Governance and employment

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ISBN 92-2-111755-3
ISSN 1020-5322
First published 1999
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Foreword

This paper by Dr. S. Knack of the American University, Washington, D.C. deals with the interaction of economic growth with the operation of government institutions. It reviews the insights given by setting the growth performance of a large number of countries against sets of variables describing civil liberties, political violence and ratings of political risk. The rule of law, enforcement of contracts and political predictability are all positively linked to investment and growth. Variables describing political freedom, i.e. relative levels of democracy, are also found to be linked to growth but the relationship is generally believed to flow from growth to democracy through, especially, higher education levels. Partly this line of causality appears to follow because income inequality has negative effects on growth in all types of regions. It may well also be that political openness stimulates the formation of interest-seeking coalitions which are a necessary part of civil society but can lead to the selection of second-best economic policy options. A new element of Dr. Knack’s study is to relate variables reflecting civil liberties and property rights to changes in national income distribution to test whether these are not, as some might feel, essentially supportive of wealth accumulation and likely to encourage a worsening of income shares. This suggestion is soundly rejected.

Dr. Knack concludes that good governance and the exercise of economic freedoms are crucial in raising the living standards of the world’s poor. But building up civil society and making governments accountable can be a slow process. Dr. Knack considers that aid donors can help to accelerate this process partly by improving national education systems. But donors can also disseminate information about the consequences of the operation of poor institutions and weak policy choice. Reform efforts are helped by greater awareness of the poverty worsening consequences of poor governance.

This paper was commissioned as part of ILO’s efforts to take stock of the progress of national commitments towards the promotion of full employment entered into at the World Summit for Social Development (Copenhagen, 1995).

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1. Overview

An emerging consensus among development and growth economists views good governance as the crucial determinant of rising living standards. The theme of this paper is that more transparent, accountable, and predictable governmental institutions are a precondition for choosing and effectively implementing policies that remove restraints inhibiting investment and economic growth. Higher levels and improved efficiency of investment, and more rapid growth in incomes, increase the demand for labour, increasing wages and employment levels. Moreover, data for a large number of countries indicate that growth is equally likely to improve the living standards of the poor and of the rich, even for the least-developed nations.

Section 2 of the paper briefly summarizes the major theoretical arguments put forward by Douglass North and others concerning the impact of governance on economic performance. Section 3 reviews empirical evidence on the relationship between economic performance and specific dimensions of governance, such as the rule of law, security of property rights and contract enforceability. Section 4 surveys the theoretical literature on democracy and growth, as well as related cross-country empirical evidence. A growing set of studies exploring the determinants of good governance is briefly summarized in section 5. Section 6 reviews evidence on the poverty-reducing effects of growth generally, and presents new evidence on the distributional effects of good governance, showing that property and contract rights are progressive institutions that raise incomes of the poor and middle classes at least as much as for the rich. Section 7 concludes.

2. Governance and Growth

In his study of long-term growth in 40 non-industrialized nations from 1850 to 1950, the development economist Lloyd Reynolds (1983: 976) conjectured that “the single most important explanatory variable” was “political organization and the administration of government.” This view has since gained many more adherents: whether or not national economies successfully develop appears to be primarily a function of the relative rewards for productive versus predatory activities. In the majority of less developed countries “opportunities for political and economic entrepreneurs overwhelmingly favour activities that promote redistributive rather than productive activity, that create monopolies rather than competitive conditions, and that restrict opportunities rather than expand them” (North, 1990: 9).

Statistically, much of the cross-country variation in economic performance can be explained by factors such as investment in machinery and buildings, investments in “human capital” (as measured for example by educational attainment), and policy variables such as openness to trade and low inflation. However, most of these proximate causes of growth in per capita incomes can be linked conceptually and empirically to governmental institutions. Most importantly, incentives to accumulate human and physical capital are dependent on secure property and contract rights. Uncertainty with respect to the returns to investment deters would-be investors. Trade, monetary and other policies depend on a strong rule of law and transparent, accountable policy processes. Chief executives often have an interest in adopting inefficient policies that create rents used to reward key constituencies, at the expense of long-run national economic performance (Olson, 1993). Where executives are constrained by an effective, independent legislature or judiciary, or by non-governmental institutions such as an independent media, they will generally find it far more difficult to adopt inefficient policies.

Accountability has several related components, according to Brautigam (1991): (1) constitutional and legal codes that direct public officials to act in the public interest, (2)
enforcement of such codes through independent and adequately-funded institutions, and (3) a set of social norms that underpin enforcement and compliance. Accountability will be stronger where civil society is healthy, with an independent media, broad participation in politics, and a large and diverse number of private firms and associations, including community-based popular organizations.

Transparent political systems have clear and regularized procedures for policy making and for administering government policies, from the level of chief executives down to street-level bureaucrats. Access to information about government activities and budgets is not limited (Brautigam, 1991). Closed, non-transparent systems provide many more opportunities for corruption and for the arbitrary introduction of “red tape” imposing costly delays on the private sector.

Predictability of policy making is essential for a positive investment climate. Where changes in government - resulting either from elections or from coups - usually entail drastic, erratic changes in laws and in economic policies, socially productive investments in physical or human capital will be deterred. The rule of law is crucial for predictability of governmental policy making. Where top officials are not bound by publicly recognized procedures or laws, but can issue decrees at will, reward government contracts and positions to supporters, and violate the law with impunity, no entrepreneur can be confident that his or her investment will not be expropriate or rendered valueless through abrupt changes in economic policy. The rule of law also implies a regularized, legitimate means of political succession, reducing the likelihood of destructive conflicts over who will hold power when a leader leaves office.

The rule of law is often identified with secure rights to property and with reliable and impartial enforcement of contracts (e.g., Brautigam, 1991; Clague et al., 1996). An effective and independent judiciary is a key institution protecting the property and contract rights of private firms and individuals against violations by the executive (or legislature in some countries), and acts as a third-party enforcer of contracts and property rights when the interests of two private parties conflict. North (1990: 54) views property and contract rights as key to channeling resources toward productive investment and away from wasteful rent-seeking: “The inability of societies to develop effective, low-cost enforcement of contracts is the most important source of both historical stagnation and contemporary underdevelopment in the Third World.” Where property and contract rights are less well specified and enforced, the incentive to devote resources to capturing the rights and assets of others increases (North, 1990: 33).

North (1990) and Olson (1993) both recognize that the role of state is ambiguous, however. A successful economy requires a state powerful enough to act as an effective third-party enforcer of agreements between private parties. A strong government can be a greater threat as well, however, if government officials are not prevented from expropriating private assets directly, or indirectly through currency debasement, punitive taxation, or demands for bribes in exchange for required licenses and permits. Only in a handful of nations over the course of human history have managed to subject even top government officials to the rule of law. The social, economic, and political circumstances under which the rule of law develops and states come to act as impartial third-party enforcers is not fully understood, but several suggestive studies of this question are reviewed in section 5.
3. Empirical evidence on governance and economic performance

**Historical evidence**

North (1990, ch. 14) and Weingast (1997) describe how England’s government in the late 17th century became one of the first modern nations to approximate the model of a rule-of-law state, following the Glorious Revolution. Although the monarchy was restored, parliamentary supremacy was established, royal prerogatives curtailed, and independence of the judiciary from the executive (if not from the legislature) and supremacy of the common law courts were established. Subsequently, property rights became more secure and lenders became much more willing to lend funds to the government, reflecting a belief that it was much more likely to honour its agreements. The ability of the government to borrow large sums of money from its commercial elites was a key factor in England’s victories over France in a series of wars in the 18th and early 19th centuries.

De Long and Shleifer (1993) find that absolutist government is associated with slow growth, as measured by changes in city populations, during 800 years prior to the Industrial Revolution. They classify by type of regime each of 9 regions in Western Europe for each of 5 periods from 1050 to 1800. “Absolute states are characterized by the subjection of the legal framework to the prince's will.” Good examples of these are France under Louis XIV and Spain under Philip II. Non-absolutist regimes in their sample are by no means democratic by today's standards, but relative to absolutist regimes have "more restrictive governments" that generally "give a voice or a constitutional veto to merchants or assemblies of landed magnates..." (674). Examples include constitutional monarchies such as Britain in the aftermath of the Glorious Revolution, merchant ruled city-states such as the Venetian and Florentine republics, and feudal governments in which kings or emperors were not always able to impose their authority on dukes or city-states.

In the absence of data on incomes, De Long and Shleifer use city size as an indicator of commercial prosperity. They find that on average for each century of absolutist rule in a region, the number of people living in large cities (those with a population of 30,000 or more) in the region is 180,000 less than it would have been with Non-absolutist government.

The clearest example in their study is that of the Low Countries in the 16th and 17th centuries, where the Habsburgs succeeded in establishing long-term absolutist rule only in the south (which became Belgium). An explosion of economic growth in the north (which became the Netherlands) followed the Dutch revolt, along with a large migration from Antwerp to Amsterdam over the period 1570-1620 (De Long and Shleifer, 1993: 696-7).

**Civil liberties and political freedoms**

Kormendi and Meguire (1985) were apparently the first in a long line of researchers to explore the relationship between governance and post-war economic performance using a cross-country statistical approach. For a sample of 47 countries for the 1950-77 period, they examine the impact on investment and growth rates of several variables, including population growth, government size, trade openness, inflation, and “civil liberties.”

“Civil liberties” is an index constructed by Raymond Gastil (1983) for Freedom House. Values range from 1 to 7, with lower scores indicating greater civil liberties. The criteria employed by Gastil (listed in the Appendix) include several related to the dimensions of governance discussed in the previous section. Kormendi and Meguire were interested in testing the impact of political and social freedoms, as well as “economic rights, such as freedom from expropriation or the enforceability of property rights and private contracts.” They acknowledged that the civil liberties index was not intended to measure economic rights, but argued that the two were likely correlated (p. 154).
Kormendi and Meguire dichotomized the Gastil index, with countries scoring 1 and 2 classified as high civil liberty nations. This dummy variable has a positive and marginally significant impact in their growth regression. Growth rates are about 1 per centage point higher on average in the high civil liberties countries, controlling for the other independent variables mentioned above. They find evidence that the association between civil liberties and growth is attributable almost entirely to the former’s impact on investment rates: when the investment to GDP ratio is added to their growth regression, civil liberties no longer has any independent effect. In a regression with investment/GDP as the dependent variable, civil liberties is by far the most powerful explanatory factor. High civil liberties is associated with a 5 percentage point increase in investment's share of GDP (which averages about 20 per cent).

The Kormendi-Meguire study was limited to 47 countries for which data were available beginning in 1950. Grier and Tullock (1989) explored the relationship between a very similar set of independent variables and growth, but for a much larger sample of 113 countries, using data from 1950-80 for some countries and 1960-80 for others. Grier and Tullock run separate regressions for the OECD, Latin America, Africa and Asia. They construct a dichotomous variable from Gastil's civil liberties indicator in which countries in the two "most repressive" categories are distinguished from all others, and describe this variable as "a proxy for the political infrastructure" of nations. They find that political repression is associated with a significant reduction in annual growth rates of about 1.5 percentage points in the Latin America and Africa samples. They found no relationship, positive or negative, between repression and growth in the Asian sample. No OECD nation was classified as repressive.

Scully (1988) used the civil liberties indicator and others provided by Gastil as measures of the "institutional framework." Emphasizing the "independence of the judiciary" among the various criteria Gastil used in evaluating civil liberties, Scully viewed this variable as a proxy for the rule of law. A separate Gastil indicator assigns countries to one of five categories, based on their level of "economic freedom," which Scully took as a proxy for the security of private property rights. A third Gastil variable rates political freedoms on a 7-point scale (see Appendix for criteria employed). Scully constructed a series of dummy variables from these three measures, and tested their effects on income growth over the 1960-80 period for a sample of 115 nations, controlling for changes in the capital-labour ratio. Income growth in nations with greater civil liberties (or political freedoms, or economic freedom) was found to be about double the rate of growth in less-free nations. Because civil, political, and economic freedoms were highly correlated, including all three sets of measures in one regression increases these growth differences only slightly: for nations rated at the top of all three indicators, the growth rate was triple the rate for nations rated least free on all three dimensions (2.73 per cent vs. 0.91 per cent).

Because of the large number and variety of criteria factored into Gastil’s civil liberties index (see Appendix), it is a questionable proxy for more narrow governance concepts such as the rule of law, contract enforceability, or security of property rights. While certain criteria are highly relevant - e.g. rights to property, independence of the judiciary, and freedom from government corruption - others are not, such as the presence of free religious institutions, free trade unions, and freedom from “gross socioeconomic inequality” and “gross government indifference.” A later set of studies, summarized briefly in section 4 below, investigates the relation of regime type to growth, interpreted Gastil’s political freedoms and civil liberties indexes as measures of democracy.

Isham, Kaufman and Pritchett (1997) analyze the impact of the “quality of governance” on the performance of hundreds of World Bank-financed projects in various developing countries over the 1974-93 period. They find that rates of return are higher in nations with greater civil liberties, as measured by the Gastil index (and several alternative indicators of civil liberties). Controlling for country-level policy variables, capital-labor ratios, project complexity, and regional
Indexes of political instability constructed from several violence indicators have been linked to growth (Gupta, 1990) and to investment (Alesina and Perotti, 1996).

dummies, each 1-point improvement in the 7-point Gastil scale is associated with improvements of more than 1 percentage point in the rate of return (which averaged about 16 per cent over all projects). Gastil’s political freedoms index, along with other democracy indicators, proved to be unrelated to project performance. Civil unrest - frequencies of riots, strikes, and protest demonstrations - was positively associated with performance, in the authors’ view because civil unrest is a symptom of environments in which mechanisms for expression of discontent with government performance are available and effective. The authors interpret their findings overall as evidence for the view that “increasing public voice and accountability” improves government performance.

**Political violence frequencies**

Barro’s (1991) classic empirical study on the determinants of growth tested indicators of political instability, which he interpreted as “adverse influences on property rights.” These instability variables have several advantages over the Gastil indexes as proxies for property rights and other dimensions of the quality of governance. First, they are objective measures, consisting of counts of various types of politically-related violence. Second, they are constructed for the entire period covered by the Summers-Heston income dataset, not just for recent years, allowing for a fuller empirical treatment of causality issues.

The two violence measures Barro includes are the average annual number of revolutions or coups, and a similar count for political assassinations. Each of these variables is significantly and negatively related to growth rates and to private investment’s share of GDP over the 1960-85 period. 1 Barro reports that with the inclusion of these variables, Gastil’s indexes (which he had tested in earlier unpublished drafts) are no longer significant.

Barro acknowledges that the violence-growth relationship might “reflect a positive influence of growth on political stability” rather than the other way around. Investigations of this issue using time series data provide mixed results. Alesina et al. (1996) find that political instability and violence are jointly determined: coups lead to worse economic performance, but slow growth in turn increases the likelihood of coups. Londregan and Poole (1990, 1992) also conclude that coups are caused by low growth, but find that more frequent coups do not reduce growth rates.

Political violence counts only imperfectly capture variations in the underlying country characteristics of interest, such as the security of property rights and the rule of law. Coups, for example, often entail only changes in the identity of the kleptocratic chief executive, with few or no implications for the property rights of anyone outside the ruler’s and ex-ruler’s circles of key supporters. Conversely, some stable (long-lasting) governments have been known to legislate economic policies erratically through numerous and unpredictable executive decrees.

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1Indexes of political instability constructed from several violence indicators have been linked to growth (Gupta, 1990) and to investment (Alesina and Perotti, 1996).
Subjective political risk ratings

The deficiencies of the violence counts and Gastil’s indexes, coupled with the increasing prominence of “new institutional” explanations for underdevelopment (North, 1990), created a demand for more direct measures of the quality of governance. In independent but simultaneous efforts, Mauro (1995) and Knack and Keefer (1995) introduced subjective ratings marketed to international investors by firms specializing in political risk evaluation. These ratings services include Business International (BI), the International Country Risk Guide (ICRG), and Business Environmental Risk Intelligence (BERI).

The ICRG rates various dimensions of governance of countries on many dimensions. Knack and Keefer (1995) constructed an index from the five they viewed as being of greatest relevance to North’s conception of institutions conducive to economic performance: “Corruption in Government,” the “Rule of Law,” “Expropriation Risk,” “Repudiation of Contracts by Government,” and “Quality of the Bureaucracy.” (See the Appendix for the detailed criteria used by ICRG in assigning ratings for these indicators.) From BERI, they constructed a similar index from the variables “Contract Enforceability,” “Nationalization Risk,” “Bureaucratic Delays,” and “Infrastructure Quality.”

Adding the ICRG index to a Barro-type growth regression, Knack and Keefer find that a standard-deviation increase in the index (about 12 points on a 50-point scale) increases growth by 1.2 percentage points on average. Substituting the BERI index for the ICRG index produces a similar association with growth. These indexes (particularly BERI) prove to have strong explanatory power for private investment also. Moreover, in growth or investment regressions that include the violence counts or Gastil indexes as well as the Knack and Keefer property rights indexes, only the latter prove statistically significant. Because of its much better cross-country coverage relative to BI and BERI, the ICRG indicators have become widely used in the cross-country empirical literature on economic performance.

Mauro (1995) tested three variables constructed from BI indicators: (1) “Corruption,” (2) a bureaucratic efficiency index constructed from three measures: “Corruption,” “Bureaucracy and Red Tape” the quality of the “Legal System and Judiciary,” (3) a “political stability” index constructed from six indicators representing the likelihood of changes in government, terrorist acts, labor unrest, other domestic conflict, or conflict with neighboring countries.

These indexes are positively and significantly related to growth and investment in Barro-type regressions. Although the indexes are strongly correlated with each other, the political stability and bureaucratic efficiency indexes are each marginally significant when both are entered in the same regression. When investment is included in the growth regression, the BI coefficients drop somewhat, suggesting that part, but not all, of the growth effects of political stability and bureaucratic efficiency are attributable to improved efficiency of investment and to more rapid technological innovation. ²

A potentially important drawback of the political risk indicators used by Mauro (1995) and by Knack and Keefer (1995) is that these measures likely better represent conditions facing foreign investors - the paying clients of the risk assessment firms - than conditions confronting domestic investors. Given the crucial importance of foreign technology and capital for successful catch-up growth in poor countries, conditions facing would-be foreign investors are by no means irrelevant.

² This pattern also shows up using the ICRG index. Using the BERI index, the institutional environment appears to influence growth primarily through investment rates.
but unless those conditions are perfectly correlated across countries with conditions facing domestic investors, subjective political risk evaluations are only partial indicators.

**Surveys of entrepreneurs**

Another promising approach to measuring property rights, contract enforceability and bureaucratic integrity and efficiency involves surveys of entrepreneurs - both foreign and domestic - operating in developing countries. This approach has been implemented most impressively by Boner, Brunetti and Weder (1995) and, with later assistance from the World Bank, by Brunetti, Kisunko and Weder (1997; also see 1997 World Development Report).

Brunetti, Kisunko and Weder (1997) construct a country-level "credibility of rules" index from the survey data, designed to characterize "unclear property rights, constant policy surprises and policy reversals, uncertain contract enforcement and high corruption..." The index is based on country means of survey responses to ten items, measuring expectations of the frequency of government changes and policy surprises, protection from criminal actions, unpredictability of the judiciary, and the frequency of "irregular additional payments" necessary to operate a business. Each item has six response categories; they treat these as interval-scale variables and compute averages by country, and then average over all 10 items, with a resulting index ranging from a best possible value of 1 and worst possible value of 6.

For a 41-nation sample, and controlling for initial income and educational attainment, they find the "credibility of rules" index to be significantly related to growth and investment in the 1983-94 period. While they do not report the quantitative impact of their index, their regression coefficients imply extremely large effects: each 1-category improvement in the 1-6 credibility scale is associated with a 3.7 percentage-point rise in investment's share of GDP, and a 1.5-point increase in annual average income growth.

Because original surveys can be guided by theory, they produce even more direct and relevant measures of the quality of governance than those provided by political risk evaluators such as BI, BERI, and ICRG. The questions can also be asked of both domestic and foreign investors. There are a few important limitations of these survey indicators, however.

First, they have to date been conducted only in a relatively small number of countries, far smaller than the number covered by ICRG, for example. Second, the data generated from surveys supported by the World Bank are confidential, and are unavailable to all but a small handful of Bank researchers. Third, they are measured only in the mid-1990s (the larger, Bank-supported survey was conducted in 1996), and using them to explain variations in previous economic performance, for example over the 1960-90 period, ignores the possibility of reverse causation: strong economic performance could improve perceptions of the quality of governance.

Finally, it is not necessarily the case that these surveys even measure current conditions more accurately than political risk indicators such as ICRG. The sample is drawn from a censored population, which may have a more optimistic view of the investor climate than the true population of interest, namely all potential investors. The entrepreneurs surveyed in each country include only those that chose to undertake some investment there; would-be investors scared away by poor governance or other factors are not represented in the sample of survey respondents. The degree of censoring will increase with poor governance, as a larger proportion of potential investors will decline to invest. The major practical impact arguably is to reduce the cross-country
Cross-country variation would similarly be reduced if only the most dissatisfied entrepreneurs were sufficiently motivated to respond to the survey (which had a response rate of about 30 per cent).

Shocks and windfalls

On average, countries with greater resource abundance exhibit slower growth (Sachs and Warner, 1995). Not only are the revenues from mineral and other natural resource exports wasted from the standpoint of economic development, the appear to actually impair development in many cases by creating incentives for talented people to seek rents from the government rather than undertake socially-productive investments (Sachs and Warner, 1995; Lane and Tornell, 1996). Lane and Tornell (1996) relate how oil windfalls led to inefficient increases in spending on public enterprises in Venezuela, corruption and inefficient public investment (awarded on ethno-tribal lines) in Nigeria, and rapidly-increasing government employment and subsidies to private firms in Trinidad and Tobago. They provide some evidence that where governance mechanisms limiting the scope of redistribution are weaker, windfalls associated with natural resources or terms-of-trade shifts have less favorable effects on growth.

A similar process apparently helps explain why empirical studies show that foreign aid does not improve economic performance or reduce poverty in many countries (Burnside and Dollar, 1997; Boone, 1996). The data indicate that many governments respond to foreign aid by increasing consumption expenditures with no benefits to the poor. Only when aid is not fungible, i.e. when it is dedicated toward anti-poverty projects that the government would not have undertaken anyway, does aid benefit the poor (Boone, 1996). Otherwise, aid may simply finance inefficient policies favoured by the political leadership. Foreign aid on balance is not associated with higher growth rates across all countries, but there is a positive relationship in the subset of countries with efficient trade, fiscal, and monetary policies, in an empirical study by Burnside and Dollar (1997). They note cases such as Zambia, in which “policy deteriorated continuously from 1970 until 1993, while aid receipts rose continuously.”

Rodrik (1998) constructs a simple model of social conflict in which a nation’s ability to adjust efficiently to exogenous shocks (such as adverse shifts in the terms of trade) is a function of “latent social conflict” and of “institutions of conflict management.” Efficient adjustment to adverse shocks often has substantial distributional consequences: where there are deep social cleavages along ethnic or other lines, negotiating a new social bargain takes longer. Strong conflict-management institutions essentially provide rules reducing the share of society’s resources that the competing groups can potentially capture. Rodrik hypothesizes that adverse shocks will be most harmful for growth when both of the following conditions hold: latent conflict is more severe, and the absence of the rule of law and other governance mechanisms increases the size of the social resources up for grabs that groups could potentially capture through conflict.

Cross-country variation would similarly be reduced if only the most dissatisfied entrepreneurs were sufficiently motivated to respond to the survey (which had a response rate of about 30 per cent).
4. Democracy, governance and growth

North (1990:109) describes the ideal political system for maximizing economic performance as one in which affected parties have full information about prospective legislation, preferences are communicated to legislators who faithfully represent those preferences, votes are weighted by gains and losses with losers being compensated, and this process occurs at a low enough cost to make it all worthwhile. Although noting various reasons why democracies fall short of this ideal, North concludes:

"The institutional structure most favorable to approximating such conditions is a modern democratic society with universal suffrage. Vote trading, logrolling, and the incentive of an incumbent's opponents to bring his or her deficiencies before constituents and hence reduce agency problems all contribute to better outcomes." [emphases in original]

The Nobel Prize winner Amartya Sen has argued that the openness and accountability of democratic societies explains why India - despite its poverty - but not China has managed to avoid large-scale famines. A free press, in particular, increases public awareness of famine, raising its political costs to India’s leaders, who thus have a greater incentive than the Chinese leadership to adopt policies to combat hunger (Dreze and Sen, 1982).

A sizeable cross-country empirical literature, critically reviewed in Przeworski and Limongi (1993), examines the relationship between regime type and economic performance. Results are mixed, with the most recent and sophisticated analyses concluding that democracies are no more or less likely than non-democracies to grow rapidly.

The majority of the recent studies employ Gastil’s political freedoms index (sometimes coupled with the civil liberties index) as a democracy indicator. Barro (1996) and Helliwell (1994) found that the Gastil indexes were positively related to growth only if variables such as educational attainment and investment rates are omitted as explanatory variables, and concluded that any beneficial impacts of democracy on growth may operate through these factor accumulation channels. Barro finds that a curvilinear relationship between growth and the Gastil index fits the data better than a linear specification, with the fastest rates of growth exhibited by the partly-free nations. \(^4\) Barro, Helliwell and Burkhart and Lewis-Beck (1994) all conclude that the positive relation between income levels and democracy is mostly attributable to the former’s impact on the latter rather than vice versa. These results are consistent with Lipset’s (1959) earlier interpretation of the correlation between income and democracy.

Why isn't there stronger and more consistent evidence on democracy's growth effects? There are several plausible reasons, associated with theories of median voters and interest groups, and with the recent genesis of many democracies.

First, majority-rule voting has ambiguous implications for economic performance. With universal voting turnout, policies chosen under majority-rule voting will tend to reflect the preferences of the median voter (Hotelling, 1929; Downs, 1957). This outcome is attractive from

\(^4\) An earlier literature on the determinants of deaths from political violence found a similar curvilinear relationship, with deaths highest among countries with intermediate rankings on the Gastil indexes. See, for example, Muller and Weede (1990).
Median voter outcomes are less efficient if preferences are bimodal, with most voters' preferences located at either extreme of the distribution. Where issues are multidimensional, as in the case of candidate elections, equilibria under majority rule are unstable.

However, income and wealth distributions tend to be rightward-skewed, with the mean income exceeding the median income. Proposals to make the distribution of income or wealth more egalitarian will then tend to gain the support of the median voter, whose income is below the mean (Meltzer and Richard, 1981). The possibility of such redistributions can discourage investors from accumulating socially-productive assets, with deleterious effects on growth. This reasoning was cited by numerous leading political philosophers in the late 18th century and 19th century who favored limiting the suffrage to property owners.

Persson and Tabellini (1994) formalize this intuition in a growth model, and claim to have found supporting evidence in the cross-country data: income inequality is associated with slower growth among democracies, but not among non-democracies, where the median voter theories do not apply. However, other researchers using somewhat different data sources on inequality, and on regime types, have found that income inequality affects growth equally in democracies and non-democracies (e.g., Alesina and Rodrik, 1994). Knack and Keefer (1997) replicate the Persson and Tabellini findings, but show that when reasonable corrections are made for mis-measurement in their income inequality and regime type data, the impact of inequality on growth is just as strong for non-democracies as for democracies. Coupled with other evidence suggesting that non-democracies also face pressures to redistribute from rich to poor (e.g., through political violence; see Alesina and Perotti (1996), it remains an open question whether insecurities in property rights associated with majority-rule voting counteract some of the governance advantages of democratic regimes.

A second possible reason for the failure of democracies to systematically outperform autocracies is related to interest group pressures on the state. The political openness characteristic of democracy may also allow freer rein for the growth-slowing rent-seeking activities of special interest organizations (Olson, 1982). Barro (1996) speculates that growth is generally faster in the countries with intermediate scores on Gastil's political freedoms index because they provide some investor rights and protections - unlike those scoring worst on the index - but restrain inefficient redistributional activities by private organizations, unlike nations scoring best on the index.

This question is by no means resolved, however. Murrell and Olson (1991) argue that rent-seeking by "distributional coalitions" slowed growth in the (non-democratic) socialist countries in the 1970s and 1980s. Policies rewarding rents to favored ethnic groups and other key constituencies are plausibly associated with far more damage to economic performance in many non-democracies than in developed democracies. In any event, if the rule of law is the key to economic growth, the negative effects of interest groups associated highlighted by Olson (1982) may be an unavoidable by-product. Private associations, independent of the state (including trade

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5 Median voter outcomes are less efficient if preferences are bimodal, with most voters' preferences located at either extreme of the distribution. Where issues are multidimensional, as in the case of candidate elections, equilibria under majority rule are unstable.

6 The finding of a relationship between inequality and slow growth for a broad sample of countries, including democracies and non-democracies, appears in numerous recent studies.
unions, trade associations and professional associations), are a necessary underpinning of the rule of law according to Weingast (1997) and others.

Finally, democracies may not systematically outperform non-democracies because many of them are new democracies, and do not have a strong rule of law. Only over time will would-be investors be convinced that the government will not be toppled by a coup, and that executives and legislatures will respect and adequately fund the judiciary, and permit the bureaucracy to be run under Weberian principals. Clague et al. (1996) show empirically that while the quality of governance does not immediately improve with shifts from autocratic to democratic rule, it does improve over time as democracy is consolidated.

5. How is governance improved?

The quality of governance evolves only very slowly in most nations. In Britain, the Magna Carta of 1215 represented a landmark attempt by social elites to constrain the power of the monarchy. The aftermath of the Glorious Revolution of the 17th century brought more substantial reforms. North (1990), Weingast (1997) and Olson (1993) all emphasize the degree to which these reforms were highly dependent on a particular set of historical, social and demographic circumstances. For example, a nation’s legal tradition is important in the view of some theorists. North (1990: 96) writes that “common law is precedent based - it provides continuity and essential predictability that are critical to reducing uncertainty among contracting parties.” Legal systems tend to evolve only over very long periods of time, and imposition of a system developed in a very different culture may produce the desired results only gradually, if at all. From this perspective, prospects for easily and quickly reforming governance where it is deficient appear bleak.

Almond and Verba (1963), Putnam (1993) and others stress the role of civil society in creating accountable, efficient government. Weingast (1997) stresses the dependence of stable democracy and the rule of law on citizen consensus about the appropriate role of the state and about citizen duty to resist transgressions by the state. Such a consensus emerged among elites in England when the Stuart kings disenfranchised the Whigs and then attempted similar manoeuvres against their own Tory constituents. After cooperating to depose the King in the Glorious Revolution, the Whigs and Tories agreed to fundamental limits on the powers of future monarchs.

Cross-country empirical studies by La Porta et al. (1997) and Knack and Keefer (1997) find that higher-trust societies have less corrupt and more effective governments. To the extent that good governance cannot be imposed from the top down, but relies on a thriving associational life, generalized trust and a widespread sense of civic obligation, prospects for reform again appear problematic: one must gradually build up a civil society before one can expect to have an accountable government.

Finally, North and Olson have argued that inefficient institutions and policies are purposefully chosen or perpetuated by powerful groups and individuals with a stake in maintaining them. If so, reforms are dependent on changing the incentives of these actors, or on changing the power structure.

Accordingly, Brautigam (1991: 6) notes that: “History, custom, law, society, and political economy affect the way in which the rules in a country hold rulers to account for their performance, the relative openness of a socio-political system or an economy, and the degree of predictability in government decision-making and interaction with the public.” Imposing an alien set of constitutional rules on a culture not adapted to them may be ineffectual - as in the case of Latin American societies modeling their governments on that of the United States (North, ch. 11). For many of the newly-independent African nations most notably, the time required for civil society to evolve was simply not available, so that their natural resource wealth has not been used
effectively. Compounding the difficulties of many African nations are the arbitrary borders drawn by the ex-colonial powers, complicating the creation of a strong civil society and diminishing the legitimacy of the state (Englebert, 1998).

Keefer and Knack (1995) show using cross-country data that the security of property rights is weaker in more polarized societies, measuring polarization by income inequality, land inequality, or ethnic heterogeneity. Easterly and Levine (1997) report that countries with more ethnically heterogeneous populations have less efficient economic policies and more corruption, arguing that ethnic group leaders who attain national power divert resources to members of their own ethnic group. These findings suggest that the prospects for improving governance can be improved if group-based conflicts can be alleviated, for example by decentralizing certain governmental responsibilities (where ethnic groups are regionally based) or by improving basic education to reduce inequality.

La Porta et al. (1998) investigate statistically the origins of “the quality of government,” examining the influence of several factors which are not amenable to reform. They measure the quality of government using a wide range of alternative indicators: a property rights index, a business regulation index, measures of corruption, “bureaucratic delays,” infrastructure quality, tax compliance, infant mortality, school attainment and illiteracy. For most of these indicators, government performance is found to be better in richer nations located far from the equator. Government performance tends to be worse in more ethnically heterogeneous nations, with a larger population of Catholics or Muslims, and with a French or socialist legal tradition.

Olson (1993) and Clague et al. (1996) emphasize the role of time, arguing that the quality of governance will be higher in stable, long-lasting democracies than in any other type of regime, and that among autocracies governance will be better when autocrats are confident that they will remain in power far into the future. Autocrats with long time horizons have stronger incentives to pursue efficient policies, including policies strengthening property and contract rights, because they can expect to reap the benefits of growth through larger future tax receipts. Autocrats with a less secure hold on power will pursue policies intended to shore up their support from key constituencies such as the military and favored ethnic groups, often at the expense of long-run growth. Even those autocrats with the longest time horizons will have weaker governance institutions than stable democracies, as succession uncertainties will eventually arise in any autocracy, while leadership succession in long-lasting democracies carries only relatively minor implications for investors. Clague et al. (1996) provide strong empirical support for these theories using the ICRG and other governance measures, as well as policy variables such as the black market exchange premium and currency depreciation.

Barro (1997) and Clague et al. (1997) examine the relationship between democracy and a series of exogenous factors. Both studies find that societies with large Muslim populations tend to be less democratic. Clague et al., but not Barro, find former British colonies to be more democratic. Island nations, ethnically homogeneous societies, and nations with larger European populations are more democratic, while sub-Saharan Africa tends to be less democratic, even controlling for other factors.
6. Is good governance regressive?

Institutions or cultural traditions that broaden participation, as proxied empirically by the civil liberties index, can be expected to have progressive effects, extending to poor people the kind of political influence and access that the rich tend to have in all societies. The distributional implications of government social capital are more ambiguous. Secure property rights and effective contract enforcement are viewed often as benefiting primarily the rich at the expense of the poor. This perception is based on the intuition that the poor have little property to protect, unlike rich landowners or capitalists. Similarly, contractual agreements often are perceived as being the product of unequal bargaining power, with rich creditors, landowners or capitalists enforcing contract provisions against poor borrowers, tenants, employees, or consumers.

However, there is at least as much reason to believe that good governance is progressive rather than regressive. Institutions for promoting secure property rights and enforcement of contracts conceivably have powerful egalitarian effects, enabling individuals with little property and no political connections to invest in human capital and in small enterprises. Fair and transparent procedures for property, contracts, and government regulation of business facilitate the entry of informal sector entrepreneurs and workers-most of whom are low- or middle-income-into the formal sector, and promote the accumulation of physical and human capital, raising profits and wages (de Soto, 1989). Strong and predictable property and contract rights are necessary for the emergence of well-developed financial markets, which are at least as important for poor and middle-income borrowers as for the well off, who can more easily arrange alternative sources of credit. Unlike the rich, the poor may be dependent on credit for acquiring secondary-level education, which has a high cost in terms of forgone income in developing countries.

The poor tend to be less politically organized than other groups, particularly in countries with low levels of literacy and high transportation and communications costs. Where rights are dependent on political connection rather than the rule of law, the poor will tend to suffer relative to other groups.

Thus, one could argue that the institutions that best ensure property rights and contract enforceability are the very same set of institutions that best improve the welfare of the poor and working classes. Mancur Olson (1994) has gone even further, arguing that much of the poverty in the developing world is the product of institutions chosen by politically connected individuals and groups, who tend to be well off, in their own interests. For example, bureaucratic corruption enriches government officials who supplement their salaries with bribes obtained by imposing burdensome procedures for obtaining licenses and permits.

The burden of inefficient bureaucracies which lack accountability may also tend to fall disproportionately on the poor. For example, due to the unreliability of publicly-supplied water in Istanbul, nearly all households have backup water supply systems. The backup systems cost only 1 per cent of household incomes for the rich but 5 per cent for the poor (World Bank, 1994). Similarly, the expense of electrical generators is beyond the means of poor households and very small businesses, who then suffer more than the rich from unreliable provision of electricity.

The remainder of this section examines empirically the impacts of governance measures on poverty and the distribution of income. One way to address the question of whether good governance helps the poor is by breaking the question into two parts. Property and contract rights are significantly related to growth (Knack and Keefer, 1995), and growth is associated with reductions in poverty rates (e.g., Squire, 1993; Bruno, Ravallion and Squire, 1995); thus, property and contract rights must make the poor better off. However, it is conceivable that the source of growth matters: most episodes of growth are accompanied by reductions in poverty, but the exceptions could be those in which, for example, growth is generated by secure and stable property and contract rights rather than by public investments in primary or secondary education,
health or infrastructure. It is therefore important to examine directly the relationship between governance variables and incomes of different income classes, before concluding that the benefits of good governance are broad based.

**Income distribution**

Data on Gini coefficients of income inequality, and income share by quintile, were obtained from the “high quality” subset of the Deininger and Squire (1996) time-series compilation in inequality. The change in Gini coefficients was computed for two periods, covering (roughly) 1970-90 and 1980-90. Because inequality data are not available for every year for every country, the beginning and end years of these periods are approximate. For example, the two periods for Tanzania cover 1969-1993 and 1977-93. Table 1 summarizes the countries and periods covered.

Average annual growth in per capita income was computed for each of the five income quintiles for the 1970-90 period (as adjusted where necessary to coincide with availability of inequality data), using the purchasing power-adjusted income data from Summers and Heston (1991). The initial-year per capita income for each country was multiplied by the initial-year share of each quintile and then multiplied by 5 to obtain the per capita income for each quintile. This procedure was repeated using end-year values, and average annual growth in per capita income was computed from these initial- and end-year per capita income levels. Some individuals of course move into and out of different quintiles over time, so these growth measures do not represent the growth of incomes for a constant set of people. 

Summers-Heston data extends only to 1992 for most countries, but for a few nations, end-year income distribution from Deininger-Squire is measured after 1992. In these cases, income growth is measured over a slightly shorter period than that covered by the distribution data.

The first column of results in Table 2 reports a standard Barro-type growth regression for the sample of countries with data on quintile shares. The dependent variable is average annual income growth, over the 1970-90 period or as near to it as permitted by the available inequality data. Independent variables are (the log of) initial-year per capita income as a share of US income (for the same year), mean years of completed education (from Barro and Lee, 1993), the trade intensity ratio averaged over the period (exports plus imports as a share of GDP, from Summers and Heston), and the ICRG index of property rights from Knack and Keefer (1995), as defined in the Appendix. Most results for this 31-nation inequality sample are consistent with those generated from larger samples: incomes converge conditional on other variables included in the model, and trade intensity and property rights are associated with higher growth rates. The human capital indicator, mean years of education completed, is not significant in this sample. The ICRG index coefficient implies that, controlling for the other independent variables, each 10-point increase in the 50-point scale is associated with a growth increase of nearly 1.5 percentage points per year.

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7This is true even for income growth for a nation’s population overall, as people are born, die, or migrate into or out of the country. For quintile growth rates, mobility of individuals across quintiles is simply one additional source of change in the relevant population.

8Countries included in this sample are marked with an asterisk in Table 1.
The last five columns of Table 2 report analogous tests, but instead of overall growth the dependent variable is the growth of incomes for each quintile, from the poorest (Q1) to the richest (Q5). In addition to the regressors included in tests of growth overall, the quintile growth regressions control for initial quintile share. Where the initial quintile share is already relatively high, that quintile’s income growth is less likely to get a boost from further increases in the share, so the expectation is that the sign on this coefficient will be negative. It turns out to be significant only for the poorest quintile.

The ICRG coefficients are slightly smaller for the poorer than for the richer quintiles, but these differences are not statistically significant. For the quintile 2 regression, which produces the lowest ICRG coefficient (.107), the null hypothesis that the ICRG coefficient is equal to .151 (its highest value, from quintile 4) cannot be rejected at the usual levels of significance. Openness to trade generates higher coefficients for the poorer quintiles, although again the differences across quintiles are not significant. Good governance appears to be distribution-neutral, increasing incomes for the poor by about the same percentage as for the rich.

The model better explains growth variations for the richer than for the poorer quintiles (adjusted R^2s steadily increase from .31 for quintile 1 to .50 for quintile 5), perhaps because of greater measurement error in estimating growth for the poorer quintiles. Mean growth rates over the sample are nearly identical (about 2.4 per cent) for the top 4 quintiles, while incomes of the poorest quintile grew slightly less (2.2 per cent).

The first column of results in Table 3 summarizes a similar set of regressions for growth over the shorter (roughly) 1980-90 period. Because the ICRG index is measured in 1982, this more recent period is less subject to any possible reverse-causation problems. The disadvantage of using shorter periods is that growth variations are driven more by shocks and are more difficult to explain with models designed to account for cross-country variations in long-run growth.

The ICRG column of results in Table 3 reports only the coefficients and standard errors for the ICRG index from a set of six regressions identical to those of Table 2 (with other independent variables appropriately adjusted to 1980). The ICRG coefficient here is at its maximum (.266) for the poorest quintile, double its magnitude for the second-poorest quintile (.133) and nearly double that for the richest quintile (.146). The null hypothesis that the quintile 5 coefficient is .266 can be rejected at the .05 level. Evidence from the 1980-90 period suggests that good governance if anything aids the poorest group more than higher-income groups.

Column 2 of Table 3 substitutes the BERI property rights index for ICRG. The growth effects of BERI for the four poorest quintiles vary only trivially, with each 2-point increase in the 16-point scale raising growth by more than a percentage point for each quintile. This impact declines by more than half for the richest quintile, where an increase in BERI of more than 4 points is required to raise growth by a percentage point. The quintile 5 coefficient of .226 is significantly smaller than each of its quintile 1-4 counterparts. Again, this evidence suggests that if good governance is not distribution-neutral, it is because of a pro-poor rather than a pro-rich bias.

The last column of Table 3 shows the estimated effect on income growth of changes in the 7-point Gastil scale of civil liberties (larger values indicate greater rights). In this sample, civil liberties are negatively, although not significantly, related to growth. In larger samples, as discussed in section 3, several researchers have found that civil liberties are associated with

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9 For example, a 1 percentage-point error in estimating the poorest quintile’s share of GDP would affect its measured income growth rate more than a 1 percentage-point error in estimating the richest quintile’s share would affect its measured growth.
significantly higher growth rates. The estimated effect of civil liberties is slightly more beneficial (i.e., less harmful) for poorer groups, as would be expected if broadening political access helps traditionally less powerful groups like the poor the most. Differences in these coefficients across the 5 quintiles are too small to be statistically significant, however.  

On balance, the evidence presented in Tables 2 and 3 strongly indicates that good governance improves incomes for all groups, not merely for those who have the most property in need of protection. Table 4 reports the results of similar tests, but with changes over time in the Gini index of income inequality as the dependent variable in each regression. These samples are somewhat larger than in the quintiles regressions, because Deininger and Squire (1996) include more Gini values than quintile share values.

Gini values converge in this sample (conditional on the other regressors), as higher initial levels of the Gini index are associated with significantly larger declines.  

Education and trade intensity show no strong or consistent pattern to Gini changes. Neither the ICRG index (first column of results) nor the civil liberties index (last column) is significantly related to changes in the distribution of income. Higher BERI values are associated with declines in Gini, significant at .05 for a 1-tailed test. As shown in Figure 1, however, these results are highly sensitive to the case of Chile, with a very low BERI score and a large increase in inequality between 1971 and 1989. The tests in Table 4, using a composite indicator of inequality (Gini) and a slightly larger sample, broadly confirm the findings from the quintile growth regressions of Tables 2 and 3. Good governance is not consistently related to changes in the income distribution, but the weak effects that are observed are consistent with the view that good governance is progressive, not regressive.

**Absolute poverty**

Bruno, Ravallion and Squire (1995) find that growth is unrelated to changes in the income distribution, which implies that absolute poverty should fall with growth. They then provide direct evidence on this point, showing that a 10 per cent increase in per capita income is associated with a 20 per cent fall on average in the percentage of a country’s population living on $1 per day or less. In 17 of the 20 countries with data on changes over time in this measure of absolute poverty, per capita income and the $1 per day percentage moved in opposite directions. Because the ICRG and BERI governance indicators analysed in Tables 2-4 at worst have neutral effects on the income distribution, and have elsewhere been linked to more rapid growth, there is a strong

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10 Results are very similar if Gastil’s political freedoms index is substituted for the civil liberties index.

11 Globalization is a possible source of cross-country convergence in Ginis. In the absence of trade, unskilled labor is relatively scarce in rich nations (which tend to have low Ginis) and capital is scarce in poor countries (which tend to have high Ginis). Increasing international trade will then make incomes more unequal where inequality was low, and less unequal where inequality was high.

12 Values for BERI are from 1972, when Allende was in power. Figure 1 shows the relationship between BERI and changes in Gini, holding constant the initial Gini, education, and trade openness.
presumption that the rule of law, property and contract rights, reduce absolute poverty. For example, a difference of 12 points (one standard deviation) in the 50-point ICRG index is associated with a 1.2 percentage-point increase in growth (Knack and Keefer (1995), which will increase per capita income by an extra 10 per cent (in turn reducing the $1 per day percentage by 20 per cent) in less than 8 years.

Improving governance is not the only way, or necessarily the best way, to reduce poverty. But the data provide no equity-based justification for opposing the strengthening of the rule of law, property and contract rights in developing countries.

7. Conclusion

An overwhelming body of accumulating evidence indicates that good governance and economic freedoms are crucial for attaining rapid increases in the living standards of the broad mass of people in a developing economy. Transparent, predictable governmental institutions and policies are conducive not only to rising per capita incomes but also to declines in absolute poverty. The economic impact of political freedoms, however, is unclear. Of course, expanding political freedoms may be justifiable as its own reward, if not as a means of achieving rapid prosperity.

The evidence presented here suggests that technical and financial assistance targeted at improving governance should perhaps be at the core of the agendas of aid agencies such as the World Bank and USAID. Good governance evolved only very gradually in the West, however, and it is unlikely that donors can accelerate the process dramatically in developing nations today.

Brautigam (1991) cautions that extensive outside financial aid can even be counterproductive, by reducing the pressure for governments to be accountable, because they become less reliant on their citizens for tax revenue. Outside aid, like windfalls from other sources such as natural resources, can also encourage rent-seeking behaviour.

There are at least two ways in which donor assistance may be productive, however. First, through supporting the expansion of primary and secondary education, inequalities in income can be reduced, reducing one source of societal polarization undermining efficient institutions and policies. A better-educated population may also increase the demand for openness and accountability in government. Second, donors can help disseminate information about the consequences of inefficient policies and institutions. Where reformers face entrenched interests that benefit from inefficient policies and institutions, increasing public awareness of the substantial development-retarding and poverty-promoting consequences of poor governance may in some cases tilt the political balance toward the reformers.
Bibliography


APPENDIX

Gastil “civil liberties” index ranges from 1 to 7 based on the following criteria. In Gastil’s original coding, lower values indicated greater civil liberties. The scale has been reversed in the regressions reported in Tables 3 and 4, so that higher values indicate greater liberties.

II  media/literature free of political censorship
S   open public discussion
S   freedom of assembly & demonstration
S   freedom of political organization
S   non-discriminatory rule of law/independent judiciary
S   freedom from unjustified terror or imprisonment
S   free trade unions, peasant organizations
S   free business or cooperatives
S   free professional or other private organizations
S   free religious institutions
S   personal social rights: property, travel, residence, family
S   socio-economic rights; freedom from dependency on landlords, etc.
S   freedom from gross socioeconomic inequality
S   freedom from gross government indifference or corruption

Gastil’s “political freedoms” index ranges from 1 to 7 based on the following criteria:

chief authority recently elected by a meaningful process;
legislature recently elected by a meaningful process;
fair election laws, campaigning opportunity, polling and tabulation;
fair reflection of voter preference in distribution of power;
multiple political parties;
recent shifts in power through elections;
significant opposition vote;
free of military or foreign control;
major group or groups denied reasonable self-determination;
decentralized political power;
informal consensus; de facto opposition power.

The International Country Risk Guide (ICRG) index is based on the following five variables:

1. Rule of law

This variable "reflects the degree to which the citizens of a country are willing to accept the established institutions to make and implement laws and adjudicate disputes."

Higher scores indicate:
"sound political institutions, a strong court system, and provisions for an orderly succession of power."
Lower scores indicate:
"a tradition of depending on physical force or illegal means to settle claims." Upon changes in government new leaders "may be less likely to accept the obligations of the previous regime."

2. Quality of the bureaucracy

Higher scores indicate:
"an established mechanism for recruitment and training"
"autonomy from political pressure"
"strength and expertise to govern without drastic changes in policy or interruptions in government services" when governments change.
"established mechanism for recruiting and training."

3. Corruption in government

Lower scores indicate:
"high government officials are likely to demand special payments"
"illegal payments are generally expected throughout lower levels of government" in the form of "bribes connected with import and export licenses, exchange controls, tax assessment, police protection, or loans."

4. Risk of expropriation of private investment:

This variables evaluates the risk "outright confiscation and forced nationalization" of property. Lower ratings "are given to countries where expropriation of private foreign investment is a likely event."

5. Risk of repudiation of contracts by government:

"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, indigenisation pressure, a change in government, or a change in government economic and social priorities." Lower scores signify "a greater likelihood that a country will modify or repudiate a contract with a foreign business."
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>)</td>
<td>1979-1992</td>
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<td>China</td>
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<td>1980-1992</td>
</tr>
<tr>
<td>Denmark</td>
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<td>Turkey*</td>
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*Nations in 31-country sample used in Table 2 regressions

Table 2. ICRG index and income growth by quintile, 1970-90

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<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Q1</th>
<th>Q2</th>
<th>Q3</th>
<th>Q4</th>
<th>Q5</th>
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<tr>
<td>Intercept</td>
<td>-6.790</td>
<td>-5.979</td>
<td>-4.122</td>
<td>-4.733</td>
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<td></td>
<td>(2.368)</td>
<td>(2.859)</td>
<td>(2.669)</td>
<td>(2.869)</td>
<td>(3.075)</td>
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<td></td>
<td>(0.789)</td>
<td>(0.815)</td>
<td>(0.749)</td>
<td>(0.789)</td>
<td>(0.784)</td>
<td>(0.813)</td>
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<tr>
<td>Quintile share, 1970</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<td>(0.092)</td>
<td>(0.083)</td>
<td>(0.080)</td>
<td>(0.028)</td>
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<td>Mean years education 1970</td>
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<td></td>
<td>(0.149)</td>
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<td>(0.160)</td>
<td>(0.152)</td>
<td>(0.145)</td>
<td>(0.141)</td>
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<td>.31</td>
<td>.32</td>
<td>.39</td>
<td>.45</td>
<td>.50</td>
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Table 3. Governance and income growth by quintile

<table>
<thead>
<tr>
<th>Quintile</th>
<th>ICRG (N = 35)</th>
<th>BERI (N = 22)</th>
<th>Civil Liberty (N=30)</th>
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<tr>
<td>Overall</td>
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<td>0.340 (0.093)</td>
<td>-0.218 (0.188)</td>
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<td>Q1</td>
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<td>0.530 (0.126)</td>
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<td>Q2</td>
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<td>0.516 (0.085)</td>
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<td>Q5</td>
<td>0.146 (0.045)</td>
<td>0.226 (0.117)</td>
<td>-0.247 (0.182)</td>
</tr>
</tbody>
</table>

Cell entries are regression coefficients for governance indicators, with white-corrected standard errors in parentheses. Other independent variables are initial per capita income, initial quintile share (except in "overall" growth equation), initial mean years completed education, and period mean of trade intensity ratio.

Table 4. Governance and changes in Gini coefficient of income inequality, 1970-90

<table>
<thead>
<tr>
<th>Variable</th>
<th>ICRG (N = 40)</th>
<th>BERI (N = 28)</th>
<th>Civil Liberty (N=40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>5.051</td>
<td>13.625</td>
<td>6.414</td>
</tr>
<tr>
<td></td>
<td>(3.386)</td>
<td>(5.556)</td>
<td>(3.155)</td>
</tr>
<tr>
<td>Gini coefficient 1970</td>
<td>-0.180</td>
<td>-0.237</td>
<td>-0.215</td>
</tr>
<tr>
<td></td>
<td>(0.077)</td>
<td>(0.108)</td>
<td>(0.079)</td>
</tr>
<tr>
<td>Mean years education 1970</td>
<td>0.099</td>
<td>1.163</td>
<td>0.290</td>
</tr>
<tr>
<td></td>
<td>(0.414)</td>
<td>(0.728)</td>
<td>(0.301)</td>
</tr>
<tr>
<td>Trade intensity, 1970-90</td>
<td>0.002</td>
<td>0.015</td>
<td>-0.001</td>
</tr>
<tr>
<td></td>
<td>(0.001)</td>
<td>(0.011)</td>
<td>(0.007)</td>
</tr>
<tr>
<td>ICRG index</td>
<td>0.036</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.071)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BERI index</td>
<td></td>
<td>-1.151</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.634)</td>
<td></td>
</tr>
<tr>
<td>Civil liberties</td>
<td></td>
<td></td>
<td>-0.150</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>(0.417)</td>
</tr>
<tr>
<td>N</td>
<td>40</td>
<td>28</td>
<td>40</td>
</tr>
<tr>
<td>Adj. R²</td>
<td>0.06</td>
<td>0.13</td>
<td>0.11</td>
</tr>
<tr>
<td>---------</td>
<td>------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td>SEE</td>
<td>5.25</td>
<td>5.19</td>
<td>5.28</td>
</tr>
<tr>
<td>Mean, dep. var.</td>
<td>-0.28</td>
<td>-0.13</td>
<td>-0.15</td>
</tr>
</tbody>
</table>

White corrected standard errors in parentheses.