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Do Neoliberal Economic Policies Kill or Save Lives?

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John Gerring and Strom C. Thacker

Abstract

Do neoliberal economic policies help or hinder human development? Many have argued that such policies promote economic stability and growth, which may have indirect positive effects on human welfare. Others claim that neoliberal policies retard human development. We argue that neoliberal economic policies may improve the human welfare in ways that are independent of their effects on economic performance. Specifically, this paper hypothesizes that open international trade policies, low-inflation macroeconomic environments, and market-oriented property rights regimes promote human development across the world. We test this argument by examining the impact of several measures of neoliberal policies on infant mortality rates across the world between 1960 and 1999. Results suggest that openness to imports, long-term membership in the GATT and WTO, low rates of inflation, and effective contract enforcement are each associated with lower rates of infant mortality across the world, even when controlling for countries' economic performance.

KEYWORDS: human development, infant mortality, trade, inflation, property rights, regulation

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The possible impact of neoliberal, market-oriented policies on economic growth and stability has been extensively studied. While many economists believe the net impact of free market policies on economic development is positive, some observers have questioned the wisdom of Washington consensus-style policies, especially with respect to their impact on human welfare. Measures associated with the neoliberal paradigm—in particular, open markets, conservative macroeconomic policies, and business-friendly legal and regulatory environments—have been criticized for their negative impact on the world’s least advantaged citizens, who are not well placed to take advantage of the opportunities afforded by a dynamic, global market.¹ Even the most ardent advocates for neoliberalism acknowledge that these policies operate differently for “winners” and “losers.” Their defense of this set of policies usually rests on the presumed benefits to society at large over the long run. Yet, few studies have systematically examined the relationship between neoliberal economic policies and (non-economic) human development outcomes. In this paper we ask a rather provocative but fundamental question: do neoliberal economic policies kill? Or might they actually improve human welfare, independent from their economic effects?

We take an unusual—and, for some, counterintuitive—approach to the question. Rather than examining the effect of neoliberal economic policies on growth performance (the usual outcome), we examine the effect of a selection of neoliberal economic policies on human development, controlling for economic prosperity. Thus, we take up these policies’ *direct* effects on human welfare, not their indirect effects on welfare via economic growth.²

We argue that, contrary to the assumptions of most observers, many neoliberal economic policies have positive direct effects on human welfare throughout the world. We test this proposition in a global sample of countries, regressing infant mortality—our preferred measure of human welfare—against several neoliberal economic policies and policy outcomes. The next section of the paper presents the conceptual and theoretical arguments surrounding the relationship between neoliberalism economics and human development, focusing in particular on international trade, inflation, and contract enforcement (understood as a measure of property rights). The following section presents our research design, a consideration of the dependent variable, various measures of neoliberal economics, and an overview of the estimation procedures used. The empirical results follow, and the paper concludes with a discussion of our findings and their possible implications.

¹ E.g., Coburn (2000), Madeley (1999), Tabb (2001). Breman and Shelton (2001) offer a fairly comprehensive review of the social science literature.

² We leave the possible causal effect of economic policies on economic growth aside for the purposes of this paper.

NEOLIBERALISM AND THE POOR

Neoliberal economics contains a controversial and often confusing mix of policy prescriptions, so assessing its causal effect is neither simple nor straightforward. Nonetheless, we surmise that there is enough integrity to the concept—and sufficient political force behind the idea—to warrant its initial treatment as a (more or less) coherent set of policies. At the same time, it is also important to consider the potentially differing effects of a variety of different policy realms. (The paper's conclusion discusses some alternative dimensions.)

At the core of the neoliberal concept is the idea that public policies should act to preserve and enhance the operation of free markets. A “free” market usually refers to a sphere within which goods can be held individually and exchanged (as “private property”), where such exchanges occur through a pricing mechanism that responds to individual preferences (rather than state control), where prices tend toward an equilibrium established by supply and demand, where entry barriers to market mechanisms are low, and where an ongoing series of transactions is, to a considerable degree, self-regulating (both consumers and firms are price takers). Clearly, the free market is an ideal-type concept; no market is entirely free. Indeed, some degree of government intervention and regulation is required in order to maintain market freedom and efficiency. States must exercise judicious monetary policy, enforce contracts, prevent mono-polies and correct other market failures, and perform myriad other functions—including keeping the peace—in order for markets to operate efficiently. A neoliberal policy, therefore, is one that stimulates the efficient operation of markets; it is pro-market, market-enhancing, market-friendly, or market-augmenting (Azfar and Cadwell 2002).

We focus in this paper primarily on three main elements of the neoliberal economic policy agenda: trade, the macroeconomic environment, and contract enforcement. The general consensus among neoliberals is for trade openness, a stable, low-inflation macroeconomic environment, and strong contract enforcement that protects the rights of private property holders. The remainder of this section takes up each of these areas and their hypothesized effects on human development.

INTERNATIONAL TRADE

Trade openness is a central tenet of neoliberalism, perhaps its most recognizable one. Many argue that outward-oriented trade regimes and open trade borders (low tariff and non-tariff barriers on imports of goods and services) foster economic growth (Bhagwati 1998; Dollar and Kraay 2003; Edwards 1989; Krueger 1997; Sachs and Warner 1995; Srinivasan and Bhagwati 1999). Yet,

critics contend that trade openness has an inconsistent or weak effect on growth and/or deleterious effects on poverty or inequality (Rodriguez and Rodrik 1999; Rodrik 1997, 1999). We are not concerned with the trade/growth nexus here (though we do presume, at a minimum, that open trade does not usually harm long-run economic performance). Our concern, rather, lies with the possible connection between trade openness and human development.

An enormous literature addresses possible causal relationships between trade openness and wellbeing. Some argue that open trade borders and free trade policies increase aggregate levels of poverty and/or income inequality (Hurrell and Woods 1999; Richardson 1995; Wood 1994), while others argue that no consistent empirical pattern obtains (Edwards 1997; Mahler et al. 1999; see Burtless 1995 for a review of the literature). Although relevant to our discussion, this body of work relies almost exclusively on income as a measure of welfare, a questionable measure for gauging human development within the developing world, as discussed below. The literature on this question is also heavily weighted toward the study of OECD cases, where time-series income data are more reliable and widely available. Such findings may or may not be relevant to the developing world. Finally, this literature tends to privilege the question of inequality (i.e., relative wellbeing), rather than absolute welfare measures among the poor. In our view, the two topics are empirically and theoretically distinct. We grant the latter normative priority, as suggested by Rawls' difference principle (Rawls 1971).

Nonetheless, we can garner from this diverse literature a sense for the causal pathways that may exist between trade and trade policy and human development, our concern here. Work grouped loosely within the dependency tradition suggests that developing countries lose from open trade borders because they exchange low-cost primary commodities for high-cost manufactured goods (Adams and Behrman 1982), because they establish enclave economies with few backward and forward linkages, and because of long-term declines and volatility in the terms of trade (Prebisch 1950; Singer 1950). To the extent that people in developing countries rely on primary products that are often subject to declining terms of trade, one may suppose that trade openness might negatively impact human development in that part of the world. Free trade policies may also lower government revenue by lowering import taxes, an important source of revenue in most developing countries. Insofar as such reductions in the tax base constrain social policy initiatives, we may infer that open trade borders and policies result in lower human development (Cornia 2001: 837). Along similar lines, some have argued that neoliberalism undermines the welfare state and therefore the health status of the poor (Coburn 2000).

Counter-arguments are also persuasive, however. Open trade regimes may translate into lower prices for consumption goods, freeing up disposable

income for other purposes. Openness to trade may also lead to lower prices for medical goods and greater opportunity for agricultural producers and exporters, an important benefit for rural inhabitants, whose human development often lags behind that of its urban counterparts. By making intermediate and capital goods less expensive, and presumably by contributing to the lessening of the exchange rate bias against agriculture so common in heavily protected economies, trade liberalization can improve the productivity and welfare of the agricultural sector (Krueger 1997).³ Similarly, according to the Stolper-Samuelson theorem, trade should provide greater benefits to the abundant factors of production. In developing countries, workers should benefit as the production of labor-intensive goods rises with trade. The specialization that results from trade should increase the demand for labor and provide material benefits to the working poor. Finally, certain aspects of an open-trade regime appear to militate towards *greater* redistributive spending as states seek to moderate the insecurity of world market fluctuations by providing social security for their citizens (Cameron 1978). By this logic, policies fostering free trade and policies promoting social welfare (to compensate free trade's losers) are complementary, not contradictory. Such efforts are central to the notion of embedded liberalism (Ruggie 1982).

Cornia (2001: 834) provides a good summation of pro-free trade arguments:

If properly managed, globalization can lead to important health gains. Global market forces work efficiently in settings where domestic markets are competitive and non-exclusionary, regulatory institutions are strong, asset concentration is moderate, access to public health services is widespread, social safety nets are in place, and rules of access to global markets are non-exclusionary. Under these conditions, globalization reduces opportunistic behaviour, rewards effort and entrepreneurship, captures economies of scale in production, increases employment opportunities, and improves welfare by raising earnings, and reducing the prices of consumer goods. An expanding, symmetrical, and non-discriminatory global market can help to incorporate into the world economy those developing nations that have good human and physical infrastructures but narrow domestic markets. Such a global market can also facilitate the spread of North-to-South transfer of investment, health and other technologies, and knowledge.

However, Cornia emphasizes, few countries have met these demanding requirements (see also Lipton 1995). Consequently, we find a strong theoretical reasons to suppose that open trade policies will provide human development benefits, and perhaps equally strong reasons to doubt that they actually do.

³ While market-distorting agricultural subsidies and other protectionist measures in the developed world may impede rural development in the poor countries, it is similarly plausible that opening of developing-country agricultural markets reduces domestic food prices and improves nutritional intake in the importing country.

INFLATION

Neoliberals place a high value on price stability. Low, manageable, and stable levels of inflation are a *sine qua non* of prudent economic management, the absence of which impedes the smooth functioning of free markets. While a host of factors, including external shocks and market dynamics outside the direct control of policy makers, influence a country's level of inflation, there is broad consensus that a nation's fiscal and monetary policies are critical determinants of its inflation rate. Thus, it seems fair to regard a country's inflation rate as a policy indicator.

To what extent do loose macroeconomic policies and resulting high inflation hamper human development? On the one hand, fiscal deficits and loose monetary policies are sometimes used to pay for social programs. On the other hand, both theory and evidence suggest that inflation tends to punish wage earners disproportionately because price increases typically outpace wage hikes. This effect is probably strongest among the poor and lower-middle classes, those whose incomes derive predominantly from salaries and who do not typically have substantial non-wage assets or income nor access to the kinds of financial instruments—including interest-bearing bank accounts and capital flight—that their more well-to-do compatriots employ to protect their liquid assets against the rampages of inflation. Those at the very bottom of the income ladder, particularly those who engage in extensive non-monetary transactions, may suffer somewhat less (relative to the salaried worker) from the effects of inflation (Hojman 1996; Lustig 1996). Thus, while controlling for inflation can help protect the welfare of society at large, it is likely to do disproportionately for those who rely heavily on wages for their income.

Few studies have attempted to test the inflation hypothesis outside of the OECD. Easterly and Fischer (2000) find inflation associated with higher poverty levels in the developing world. Romer and Romer's (1998) study of developing and industrialized countries suggests that while monetary expansion may help the poor in the short run, macroeconomic stability and low inflation improve conditions for the poor over the long run. Neither study examines any non-income human development indicators.

REGULATION AND PROPERTY RIGHTS

The deregulation of domestic markets has long been a calling card of neoliberalism. Critics contend that the most vulnerable workers need protection from market forces, e.g., laws guaranteeing minimum wages, workplace safety, employer funded social policies, environmental protection, the right to organize, the prohibition of child labor, and limits on foreign ownership of domestic

businesses. In addition, they point out that direct government supervision of certain functions (e.g., core industries or vital services) will benefit the broader society by maintaining high quality and low cost (Dreze and Sen 1986; Easterlin 1998; Wimberley 1990; Wimberley and Bello 1992). Finally, unfettered market forces, and particularly unrestrained capital flows, can lead to a ‘race to the bottom,’ in which countries competing for capital lower their tax rates in their bids for scarce investment resources, undermining the resource base that funds social programs.⁴

Neoliberals argue, by contrast, that aggressive economic intervention and regulation by governments around the world retard economic and social development. For these writers, pro-poor policies are those that protect private property and free the marketplace, not those that constrain them (Bigsten et al. 2000; de Soto 1989, 2000; Lal 1985; Lal and Myint 1993; van der Gaag and Barham 1998). They point out that restrictions on market activity and the rights of private property holders can distort relative prices, resulting in inefficient choices by investors, employers, employees, and consumers, and lower aggregate levels of production. They may also create the conditions for exploitative middle men, intermediaries who purchase crops from producers and sell to wholesalers or retailers, who manage unskilled labor, or who, in a variety of additional ways, extract unofficial taxes on low-level economic activity. Onerous labor regulations, for example, can hurt the poor rather than help them by lowering investment, employment, productivity and output (Besley and Burgess 2002).

Similarly, state-run enterprises may benefit government workers at the expense of the private sector and the informal economy, often the largest sector in developing countries. A bloated public sector may exacerbate existing disparities between unionized and non-unionized workers, the skilled and the unskilled, formal and informal, and urban and rural populations. Insofar as public sector production is less efficient than its private sector counterpart, a large, tax-supported state will act as a drag on social welfare. A state-dominated economy that ignores market signals is more apt to respond to political signals; since the more privileged sectors are also generally the more organized and influential, a large public sector may reinforce existing distributional inequities. By stifling overall production and worsening inequality, therefore, government intervention in the economy and restrictions on private property can have the (likely unintended) effect of undermining human development.

Finally, undue restrictions on property rights can limit private investment and employment, dampening prospects for growth and development (La Porta et al. 1999; North 1981). Relatedly, a heavily regulated market where property rights are weak is likely to be oriented toward the formal sector, not the informal

⁴ See Spar and Yoffie (1999) for a useful treatment of the conditions under which the race to the bottom is likely or unlikely to occur.

sector, where life conditions are often much more perilous. Many neoliberals argue that human welfare, especially in developing countries, depends heavily on the establishment of basic property rights in the informal sector (de Soto 1989; Grandvoinnet 2001). “Contrary to popular wisdom,” de Soto (2000: 155) writes,

operating in the underground is hardly cost-free. Extralegal businesses are taxed by the lack of good property law and continually having to hide their operations from the authorities. Because they are not incorporated, extralegal entrepreneurs cannot lure investors by selling shares; they cannot secure low-interest formal credit because they do not even have legal addresses. They cannot reduce risks by declaring limited liability or obtaining insurance coverage. The only ‘insurance’ available to them is that provided by their neighbors and the protection that local bullies or mafias are willing to sell them. Moreover, because extralegal entrepreneurs live in constant fear of government detection and extortion from corrupt officials, they are forced to split and compartmentalize their production facilities between many locations, thereby rarely achieving important economies of scale. . . . With one eye always on the lookout for the police, underground entrepreneurs cannot openly advertise to build up their clientele or make less costly bulk deliveries to customers.

Lightening the regulatory burden on the informal sector and rearranging property laws to entitle landless proprietors may work to overcome this de facto regime of ‘legal apartheid’ (ibid. 159).

RESEARCH DESIGN

Rarely has the relationship between neoliberal economic policies and human development been tested in a global format. The usual approach is the single-country case study or literature review (drawing predominantly on case studies). Breman and Shelton (2001) survey a sample of seventy-six studies of structural adjustment. Of these, only twenty-eight present empirical evidence, and only fourteen deal with more than a single country. Of the remaining fourteen, only five cross continental boundaries. Not a single study of all those surveyed takes a global view of the neoliberalism/human development nexus.

Of course, there is nothing wrong with a case study approach to this question, and much to recommend it. However, in this particular instance there is reason for skepticism. Breman and Shelton (2001) show that methodological approaches and substantive conclusions on this particular subject are highly correlated. All the nonempirical (purely theoretical or literature review-based) studies reviewed—cumulatively, half of the sample—argue that neoliberal policies have negative consequences for the poor in the developing world. Single-country case studies conducted generally concur. Small-N cross-country analyses, by contrast, are equally divided between negative and positive findings. And of the five large-N cross-continent analyses, none show negative effects

between neoliberal policies and the welfare of the poor. The authors' conclusion is disconcerting. While opponents of structural adjustment dominate the debate—judging by the ratio of extant studies—the empirical evidence is mixed (Bremas and Shelton 2001: 15). It seems likely that the authors of case studies have gravitated to worst-case scenarios where neoliberal policies are associated with declines in human development. Of the 14 case studies reviewed by Bremas and Shelton, for example, eight focus on Africa, the continent with the worst contemporary record in economic performance and human development.

In addition to problems of external validity, the case study approach to this question raises troubling questions of internal validity. Sahn notes (1996: chapter 1) that most case studies on the structural adjustment/human development relationship rely on covariational patterns found between policy initiatives and human development outcomes. Yet, it is often difficult to track the onset of 'structural adjustment.' Thus, the independent variable in this two variable correlational analysis is rather fuzzy. The dependent variable may also be open to question, particularly if time series data are sparse or income data suspect. Finally, there are multiple confounding factors to keep track of, including civil unrest, governmental malfeasance, economic performance and external shocks. Case study techniques can be difficult to apply in situations of causal complexity unless the specific links between variables can be effectively traced.⁵

This very brief review of the literature underlines three important points for the present investigation. First, there have been no truly global analyses of the role of neoliberal public policies in human development and only a handful that cross continents. Second, there appears to be a marked anti-neoliberal predisposition among many case study or purely theoretical studies of this subject. Third, and most important, the difficulty of choosing representative samples in case-study and small-N comparative research limits the generalizability of conclusions reached on the basis of these methods.

Our point, then, is not that the case study mode of analysis should be dropped from the social scientist's toolkit. Rather, we wish to point out that the standard approach to this research question involves methodological difficulties and that the alternative approach—large-N crossnational analysis—while raising methodological difficulties of its own (see discussion below), has been underutilized. We turn now to the logistical question of how one might undertake a global study of neoliberalism and human development.

⁵ The approach of the Sahn volume (1996) is to employ general equilibrium models to simulate the effects of various economic policies. This seems to offer advantages over the strictly empirical case study approach. At the same time, conclusions necessarily hinge on the underlying causal model's assumptions, which are not beyond question. For further discussion of the strengths and weakness of the case study approach, see Gerring (2004).

HUMAN DEVELOPMENT

Let us begin with the outcome under consideration, human development. How can we measure life conditions (wellbeing) around the world? One common approach is to focus on income measures of poverty, usually captured by the number of individuals that live on less than one or two dollars a day. Yet, while useful for measuring poverty in first-world environments, income-based measures of poverty are not reliable measures of poverty in the third world, where many people labor in the informal economy and thus may have little or no monetary income per se. When examining incomes across societies one faces additional problems of currency comparability. The use of purchasing power parity adjustments is an attempt to overcome this problem, though it is not entirely successful. Such comparisons must rely upon poverty thresholds, which are inevitably arbitrary and inevitably controversial. What income threshold should define a person who is poor? Another difficulty is that surveys of income poverty are conducted infrequently and do not include many countries; rarely are historical data available for those countries where there are any data at all. Thus, income-based measures of poverty tend to suffer from poor data quality and coverage. A final difficulty is that census- and survey-based studies often reach very different conclusions about the income of the poor, results that are difficult to reconcile. For all these reasons, income-based poverty measures are flawed (Deaton 2003; Dreze and Sen 1989; Moon 1991; Moon and Dixon 1985; Morris 1979; Nissan 1993; Reddy and Pogge 2003; Sahn and Stifel 2000; UNDP 2003: 42).

A better alternative is provided by mortality statistics, which are widely available, crossnationally comparable (a death is a death is a death) and reasonably accurate (Sen 1998). They also sidestep the agonizing threshold problem. Mortality statistics are, finally, highly sensitive to the status of the least advantaged.⁶ Among mortality statistics, we focus on the infant mortality rate

⁶ A recent study of six developing countries compared infant mortality rates among different income groups to gauge this question. In the first decile, the mortality rate varied from .18 (Pakistan) to .49 (Tanzania). In the tenth decile, by contrast, all countries inhabited a narrow range, from .04 to .09 (Kanbur and Squire 1999: 12). It would appear that crossnational variation in IMRs is primarily (though not exclusively) a product of (a) how many poor people there are (within each country under study) and (b) relative living conditions among these groups. Middle and upper classes have low IMRs virtually everywhere. This does not mean, of course, that advantaged citizens are *ignored* by the IMR statistic. Their infant deaths are also registered, and carry as much weight as infant deaths in poor families. However, as an empirical matter it happens to be the case that IMR varies with income and other social advantages within a society. See also Ashford and Kashiwase (2004).

(IMR), defined as the number of children who perish during the first year of life, per 1,000 live births.⁷

Life expectancy correlates strongly with IMR ($R=-0.95$), but it suffers from other difficulties. This statistic, note Filmer and Pritchett (1999: 1312), is often based on data that are actually a series of “extrapolations using child mortality and assumptions about countries’ characteristic life tables (e.g., ‘North’ or ‘South’ models).” Consequently, statistics on life expectancy are unreliable for most countries prior to very recent years (Murray 2004). Finally, IMR forms a more useful outcome variable since its year-to-year and country-to-country variance is greater than that for life expectancy. This, of course, is a product of the greater vulnerability of human beings during the first year of life, where subtle differences in environment (health care, nutrition, shelter, and so forth) are likely to translate into greater differences in mortality rates.

We employ country infant mortality rates, transformed by the natural logarithm, as the dependent variable in all of the following analyses.⁸ We re-emphasize, however, that this outcome is highly correlated with other measures of human development, such as child mortality (Pearson’s $R=0.99$), life expectancy (-0.95), illiteracy (0.83), and income poverty (% below national poverty line: 0.66). Any factor that enhances the livelihood of infants also is likely to enhance the livelihood of adults. Accordingly, we speak of IMR and the broader topic of human development interchangeably in the following discussion (Gerring 2007).

Since IMR data are not available on an annual basis for many countries we interpolate missing data in order to create a more complete time-series for each observed country. (We do this to avoid the bias that would result from weighting some countries more heavily in the analysis than others simply because they happen to have more complete data.) This increases the potential sample from 4213 (as drawn from World Bank 2003) to 7418, a sizeable augmentation. However, we do not extrapolate missing data beyond the first and last data points for a country. And in no case do we interpolate more than two or three

⁷ The under-five child mortality rate correlates almost perfectly with the infant rate ($R=0.99$), but its data coverage is not as complete.

⁸ In analyzing the causes of infant mortality it is important to make some correction for the bounded nature of this phenomenon. Although IMR measures increments of one (per 1,000 live births) these increments cannot be interpreted as representing equal policy achievements. The “distance” from 100-101 is not the same as the distance from five to six if we are interested in the question of what *causes* IMR. This is because it is easier to lower IMR at high levels than at low levels. A country with a very high IMR may experience a small improvement with only a marginal investment of funds, while at low rates an improvement in the rate of infant mortality is likely to be quite expensive. It is not easy for Japan to improve on its current rate of three deaths per 1,000 live births. This is a product of the statistic itself, which cannot go below zero and which consequently is “sticky” at its lower end. We compensate for this problem by transforming infant mortality rates in a logarithmic form.

consecutive years of missing data in a series. Note that IMR data are highly regular; temporal changes tend to follow well-defined paths for each country. With such clear trends over time, the benefits generated by the technique of interpolation (essentially, filling in missing points by drawing a straight line between two observed points) greatly outweigh its costs. Given the highly regular—hence “predictable”—nature of IMR from year to year it makes sense to work with a fuller annual dataset that is closer to what we suspect is the actual trajectory for each country, rather than a dataset that is much smaller and irregularly spaced.⁹

The resulting sample includes all countries for which relevant data are available between 1960 and 1999. This includes most of the sovereign nations of the world and the vast majority of the world’s population. (Smaller countries are more likely to be excluded from these analyses because they are more likely to suffer data omissions.) Unlike many studies, we include both rich and poor countries in the analysis. This approach affords a larger sample (thereby improving precision in the estimates) and greater variation on key parameters; it also enhances the potential theoretical contribution of the study. Note that it is just as important to examine human development success stories as failures. As a robustness check, we run one model on a “full” sample with data imputed for missing observations.

NEOLIBERALISM

We turn now to the central concept of theoretical interest, neoliberalism. As discussed, we focus on three areas of the neoliberal economic policy agenda: trade, inflation, and regulation. We employ two measures of trade openness (Imports/GDP and GATT/WTO membership), one measure of inflation, and one measure of the regulatory environment (contract enforcement).

Imports represents the value of all goods and services imported from the rest of the world, considered as a share of GDP and logged.¹⁰ Imports/GDP is a widely recognized outcome-based measure of the degree to which domestic markets are open to foreign products, and is sometimes referred to as trade openness.

⁹ Another alternative would be to interpolate missing data (because not all countries are observed in the same years) and then employ data at five- or ten-year intervals. This vastly reduces the time-periods available for analysis and complicates the error-correction procedure. In other respects, it is likely to lead to results that are similar to those reported here.

¹⁰ This includes the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services. It excludes labor and property income (formerly called factor services) as well as transfer payments (World Bank 2003).

GATT-WTO membership stock sums the number of years a country has been a member of the General Agreement on Tariffs and Trade (GATT) and its successor body, the World Trade Organization (WTO) since 1960, applying a one percent annual depreciation rate to count recent years more heavily than earlier ones (variable coded by Kirsten Rodine; data source: WTO, accessed at www.wto.org). While imports/GDP measures actual trade outcomes, this variable captures the extent to which a country has been subject to the rules governing the liberal postwar international trade regime.

Inflation is the annual rate of change of consumer prices, expressed as a percentage and logged (World Bank 2003). As an outcome-based measure, it captures a critical component of the macroeconomic policy environment that we expect to influence societal wellbeing.

Contract enforcement is an indicator developed by the Political Risk Services (PRS) group as part of its International Country Risk Guide (ICRG). Knack (n.d.) explains: “This indicator addresses the possibility that foreign businesses, contractors, and consultants face the risk of a modification in a contract taking the form of a repudiation, postponement, or scaling down’ due to ‘an income drop, budget cutbacks, indigenization pressure, a change in government, or a change in government economic and social priorities.” Knack refers to the original ICRG variable as repudiation of contract by government. We rename it contract enforcement to more accurately capture its coding, in which lower scores indicate “a greater likelihood that a country will modify or repudiate a contract with a foreign business.” This variable provides a measure of the overall market-friendliness of the governmental regulatory environment, as well as its more specific property rights protection regime.¹¹

The Appendix contains descriptive statistics for all variables and a correlation matrix for the dependent and independent variables.

FORMAT

The estimation technique employs times-series—cross-section (TSCS) data for every country in the world for which data are available between 1960 and 1999. All regressions include Newey-West standard errors, which assume a heteroskedastic error distribution and apply a TSCS equivalent of Huber/White/sandwich, or “robust,” standard errors, and most include an AR1 correction for first-order autocorrelation (Newey and West 1987). Independent variables and controls are lagged by one year, offering some protection against *X:Y* endogeneity. Most tests include a time trend variable to correct for any

¹¹ See Knack and Keefer (1995) for a more detailed discussion of this variable.

possibly spurious correlation between IMR, which tends to fall consistently over time, and any similarly heavily trended independent variables.

Most tests include country fixed effects. This format sacrifices efficiency while protecting against unobserved unit heterogeneity. It effectively removes many of the specification problems that typically plague cross-country studies, imposing a unique intercept for each country and thereby controlling for country-specific factors that do not vary across time. This makes unnecessary the inclusion of factors—geographic, cultural, historical—that are constant across the time-period of interest. It means that the results will suffer from omitted variable bias only if the *change* in independent variable and the *change* in IMR are both driven by some other (unmeasured) factor—a distinct possibility, but a small one, in our view.

The identification of appropriate controls in these analyses is a critical issue. We seek out all variables that (a) are exogenous (coterminous or prior) relative to the variables of theoretical interest, (b) have an apparently causal relationship to IMR, and (c) might influence the relationship between the theoretical variable of interest and IMR (i.e., they are not entirely orthogonal). Given the lack of theoretical development in this area (and hence the general absence of a recognized benchmark model), our only remedy is a comprehensive search for possible controls. Accordingly, we tested over one hundred variables—including sociological, economic, and political factors—that might bear a causal relationship to IMR. We retained variables in our benchmark set of controls only if they were theoretically defensible, statistically robust, and exogenous. This exhaustive set of specification tests revealed three plausible and reliable control variables: *democracy stock* (Gerring, Thacker, and Alfaro 2007), *female schooling* (the average number of schooling years in the female population, Barro and Lee 2000),¹² and *gross domestic product (GDP) per capita* (logged, World Bank 2003).

Prior work has considered the role of democracy in promoting human development (Gerring, Thacker, and Alfaro 2007; Ross 2006). To control for such an effect, we use a measure of democratic stock that sums each country's Polity2 score (Marshall and Jaggers 2000) (scored from -10 to +10, with higher scores indicating more democracy) from 1900 to the observation year, applying a one percent annual depreciation rate.¹³ This means that a country's regime stock stretches back over the course of the twentieth century, but that more distant years receive less weight than recent ones. Our expectation is that the causal effect of democracy, like other capital stocks, depreciates over time. We anticipate that countries with a larger democratic stock should have lower IMRs. Similarly,

¹² Because Barro and Lee offer observations of schooling data (which are strongly trended over time) only at 5-year intervals, we impute missing years for all observed cases.

¹³ See Gerring, Thacker, and Alfaro (2007) for more details.

countries with better education outcomes should experience lower rates of infant mortality. In particular, higher levels of female schooling should promote better prenatal, neonatal and childcare practices.

The inclusion of a control for GDP per capita merits additional consideration. Recall that our purpose is to investigate the direct effects of government policy on human development, apart from economic prosperity. This way of posing the question creates a research design that is least favorable to the neoliberal hypothesis, which generally posits that the effect of neoliberalism on human development is primarily an indirect one, mediated by economic growth (neoliberal policy → growth → human development). We anticipate that higher average incomes are associated with lower rates of mortality (Pritchett and Summers 1996). By controlling for the level of economic prosperity, we aim to capture the direct effects of our selected measures of neoliberalism, net any growth-inducing effects. This cautious approach is necessary because many of the available indicators of neoliberal policy effort are difficult to disentangle from economic performance (Kurtz and Schrank 2007). Thus, we insert a direct measure of long-run economic performance (real GDP per capita) as a control.¹⁴ This constitutes a potentially strong Type II bias. If neoliberal policies are associated with improved human development in this scenario, it seems safe to infer that their net causal impact (including growth-enhancing effects) is probably greater. Because lower mortality rates might influence future economic performance (endogeneity), we include an additional test that substitutes the level of per capita GDP in 1960 for the annual variable.

RESULTS

Table 1 presents our principal results for a number of alternative measures of neoliberal economic policies, as discussed above. The overall fit of the models is good, with F-values significant at 0.0001 and R^2 values ranging from 0.76 to 0.87.¹⁵ We note strong results for all control variables (democracy stock, GDP per capita and female schooling). Long-term, strong democracies, prosperous countries, and those with high rates of female schooling enjoy lower infant mortality rates.

¹⁴ Data source: World Bank 2003, with small amounts of missing data imputed using Penn World Tables 6.1 (Heston, Summers, and Aten 2002).

¹⁵ This R^2 is harvested from the first “phase” of Newey-West regressions, before the error correction process. Note that the use of fixed effects and the various temporal control variables inflates the R^2 values obtained here. We report them as a measure of fit for the interested reader, without placing much substantive emphasis on them.

Table 1: Neoliberal Policies and Infant Mortality Rates

| <i>Independent variable</i> | 1 | 2 | 3 | 4 | 5 | 6 |
|-----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <i>Model</i> | Trade | Trade | Trade | Inflation | Contracts | Combined |
| Imports/GDP, ln | -0.072*** (0.018) | | | | | -0.047*** (0.018) |
| Imports/GDP, ln (t-10) | | -0.080*** (0.018) | | | | |
| GATT-WTO stock | | | -0.003*** (0.001) | | | |
| Inflation, ln | | | | 0.014*** (0.004) | | 0.012*** (0.004) |
| Contracts | | | | | -0.015*** (0.004) | |
| Democracy stock | -0.001*** (0.0001) | -0.002*** (0.0001) | -0.001*** (0.0001) | -0.001*** (0.0001) | -0.001*** (0.0002) | -0.001*** (0.0001) |
| GDP/cap, ln | -0.181*** (0.029) | -0.151*** (0.028) | -0.216*** (0.023) | -0.273*** (0.025) | -0.105*** (0.023) | -0.236*** (0.027) |
| Female schooling | -0.090*** (0.011) | -0.080*** (0.013) | -0.093*** (0.010) | -0.060*** (0.010) | -0.033** (0.016) | -0.058*** (0.010) |
| Trend | -0.023*** (0.001) | -0.023*** (0.001) | -0.021*** (0.001) | -0.025*** (0.001) | -0.025*** (0.002) | -0.025*** (0.001) |
| Constant | 6.290*** (0.199) | 6.070*** (0.205) | 6.308*** (0.161) | 6.598*** (0.185) | 5.339*** (0.179) | 6.490*** (0.195) |
| <i>Observations</i> | 3482 | 2717 | 3716 | 3265 | 1150 | 3077 |
| <i>Number of countries</i> | 104 | 103 | 104 | 103 | 88 | 103 |
| <i>Period</i> | 1960-99 | 1960-99 | 1960-99 | 1961-99 | 1982-95 | 1961-99 |
| <i>R-squared</i> | 0.86 | 0.83 | 0.86 | 0.87 | 0.76 | 0.87 |
| <i>Prob.>F</i> | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Dependent variable: IMR (ln). Unit of analysis: country-year. All independent variables are lagged one year (except as noted). Country fixed effects included in each model.

Newey-West standard errors in parentheses. All models include AR1 correction for serial correlation.

* p<0.10 ** p<0.05 ***p<0.01 (two-tailed tests)

With respect to trade policies, we find consistent results using a variety of different measures. Model 1 features imports as a percentage of GDP. Model 2 repeats the same specification with a ten-year lag imposed on the key variable, under the assumption that the impact of trade on IMR may take some time to manifest itself. Both sets of results are strongly significant and suggest that more open trade regimes are associated with improved human development. Model 3 tests the impact of trade policy by looking at a country's membership in the world's principal international trading organization (GATT/WTO), with similarly significant results. Several additional proxies for trade policy were also tested, including total trade (imports plus exports) as a share of GDP, the Sachs and Warner (1995) measure of trade openness, and a non-depreciated sum of the GATT-WTO membership variable described above. Results (not reported in Table 1) are consistent with those shown in models 1-3. All else being equal, open trade systems appear to promote lower rates of infant mortality.

Model 4 examines the relationship between inflation and IMR, with inflation showing a strongly positive relationship with IMR. Model 5 tests the effect of government regulatory policies and property rights—specifically, contract enforcement. Effective contract enforcement is associated with fewer infant deaths.

Model 6 includes two of our principal indicators of neoliberalism together: imports and inflation.¹⁶ While the coefficient for imports declines, its effect is still highly significant; the impact of inflation changes very little. Controlling for the macroeconomic environment, open trade policies are associated with lower mortality rates. And controlling for import exposure, lower rates of inflation appear to promote improved human development. Based on these findings, we use this combined model in all our subsequent tests.

In order to assess the robustness of these findings, we conduct a number of additional tests on Table 1's model 6, which we regard as our benchmark model. The results of these tests appear in Table 2. Again, model fit is good, as indicated by the R^2 values and F tests. The first test adds a measure of public health expenditures.¹⁷ If embedded-liberalism arguments about the positive effect of neoliberal international economic policies on government spending are correct, it is plausible to imagine that the apparent beneficial effects of neoliberal policies on human development are simply an artifact of the higher levels of public health spending associated with them. Thus, we control for levels of public health expenditures as a proportion of GDP in model 1. As expected, higher levels of public health spending are associated with lower rates of infant mortality. Reassuringly, results for both imports and inflation are robust to the inclusion of this measure of health policy. Controlling for this critical aspect of social spending, we still find a robust relationship between market-oriented economic policies and lower infant mortality rates. In model 2, we replace the trend variable with annual dummies to offer a different correction for spuriously correlated time trends. Results for imports are nearly identical, while the coefficient for inflation roughly doubles in magnitude. Model 3 includes a lagged dependent variable, along with fixed effects, resulting in a Least Squares Dummy Variable, or LSDV, estimator (Beck and Katz 2004) in place of the AR1 correction. The coefficient for the lagged dependent variable is quite high (0.94), which is not surprising given the strongly trended nature of IMR data. Using this estimator, we still find strong results for imports, but not for inflation. The

¹⁶ We exclude contract enforcement due to data limitations and GATT-WTO because it covers much the same conceptual territory as the imports variable.

¹⁷ Data coverage for public health expenditures is sparse and limited to recent years, so we impute some missing observations using total tax revenues (as a percentage of GDP, World Bank 2003). Using the non-imputed variable reduced the observation period to ten years in the 1990s, during which we find consistent results for inflation but somewhat weaker ones for imports.

inclusion of the lagged dependent variable means that the coefficients for the remaining variables capture only their short-term effects. To calculate the long-term effects of the imports variable, we divide its coefficient by one minus the coefficient of the lagged dependent variable (Beck and Katz 2004). This generates a long-run coefficient of -0.24.

Table 2: Robustness Checks

| <i>Independent variable</i> | 1 | 2 | 3 | 4 |
|-----------------------------|-----------------------|-----------------------|-------------------------|-----------------------|
| <i>Model</i> | Health exp. | Annual | LSDV | Raw DV |
| Imports/GDP, ln | -0.043** (0.020) | -0.048*** (0.017) | -0.015*** (0.005) | -0.064*** (0.023) |
| Inflation, ln | 0.011** (0.005) | 0.023*** (0.005) | -0.002 (0.001) | 0.009* (0.005) |
| Democracy stock | -0.001*** (0.0002) | -0.001*** (0.0001) | -0.0001*** (0.00004) | -0.001*** (0.0001) |
| GDP/cap, ln | -0.189*** (0.037) | -0.222*** (0.028) | 0.0002 (0.007) | -0.277*** (0.032) |
| Female schooling | -0.054*** (0.013) | -0.058*** (0.010) | -0.009*** (0.003) | -0.034*** (0.010) |
| Pub. health exp/GDP | -0.015*** (0.004) | | | |
| Trend | -0.026*** (0.001) | | -0.001*** (0.0004) | -0.028*** (0.001) |
| Lagged DV, ln | | | 0.937*** (0.022) | |
| Population, ln, 1960 | | | | |
| Ethnic fractionalization | | | | |
| Latitude, ln | | | | |
| Muslim | | | | |
| Africa | | | | |
| Latin America | | | | |
| Socialism | | | | |
| IMR, ln, 1960 | | | | |
| Constant | 6.156*** (0.268) | 5.421*** (0.209) | 0.327*** (0.078) | 6.747*** (0.244) |
| Annual dummies | | YES | | |
| <i>Observations</i> | 2294 | 3077 | 3063 | 1854 |
| <i>Number of countries</i> | 102 | 103 | 103 | 101 |
| <i>Period</i> | 1970-99 | 1961-99 | 1961-99 | 1961-99 |
| <i>R-squared</i> | 0.84 | 0.88 | 0.98 | 0.90 |
| <i>Prob.>F</i> | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Table 2: Robustness Checks, continued

| <i>Independent variable</i> | 5 | 6 | 7 | 8 |
|-----------------------------|-----------------------|-------------------------|-----------------------|-----------------------|
| <i>Model</i> | MI | Non-FE | OECD | Non-OECD |
| Imports/GDP, ln | -0.072** (0.033) | -0.084*** (0.016) | -0.177*** (0.050) | -0.028 (0.018) |
| Inflation, ln | 0.019*** (0.003) | 0.017** (0.005) | -0.007 (0.012) | 0.012** (0.004) |
| Democracy stock | -0.001*** (0.0001) | -0.0002*** (0.00005) | -0.002*** (0.0004) | -0.001*** (0.0001) |
| GDP/cap, ln | -0.190*** (0.015) | -0.326*** (0.012) | -0.439*** (0.085) | -0.179*** (0.028) |
| Female schooling | -0.070*** (0.006) | -0.002 (0.007) | 0.003 (0.012) | -0.092*** (0.013) |
| Pub. health exp/GDP | | | | |
| Trend | -0.025*** (0.001) | -0.030*** (0.0008) | -0.026*** (0.003) | -0.022*** (0.001) |
| Lagged DV, ln | | | | |
| Population, ln, 1960 | | 0.003 (0.006) | | |
| Ethnic fractionalization | | 0.219*** (0.037) | | |
| Latitude, ln | | 0.036*** (0.010) | | |
| Muslim | | -0.0003 (0.0003) | | |
| Africa | | 0.098** (0.031) | | |
| Latin America | | 0.048* (0.025) | | |
| Socialism | | -0.292*** (0.049) | | |
| IMR, ln, 1960 | | 0.568*** (0.032) | | |
| Constant | 6.286*** (0.165) | 4.562*** (0.250) | 8.358*** (0.785) | 6.167*** (0.183) |
| Annual dummies | | | | |
| <i>Observations</i> | 5975 | 2927 | 732 | 2345 |
| <i>Number of countries</i> | 192 | 97 | 20 | 83 |
| <i>Period</i> | 1960-2000 | 1961-99 | 1961-99 | 1961-99 |
| <i>R-squared</i> | 0.80 | 0.94 | 0.95 | 0.84 |
| <i>Prob.>F</i> | 0.0000 | 0.0000 | 0.0000 | 0.0000 |

Dependent variable: IMR (ln). Unit of analysis: country-year. All independent variables are lagged one year. Country fixed effects included in all except model 6.

Newey-West standard errors in parentheses. All models except model 3 include AR1 correction for serial correlation. Model 4 uses a non-interpolated dependent variable. Model 5 employs multiple imputation to replace missing data.

* p<0.10 ** p<0.05 ***p<0.01 (two-tailed tests)

Model 4 includes only the raw, non-interpolated data for infant mortality. This model yields results consistent with those obtained using the interpolated

data. Model 5 employs multiple imputation to address concerns over the possible biases introduced by missing data (see Ross 2006).¹⁸ As we have noted, smaller, poorer countries tend to have less data available, and the exclusion of those non-randomly missing cases could result in a biased sample (King et al. 2001). Results for the fully imputed dataset show still significant results for both variables, with somewhat larger coefficients, suggesting that missing-data bias is not driving our results.

In order to test the possibility that our choice of estimation technique may be driving the results, we ran an additional test that omits the country fixed effects. We added several control variables that do not vary over time in order to control for some important factors that would otherwise be captured by the fixed effects: *population* in 1960 (ln, World Bank 2003),¹⁹ *ethnic fractionalization* (the likelihood that two persons randomly chosen from a population belong to different ethnic groups [Alesina et al. 2002]), *latitude* (absolute value of distance from the equator, ln, La Porta et al. 1999), *Muslim* (percent Muslims; CIA *World Factbook* [on-line]), *Africa* (dummy), *Asia* (dummy), *Latin America* (dummy), and *Socialism* (La Porta et al. 1999). We anticipate positive signs for population, ethnic fractionalization, Muslim, Africa, and Latin America, and negative signs for latitude, Asia and Socialism. We have greater confidence in a fixed-effects format because of the likely presence of unobserved unit heterogeneity, even when controlling for these additional factors. But we are reassured by the findings in model 6 that show that results are slightly stronger, and statistically robust, in this format.

Finally, we also ran two split-sample tests to see if these relationships might differ across developed and developing countries, with some interesting findings. Model 7 depicts the results of a test on data from only the members of the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD).²⁰ Here, the coefficient for imports remains highly significant and negatively associated with infant mortality rates, while inflation becomes insignificant. We suspect that one reason for this non-finding may be the much lower levels of variation in both inflation and infant mortality rates among the advanced industrialized countries of the world.²¹

¹⁸ The multiple imputation procedure employs the Amelia II software developed by Gary King and his colleagues. See <http://gking.harvard.edu/amelia/>.

¹⁹ We treat population as a static variable, measured in the first year of the analysis, in order to minimize endogeneity problems. Treating it as a dynamic variable would introduce endogeneity with the outcome since lower IMR is strongly correlated with lower population growth, a bi-directional relationship that is difficult to model.

²⁰ We use DAC membership as the filter rather than broader OECD membership because some developing countries (e.g., Mexico and South Korea) are members of the OECD but not the DAC.

²¹ The standard deviation of inflation (unlogged) is 577.5 for the full sample (Model 6) and 5.2 for the OECD-DAC sub-sample. The same figures for IMR (unlogged) are 47.5 and 10.8, respectively.

(Another contributing factor may be the relatively low number of observations for this sub-sample.) In the developing world only (model 8), results remain virtually unchanged for inflation and very similar for imports, though the imports coefficient becomes less statistically significant ($p=0.12$).

A series of additional robustness checks (not reported to conserve space) further suggests that these findings are reasonably robust. A number of potential additional control variables (including real annual economic growth, both in addition to and in place of per capita GDP, and a variety of measures of socioeconomic inequality) were included in the model to see if they disturbed the results substantially. In the non-fixed-effects format we substituted per capita GDP (logged) measured in 1960 for the annual figure, to help control for possible endogeneity between GDP per capita and infant mortality. Results here were substantially stronger for both imports and inflation. We also excluded each of our existing control variables (democracy stock, GDP per capita, and female schooling) one at a time to make sure that our findings are not dependent on a particular model specification. None of these robustness tests disturbed the main findings reported in Tables 1 and 2.

DISCUSSION

While far from exhaustive, the robustness tests undertaken in this study suggest that the main findings are not likely to be an artifact of arbitrary model specifications or estimation techniques. On balance, there appears to be a strong relationship between neoliberal economic policies and improved human welfare, as measured by infant mortality rates.

It is important to note that this relationship persists *even while controlling for level of economic development*. This is an interesting finding, since we tend to think of neoliberal economic policies operating upon human development primarily in an indirect manner. According to proponents, market-friendly policies should enhance growth, which should, in turn, improve human wellbeing. The fact that, independent of their effect of economic development, these neoliberal economic policies are still significantly associated with improved human welfare suggests that an even stronger overall causal relationship may be at work. If, that is, neoliberal policies have a tendency to promote long-term growth, then we may presume that their net effect on IMR is even stronger than measured by coefficients on key “neoliberal” variables in Tables 1 and 2, given that economic development is, itself, a major factor in the reduction of infant mortality. We do not attempt to model the precise nature of this indirect causal relationship because this would require strong assumptions about neoliberalism’s causal effect on growth performance, a contentions topic that lies beyond the scope of this study.

Of course, we have not settled the question of which specific aspects of neoliberalism are most significant in improving human welfare (as proxied by IMR). Rather, we have presented evidence that there is a strong relationship between four indicators of neoliberalism and IMR. This does not mean that other indicators would necessarily have similar effects. What we can conclude on the basis of the present evidence is that there are at least two largely independent causal effects, one generated by trade policies and the other by anti-inflationary policies. This is demonstrated in Tables 1 and 2, where variables for both policies retain statistical significance side-by-side in most specifications and across a range of robustness checks. Additionally, regulatory policies and property rights, as captured by the contract enforcement variable, appear to be positively related to human development, though data limitations preclude more definitive testing of this relationship.²² Future conceptual and empirical work to identify and test other plausible neoliberal policy variables may help to refine our understanding of these complex relationships.

Another limitation of the present study is our inability to discern precise causal mechanisms. Our theoretical discussion is necessarily largely speculative. There are plausible explanatory accounts behind both “neoliberal” and “anti-neoliberal” positions with respect to international trade, inflation, and domestic market regulation. This is understandable, given the variety of ways in which government policymaking directed at the macro-economy may affect life conditions in a society. Despite its evident importance, there are no well-articulated causal models for this sort of distal causal relationship. Nor is it clear how microfoundations might be tested empirically, given the complex and long-memoried interactions that are involved, and the “macro” nature of the intervention. For many macroeconomic questions, crossnational regression offers the best possible (though by no means ideal) research design.

Note, however, that because we are working with observational data, the results shown here are subject to a class of identification problems not present in experimental research. In particular, we must be concerned with the assignment (selection) problem. Perhaps countries undertaking neoliberal reforms are also more likely to undertake other measures that have a positive impact on human development (as measured by aggregate rates of infant mortality). If so, it could be these additional measures, and not neoliberal policies per se, that cause infant mortality rates to drop. The same logic may apply, in reverse, to countries moving away from neoliberal-style policies. Note that this issue arises only with respect to dynamic factors that move in tandem with changes in neoliberal policies; static factors, such as a country’s overall propensity to institute neoliberal reforms in the postwar era, are controlled for by the fixed-effect format.

²² This variable is available only for a limited number of countries and years.

The traditional approach to overcoming this species of identification problem is to employ instrumental variables in a two-stage analysis. This sort of analysis depends on the presence of high-quality instruments—variables that are highly correlated with the regressors of theoretical interest but that do not exert an effect on the outcome of interest (aside from that which might operate through the regressor of interest). Unfortunately, such instruments are rare, particularly in a TSCS format (recall the dynamic nature of our research design). In this instance, there do not appear to be any reasonably strong candidates. Considering the danger of reaching false causal conclusions on the basis of poor instruments (Dunning 2007), we choose the more conservative route of presenting results without instruments, with the caveat that there is some possibility of improper identification.

Our confidence in the results is buoyed by the inclusion of a set of dynamic (time-varying) variables that a) seem to impact IMR, and b) should also serve as proxies for other, unmeasured factors that might affect IMR. These include democracy stock, GDP per capita, female schooling, and public health expenditures, along with a host of other tested but unreported control variables. In order for serious identification problems to persist four conditions would have to be met: (1) some other dynamic causal factor of IMR exists; (2) we have not managed to test that factor; (3) that factor is correlated with all of our measures of neoliberal policies; and 4) that factor is not strongly correlated with other controls that we have included in the models shown in Table 1. We think this highly unlikely, though we cannot discount the possibility entirely.

IMPLICATIONS

It is important not to project the modest evidence presented in this paper too far. Neoliberal enthusiasts may infer from these results that free markets are good, and “big government” is therefore bad for human welfare across the globe. This conclusion is certainly not warranted by the evidence presented here. Well functioning markets leave plenty of room for (and may even enhance the efficacy of) government policies targeting human development. All we have found here is that a particular set of economic policies—in the realms of trade, inflation and regulation—is associated with better performance in human development. We have not shown that government intervention writ large is detrimental to human development. In particular, we make no claims that neoliberal prescriptions for small government would be expected to promote human development. Indeed, we find a positive correlation between health spending and reduced infant mortality.²³

²³ Limitations on the health spending data preclude us from making strong conclusions on the effect of this variable. We use it primarily as a robustness check for our other independent variables.

Other studies find essentially no correlation (Filmer and Pritchett 1999). Either way, we can discern no reason to conclude that government intervention per se harms human development; some interventions undoubtedly do a great deal to promote it.

Empirically, “neoliberal,” pro-market economic policies and extensive “social democratic” social policies often co-exist. The Nordic countries score high on both dimensions, while many countries in the developing world score poorly on both.²⁴ In the context of the well known literature on embedded liberalism discussed above, the coincidence of neoliberal economic policies and social democratic redistributive policies comes as no surprise. In this view, neoliberal external policies are often coupled with well developed social policies at home as part of a grand political bargain struck in the postwar period to make market-friendly international policies more palatable to their losers. Market capitalism, one might conclude, far from being an enemy of government, often benefits from strong and capable government (and vice versa). Because the effectiveness of such policies rests in large part upon questions of state strength and bureaucratic capacity that lie beyond the scope of this paper, we caution against lumping all neoliberal policies together in a single pile.

To conclude, crossnational regression tests reveal no evidence that neoliberal economic policies impair human development, as many detractors have charged. Rather, at least some market-friendly policies seem to have positive effects on human development, as measured by infant mortality. Moreover, the net effects of such policies on the poor may be greater than those captured here if they also serve to stimulate higher growth rates and allow sufficient social surplus to accumulate so that governments can institute redistributive social programs. We leave these questions open for further analysis.

²⁴ In our sample, we find positive, though not especially strong, correlations between government spending and neoliberal economic policies. (The correlations between general government consumption and our measures of neoliberal policies range from 0.006 to 0.32.) The inclusion of a central government consumption variable in our benchmark model yields a negative relationship with mortality rates (spending reduces mortality) but does not alter the substantive conclusions of the other results.

Appendix
Descriptive Statistics

| | <i>Obs</i> | <i>Mean</i> | <i>SD</i> | <i>Min</i> | <i>Max</i> |
|------------------------------|------------|----------------------|----------------------|------------|----------------------|
| <i>Dependent variable</i> | | | | | |
| IMR (interpolated) | 3686 | 64.64 | 51.81 | 2.90 | 279.00 |
| <i>Independent variables</i> | | | | | |
| Imports/GDP | 3482 | 32.72 | 20.55 | 2.98 | 177.13 |
| GATT-WTO stock | 3716 | 11.69 | 10.81 | 0 | 33.10 |
| Inflation | 3265 | 47.38 | 560.73 | -21.68 | 23773.13 |
| Contracts | 1150 | 6.21 | 2.23 | 1 | 10.00 |
| <i>Control variables</i> | | | | | |
| Democracy stock | 3716 | 40.09 | 269.41 | -550.34 | 633.97 |
| GDP/cap | 3716 | 5324.15 | 7552.86 | 56.52 | 47718.18 |
| Female schooling | 3716 | 4.46 | 2.93 | 0.03 | 12.02 |
| Public health exp./GDP | 2294 | 3.64 | 1.73 | 0.25 | 19.14 |
| Population (1960) | 2927 | 2.31x10 ⁷ | 6.83x10 ⁷ | 149,000 | 6.67x10 ⁸ |
| Ethnic fractionalization | 2927 | 0.41 | 0.26 | 0.002 | 0.93 |
| Latitude | 2927 | 0.28 | 0.19 | 0.01 | 0.71 |
| Muslim | 2927 | 17.22 | 31.70 | 0 | 99.4 |
| Africa | 2927 | 0.20 | 0.40 | 0 | 1 |
| Asia | 2927 | 0.13 | 0.33 | 0 | 1 |
| Latin America | 2927 | 0.21 | 0.41 | 0 | 1 |
| Socialism | 2927 | 0.02 | 0.13 | 0 | 1 |
| IMR baseline (1960) | 2927 | 23.32 | 10.74 | 16.6 | 285 |

Correlation Matrix

| | IMR (ln) | Imports/ GDP (ln) | GATT/WTO stock | Inflation (ln) | Contract enforcement |
|----------------------|----------|----------------------|-------------------|-------------------|-------------------------|
| IMR (ln) | 1 | | | | |
| Imports/GDP (ln) | -0.14*** | 1 | | | |
| GATT/WTO stock | -0.33*** | -0.08*** | 1 | | |
| Inflation (ln) | 0.22*** | -0.16*** | -0.03*** | 1 | |
| Contract enforcement | -0.77*** | 0.15*** | 0.35*** | -0.39*** | 1 |

* p<0.10 ** p<0.05 ***p<0.01

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