

MEASURING BAD GOVERNANCE

Evan Osborne

One of the most compelling features of postwar economic history is the continued prevalence of global poverty. Its intransigence is striking given the fact that development has been one of the main items on the international agenda since the end of World War II. The United Nations has numerous branches devoted entirely to reducing poverty, and both the World Bank and the International Monetary Fund have spent billions of dollars to promote development. Many wealthy nations also have government departments devoted to development assistance, and the amount of cash and in-kind transfers these countries have disbursed over the years is substantial.

After over half a century of such efforts, success has been scattered and slow, especially given the optimism that was so prevalent in the 1950s. If a dollar a day or less in income is used as the standard of poverty, the United Nations (2002) reports that the percentage of poor people in all developing countries fell between 1987 and 1999 from 28 to 24 percent, but very unevenly. A recent estimate suggested that almost half the world's population lives on less than two dollars a day (Duraippah 2000), and progress has varied tremendously by region. East Asia, particularly China, has showed dramatic progress, and India has advanced modestly since the early 1990s. But much of Latin America and sub-Saharan Africa has shown very little improvement. In addition, many nations that were once thought to be potential stars of development, such as Argentina and Brazil, have struggled mightily during most of the postwar period, even as other nations such as Singapore, Mauritius, and Chile have had unexpected success.

What might account for this pattern of long-term, widespread failure combined with isolated but dramatic success? While the 1990s saw the emergence of the "Washington consensus," the belief that

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good economic policy was essential to growth, there is still a widespread belief that the failure to grow is often due to factors partially or substantially out of control of developing-country governments. Geography and biology (Diamond 1997), political and social instability (Chen and Feng 1996), and harmful cultural norms (Lal 1988) are among the contrary explanations offered for poor economic performance. But these variables are difficult to change unless they do so endogenously as a result of growth, and so a fatalistic attitude toward poverty alleviation suggests itself when they are emphasized as causes of poverty. But if bad economic policy—more broadly thought of as bad governance—is largely to blame, there is room for hope.

This article investigates the effects of government policy on growth. Its goal is to see whether a *prima facie* case can be established that bad policy is responsible for much of the poor economic performance in the developing world in the post-colonial period. The findings provide a contrast to Easterly (1993), who argued that luck is more important than policy in determining who grows and who does not. Easterly (2001) also contends that good policy has had disappointing effects on growth, while Klein and Luu (2003) and Burnside and Dollar (2000) argue that sound policy is critical. The literature that diminishes the role of policy does not try to estimate its full effect on growth, an omission this article remedies.

Obtaining Estimates of the Determinants of Growth

The approach taken here is similar to that of Barro (1991, 1997), who adopts the neoclassical growth model as his starting point and argues that at any moment an economy has potential as well as actual output. Potential output is defined by the available production technology, including the ability of human capital to augment the productivity of physical capital, by government policy choices, and by factors beyond any government's control. A government that provides the most productive public goods, enforces property rights, and controls externalities—while avoiding distortions and the costly disincentives of excessive or inappropriate taxation—will have a higher level of potential output, as will a country that can trade with others on favorable terms. These factors are merged with the neoclassical growth model, which suggests that physical capital should be accumulated until the production frontier is reached, subject to the above constraints. Actual output is thus a function of the stock of productive factors as well as the factors determining potential output. Economic growth (i.e., the movement toward potential output) is a function of the accumulation of physical capital.

To measure policy effects, I use the following version of the standard cross-country growth regression:

$$(1) \quad GROWTH = a_0 + a_1 INVGDP + a_2 HUMCAP + a_3 PREMIUM \\ + a_4 GOV + a_5 INFLATION + a_6 OPENNESS \\ + a_7 INSTABILITY + a_8 DEMOCRACY \\ + a_9 TERMS + a_{10} PCGDP.$$

Since the data are in panel form, random- and fixed-effects models were estimated. The results for the random-effects model are a much better fit than the fixed-effects model and almost indistinguishable from ordinary least squares. Thus, OLS is used for all estimations. Unless otherwise specified, the data are from the updated Barro and Lee data set, and all income groups and geographic regions are represented. The left-hand variable is average annual growth in real per capita gross domestic product (GDP) over five-year intervals from 1960–64 to 1990–94. *INVGDP* is the average ratio of investment to GDP during the interval, and measures the addition of physical capital. *HUMCAP* is the country's average life expectancy times the average years of schooling of its population at the beginning of the interval and is a proxy for the stock of human capital (Barro 1991). Both variables are expected to have positive signs.

INSTABILITY is the Barro-Lee measure of political instability, a weighted average of the number of assassination attempts and coups during the interval. By eroding the stability of policy and property rights, instability is expected to harm growth. *TERMS* is the change over the interval in the price index of the country's exports relative to its imports—that is, its terms of trade. When a country's terms of trade deteriorate, the gains from foreign trade and hence growth should be lower. These changes are assumed to be beyond the control of policymakers. *DEMOCRACY* is the average of the Barro (1997) measure of democracy. Theory and previous empirical work have not resolved the question of how democracy should affect growth. On the one hand, it can promote more economically efficient governance, assuming the population values that goal (Wittman 1989). On the other hand, it can lower the cost of, and hence promote, costly redistributive activities. *PCGDP* is per capita GDP at the start of the interval. It is included because neoclassical growth theory predicts that as countries accumulate physical capital they should approach the technological frontier, and hence growth should slow.

There are four variables that are strongly influenced or completely determined by economic policy: *PREMIUM*, *INFLATION*, *GOV*, and *OPENNESS*. *PREMIUM* is $\log(1 + BMP)$, where *BMP* is the average black market premium on the country's official exchange rate during

the interval. This variable is often used as a proxy for the total level of government distortions in the economy—restrictions on foreign exchange holdings, discriminatory taxes and subsidies, and the like. The hypothesis is that such distortions change relative prices, which in turn promotes inefficient resource use and rent seeking, thereby slowing growth. Nations that have no black market premium, including those that use floating exchange rate systems, generally have higher quality policy.

INFLATION is the average inflation rate over the interval, and there are a host of macroeconomic reasons why higher inflation might work against growth, such as noise introduced into relative prices when inflation is incorporated into particular markets at different speeds or the opportunity costs of coping with inflation.

GOV stands for two measures of government spending and taxation: Specification (a) follows Barro (1991) by including the average ratio of government consumption spending—other than on defense and education—to GDP. This specification, which will be called pure government consumption (*PUREGC*), indicates the extent to which the government is causing damage by spending on less essential functions and promoting social conflict over the division of government spoils (Hirshleifer 1991). Specification (b) is motivated by Niskanen (1997), who finds a tradeoff between the subset of government spending that promotes growth and the welfare costs of the concomitant taxation. Specification (b) thus uses both average nondefense government consumption spending per potential worker (i.e., resident between 15 and 65)—symbolized by *GOVPCND*—and one minus the average of taxation as a share of GDP (*ONEMINUST*) over the interval. The taxation data come from the World Bank's World Development Indicators, and date to 1970.

Finally, *OPENNESS* is the average of the Sachs and Warner (1995) dummy variable for open economies. The reasons for a link between openness and prosperity date all the way back to Ricardo and Smith, and have been enhanced in recent years by the notion of increasing returns to scale, learning by doing, and other considerations found in recent models of growth and development (Grossman and Helpman 1991, Lucas 1988, Romer 1986).¹

Table 1 presents the regression results of the estimations of (1) for the two specifications of *GOV*. In each case some standard results of cross-country growth regressions are confirmed. *INVGDP*, *TERMS*,

¹Rodriguez and Rodrik (2001) criticize the Sachs-Warner openness measure, but Edwards (1998) finds that it is a good proxy for what is being estimated, the openness of an economy to trade and investment.

TABLE 1
REGRESSION RESULTS (DEPENDENT VARIABLE: AVERAGE
GROWTH IN REAL PER CAPITA GDP OVER A
FIVE-YEAR INTERVAL)

Regressor	Specification (a) 1960–94	Specification (b) 1970–94
CONSTANT	.0267*** (5.42)	-.0305 (-1.52)
INVGDP	.0849*** (4.52)	.1045*** (-4.24)
HUMCAP	.00002** (2.15)	.00005** (3.00)
OPENNESS	.0160*** (5.07)	.0204*** (4.73)
PREMIUM	-.0079* (-2.21)	-.0062 (-1.45)
INFLATION	-.0267*** (-4.45)	-.0143* (-2.31)
INSTABILITY	-.0144* (-2.21)	-.0188* (-1.87)
DEMOCRACY	.0006 (0.15)	-.0032 (-0.54)
TERMS	.0701*** (3.30)	.0931*** (3.28)
PCGDP	-4.59e-06*** (-7.87)	-3.90e-06*** (-4.40)
PUREGC	-.1078*** (-5.40)	
GOVPCND		-1.57e-06 (-0.60)
ONEMINUST		0.359 (1.65)
Adj. R ²	0.34	0.30
F	27.27***	13.69***
N	514	333

NOTES: ***denotes statistical significance at the 1 percent level; **denotes statistical significance at the 5 percent level; *denotes statistical significance at the 10 percent level. Figures in parentheses are *t*-statistics.

and *HUMCAP* are positively signed and statistically significant, while *INSTABILITY*, *INFLATION* and *PCGDP* are negatively signed and significant. *PREMIUM* is negatively signed and significant in specification (a). *GOV* as measured by *PUREGC* is negatively signed and significant in (a), but in (b) *GOV* as measured by *GOVPCND* loses its significance while *ONEMINUST* is positively signed and very nearly significant ($p < 0.101$). The positive effect that Niskanen finds for government consumption spending cannot be confirmed, although human capital, which is significantly a product of public education and health spending in many countries, is positively signed and significant, and may thus be capturing the positive effects of public investment. On the other hand, greater taxation does deter growth.

Calculating Policy Effects

The contribution of each of the four policy components—*PREMIUM*, *INFLATION*, *GOV*, and *OPENNESS*—to growth can

be calculated by multiplying the coefficient of the policy variable in Table 1 times the value that it takes for each country, in each interval. The total measurable policy effect on economic growth (hereafter called *POLICY*) is estimated by adding these four figures together for specification (a):

$$(2) \quad \text{POLICY} = -.0079 \text{ PREMIUM} - .0267 \text{ INFLATION} \\ - .1078 \text{ GOV} + .0160 \text{ OPENNESS}.$$

Table 2 shows the estimates for the average annual effects of *POLICY* on real per capita GDP growth over the seven 5-year periods from 1960–64 to 1990–94, for both developed and underdeveloped nations. For example, the effect of Argentine economic policy from 1960 to 1994 was to *reduce* annual per capita growth by 2.72 percentage points. The table is ordered from the worst economic policy to the best according to specification (a).

The table immediately reveals the dominance of African nations among the worst performers. While many observers assert that some of Africa's poor post-colonial economic performance can be explained by geographic factors and political instability, which may derive from the careless way African borders were drawn, Table 2 suggests that policy alone—bad governance—is quite powerful in explaining Africa's poor performance. The average value of *POLICY* in specification (a) is $-.0234$ for sub-Saharan African countries and $-.0042$ for non-African countries. The contribution of *OPENNESS* (.0008 vs. .0083) and *GOV*, as measured by *PUREGC*, ($-.0168$ vs. $-.0099$) are noteworthy.²

Other countries with bad governance also performed relatively poorly compared with countries with good governance. In particular, 27 of the 58 countries for which full data exist experienced declines in annual per capita growth of at least 1 percentage point over the 1960–94 period, due to poor policy choices.

In addition, the famously well-performing nations of East Asia have generally had growth-friendly policies. Of the rapidly growing nations in East Asia that the World Bank (1993) identified as meriting special attention,³ only Indonesia in specification (a) has policies that are on balance not friendly to growth, and only modestly so, with a value for *POLICY* of $-.0080$.

²The average cost of distortions as reflected in *PREMIUM* in sub-Saharan Africa is $-.0022$ vs. $-.0017$ in other African countries, and the average loss from inflation is roughly equal, at $-.0035$ vs. $-.0036$.

³The countries the World Bank classified as “High Performing East Asian Economies” are Japan, Hong Kong, Korea, Singapore, Taiwan, Indonesia, Malaysia, and Thailand.

TABLE 2
 AVERAGE ANNUAL EFFECTS OF *POLICY* ON ECONOMIC
 GROWTH (FIVE-YEAR INTERVALS, 1960–94)

Specification (a)			
Zambia	-.0403	Mexico	-.0084
Uganda	-.0281	Indonesia	-.0080
India	-.0277	New Zealand	-.0068
Argentina	-.0272	Ecuador	-.0066
Nigeria	-.0265	Syria	-.0058
Cent. African Rep.	-.0260	Jamaica	-.0042
Ghana	-.0238	Sweden	.0023
Togo	-.0222	Denmark	.0027
Uruguay	-.0213	Ireland	.0029
Algeria	-.0212	Portugal	.0029
Cameroon	-.0200	Jordan	.0042
Chile	-.0197	Cyprus	.0043
Sri Lanka	-.0185	South Korea	.0044
Kenya	-.0165	United Kingdom	.0047
Burkina Faso	-.0163	Thailand	.0056
Costa Rica	-.0160	Austria	.0061
Pakistan	-.0157	Finland	.0064
Paraguay	-.0146	Greece	.0071
Bolivia	-.0144	Spain	.0072
Iran	-.0144	Australia	.0073
Dom. Republic	-.0143	Italy	.0074
Philippines	-.0136	Malaysia	.0074
Burundi	-.0136	France	.0074
Honduras	-.0132	Norway	.0075
Israel	-.0124	Canada	.0103
Tunisia	-.0119	Belgium	.0110
Turkey	-.0114	Netherlands	.0113
Colombia	-.0097	United States	.0125
Venezuela	-.0093	Switzerland	.0126

NOTE: The total policy effects on growth are captured in *POLICY*, which is calculated by multiplying the regression coefficients in Table 1 for the four policy-related variables—*INFLATION*, *GOV*, *OPENNESS*, and *PREMIUM*—times the value those variables take in a given interval. *POLICY* is then the average of these five-year averages for a particular country.

Non-policy causes are often given for the Asian miracle. The role of industrial policy—that is, government assistance to promote industries that the market would mistakenly ignore—is often emphasized (e.g., Weiss 1998). Landes (1998) has emphasized the relative importance of cultural features—particularly the capacity for learning and

organizing that springs from a country's most deeply held ethical principles—in paving the road for successful modernization wherever it has occurred. The present study suggests that such amorphous considerations are not needed to explain the extremely strong performance of East Asian countries relative to African countries. The former region has been characterized by generally healthy economic policy; the latter region has not.⁴

Some sense of the size of policy-related losses can be gleaned by comparing them with the losses from terms-of-trade shocks. Table 3 shows the largest effects from such shocks, calculated via specification (a) analogously to the components of *POLICY*, for both the 1990–94 and 1960–94 periods. The losses are quite small next to those calculated for *POLICY*. In no case do nations incur long-run or short-run benefits from favorable changes in their terms of trade that exceed a fifth of a percentage point of per capita growth over the entire sample period, although short-term changes can be greater.

In addition, for the entire sample period, other measures do not suggest greater absolute vulnerability of poor countries to terms-of-trade shocks. Table 4 shows the maximum and minimum values of the losses associated with *TERMS* as well as the standard deviation for each quintile of the full sample. Moving down the income distribution there does not seem to be an obvious pattern of poorer countries enduring greater shocks—either in magnitude at the extremes or in dispersal. The only pattern that can be discerned is that the top quintile of observations does appear to have a somewhat lower dispersal and maximum value of trade-shock effects. There does not appear to be any grounds for attributing the poor performance of developing countries over the long run to changes in their terms of trade. The data here seem to provide at least one argument against criticisms of globalization that revolve around its unfairness to poorer countries.

Radical vs. Gradual Reform

The Latin debt crisis of the early 1980s pointed to the need for Mexico, Argentina, and Brazil to adopt market-friendly policies in place of their heavily interventionist policies. The belief that growth required freeing up markets and lowering government spending grew in force throughout the 1990s. However, the debate over the pace of

⁴Mauritius is an exception to the African misery story, with the highest value of *POLICY* of any sub-Saharan nation in 1985–89 and 1990–94, along with average annual per capita growth rates in these intervals of .0645 and .0315.

TABLE 3
AVERAGE ANNUAL EFFECTS OF TERMS OF TRADE ON GROWTH

	1990–94		1960–94
Ten Greatest Losses			
1. Yemen	-.0132	1. Nicaragua	-.0019
2. Trinidad & Tobago	-.0092	2. Sri Lanka	-.0018
3. Syria	-.0080	3. India	-.0018
4. Comoros	-.0074	4. Mozambique	-.0015
5. Nigeria	-.0067	5. Brazil	-.0014
6. Mozambique	-.0066	6. Mauritania	-.0014
7. Angola	-.0051	7. Philippines	-.0014
8. Guinea-Bissau	-.0050	8. Togo	-.0013
9. Guinea	-.0046	9. Malawi	-.0013
10. Gabon	-.0042	10. Papua New Guinea	.0012
Ten Greatest Gains			
1. Rwanda	.0096	1. Iran	.0023
2. Dom. Republic	.0065	2. Venezuela	.0021
3. Seychelles	.0047	3. Nigeria	.0015
4. Kenya	.0045	4. Angola	.0014
5. Uganda	.0041	5. Bolivia	.0013
6. Burundi	.0041	6. Gabon	.0012
7. Papua New Guinea	.0029	7. Tunisia	.0010
8. Nicaragua	.0029	8. Burkina Faso	.0010
9. Cote d'Ivoire	.0028	9. Algeria	.0009
10. Chile	.0025	10. Iceland	.0009

NOTE: The annual effect of the Terms of Trade (TERMS) on growth is calculated by multiplying the regression coefficient in Table 1 for TERMS times its values in a given interval for each of the seven 5-year intervals and using the average value.

growth remained unresolved. Critics of radical economic change seized on the tumultuous but anecdotal financial crises that plagued Russia, Turkey, and elsewhere in the late 1990s as evidence that trying to move to a free-market system too quickly in developing countries does not deliver prosperity. Argentina, in particular, became the paradigm of a nation that did everything right, from liberalizing trade to achieving a stable currency, and yet suffered catastrophic damage when investors soured on its assets in late 2001.

The difficulty in resolving the question of radical versus gradual reform lies in being able to properly measure the extent of reform and then to gauge its pace. The measure of the policy effects used in this study (i.e., *POLICY*) allows us to identify both the degree and pace of economic reform and the impact on growth.

TABLE 4
TERMS OF TRADE EFFECTS AND INCOME
DISTRIBUTION, 1960–94

	Maximum	Minimum	Standard Deviation
1st quintile (\$0 to \$816.6)	.0015	-.0018	.0009
2nd quintile (\$816.6 to \$1,570.6)	.0014	-.0018	.0008
3rd quintile (\$1,570.6 to \$2,916.4)	.0012	-.0019	.0009
4th quintile (\$2,916.4 to \$6,807.2)	.0022	-.0011	.0009
5th quintile (\$6,807.2 to \$32,014)	.0008	-.0007	.0005

NOTES: Maximum and Minimum are for each quintile of the distribution of per capita GDP in the entire sample between 1960–64 and 1990–94. Quintile boundaries are in parentheses, expressed in 1985 U.S. dollars.

A plausible interpretation of the degree of economic reform is the change over time in the total value of policy-related losses. It is also possible to more formally and thoroughly distinguish between gradual and radical reform. Any increase in *POLICY* of more than 1 percentage point (0.01) in a single five-year period will denote *radical* reform, while any change of less than 1 percentage point followed by an increase of any amount in the subsequent interval will be considered *gradual* reform. Because specification (a) covers the full 1960–94 period, we will use that specification to calculate policy change (*POLCHANGE*). The requirement for two consecutive intervals of improvement in the gradual case is imposed to eliminate whatever instances of modestly improved policy over one interval are random rather than a sign of true attempted reform. If an increase of more than .01 immediately follows an interval of gradual change, that will be considered simply part of the gradual sequence, on the assumption that the smaller reform in the earlier period paves the way for more substantial reform later. Note also that because of sample limitations it is not possible to define gradual reform beginning in 1990, although undoubtedly examples exist.

The countries and beginning years of the first reform intervals for both the radical and gradual cases are listed in Table 5. Radical reformers in the 1990–94 interval and gradual ones in the 1985–89 interval are listed in the table, although it will not be possible to use

them in analyzing reform effects. The usefulness of *POLCHANGE* as a measure of reform can be gleaned by observing the extent to which the countries in Table 5, particularly the radical countries, are generally considered to be countries that have engaged in significant reform.

The first proposed test for the efficacy of each type of reform is the net change in *POLICY* two intervals beyond the beginning of reform. The total time coverage of the data amounts to between 10 and 15 years after the onset of reform, and so should be sufficient to measure its resilience. Interval 0 will refer to the interval in which reform begins, and the two subsequent intervals will be called intervals 1 and 2. The interval immediately preceding reform will be referred to as the prior interval.

There are 51 total episodes of gradual and 16 of radical reform used in the calculations. Among the reforms that begin gradually, seven are followed by further reform in interval 1 of at least .01. These observations are denoted in Table 5 by italics. The net change in *POLICY* two intervals after reform dramatically favors radical reform. The nine episodes of radical reform for which data were available for all intervals led to an average increase in *POLICY* of .0228, while the net effect of radical reform is .0066 ($p < .001$).

Of course, modest reform may take place in countries that have relatively little reform to carry out, and so a simple comparison such as this may overstate the difference between the two approaches when carried out in countries with significant policy losses. Two tactics to correct for this effect are employed. One way is to include only those observations for which the starting value of *POLICY* is at least as low as the highest value among the observations for radical reformers just before reform, $-.0098$ in Australia in 1960–64. When these observations are removed from the gradual-reform set, policy actually deteriorates two intervals beyond the initial reform by $-.0188$ ($p < .001$). Another approach is to analyze only developing countries. If Canada, Japan, and Europe (other than Cyprus) are removed from the sample of gradual reformers, policy improvement in the remaining group takes the value .0072 ($p < .03$).

The evidence strongly suggests that radical reform is more enduring than gradual reform, but the ultimate test is the growth engendered by the two types of reform. Average growth in the reform interval plus the next two intervals is used as the measure of reform. Not only is the change in the average growth rate higher over the entire 15-year period for the group of radical reformers compared with gradual reformers—.0223 vs. $-.0047$ ($p < .01$)—the rate is higher in each period. Radical (gradual) reformers grow at an annual

TABLE 5
REFORMERS: GRADUAL VS. RADICAL

Gradual Reformers		
<u>1965–69</u>	<u>1975–79</u>	<u>1980–84</u>
Austria	Canada	Korea
Benin	Cent. African Rep.	<i>New Zealand</i>
Cyprus	Hong Kong	Niger
D.R. Congo	Kenya	Rwanda
Dom. Republic	Malaysia	Togo
Ecuador	Taiwan	Tunisia
Iraq	United Kingdom	
Israel	Uruguay	<u>1985–89</u>
Japan		Australia
<i>Korea</i>	<u>1980–84</u>	Denmark
Netherlands	Austria	Gabon
Niger	Barbados	<i>Gambia</i>
Pakistan	Burundi	Mauritius
Senegal	Cyprus	<i>Mexico</i>
Tunisia	Finland	Norway
	France	<i>Paraguay</i>
<u>1970–74</u>	Ireland	<i>Philippines</i>
<i>Sri Lanka</i>	Jamaica	Singapore
Yugoslavia	Japan	Sweden
Radical Reformers		
<u>1965–69</u>	<u>1980–84</u>	<u>1990–94</u>
Australia	Botswana	Argentina
Brazil	Mauritania	Bolivia
India	Uganda	Poland
Ireland		Turkey
Taiwan	<u>1985–89</u>	Uruguay
	Bolivia	Venezuela
<u>1970–74</u>	Colombia	
Egypt	Costa Rica	
Indonesia	Ghana	
	Israel	
<u>1975–79</u>		
Chile		

rate of .0213 (.0008) in interval 0, .0173 (-.0060) in interval 1, and .0282 (-.0089) in interval 2. Radical reformers get off to a better start and the gap with gradual reformers widens as the reforms take hold. Whereas radical nations experience solid growth right from the

beginning of reform, gradual reformers suffer negative growth by interval 1.

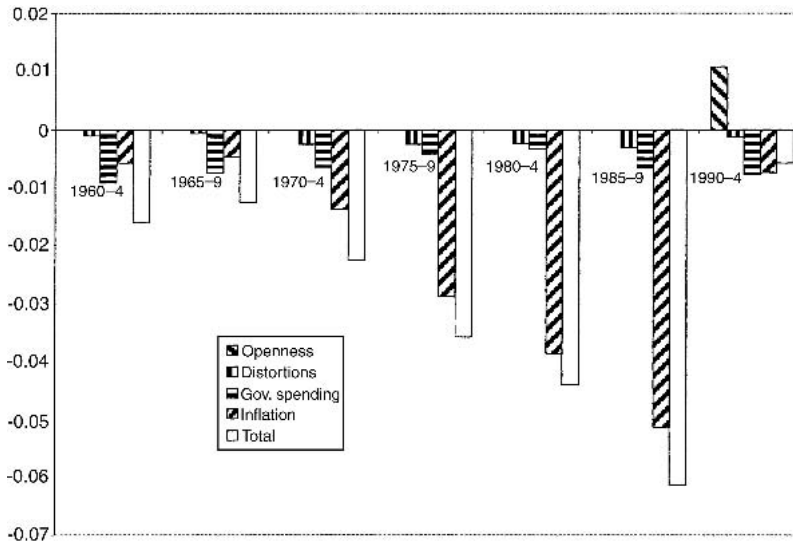
The net decline in growth in gradual-reform countries suggests that reform may not hold, perhaps because interest groups negatively affected by it are able to mobilize to defeat it due to the modest gains in interval 0. In addition, gradual reform may be less effective in generating growth over the long term because it is not sufficient to credibly signal to domestic entrepreneurs and foreign investors that the reform process will be carried through completely.

Overall the evidence strongly indicates the superiority of radical reform. The ability to objectively measure and hence compare the two types of reform is a significant empirical advance. The results here may actually understate the advantage of radical reform because countries that improve modestly over one but not two consecutive intervals are omitted from the set of gradual-reform observations. Some of these observations are presumably attempts at reform that were aborted very early on.

As a final note in this comparison, the case of Argentina is worth discussing. Critics of globalization claim that Argentina, as a country that seemingly followed the Washington consensus only to be severely punished by the financial markets with devastating effects beginning in the late 1990s, is an indictment of radical reform (Palast 2001). The approach here unquestionably labels Argentina as a radical reformer, with a net change of more than 6 percentage points in *POLICY* between 1985–89 and 1990–94, trailing only Bolivia (1985–89) in the entire data set. Figure 1 shows Argentina's total value of *POLICY* in each interval along with its components. The reforms under Carlos Menem are starkly visible in this picture of Argentine economic policy, with a long period of deterioration followed by dramatic improvement.

However, it is important to note that what makes Argentina exceptional is not the degree of its initial reform but the degree to which it backslid, especially in the sphere of government spending. Figures 2 and 3 show the pattern of the government deficit and total government consumption to GDP before, during, and after the radical-reform period. The rise in overall and deficit spending beginning in 1993 is both dramatic and persistent. Buoyed by the boom of the early post-reform period, Argentina quickly relapsed on the government-spending dimension of good policies. This may well have had two effects. First, it destroyed growth in the direct manner suggested in the empirical results here, and second, it also quite probably signaled to domestic entrepreneurs and foreign investors that the reforms had little credibility. Argentina, with a long history of such relapses, was a

FIGURE 1
ARGENTINE ECONOMIC POLICY OVER TIME



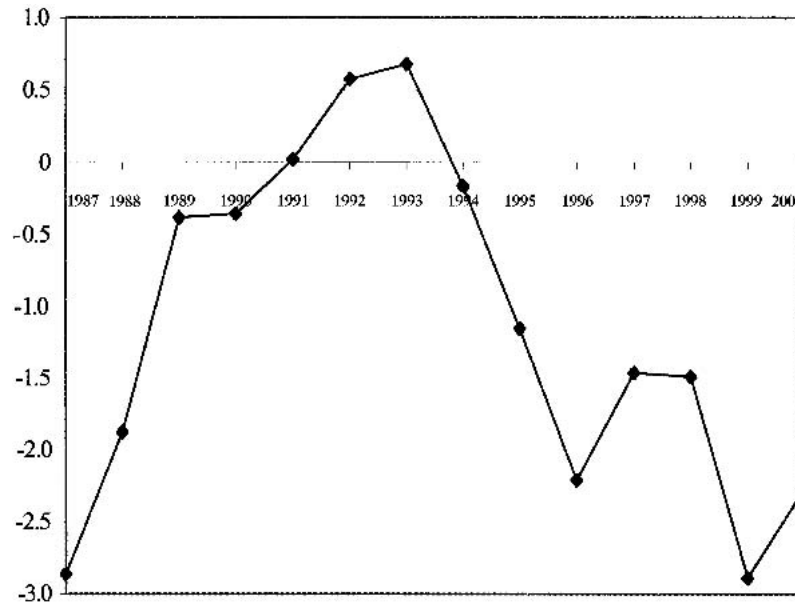
country that could ill afford such a loss of confidence. The contrast to Chile in 1975–79 and beyond is instructive. Its *POLICY* timeline is shown in Figure 4. The lack of backsliding, in government consumption or any other dimension, is striking. Rather than indicting reform generally and radical reform in particular, Argentina stands out as an outlier case of the consequences of lapsed reform.

The Sequencing of Reform

The results also suggest that dramatic effects on growth can be achieved by making the transition from a closed economy to an open one. The binary measurement of an open economy used here is somewhat limiting, in that countries vary in how closed their economies are both in terms of the average level of protection and the uniformity of barriers across industries. But the difference between those countries that are open, as indicated by the Sachs-Warner measure, and those that are not is substantial. The nations classified as closed by this measure during the entire 1990–94 period had tariff duties as a percentage of import value in 1990 of 21.69 percent ($n = 21$) according to the data that are available from the World Bank's World Development Indicators data base, while those classified as open had duties of 5.88 percent ($n = 44$, $p < .01$).

FIGURE 2

FISCAL SURPLUS/DEFICIT AS A PERCENTAGE OF GDP, ARGENTINA

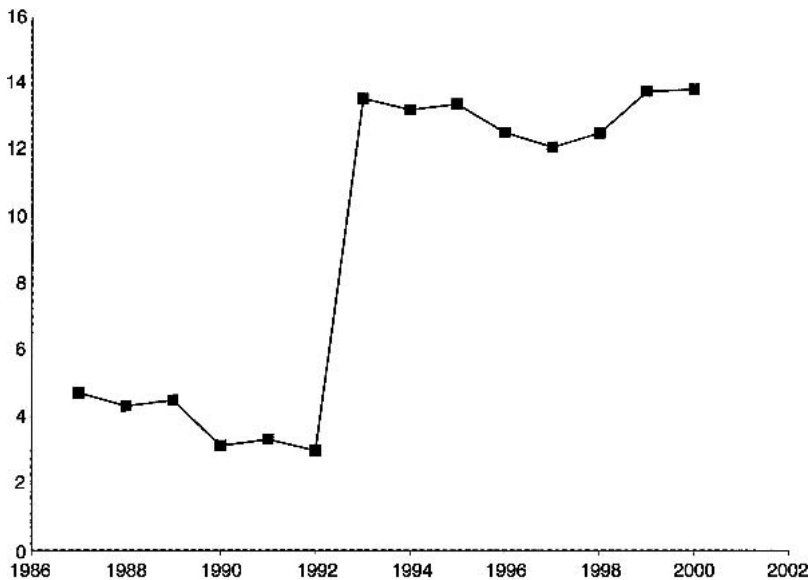


SOURCE: World Bank, 2002 World Development Indicators.

If we assume that countries with significantly higher levels of protection also tend to shield a wide variety of industries, then radical trade liberalization is likely to be a shock felt across the entire economy. Thus, a shift from a closed to an open regime is likely to closely approximate the binary shift depicted in the Sachs-Warner data and yield most of the estimated dramatic growth boost implied by the results in Table 1.

The findings here suggest that a sudden shift to openness may be a useful step in reform that potentially involves multiple dimensions. Openness is generally held to have several advantages: those revolving around comparative advantage and those involving learning and economies of scale emphasized in the new growth theory. Partial opening up may distort resource use because resources are artificially confined to sectors that are still protected, perhaps substantially negating the comparative-advantage benefits. Complete liberalization is the best way to obtain the full benefits from trade and may be seen as fairer in that all trade barriers are eliminated simultaneously. Thus, if there must be only partial economic reform at the outset, openness

FIGURE 3
GOVERNMENT CONSUMPTION/GDP, ARGENTINA (%)



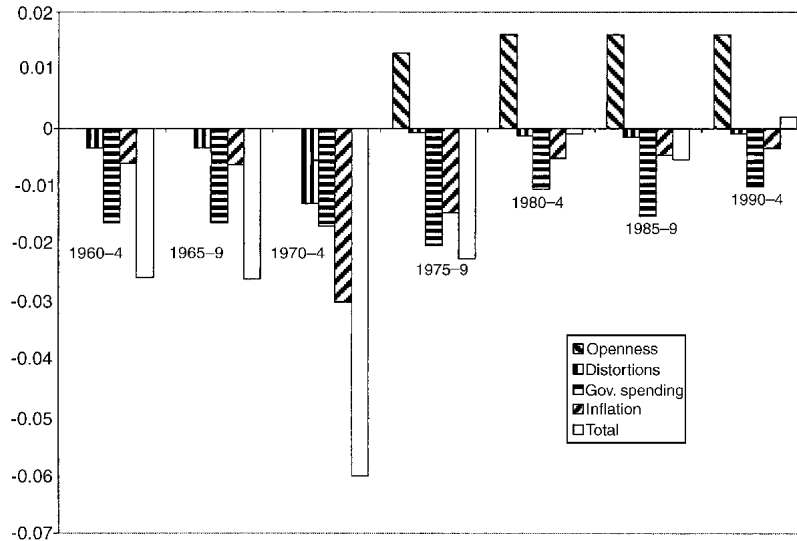
SOURCE: World Bank, 2002 World Development Indicators.

should be part of it, and the move to openness should be radical rather than sequential.

Inflation is also a good candidate for early-stage reform. Of the 10 countries with the greatest change in *POLICY* between 1960–64 and 1990–94, 9 of them open up in the first reform interval and 6 of them show significant improvement in inflation.⁵ The importance of *INFLATION* and *OPENNESS* is not hard to understand because it is relatively easy in terms of administrative and perhaps political costs to tackle them first. Trade barriers are often (though not always) easy to identify and hence eliminate, and a reforming government can blunt political resistance by noting that openness will not be narrowly crafted to damage certain sectors but will occur across the board. Inflation too benefits from lower political transaction costs. The pro-inflation constituency in any country is likely to be small, and the remedy in many developing countries is often quite simple, because

⁵In descending order, those countries with the greatest improvement over the entire sample period are Indonesia, Korea, Chile, Israel, the Central African Republic, Ireland, Tunisia, New Zealand, Argentina, and the Philippines.

FIGURE 4
CHILEAN ECONOMIC POLICY OVER TIME



the underlying problem is often caused by unusually poor monetary policy—for example, the monetization of budget deficits. Along with openness, inflation looms large as a possible avenue for reaping early gains from reform if gradual reform is unavoidable. This in turn may lend political legitimacy to the reform process.

Conspicuously absent from reform, even in the radical-reform cases, is limits on government spending. In only one case among the 10 greatest reformers—namely, the case of Argentina—is substantially lower government consumption spending part of the first stage of the reform process. But Argentina was unable to maintain fiscal discipline. While President Menem, who took office in 1989, initially improved the state of the government budget, it is clear that spending accelerated dramatically in 1993, with the deficit deteriorating one year later. The initial attempts to slash spending were not carried through, and presumably damaged the credibility of the Argentine government on reform generally, culminating in the crisis of 2001.

Apart from the Argentine case, it is interesting that reducing government consumption tends to play only a modest role in the early stages of reform. Of the 10 nations surveyed, only the Central African Republic and Korea show a significant decline in that variable. In the Israeli case and the first interval of the Chilean case, there is actually a significant increase in government consumption, followed by a

modest decline. At least one author (Valdés 1995) argues that an increase in social spending helped make the radical reform that accompanied the Pinochet seizure of power more palatable. In general, it seems reasonable that if radical reform is not feasible, tackling government consumption spending can be postponed somewhat while still leaving the overall reform package intact. Government spending is often allocated on highly specific terms in a manner whose benefits are substantial and obvious to their recipients while the costs are widely dispersed and hard to discern. Thus, it is plausible that decreases in government spending generate the greatest opposition and are often deferred.

However, perhaps the most compelling lesson is that different reforms have different effects depending on the country. While a dramatic change from a mostly closed to a mostly open economy has obvious positive effects on growth, the extent to which distortions, inflation, and excessive government spending cripple a country will clearly differ from case to case. For a country contemplating reform, especially if it is facing political constraints significant enough to make across-the-board reform difficult, there is much to be gained in assessing exactly which problems are at the moment imposing the greatest growth penalty. Although there is surely some linkage between reforms, the tactic here provides a method for sorting out which reforms are most urgent, assuming that they cannot all be implemented at once.

Conclusion

The most important lesson to draw from this study is that bad economic policy—bad governance—matters a great deal for economic development. Our estimates suggest that bad governance can easily destroy significant per capita growth in countries that can least afford it. That has clearly been the case in most African countries. However, beneath the bad news lurks a promising lesson: bad policy, if it can be rectified, will have substantial growth-enhancing effects. To be sure, the problem of choosing good policy may not be simply one of lack of will. Hagen (2002) argues that Africa ended up with bad policy because of geographical and geopolitical circumstances, which themselves have been blamed for Africa's poor performance. Undoubtedly, what kind of institutions lend themselves to good policy in various environments is a topic urgently in need of further study.

The ability to measure policy effects provides some guidance as to how to carry out reform once the decision has been taken. Radical reform seems clearly preferable to gradual reform in terms of

sustainability and the potential to generate growth. When reform is carried out sequentially, there is reason to suppose that, within the entire realm of policy options, opening up to the outside world as rapidly as possible and conquering inflation are good first steps to pave the way for future reform. We also need to remember that nations will differ, based on past choices, in the extent to which various types of bad governance have contributed to their plight. Careful attention to a country's particular circumstances can help in the design of that country's reform plan.

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