these donors, portraying themselves as having been strong-armed into embracing neoliberalism. With these debt refinancing schemes, capital holders came to see developing countries' money and markets as viable investment outlets. They were also beset by a euphoria surrounding the Cold War's end, and were anxious to capitalize on an expected "new world order" by funneling money into newly-integrated and –restructured economies in hopes of securing market share in emerging markets. The result was hard currency inflows to developing countries, an easing of the debt crisis, and a new-found prosperity in many previously-distressed developing countries.

What Caused the Recovery? Explanations of the developing world's emergence from the developing world's economic crisis carries strong political overtimes, as they provide a commentary on the rich world's domestic economic policies in addition to developing countries' policies. The politics of domestic policy in the rich world has often involved struggles over government taxation, regulation and the co-opting of private decision-making throughout the postwar era. If the developing world's emergence from crisis can be attributed to the intrinsic superiority of unfettered markets in the pursuit of prosperity, then their story can be used in support of limited government at home.

The notion that small government and unfettered markets induce economic prosperity is often recited by some, but by no means all, economists. In broad terms, this line of discussion holds that unfettered markets are superior to modes of organizing economic activity, and that economic power should be transferred to private sector actors as a rule. Anyone reviewing the mainstream academic literature will have some difficulty assembling a body of market that

advocates *laissez-faire* with few conditions. Much of this literature does chronicle the benefits

of intermediate policy goals for which neoliberal policies strive – like large trade sectors, deep

private capital markets or adaptive labor markets– does not establish a direct relationship

between neoliberal *policy* and economic performance. In most corners of the academic

economics literature, support for neoliberal policy is rather conditional. Surveys of academic

economists suggest that orthodox *laissez-faire* attitudes are rare outside of trade policy, and most

of them see moderate economic intervention as desirable (Klein and Stern 2007).

The strongest and least conditional advocacy of harder neoliberal positions comes from

studies sponsored by conservative leaning think tanks, like the Heritage Foundation/Wall St.

Journal's *Index of Economic Freedom* (Miller and Holmes 2010) or the Frasier Institute's

Economic Freedom of the World (EFW) (Gwartney and Lawson 2009). Due in part to these

agencies acumen in media relations, these studies attract a level of public sphere attention that

would be envied by most academic scholars.[3] These kinds of studies publish indexes that assess

the degree to which the world's economies can be characterized as "free", and offer

impressionistic comparisons suggesting that freer economies are better off. The comparison

methods used to support these conclusions would generally most pass muster in academic

journals, because they usually involve rough, uncontrolled descriptive comparisons. However,

the EFW has been examined in the scholastic literature, in part because its index is reasonably

rigorous and transparent. The EFW authors estimated in 2003 that this data has been used in

over 200 scholarly articles (Gwartney and Lawson 2006: 5), and these lines of discussion have

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[3] A Lexis-Nexis search finds that, from 2007 until September 2009, the IEF and EFW were mentioned 162 and 48
times, respectively in the "major US and world publications" it catalogs. Google News registers 581 and 191
mentions, respectively, over this same period across the public sphere discussions it databases.

continued throughout the decade. Many of them support the conclusion that "freer" economies grow faster (for a review, see De Haan, Lundstrom, and Sturm 2006).

2. Studies Supporting the Neoliberalism-Growth Relationship, and Methodological Qualms

An extended overview of the EFW liberalism index is given in the methods section of this paper. EFW-based studies assessing the relationship between economic growth and overall levels of liberalism have generally confirmed this relationship using a range of sophisticated regression methods and wide array of controls. At first glance, the fact that this relationship's confirmation in multiple studies lends credence to the often-recited policy axiom that freer markets are more generally prosperous. However, I argue that there are three more basic methodological problems that unduly contribute to these confirmatory findings: (1) the validity of the EFW index as a measure of free market capitalism, (2) missing data's effects of sample representativeness, and (3) ahistoricity in these analyses, whereby the EFW-growth relationship is assumed to be stable over time. Below, I show that addressing these three concerns affects our results, leading to substantially different analytical findings. Each qualm is discussed in turn.

2.1 Purity of Measurement

Scholastic studies that use the EFW treat it as a proxy for a "market economy" (Berggren 2003), "liberalization" (De Haan, Lundstrom, and Sturm 2006), "neoliberal" economies (Tures 2003) or some cognate concept that suggests *laissez-faire* capitalism. With this understanding of what is signaled by the EFW index, its relationships with growth are thus taken as relationships between prosperity and *laissez-faire*.

In strict terms, EFW purports to measure "economic freedom", which the study's authors describe as "institutions and policies are consistent with economic freedom when they provide an infrastructure for voluntary exchange and protect individuals and their property from aggressors"

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(Gwartney and Lawson 2009: 4). Empirically, this notion of "economic freedom" sees government as the chief "aggressor", stressing minimal government ownership or control of society's economic resources and enterprises and minimal state interference in non-state property holders' disposal of the property to which they lay claim. Roughly 80% of a country's "freedom" score is determined by the relative absence of government economic intervention.

This view of "economic freedom" is quite similar to those that underwrote the neoliberal policy reforms that took place over much of the 1980s and 1990s, and generic policy axioms pushed by many conservative political platforms today. It is a negative or libertarian conception of freedom, where the absence of governmental economic power, manifested in things like small public sectors, low levels of public investment or enterprise ownership, few fetters on international transacting or less market regulation, contribute to a country's "freedom" score. Unlike more positive views of economic freedom, which prioritize an economy's provision of basic necessities or economic opportunities for its members (e.g., Sen 1999), the EFW's formulation of freedom prioritizes private property rights and individuals' capacity to employ their property for whatever purposes they personally deem fit.

Although it has much overlap with *laissez-faire*, its empirical construction of the index considers constituent measures that incorporate additional factors. Cohen (2009) presents empirical evidence that the index's construction effectively measures the degree to which a country's national economic policy model resembles those of the English-speaking OECD and Switzerland, rich and well-governed countries that have pursued free market policies. Although it is true that "economic freedom", as defined by its authors, is a hallmark of the rich world overall, the non-Anglo-Swiss OECD's scores are buoyed by its *Legal Structure & Property Rights* sub-index, which shows a stronger relationship via confirmatory factor analysis to the

World Bank's *Governance Indicators* (Kaufmann, Kraay, and Mastruzzi 2009) than other, more strictly *laissez-faire* related EFW sub-indices. This discrepant EFW sub-index is argued by Cohen (2009) to be capturing what is typically understood as "good governance" (discussed in Burki and Perry 1998) – the degree to which a political economic system is politically accountable, politically stable, ruled by law, non-corrupt and managed by a professional and competent civil service – and its inclusion in the EFW is tantamount to a conflation of two related but distinct concepts.. While economic liberalism and good governance are often both present in the world's most advanced countries, many OECD national economic models maximize good governance without maximizing economic liberalism. Distinguishing good governance from economic liberalism is not only a methodologically valid re-specification of a country's economic policy environment, given Cohen's (2009) findings, but is also meaningful because it enables us to assess the relative effectiveness of Anglo-Swiss economic models *versus* other models used in the rich world.

A second issue that is identified in, but not pursued by, Cohen (2009) is the possible conflation of "economic freedom" and macroeconomic performance. Specifically, the EFW's *Access to Sound Money* sub-index uses inflation rates and variability as constituent measures. While a stable money system is essential to a well-functioning market economy, and inflation can be the result of government actions (e.g., seigniorage, aggressive monetary policy or chronic deficit spending), the degree to which these metrics capture hands-off economic governance *versus* the success of macroeconomic policy merits questioning. Inflation can be pursued and influenced, but not completely controlled, by policy-makers, and in this sense resembles economic growth or unemployment rather than deregulation or tax reductions. Furthermore, there are situations in which "economically free" countries can be more vulnerable to inflation

problems.   For example, economic openness can make a country more vulnerable to price destabilization stemming from external price shocks not directly attributable to their own economic failings (for example, in currency crises rooted in contagion or self-fulfilling prophesy, see Flood and Marion 1999).

With these two concerns in mind, the analysis that follows seeks to parse the EFW's governance and inflation components from its other measures of "economic freedom". This is done by separating the index into three different measures, whose empirical construction mirrors the agglomerative techniques used to construct the original EFW index.

Sample Representation
Any analysis that contemplates the causes of economic growth engages concepts whose data coverage can be limited both cross-sectionally and longitudinally. Limited data coverage poses several problems in the inference-making process, and is particularly problematic in analyses comparing political and economic variables across developing countries. Conventional methods for coping with missing data discard any country-year in which a single variable score is missing, which means that our model results (and in turn our inferences) tend to only incorporate the experiences of well-represented countries (like the OECD) or years (typically more recent ones), or the effects of well-represented predictors (e.g., *per capita* GDP or trade). If no such restrictions are made, there will be very little data left to analyze. These restrictions are cause for concern, as the results of cross-national political economic analyses may not to be robust to sample composition (Honaker and King 2010). One can sacrifice the use of poorly-covered variables, but may avoid considering highly important controls in the process. The analysis below presents evidence that sample composition can affect the estimated effects of the variables we examine.

This concern suggests that it is important to capitalize on recent developments in analytical redresses to missing data. This analysis employs the multiple imputation framework advanced by Gary King *et al.* (2001), which tends to render results that "will normally be better than, and almost always not worse than, listwise deletion." (p. 51). An accessible introduction to multiple imputation with randomness is offered by Allison (2002).

Ahistoricity & Omitted Variables

The issue of ahistoricity in time series analysis is discussed in Isaac and Griffin (1989). Ahistorical time series analyses tend to ignore meaningful differences in the historical contexts modeled by their theories and measured by their quantitative data. In terms of our present discussion, ahistoricism produces the impression that liberalism's relationship with economic activity operates in the same way over recent history. The effectiveness of these reforms are often understood as intrinsic to market- *versus* government-dominated economies, and not contingent on, for example, states' fiscal crises during the 1980s and early-1990s, the boom in international investment that materialized after the Cold War's end, or today's ongoing global financial crisis.

I tackle this issue empirically by reexamining economic liberalism's relationship growth across historical periods. The periodization is data-driven (see below), but corresponds roughly to definable contexts in which liberalization and prosperity were pursued in the developing world. Neoliberalism took root at a time when developing countries were plagued by public financial and money system problems during the 1980s, and neoliberal policy was implemented as part of a broader recovery package and broader set of historical circumstances that included public debt bailouts and an "emerging markets" investment mania in the rich world from the early-1990s. Understanding the potential importance of the debt crisis from which neoliberal

reforms emerged is important for several reasons. The debt crisis itself is a reason that

developing countries performed so poorly in the 1980s, but claims about the economic benefit of

liberalization often extend beyond the resolution of such macrofinancial crises. Any observed

improvement in economic growth realized after 1990 is produced by comparing countries in the

midst of a systemic financial meltdown *versus* those that returned to macrofinancial stability. If

these improvements are the product of the developmental benefits conferred by neoliberal

policies *per se*, as opposed to the debt aid and global investment mania that occurred

concurrently, then we can be better assured that free markets help countries grow. My analysis

suggests that scholars' common attribution of developing world prosperity may be confusing the

effectiveness of free markets from the idiosyncratic political and economic factors that helped

resolve a very specific historical crisis.

When neoliberalism's relationship with growth is examined on a period-by-period basis,

the former exerts a predictive power only in the early-1990s, when developing countries were

being rewarded by debt bailout programs and an emerging markets investment mania.

Neoliberalism's failure to differentiate fast- from slow-growth countries outside of the early-

1990s suggests that, in contrast to what is suggested by Gwartney and Lawson (2009), countries

are not engaged in some kind of trans-historical process that rewards the world's most liberal

countries. Its capacity to discern growth rates in only one historical period suggests that some

important set of variables is being omitted.

The EFW's secondary literature has attempted to deal with this concern over omitted

controls by using exreme bounds analysis (Levine and Renelt 1992), a method in which a

regression's key predictors' robustness is tested against the inclusion of tens of controls through

thousands of regressions that use them in different combinations. This technique for dealing

with omitted variable bias resembles a form a data mining, in which an analysis throws a bucket of controls at a relationship without making a large investment in discerning which of these controls may be of particular relevance, given the broader context in which these case studies unfolded. As such, potential controls that seem highly relevant – like the easing of public financial pressures or the boom in developing market investment – are included as one of many controls in a larger grab-bag of standard, off-the-shelf and often marginally successful other controls.[4] When the threshold for accepting a hypothesis under sensitivity analysis is lowered to accept predictors that commonly, rather than strictly, maintain predictive power net of this grab bag (Sala-i-Martin 1997), it can be less surprising that they pass the test. The vast majority of the controls included in the sensitivity analyses had non-compelling reasons for being included in the first place, and predictors that maintain significance net of these controls pass the test.

By paying close attention to periodicity, the potential that empirical relationships vary over time, an analysis can be alerted to the possibility that the relationships inhereing in one context drive the findings obtained in larger panels. When these consequential historical moments are identified, they can be examined in depth to find more meaningful controls. Doing so in this analysis drew attention to the potential importance of financial concerns, which ultimately steered this examination to substantially different conclusions.

Methods

The analyses presented below examine the relationship between economic growth and liberalization, with the intent of probing empirically the often-cited proposition that economically "freer" economies are generally more prosperous. It engages existing literature on

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[4] The literature offers a huge number of potential economic growth determinants, as the opening paragraph of Wacziarg (2002) illustrates.

this topic and data with three methodological qualms: the measurement of liberalism, sample composition and ahistoricity.

Units of Analysis

The data examines individual countries as a panel of six five-year periods from 1980 to 2007 (with the last period covering only three years). This panel design is the product of the EFW being assessed over five-year intervals prior to 2000. EFW scores represent the mean of each period's starting and end points, and data that is available on a yearly basis is presented as a within-period mean.

This panel design loses some information, but superior methods of dealing with missing data are not readily available. EFW scores on a year-by-year basis cannot be reconstructed with full confidence because many sub-indicators are indexed via methods that involve judgment calls that are not entirely clear in the report and could not be obtained. Interpolating or imputing missing EFW scores on a yearly basis is difficult, because the progression of these reforms was not linear within periods. Assessing this data over five-year periods involves a loss of information, but this panel design makes this loss more easily comprehended and avoids the stronger introjections of assumptions about missing values were some alternative method to be used.

Data

Dependent Variable. The study's dependent variable is the growth rate of *per capita* GDP (2005 $PPP) from the World Bank (2010).

Economic Liberalism, "Good Governance" and Inflation. The EFW was deconstructed to parse out constituent measures that capture *laissez-faire* policy from other components. The

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original EFW index is constructed as an average score of five sub-indices, each of which purports to capture some facet of "economic freedom" as its authors define the concept. These five sub-indices are listed below in Table 1. Each sub-index is, in turn, an averaging of rescaled empirical indicators that suggest the presence or absence of its corresponding sub-domain of freedom. The empirical indicators are listed in the right column of Table 1, and further details are given in Gwartney and Lawson's (2009) methodological index.

[Insert Table 1 about here]

The *Legal Structure & Security of Property Rights* sub-index is treated as an independent variable that captures "good governance" (along the lines of Burki and Perry 1998; Kaufmann, Kraay, and Mastruzzi 2009). Inflation rates are assessed as raw GDP deflator change measures (from World Bank 2010) that are log-transformed.[5] The remaining EFW measures are re-agglomerated using the same averaging of nested sub-indexes without the extricated measures, resulting in an assessment of "economic liberalism" that is separate from good governance and stable prices.[6]

This reconceptualization offers a different sense of countries' political-economic and policy environment compared to Gwartney and Lawson's original index.

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[5] And shifted +4

[6] The reconstructed *Access to Sound Money Index*, which is built as the mean scores of the EFW's money growth and access to foreign-currency denominated bank accounts, has a 0.8647 pairwise correlation with the original *Access* measure. The modified EFW overall index, which uses the modified *Access to Sound Money* index and does not include the *Legal Structure & Security of Property Rights* sub-index, registers a 0.9183 correlation with the original EFW overall index.

Table 2 (below) illustrates these changes by presenting the mean predictor scores by world region and income groups and among selected countries.

[Insert Table 2 about here]

The deconstructed index offers a somewhat different vantage point on countries' policy-making environments. While wealthier countries tend to be more liberal, better governed and more price stable, the rich world is more strongly distinguished from developing countries by virtue of their governance and price system stability than their liberalism. Some regions – notably Latin America – have made great strides towards *laissez-faire* without improving governance commensurately.

The table also compares original "economic freedom" scores and their constituent measures among G7 and BRIC economies. It shows how aggressive liberalization is more common in the English-speaking countries, while liberalism levels outside of that group approach the means of developing regions like Latin America or East Asia. Many G7 members maximize good governance instead of or in addition to economic liberalism, but their overall "economic freedom" scores may not diverge from highly liberal, less well-governed countries because liberalism indicators are strongly weighted in the EFW. The BRIC economies are not outstanding in terms of liberalism or governance. Their distinguishing characteristics is that they are large markets, and hence attractive investment destinations because even a small market share in these economies can translate into sizeable profits.

International Financial Flows. In this account, international investment and the stabilization of public finances play a potentially important role in shaping developing countries' economic fates. The former concept is captured by measures of net FDI (% GDP), the sum of

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equity capital, reinvested earnings and other capital investment inflows minus outflows. A country with higher scores in this measure is experiencing a higher influx of real investment in factories, infrastructure and business startups and expansions. The latter is measured by the costs of public and publicly-guaranteed debt service (% GDP), principal and interest repayments on debt obligations held by the state and those whose debt issues have been underwritten by the state. If a government is saddled with heavy debt obligations and a market reluctance to lend to it, these scores will be higher. Both data series are from the World Bank (2010).

Per Capita GDP. In addition to these measures, the analysis considers logged real per capita GDP (PPP) (from World Bank 2010) as a proxy for a society's aggregate wealth. Doing so enables us to distinguish the effects of being rich from being liberal, well-governed or price-stable.

Regression Models

Our analysis asks whether economic prosperity (as measured by the growth rate of real per capita GDP) is more strongly influenced by economic liberalism, good governance or price stability, and whether these relationships have varied across historical context.

To assess the degree to which these factors have differentiated high- from low-growth countries in individual historical periods, I employ a cross-sectional robust OLS regression of economic growth on its predictors in five year intervals from 1980 to 2007.[7] If economic liberalism is a timeless predictor across these periods, we can take neoliberal principles to be a strong general guide to policy. If it does not, then we have to examine what contextual changes led it to differentiate high- from low-growth countries when they did.

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[7] With 2005 through 2007 representing its own period. The choice of a robust regression is rooted in diagnostics' suggestion that simple OLS would violate the assumptions of homoskedasticity and may be vulnerable to influential outliers.

My analysis will show that liberalism effectively differentiates high- from low-growth countries in a specific historical context: the early 1990s. As already noted, this period was one in which much of the developing world emerged from chronic stagflation. These countries made the greatest strides towards liberalism in this context, but also enjoyed debt relief and a global "emerging markets" investment mania. I use an autoregressive panel corrected standard error (PCSE) OLS (Beck and Katz 1995) to examine this relationship in a panel design.[8]

Missing Data

It was implemented using the Amelia II package (Honaker, King and Blackwell 2007). Missing data are assumed to be missing at random (MAR),[9] and imputed as described in King et al. (2001).[10] Diagnostics generally suggested credible results, although the imputations appear to underestimate extreme values on many indicators.[11]

The Changing Contexts of Economic Growth's Pursuit

As noted above, the past thirty years' economic record is made up of smaller, empirically distinguishable sub-periods. Prior to the late-1980s, much of the developing world (and hence much of the world as a whole), was mired in crises of government insolvency and money system collapse. Countries spent much of the 1980s trying, but often failing, to restore their public finances and financial system stability often through illiberal, interventionist policies (see Sachs

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[8] The model choice is a product of diagnostics' assessment of serial correlation and contemporaneous correlation.

[9] As opposed to missing completely at random (Allison 2002). In this analysis, the MAR assumption is rooted in the observation that other covariates examined here often offer reasonable predictors of missingness, particularly per capita GDP. Breusch-Pagan / Cook-Weisberg tests for heteroskedasticity rendered p-values below 0.10 for all periods except the early-1980s. Cook's distance tests for outliers suggested that between 5% and 15% of observations could be influential.

[10] See Honaker, King and Blackwell (2007) for an extended explanation. Lags and leads were included for all variables in the model. Variable shifts and transformations were performed before the imputation process. A polynomial of time was specified at 2. Ten sets were imputed.

[11] Imputation diagnostics suggest that imputed values were generally reasonable estimates. Overimputation diagnostics suggest that the imputation model tends to estimates extreme values are more moderate (i.e., large and negative values were predicted to be negative, but only moderately large, and vice--versa for very large positive values), but there was a positive relationship between observed values and their imputed estimates in this diagnostic.

1989 for case studies). Near the time of the Soviet Union's collapse, the US, IMF, World Bank and other rich world agents offered to bail out financially-distressed countries in exchange for liberalization reforms. Many countries accepted the offer, and were rewarded with large influxes of private foreign investment. As time progressed, the growth-related downsides of liberalization were becoming increasingly apparent to researchers, but the momentum of then-institutionalized liberalization orthodoxies remained. These historical changes in macroeconomic performance and policy are illustrated below.

Economic Prosperity

Over most of the 1980s, the developing world was mired in chronic stagflation, a problem that became acute after these countries assumed massive debts during a sovereign lending mania over the 1970s and a developing world debt crisis after Mexico's threatened default in 1982. By the end of the 1980s and early-1990s, the confluence of several events discussed above helped contain this stagflation. From 1995 to 2007, the developing world enjoyed a relatively stable prosperity compared to the crisis years of the 1980s. Time will tell how their economic fates will fare after the 2008 crisis.

Figure 1 (below) presents two box plots depicting the distribution of growth (left) and inflation (right) rates in the developing world from 1980 to 2007.[12]

[Insert Figure 1 about here]

The figures collectively offer the following view of macroeconomic performance's changing character. Prior to 1995, economic contraction and comparatively high inflation rates were quite common in developing countries. Approximately 28% of all country-years depicted

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[12] The boxes denote the inter-quartile range of growth and inflation rates in any given year. Near the middle range of each box, a horizontal line marks the year's median score. The lines stretching from these boxes provide a sense of the spread of values occurring outside of the IQR. The graphs suppress outliers.

in the left box plot contracted throughout this period, compared to 16% after 1995. Likewise, approximately 24% and 13% of these country-years experienced inflation rates in excess of 20% and 40%, respectively, compared to 12% and 4% afterward. Pairwise t-tests for differences in group proportions suggests that these differences are highly significant. Virtually all world regions experienced improvements in growth and inflation at the median after 1995 except for East Asia, whose economic performance was generally strong prior to 1995.

The transition from chronic stagflation to stable prosperity is often argued to have been produced by liberalization reforms that were implemented widely over the 1990s. We examine the bivariate relationship between liberalization and possible alternative explanations for the developing world's recovery next.

Liberalization Policy & Growth

When metrics of economic liberalism are parsed from governance- and inflation-related measures, the data suggest that developing countries have steadily embraced free market reforms during the developing world's recovery. Governance, in contrast, exhibits more modest improvements in this period. Figure 2 (below) presents a median line plot of countries' "economic freedom", liberalism and governance scores over five year intervals from 1980 to 2007.

[Insert Figure 2 about here]

The graph shows how developing countries began a long reform trend towards *laissez-faire* between 1985 and 1990, the period in which the Cold War ended and a range of liberalization-conditioned debt aid programs were launched. At the median, these reforms continued over the long era of prosperity that occurred between the mid-1990s and 2007. All of

the world's regions liberalized across all four policy domains assessed by the EFW (size of government, sound money, free trade and regulation). The progress of liberalization reforms were strongest in the former communist countries, which had the most room to liberalize. Aside from this group, the world's regions have all made definitive moves towards free markets in different policy domains. Latin America, for example, led the world in containing expansionary monetary policy and liberalizing capital controls. The Middle East and Africa cut the size of government and regulation more aggressively. South Asia embraced free trade with gusto.

The developing world made great strides towards embracing free market ideals, and enjoyed a concurrent rise in prosperity. Over the entire period under study, our liberalism index exhibits an insignificant mean period-wise pairwise correlation of r=0.1800 with growth rates. At first glance, more liberal countries exhibit statistically identical growth rates to less liberal ones. Growth's pairwise relationships with our governance index and *per capita* GDP are also not significant. Only inflation exhibits a mildly significant correlation with growth rates (r=-0.11, p<0.10). In other words, the only countries that have made straightforward headway in securing stronger growth rates are those that have tended to keep their price systems under control.

Relieving the Financial Strains of the 1980s

In addition to liberalizing, the developing world saw major changes in the stability of their financial system and the reemergence of inward direct investment. The containment of inflation is one indicator of the macrofinancial improvements enjoyed by the developing world over the 1990s and 2000s. Below, I consider two additional improvements: easing debt strains and a boom in international investment. These changes are depicted in a table of two box plots presented as Figure 3 below.

[Insert Figure 3 about here]

Changes in public and publicly-guaranteed (PPG) debt service are depicted in the left box plot. A few benchmarks can help interpret this graph. One percentage point of GNI represents a large sum of money, equivalent to roughly $98 billion for the US in 2009. In 2009, Moody's estimated US debt service obligations to be 7% of its revenues (Brown 2010), which corresponds to roughly 1.4% of GNI.[13] America's comparatively low debt service obligations are further eased by its government's markedly greater capacity to extract tax revenues from their populace and enjoy a stronger position in the global financial system, which in turn given them a greater capacity to borrow affordably and attract external capital that mitigates the strains of public debt service on overall macrofinancial stability. Over much of the 1980s, developing countries had difficulty raising taxes, securing export revenues or accessing credit. They were already suffering from inflation, which presents systemic financial concerns of their own.

The uptick in PPG debt service pressures is visible around the 1982 Mexican default, with those obligations rising by a median of roughly one percentage point from 1981 to 1983. They grow continuously over much of the 1980s, peaking in 1986 and dropping precipitously around 1989. This drop followed a range of previously-mentioned debt relief initiatives, which helped ease credit and the temerity of potential sovereign lenders more generally. Although there is a brief uptick in debt service costs around 1994, when the Mexican peso crisis spooked markets, these obligations see a broad diminishments over the 1990s and 2000s, mirroring the changes experienced in *laissez-faire*'s reach.

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[13] Given the US Office of Management and Budget's estimate of roughly $2 trillion in on-budget receipts (Budget 2010)

Net FDI exhibits a similar pattern of long-term growth beginning around the turn of the 1990s. The shape of the boxes in this graph suggest that a more limited range of choice FDI destinations benefitted from the "emerging markets" financial boom during the 1990s, but that broader improvements were realized as countries emerged from their transition pains and inflation of the early-1990s and globalization became more deeply entrenched.

These two changes represent a dramatic easing of the problems that plagued much of the developing world over the 1980s. During that decade, governments were being paralyzed and choked by financing problems and inflation, and faced a souring lending market and very little inward investment to offset these pains. The confluence of the Cold War's end, serious fiscal restructuring and the emergence of a new world economy helped ease these pressures.

One might argue that liberalization was necessary to elicit these changes. Lenders would not have channeled capital to fiscally-hemorrhaging pre-reform governments and no incentive for FDI would have existed prior to austerity measures and the opening of the global economy. This is probably true, but seeing neoliberalism's effect as accruing through the relief of these macrofinancial problems represents a much more limited understanding of these reforms' benefits. If neoliberalism benefitted country by resolving crisis only, why pursue further liberalization reforms once the crisis has passed? Could the same results have been obtained were countries to have simply defaulted, or been given debt relief without such strong conditionalities? How many of these changes were the result of liberalization policies not directly related to opening one's markets to foreign investment or restoring fiscal balance on one's own without strong deregulation, tax inducements, union-busting or welfare state cutbacks, for example? And what about the free market's other purported benefits, like its ability to spur

domestic entrepreneurship, innovation, economic flexibility or incentives for economic participation?

Next, I examine liberalism's purported economic benefit net of these financial pressure-easing changes through regression analysis.

Regression Analysis

This analysis' findings are rooted in the observation that periodicity governs economic liberalism's relationship with growth, and a subsequent assessment of the contextually-specific concurrent changes that could render this relationship spurious. They are presented below.

Periodicity in Neoliberalism's Cross-Sectional Relationship with Growth. "Economic freedom" exhibits a significant relationship with growth rates prior to 2000, after which its relationship becomes *negative* though insignificant. When we parse elements of "economic freedom" that suggest *laissez-faire* policy from those that suggest good governance or the restoration on money system stability, we find that hands-off economic governance is clearly related to faster economic growth in one period: 1990 to 1995. As noted above, this was the period in which new public debt relief schemes and a booming "emerging markets" investment mania helped alleviate the strains of a profound general financial crisis in which much of the developing world was enmeshed during the 1980s.

Table 3 (below) presents robust regressions of growth rates on "economic freedom" measures and per capita GDP levels in developing countries over five-year intervals from 1980 to 2007. They provide a profile of what differentiated faster- from slower-growing countries during each of the time periods in question:

The odd-numbered models in Table 3 assess the original EFW index's relationship with growth rates, which resembled the method used in prior analyses of this data. Prior to 2000, the index exhibits a significant, positive relationship with growth at the $p<0.10$ level or better. The coefficient sizes of these models suggest fairly strong effects, amounting to a difference of 1.2 to 3.9 percentage point annual growth rates between countries scoring at the developing world's 75th *versus* 25th percentile "freedom" measures. If one were to accept the original EFW index as a measure of "free markets" in the sense of *laissez-faire* policy, then these results might be taken as suggesting a roughly twenty-year record of success for neoliberal policy. However, the index conflates *laissez-faire* with good governance and a stable price system, necessitating a deconstruction of the index in which we isolate measures that strictly suggest free market policy from other constituent measures.

The even-numbered models in Table 3 run these same regressions on the deconstructed EFW, and reveal very different results. During the early-1980s (Model II), the positive relationship between "economic freedom" and growth appears to be the product of its governance and inflation components, while economic liberalism itself shows a negative relationship with growth. This period's prosperous countries were ones that avoided inflation problems, maintained civilian governments, had fair and well-functioning legal systems and a state that was not abusing private property rights. If anything, small government, low tax, low regulation countries fared poorly in terms of growth. In the late-1980s (Model IV) and late-1990s (Model VIII), the data exhibit similar relationships. Liberalism shows no relationship with growth, inflation's effects become inert and only good governance remains significant.

Liberalism's relationship with growth is strong only in the early-1990s (Model VI), when government bailouts and an emerging markets investment mania were taking place. Consistent with views that markets were rewarding liberalization reforms, perhaps regardless of its implementation's finer details, Model VI suggests that a strong legal system and property rights *hurt* growth rates in this period. Inflation control was a significant growth predictor, which could be interpreted as signaling the importance of a stable money system in some kind of endogenously-generated development process. Alternatively, however, inflation's effects could be understood as an important factor in attracting foreign capital that flowed to developing countries after the Cold War.

After 2000, only inflation is associated with growth, and its effects are *positive*. This may be a product of reverse-causality. Inflation was reasonably well-controlled in these periods, meaning that relatively higher rates from these eras do not signal the kind of money system distress that relatively high rates for the 1980s through early 1990s signaled. I interpret these results as a product of faster growth creating more inflation. When inflation is stable globally, comparatively higher rates are not necessarily problematic. After 2007, as much of the world economy seems threatened by deflation, inflation's positive relationship with growth may continue or even strengthen.

Cross-sectional regressions presented in Table 3 establish that economic liberalism fails to differentiate prosperous from non-prosperous countries across most historical contexts. Contrary to some interpretations and uses of the EFW reports, and similar ones in contemporary policy-oriented debates, what has ailed the economic world's economic basket cases in any given period is not their comparative lack of unfettered markets. There does not appear to be some

kind of continuous race towards economic growth in which the more liberal economy is constantly rewarded with more growth.

These results do not establish that neoliberal reforms were generally irrelevant in countries' pursuit of growth. During the 1980s, most of the developing world was substantially more illiberal and more economically stagnant. After the Cold War, they collectively took major steps towards economic liberalism and more prosperity. These cross-sectional comparisons cannot determine whether or not post-Cold War reforms helped everyone in similar ways. There may not be an ever-lasting race towards maximal growth by maximizing liberalism, but everyone might be better off as a result of the neoliberal reforms that became entrenched in the early-1990s. These longitudinal changes can be examined by looking at countries' economic records as panels.

Pooled Cross-Sectional Time Series Regressions. In the previous section, we established that comparative levels of economic liberalism fail to differentiate high- from low-growth countries cross-sectionally over much of the thirty years, aside from the early 1990s. This period was one in which many features of the global economy changed. It embraced liberalization broadly, had its heavy public debts restructured through external aid, saw a massive emerging markets boom, and finally brought inflation under control. After these changes became entrenched, the developing world enjoyed faster growth rates.

In an attempt to discern the relative importance of these different factors over time, I employ a PCSE OLS, whose results are given below in Table 4:

[Insert Table 4 about here]

Models XIII through XVII employ listwise deletion to handle missing data, biasing the sample in favor of countries and time periods that tend to report data. Model XIII shows "economic freedom" to be a significant growth predictor, and its deconstruction in Model XIV suggests that economic liberalism, governance and inflation are all significant in isolation. Concretely, Model XIII suggests that a country whose "economic freedom" score sits at the sample's 75th percentile will growth at an average annual rate of roughly 2.7 percentage points higher than one at the 25th percentile. For liberalism, governance and inflation, these estimated growth rate differences are 1.3, 1.4 and -8 percentage points, respectively (Model XIV).

Model XV introduced net FDI and public debt service to the model to see if its inclusion washed out any constituent measures of economic freedom. The result is a dramatic drop in the size and significance of liberalism's effects, and some loss of influence for governance measures. In other words, once we control for the possibility that liberalism's apparent growth effects are the product of the investment it attracted and public debt refinancing opportunities it afforded, liberalism shows no demonstrable direct effects on growth. Possible liberalism-related effects that have nothing to do with FDI or debt relief – like incentivizing local entrepreneurship, promoting organizational flexibility and adaptability, spurring innovation, etc. – exhibit no clear independent effect on growth.

One potential problem with Model XV is that the inclusion of these additional controls causes a loss of observations, amounting to roughly 21% of Model XIV's sample. To test whether the washing out of liberalism and governance's effects is a product of change in sample composition, I re-ran Models XIII and XIV using only the countries represented in Model XV. The results suggest that liberalism's loss of predictive power is partly attributable to sample

changes, but the predictor remains sizeable and reasonably significant in this sample before the inclusion of FDI and PPG debt serve controls.

A better way of handling missing data is through multiple imputation with randomness. Models XVIII through XX replicate XIII through XV using multiple imputation with randomness, and their results offer a somewhat different view of the data. The "economic freedom" indicators' predicted effects are quite similar in a fully-represented sample (Model XVIII). In Model XIX, the analysis suggests that the previously-observed effects of liberalism (in Models XIV and XVII) may be a product of sample composition as well. A stronger missing data handling method suggests its effects were weakly probably from the outset. Governance retains its predictive power in Model XIX.

When the FDI and debt service predictors are included in Model XX, both liberalism and governance lose their predictive power again. This suggests that economic gains to liberalism and governance can be attributed to the effects of these two new controls, perhaps especially FDI. I interpret these results as suggesting that observations of increased prosperity following the world's liberalization and governance improvements may be attributable to the concurrent international investment boom that took place.

Inflation, for its part, remains a significant predictor, suggesting that price system stabilization has played an important role through this process.

Discussion

Over the past thirty years, conventional policy wisdom has held that free markets help countries develop. The free market was often held to be an intrinsically superior means of

organizing economic activity for the purposes of fostering growth. It was thought to produce incentives that encouraged micro-level actors to invest, innovate and adapt, while releasing the economy from the grip of high-minded, impractical, unsustainable and often politically-motivated government influence. This view seemed to be vindicated by a historical record that saw the developing world emerge from economic stagnancy once neoliberal reforms were adopted.

In this paper, I showed that freer markets did not differentiate faster- from slower-growing developing economies outside of the early 1990s, and hypothesize that the historical specificity of this relationship is associated with the debt aid and inward investment that was rewarded to countries that liberalized in that period. Debt aid and inward investment were desperately needed in that context because, during the prior decade, much of the developing world suffered from virtual government bankruptcy, collapsing money systems and the many economic problems that occur in such a context.

These findings offer several interesting vantage points form which we can reconsider the neoliberal revolution, its economic consequences and the process of development more generally. I interpret these results as suggesting that systemic financial crisis and not over-reaching government interventionism may have been a principle cause of the economic problems from which neoliberalism emerged. These two problems are not the same thing. An expansive public sector can be fiscally sustainable so long as its tax base, capacity to restrain spending and economic growth rates are sufficiently high. This analysis suggests that *laissez-faire* exerts weak, if any, independent effect on growth. Likewise, a "small government" economy can run into fiscal problems if its tax base is weak and politicians profligate.

Neoliberalism's chief developmental benefits may have been in resolving a serious, seemingly-intractable period of fiscal and monetary crisis in developing countries. It is worth emphasizing that government initiative, and not markets alone, helped resolve it. State programs like the US Brady Plan or IMF lending may have played a decisive role in restoring financial order in the developing world's financial markets. The question of whether the crisis was resolved by markets *per se*, or a cooperative attitude on the part of rich countries that came to see the stabilization of the developing world as aligned with their own interests, is worth pursuing. It is worth noting that, prior to the late-1980s, Western countries often placed the onus of resolving these crises more squarely on the shoulders of distressed sovereign borrowers, even though their own financial institutions lent the money recklessly.

More broadly, the debt crisis served as a possible first indication that unfettered capital markets were prone to destabilizing risk-taking. It took several decades, and a crisis that hurt the rich countries themselves, to develop the notion that unregulated private financiers could play a role in creating crisis. One might ask whether the Lost Decade and our current crisis would have been averted had governments understood that unregulated global financial markets posed threats to states collectively. The 1980s was an occasion for states to entertain the potential usefulness of cooperating to contain their exposure to private financial interests. Then, as now, the opportunity passed.

Within developing countries themselves, one of neoliberalism's key benefits was the opportunities it provided to break the political gridlock that kept states bankrupt. Fiscal crises can spark fierce distributional battles, which can paralyze states. Loan conditionality enabled politicians to break this gridlock by externalizing the impetus for austerity measures. Anger of tax or spending changes could be diverted to the US or IMF. Breaking gridlock in this way is

not the only weak to overcome budgetary impasses. An alternative means involves advancing

political positions that pursue reasonable sacrifices across society. If an electorate can be

convinced that everyone needs to make sacrifices, and that no one is using the occasion of

sacrifice-making to enrich themselves personally, countries may be able to resolve similar

problems with more incremental and consensual, rather than forceful and disruptive, reforms.

From a sociological vantage point, the story of neoliberalism offers a case study in some

of the finer details by which institutionalized policy beliefs emerge. Institutionalized beliefs and

practices often begin as practical strategies for resolving concrete problems – as was the case

with the Washington Consensus. Over time, strategies used to resolve concrete problems

become conventionalized, and applied as generic solutions to a broader class of problems. This

may describe what happened with neoliberalism. It was a concrete attempt to rescue developing

countries from a specific financial crisis by incentivizing inward investment and debt

refinancing. Over time, its concrete manifestations came to be understood as a fall-back solution

to policy problems. It was a hammer in search of nails. The disadvantages of strongly

conventionalized policy axioms are now apparent, especially in terms of incentivizing finance.

Governments sought to stimulate investment as a matter of practice, and in so doing cultivate

massive and risky speculative markets. These markets ultimately created the current global

economic crisis.

Finally, the study suggests the benefits of considering historicity in the analysis of

policies' effectiveness. Policies can work differently in changing contexts, and the global

economy is a complex system that changes continually. Analysts should be wary of assuming

that the relationships in their theories operate trans-historically. Aside from the fact that most

policy strategies behave a certain way in particular times and places, ignoring the possibility for

historicity closes the door to potentially interesting findings.

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Table 1: Constituent Sub-Indices of EFW

Component	Conditions that Enhance "Freedom"
Size of Government Expenditures, Taxes and Enterprises	Low government consumption, transfers, subsidies, investment and enterprise ownership, and low taxes.
Freedom to Trade Internationally	Low and invariant tariffs, low regulatory trade barriers, formal market-determined exchange rates, relatively large trade sectors, low capital market controls
Regulation of Credit, Labor and Business	Private banking, openness to international banking, private sector-directed credit, low interest rate controls, minimum wages, regulatory compliance costs, prevalence of centralized collective bargaining, price controls, need to pay bribes or military conscription.
Access to Sound Money	Low and invariable inflation, low growth in M1 money supply, no restrictions on foreign currency bank accounts
Legal Structure & Security of Property Rights	Independent judiciary, impartial courts, protection of property rights, no military interference in politics or courts, rule of law, legal enforcement of contracts, low regulation on real estate

Source: Gwartney and Lawson (2009)

Table 2: Original & Modified EFW Index & Sub-Index Scores by World Region and Income Group and For Selected Countries, 2005 - 2007

	Econ. Freedom	Econ. Liberalism	Governance	Inflation	Per Capita GDP	GDP Growth*
OECD	7.6	7.5	8.2	2.8	$35,069	2.1
Eastern Europe	6.9	7.1	5.9	5.8	$14,306	3.1
Latin America & Caribbean	6.7	7.0	5.1	7.6	$8,722	1.8
East Asia & Pacific	6.6	6.6	5.7	6.8	$9,115	2.7
Ex-USSR	6.6	6.7	5.5	16.1	$5,693	1.8
Middle East & North Africa	6.6	6.6	6.3	10.9	$17,751	1.3
South Asia	6.0	5.8	4.6	7.5	$2,534	4.0
Sub-Saharan Africa	5.9	6.0	4.4	15.1	$3,299	1.2
High Income	7.6	7.4	7.9	4.3	$34,749	2.0
Upper-Middle Income	6.9	7.0	6.1	8.1	$13,908	2.8
Lower-Middle Income	6.4	6.5	5.2	8.7	$5,427	2.2
Low Income	5.9	6.0	4.3	14.4	$1,444	1.1
United States	8.1	8.2	7.7	2.8	$42,556	1.9
United Kingdom	8.0	7.9	8.4	2.5	$33,623	2.2
Canada	8.0	7.9	8.5	3.2	$35,786	1.7
France	7.2	7.1	7.6	2.4	$30,317	1.5
Germany	7.6	7.2	8.7	1.2	$32,643	1.9
Japan	7.5	7.3	8.0	-0.9	$31,094	2.1
Italy	7.0	7.2	6.2	2.3	$28,439	1.5
China	6.3	6.2	6.0	5.5	$4,800	8.8
India	6.5	5.9	6.3	5.1	$2,492	4.4
Russia	6.4	6.3	5.7	16.9	$13,327	0.8
Brazil	6.0	5.9	5.2	5.7	$8,978	1.0
Total	**6.6**	**6.7**	**5.7**	**9.4**	**$11,941**	**1.9**

*GDP growth rates for 1980 - 2007

Table 3: Robust Cross-Sectional OLS Regressions of Economic Growth Rates, by Five-Year Period, 1980 - 2007

Period	Model	Econ. Freedom	Econ. Liberalism	Govern-ance	Inflation (logged)	Per Cap GDP (logged)	Constant	N	R^2
1980 - 1985	I	0.922^ (0.488)	--	--	--	-0.447 (0.405)	-1.268 (3.351)	80	0.05
	II	--	-0.326 (0.343)	0.836* (0.322)	-0.732 (0.446)	-0.517 (0.424)	4.318 (3.448)	78	0.15
1985 - 1990	III	1.171** (0.321)	--	--	--	-0.269 (0.321)	-3.218 (2.454)	83	0.12
	IV	--	0.447 (0.302)	0.631* (0.282)	-0.043 (0.219)	-0.438 (0.364)	-0.778 (2.654)	79	0.11
1990 - 1995	V	1.991*** (0.408)	--	--	--	-0.124 (0.337)	-9.210*** (2.596)	94	0.24
	VI	--	1.039** (0.356)	0.022 (0.366)	-1.030*** (0.277)	0.149 (0.412)	-3.009 (2.835)	94	0.35
1995 - 2000	VII	0.631^ (0.318)	--	--	--	0.394^ (0.235)	-5.244** (1.845)	95	0.14
	VIII	--	-0.009 (0.255)	0.678* (0.235)	-0.542^ (0.312)	0.195 (0.262)	-2.020 (2.248)	95	0.24
2000 - 2005	IX	0.167 (0.378)	--	--	--	0.690** (0.251)	-4.029^ (2.094)	113	0.11
	X	--	-0.060 (0.264)	0.013 (0.171)	0.761* (0.358)	0.521^ (0.268)	-3.753 (2.634)	113	0.11
2005 - 2007	XI	0.408 (0.338)	--	--	--	0.507* (0.236)	-2.970 (1.847)	113	0.12
	XII	--	0.210 (0.266)	0.173 (0.233)	1.714 ** (0.549)	0.479^ (0.252)	-6.635** (2.507)	112	0.17

***$p<0.001$, **$p<0.01$, *$p<0.05$, ^$p<0.10$
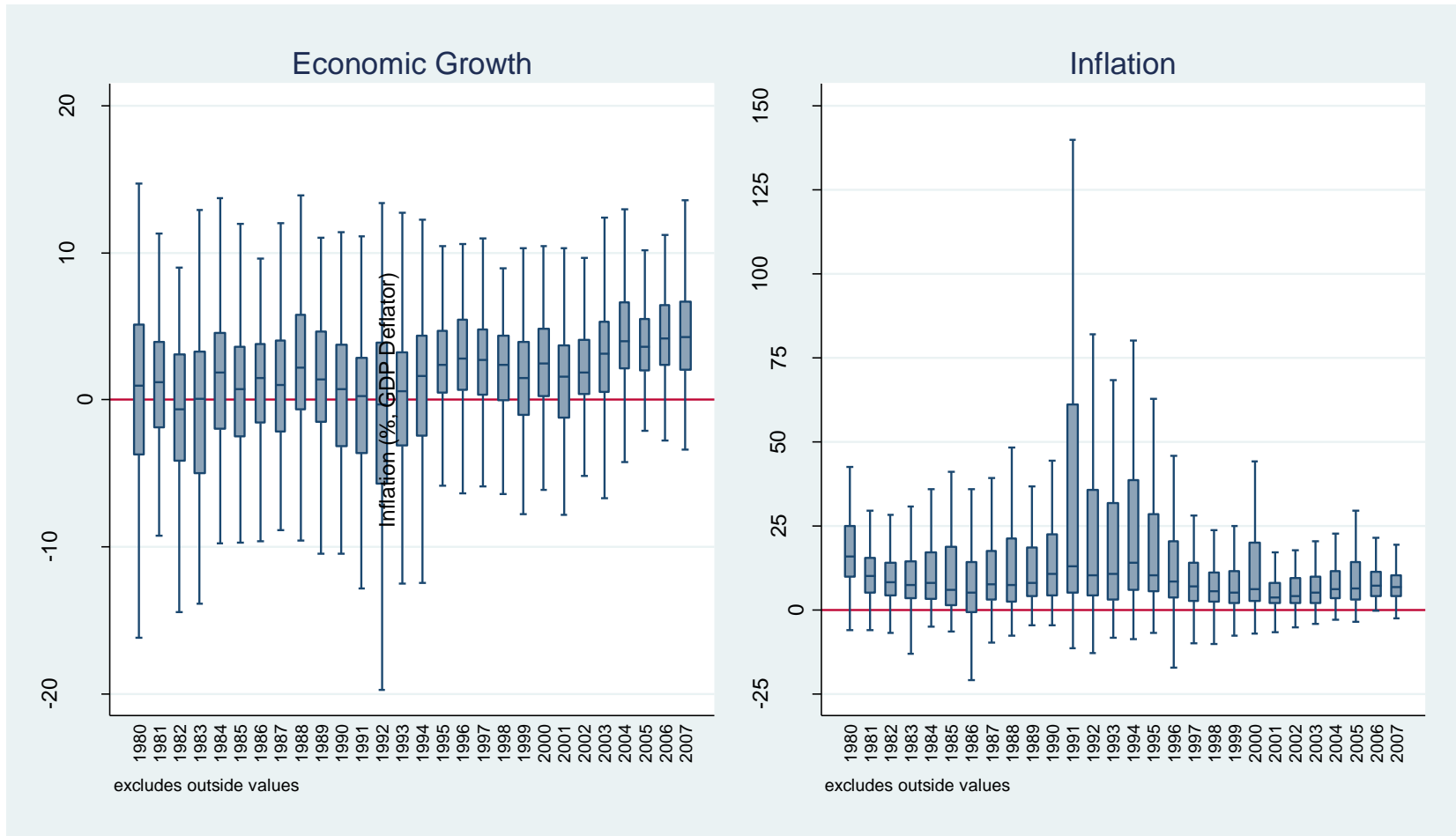**Standard errors in parentheses below coefficient estimates**

Table 4: Regression of Economic Growth on Economic Liberalism Metrics and Other Controls, Developing Countries, Five Year Intervals from 1980 - 2007

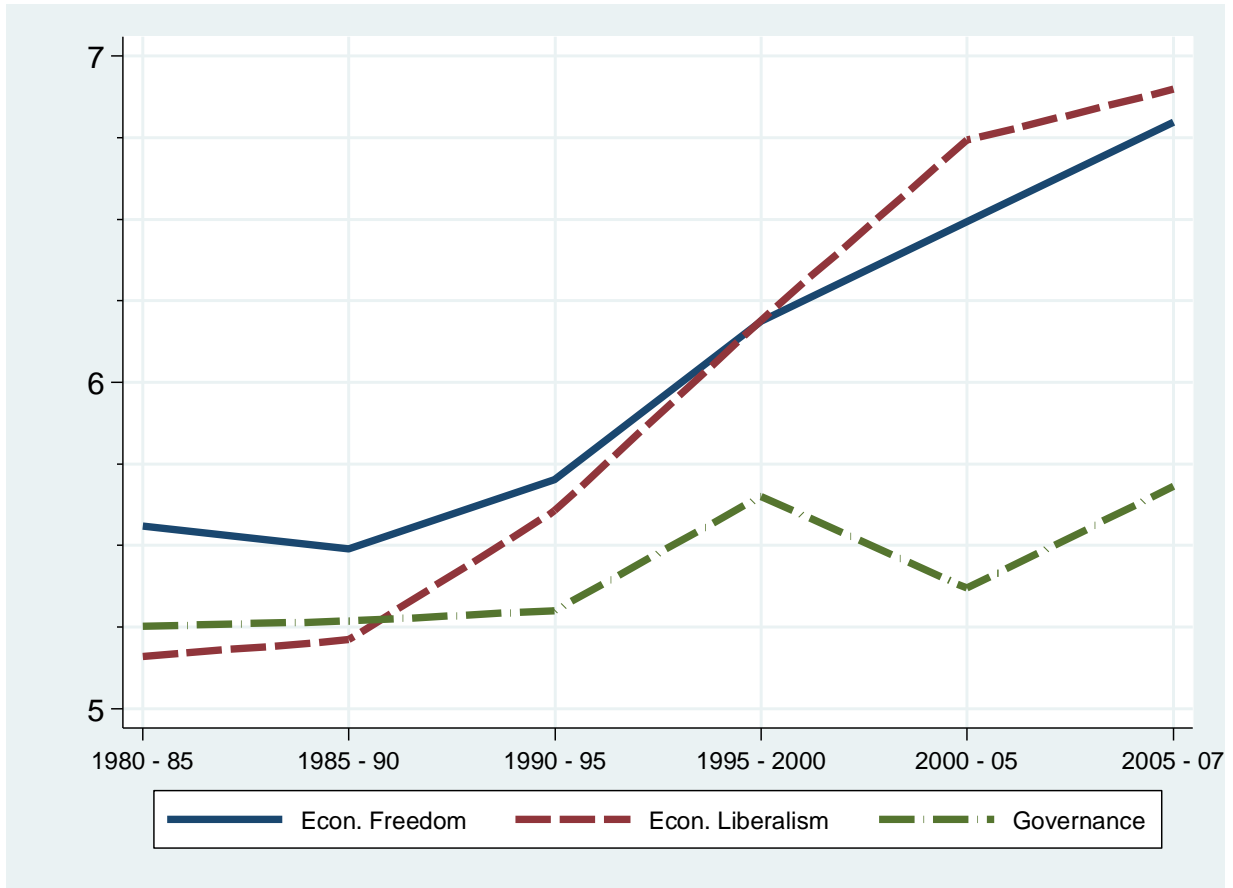| Model	XIII	XIV	XV	XVI	XVII	XVII	XIX	XX
"Economic Freedom"	1.684*** (0.290)	--	--	1.622*** (0.285)	--	1.475*** (0.399)	--	--
Economic Liberalism	--	0.620** (0.206)	0.198 (0.266)	--	0.542* (0.235)	--	0.579^ (0.329)	0.392 (0.344)
Governance	--	0.525** (0.187)	0.409* (0.167)	--	0.575*** (0.166)	--	0.513* (0.232)	0.383 (0.227)
Inflation (logged)	--	-0.764** (0.263)	-0.748*** (0.225)	--	-0.712** (0.249)	--	-0.807^ (0.422)	-0.827* (0.406)
Net FDI (logged)	--	--	1.948* (0.852)	--	--	--	--	1.315* (0.535)
PPG Debt Service (logged)	--	--	-0.963^ (0.543)	--	--	--	--	-0.141 (0.440)
Per Capita GDP (logged)	-0.144 (0.172)	-0.131 (0.167)	0.404 (0.253)	0.090 (0.232)	0.228 (0.195)	-0.267 (0.212)	-0.331 (0.209)	-0.266 (0.220)
Constant	-6.629*** (1.031)	-0.992 (1.493)	-3.930** (1.208)	-7.969*** (1.317)	-3.597* (1.510)	-4.496* (1.904)	0.906 (2.094)	0.145 (1.974)
N	579	572	453	452	453	1,008	1,008	1,008
N(groups)	114	114	91	91	91	168	168	168
R-Squared	0.14	0.15	0.23	0.15	0.15			
Missing Data Handling	LWD	LWD	LWD	LWD	LWD	MIR	MIR	MIR

***p<0.001, **p<0.01, *p<0.05, ^p<0.10. Standard errors in parentheses under coefficients.**

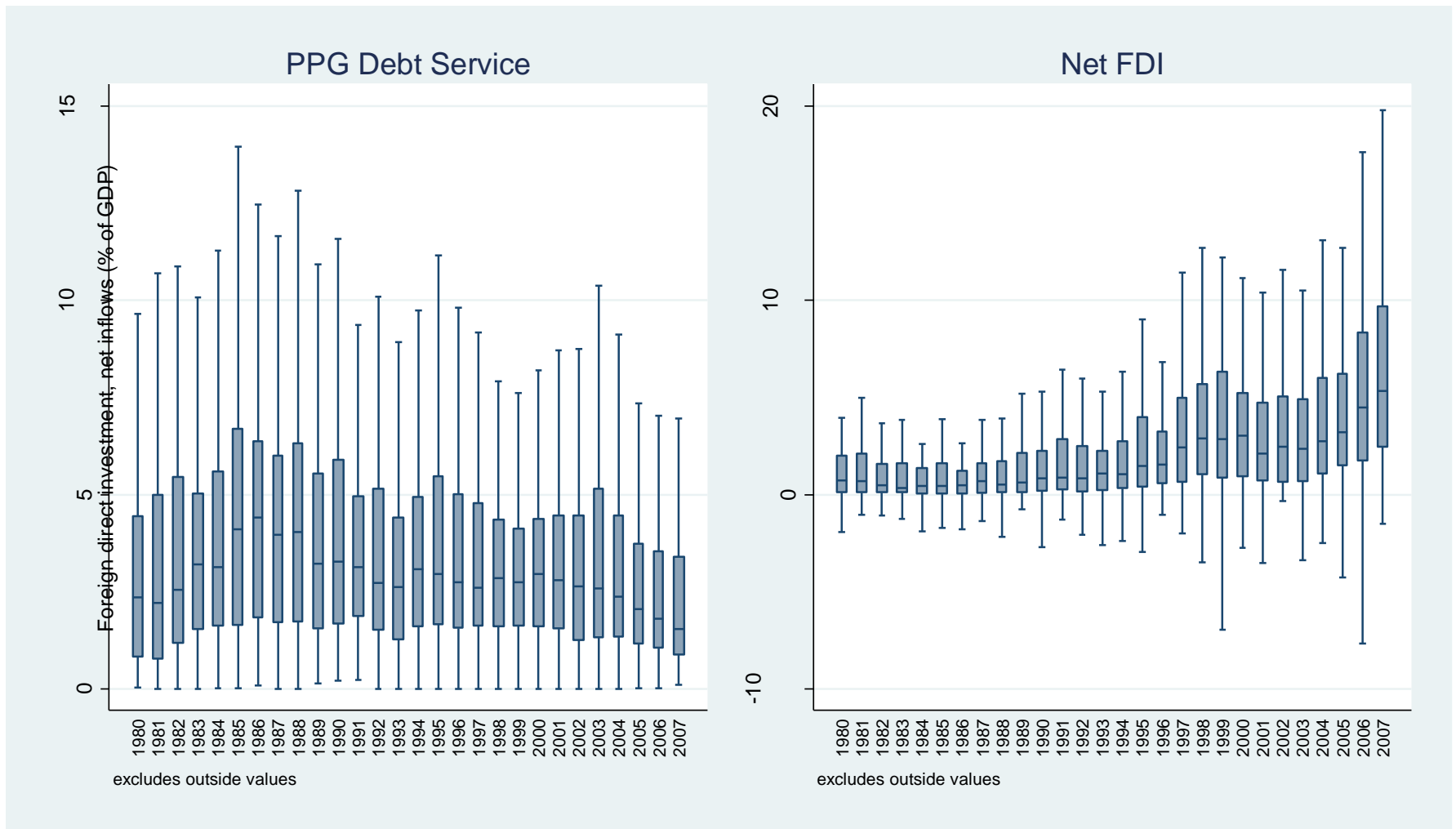LWD = listwise deletion, MIR = multiple imputation with randomness

R-squared estimates for MIR models represent averages of models run on ten imputed sets used to generate results

Figure 1: Box Plot of Economic Growth and Inflation, Developing Countries, 1980 - 2007

Figure 2: Median EFW, Modified EFW and Legal System & Property Rights Index Scores, 1980 – 2007

Figure 3: Public and Publicly Guaranteed Debt Service and Net FDI, Developing Countries, 1980 - 2007