Chapter 3

Democracy, Law and Order, and Economic Growth

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Economic performance depends on various aspects of government policy, but no aspect is more important than the quality of political, legal, and economic institutions. Differences in institutions have proven empirically to be among the most important determinants of cross-country differences in rates of economic growth. Consequently, basic reforms that improve institutions provide one of the surest routes for transforming a country in the long run from poverty to prosperity. This view, which underlies a good deal of recent empirical research on economic growth, is also the central theme of the *Index of Economic Freedom*.

The question of which aspects of institutions matter most for long-run economic performance has proven to be more controversial than the proposition that institutions are important overall. One strand of research has focused on democracy and specifically on the strength of political rights. The second strand has emphasized property rights and legal structures that promote the rule of law and law and order.

Some scholars, such as Milton Friedman,[1] argue that these two aspects of liberal institutions are mutually reinforcing and that both are

conducive to economic performance. Recent empirical research supports the idea that rule of law and law and order are important determinants of economic growth but delivers mixed results with respect to the contributions from democracy. Before turning to this empirical evidence, it is worthwhile to assess the situation theoretically.

ECONOMIC EFFECTS OF PROPERTY RIGHTS AND THE LEGAL SYSTEM

The economic effects of secure property rights and a well-functioning legal system are clear. Since people are to a considerable degree self-interested, they tend to undertake hard work and investments only if they have a reasonable probability of enjoying the fruits of their efforts. Thus, if property rights are insecure—for example, because of high crime rates or high rates of taxation or high chances of government expropriation—people tend to work and invest little. The concept of high taxation can be extended from income taxes or other formal levies to include onerous government regulations and licensing requirements, as well as bribes required by corrupt officials.

Vigorous business activity also benefits from a legal system that allows for contracts to be clearly specified and enforced. This contracting potential influences relations of businesses with suppliers, creditors, workers, and customers. For example, if the legal system does not enforce the repayment of loans, loans will be scarce, and many productive investments will remain unexploited.

One way that businesses can react to poorly defined property rights is to reduce their levels of operations. However, another possibility, especially in response to high rates of taxation and oppressive regulations, is to move from the formal to the informal or black-market part of the economy. This informality may be better for the economy than a cessation of operations, but it does entail costs. Informal operation tends to be less efficient because businesses have to expend resources to conceal their activities. In addition, black-market participants typically lose access to useful government services, such as official enforcement of contracts. Another effect is that the government fails to raise much in taxes on black-market activities, and the amounts collected from legal enterprises must therefore rise to pay for a given level of public expenditures.[2]

The stress on property rights and the legal system does not yield unambiguous implications about the relation between economic performance and the size of the government. Some public actions, such as maintenance of internal and external security and enforcement of contracts, entail more government spending and tend to enhance economic activity. Others, such as burdensome regulations and overly generous transfer payments, hinder the economy.

ECONOMIC EFFECTS OF DEMOCRACY

What effects on the economy would we anticipate from an expansion of democracy, say in the form of an increase in electoral rights? One effect, characteristic of systems of one-person/one-vote majority voting, involves the pressure to enact redistributions of income from rich to poor. These redistributions may involve land reforms and an array of social-welfare programs.

Although the direct effects on income distribution may be desirable (because they are equalizing), these programs tend to compromise property rights and reduce the incentives of people to work and invest.

One kind of disincentive involves transfers to poor people. Since the amount received typically involves income-testing and therefore falls as a person earns more income, the recipient is motivated to remain on welfare or otherwise disengage from productive activity. In other words, the effective marginal income tax rate is high for recipients of income-tested transfer payments. As an example, Casey Mulligan showed that the unusually sharp expansion of U.S. transfer payments—food stamps, unemployment insurance, Medicaid, and housing/mortgage assistance programs—from 2009 to 2011 raised the effective marginal income tax rate on poor persons by nearly 10 percentage points.[3]

The other adverse effect from expanded transfers involves the taxes to fund the programs. An increase in these taxes encourages the non-poor to work and invest less. Thus, larger transfers have a two-sided adverse impact on economic activity.

One offsetting effect is that an evening of the income distribution may reduce the tendency for social unrest. Specifically, transfers to the poor may reduce incentives to engage in criminal activity, including riots and revolutions. Since social unrest reduces everyone's incentives to work and invest, some amount of publicly organized income redistribution—notably a basic social safety net—may enhance overall economic activity. However, these kinds of "efficient" transfers do not require democracy, because even a dictator would be willing to provide transfers to the extent that the decrease in social unrest is worth the cost. Thus, the main point is that democracy tends to generate "excessive" transfers from the standpoint of maximizing the economy's total output.

Although democracy has its down side, one cannot conclude that autocracy provides ideal economic incentives. One problem with dictators is that they have the power and hence the inclination to steal the nation's wealth. More

specifically, an autocrat may find it difficult to convince people that their property will not be confiscated once investments have been made. This convincing can sometimes be accomplished through reputation—that is, from a history of good behavior—but it also can be accomplished by relaxing the hold on power. Ways in which a dictator can constrain his own power include the writing of a constitution with designated rights, creating a legislature, allowing for elections with widespread participation, permitting the participation of competing political parties, and so on. In this context, an expansion of democracy, viewed as a mechanism for checking the power of the central authority, may enhance property rights and thereby encourage economic activity.

Theoretical reasoning suggests that enhanced property rights and the rule of law will encourage economic activity. The overall effects of expanded democracy, particularly in the sense of voting rights, are ambiguous. To sort out these relationships, I now turn to empirical evidence, but the first thing to consider is the measurement of democracy, the rule of law, and related concepts.

MEASURING DEMOCRACY

A number of researchers have provided quantitative measures of democracy, and Alex Inkeles found in an overview study a "high degree of agreement produced by the classification of nations as democratic or not, even when democracy is measured in somewhat different ways by different analysts."[4] One of the most useful measures—because it is available for almost all countries annually on a consistent (and contemporary) basis since 1972—is the one initiated by Raymond Gastil and his followers at Freedom House.[5]

The Freedom House concept of political rights uses the following basic definition: "Political rights are rights to participate meaningfully in the political process. In a democracy this means the right of all adults to vote and compete for public office, and for elected representatives to have a decisive vote on public policies."[6] In addition to the basic definition, the classification scheme rates countries somewhat impressionistically as less democratic if minority parties have little influence on policy.

This political-rights variable was provided initially (and reported on www.freedomhouse.org) in seven subjective categories, where group one is the highest level of rights and group seven is the lowest. This classification was made by Freedom House based on an array of published and unpublished information about each country. I converted the concept to a 0–1 scale, with 0 representing the lowest rights (Freedom House category 7) and 1 the highest rights (Freedom House category 1)—effectively, full representative democracy.[7]

To fix ideas on the meaning of the 0–1 subjective scale, note that the United States and most other OECD[8] countries in 2010 and other recent years received the value 1.0, thereby being designated as full representative democracies. Some other countries that received the rating 1.0 in 2010 were Chile, Ghana, Israel, Mauritius, Taiwan, and Uruguay. Dictatorships that received the value 0.0 in 2010 included Belarus, Burma, China, Cuba, Libya, Saudi Arabia, Syria, Tunisia, and Vietnam. Places that were rated in 2010 at 0.5—halfway along between dictatorship and democracy—included Guatemala, Honduras, Kenya, Malaysia, Nicaragua, Nigeria, and Pakistan. There is a lot of persistence in the ratings of individual countries over time, although there is also a lot of change over periods of 20 or more years.

An alternative measure of democracy that is frequently used for research in political science and economics is the one compiled by Polity.[9] I use the Polity indicator for democracy less autocracy, which is classified initially on a –10 to +10 scale. To make the data comparable to the Freedom House indicator, I converted the Polity variable to a 0–1 scale, with 1 representing essentially full representative democracy. In practice, the Polity indicator tells a story similar to that for Freedom House.

Chart 1 shows the time paths of the cross-country averages of the two indicators of democracy for 1960–2010. The number of countries covered is 138 for Freedom House since 1972 and 132 for Polity since 1990, but the sample size is smaller in earlier years (as detailed in the note to the chart).

World Averages for Democracy Indicators, 1960–2010

Mean Value in Sample
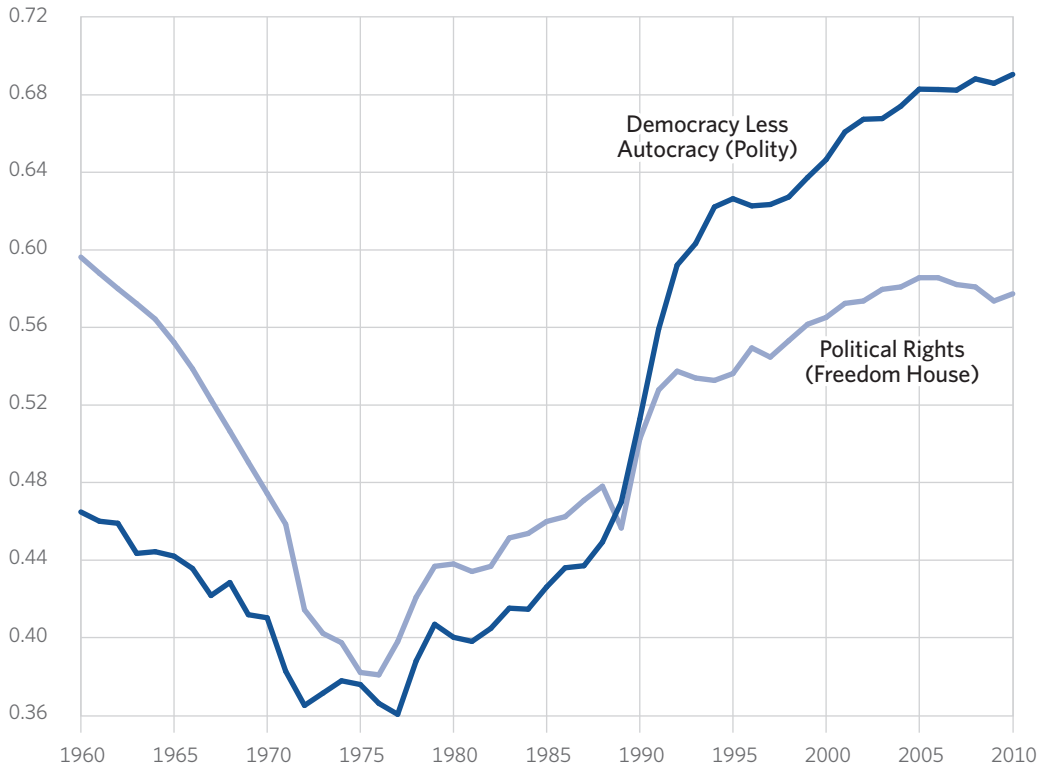
Note: The values shown are means for each year across countries of the Freedom House and Polity indicators of democracy, both converted to a 0-to-1 scale. The Freedom House average for its political-rights indicator is for 138 countries since 1972, with 1981 data missing and therefore interpolated. The Freedom House variable is linked to the indicator from Kenneth A. Bollen, "Issues in the Comparative Measurement of Political Democracy," *American Sociological Review*, Vol. 45 (June 1980), pp. 370–390, for 101 countries in 1960 and 110 in 1965. Data for other years between 1960 and 1972 are missing and therefore interpolated. The Polity average for its measure of democracy less autocracy is for 132 countries since 1990. Earlier years have smaller samples: for example, 125 countries in 1980, 115 in 1970, and 96 in 1960.

Source: Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, http://www.nber.org/papers/w18295 (accessed October 31, 2012).

Chart 1 ☎ heritage.org

The chart shows that the mean of the Freedom House democracy index began at 0.60 in 1960 (based on the information from Kenneth A. Bollen[10]), fell to a low point of 0.38 in 1976, and has risen to 0.57–0.59 since 2000. Thus, there has been noticeable democratization since the mid 1970s, but the level has not quite reattained the value for 1960.

The main reason for the decline in the world average of the Freedom House political-rights measure after 1960 was the experience in Sub-Saharan Africa. Many of these countries began with ostensibly democratic institutions when they became independent in the early 1960s, but most evolved into one-party dictatorships by the early 1970s. Since the mid-1970s, there has been significant democratization in Sub-Saharan Africa and elsewhere.

The chart shows that the mean of the Polity democracy index has a pattern similar to that for Freedom House, except that the Polity average began at a lower value (0.49 in 1960), and the

recovery after the low point in 1977 (0.38) was sharper. The Polity average reached 0.65 in 1995 and 0.70 in 2005 and has since remained roughly constant.

MEASURING THE RULE OF LAW AND LAW AND ORDER

Many analysts believe that maintenance of property rights and the rule of law are central for investment and other aspects of economic activity. The empirical challenge has been to measure these concepts in a reliable way across countries and over time. Probably the best indicators available come from international consulting firms that advise clients on the attractiveness of countries as places for investments.[11] These investors are concerned about institutional matters such as the prevalence of law and order, the capacity of the legal system to enforce contracts, the efficiency of the bureaucracy, the likelihood of government expropriation, and the extent of official corruption.

These kinds of factors have been assessed by a number of consulting companies, including Political Risk Services in its *International Country Risk Guide*.[12] This source is especially useful because it covers over 100 countries since the early 1980s. Although the data are subjective, they have the virtue of being prepared contemporaneously by local experts. Moreover, the willingness of customers to pay substantial fees for this information is perhaps some testament to its validity.

Among the various indicators available, the index for overall maintenance of the rule of law— now referred to as "law and order tradition"— turns out to have the most explanatory power for economic growth. This index was measured in seven categories on a 0–6 scale, with 6 the most favorable. To make the index comparable with the ones discussed for democracy, the law-and-order variable and Political Risk Services' other measures of institutional quality were converted to a 0–1 scale, with 0 indicating the poorest status and 1 the best.

To understand the scale, note that the United States and most other OECD countries had values in the top two categories (1.0 or 0.83) for the law-and-order indicator in recent years. How-

ever, only nine countries (Austria, Denmark, Finland, Ireland, Iceland, Luxembourg, Netherlands, Norway, and Sweden)—not including the United States—were in the top category in 2010. Countries outside the OECD that were rated in the second-best category in 2010 were Brunei, Chile, Cyprus, Czech Republic, Hong Kong, Israel, Kuwait, Latvia, Malta, Morocco, Namibia, Oman, Qatar, Saudi Arabia, Singapore, Syria, Tunisia, Taiwan, and Tanzania.

No country had a rating of 0.0 for the law-and-order variable in 2010, but just above that category were the Democratic Republic of Congo, Somalia, and Venezuela. Countries rated at 0.0 in earlier years included the Democratic Republic of Congo, Ethiopia, Guyana, Haiti, Serbia, Somalia, and Sri Lanka.

Chart 2 shows the time paths of the cross-country averages of the Political Risk Services' indicators for law and order, official corruption, and quality of the bureaucracy for 1982–2010. The number of countries covered is 127 since 1987, but the sample size is smaller in earlier years (as detailed in the note to the chart). The average of the law-and-order variable improved from 0.51 in 1982 to a peak of 0.73 in 1996 but then declined to 0.62 in 2010. Similarly, the corruption variable rose from 0.55 in 1982 to 0.60 in 1994 but then fell to 0.41 in 2006 and 0.44 in 2010. The bureaucratic quality variable rose from 0.50 in 1985 (its first year of availability) to 0.58 in 1997, then fell slightly to 0.54 in 2006 and 0.55 in 2010. Thus, the high-water mark for all of these institutional quality variables was in the mid 1990s.

My analysis of economic growth focuses on the law-and-order indicator, which can also be interpreted as a measure of the rule of law. The other two indicators are positively correlated with the law-and-order indicator, with correlations in terms of variations over time and across countries typically around 0.6–0.7. For explaining economic growth, it turns out that once the law-and-order measure is held constant, the indicators for corruption and bureaucratic quality do not contribute much.

The last finding may reflect the two-sided nature of political corruption and bureaucratic

World Averages for Indicators of Institutional Quality, 1982–2010

Mean Value in Sample
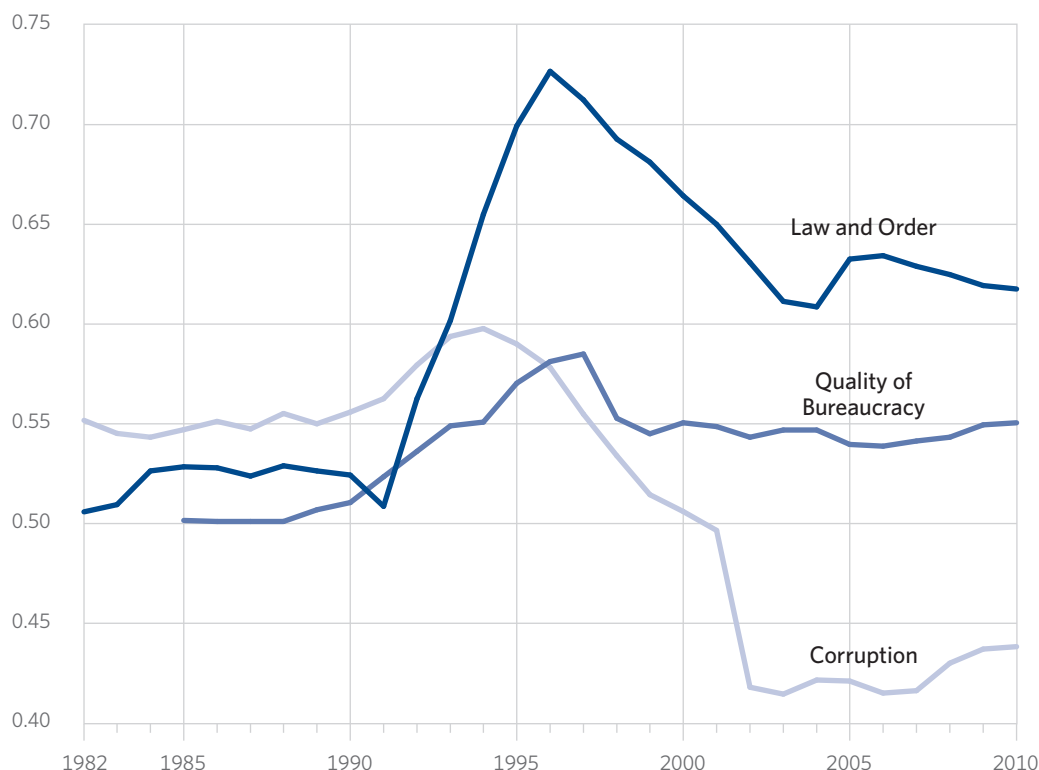
Note: The values shown are means for each year across countries of the Political Risk Services International Country Risk Guide indicators of law and order (previously called rule of law), official corruption, and quality of the bureaucracy. All indicators were converted to a 0-to-1 scale, with 0 indicating the poorest status and 1 the best. All of the indicators are means for 127 countries since 1987. The law-and-order variable has 126 countries for 1985–1986, 108 countries for 1984, and 88 countries for 1982–1983. The corruption variable has 126 countries for 1985–1986, 110 countries for 1984, and 87 countries for 1982–1983. The bureaucratic quality variable has 125 countries for 1986 and 119 for 1985, and is unavailable prior to 1985.

Source: Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, http://www.nber.org/papers/w18295 (accessed October 31, 2012).

Chart 2 ☎ heritage.org

efficiency. In some circumstances, corruption may be preferable to honest enforcement of bad rules. For example, outcomes may be worse if a regulation that prohibits some useful economic activity is thoroughly enforced rather than circumvented through bribes. However, the economy is hampered when few legitimate activities can be undertaken without bribes. Thus, the overall impact of more official corruption is ambiguous.

Similarly, enhanced bureaucratic efficiency has obvious advantages. However, if bureaucrats are carrying out activities in which they ought to be absent, the economy may suffer from more bureaucratic efficiency. Moreover, there may be a tendency for the bureaucracy to grow larger when it functions more smoothly. Thus, the predicted net effect of bureaucratic quality is also uncertain.

As an overall tendency, countries that are strong in terms of law and order (and also low corruption and high bureaucratic efficiency) tend to be strong in terms of the democracy indicators from Freedom House and Polity. However,

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the correlation between any of the institutional quality indicators and either of the democracy indicators is weaker than that within either of the two categories. For example, in 2010, the correlation of the law-and-order indicator with the Freedom House democracy variable was only 0.3. Thus, there are many cases in which the law-and-order indicator is high while the democracy variable is low, and vice versa. These cross-country differences between law and order and democracy make it possible to distinguish empirically the effects of these institutional/political variables on economic growth.

Cases for 1982 or 1985 in which the law-and-order indicator was high in relation to the Freedom House political-rights variable (with a gap of 0.5 or more) included Burma, Chile, Hong Kong, Hungary, Poland, Singapore, and Taiwan. For 2010, countries with these large positive gaps between law and order and democracy included Burma, China, Ethiopia, Iran, Jordan, Russia, Saudi Arabia, Singapore, Syria, Tunisia, and Vietnam. These countries maintained reasonably good law and order but had relatively little democracy. In the typical case, the country was run by a dictator or dictatorial class that nevertheless promoted property rights and a reliable legal system. Historical prototypes of this kind of dictator were the Shah in Iran, Augusto Pinochet in Chile, Lee Kuan Yew in Singapore, and Hosni Mubarak in Egypt.

Countries in which the Freedom House democracy indicator was high in relation to the law-and-order variable (with a gap of 0.5 or more) in 1982 or 1985 included Bolivia, Colombia, Cyprus, Dominican Republic, Greece, Honduras, Israel, Jamaica, Peru, Sri Lanka, Trinidad, and Venezuela. In 2010, countries in this situation included Brazil, Ghana, Jamaica, Panama, El Salvador, and Uruguay. Countries in this group maintained a lot of democracy but were relatively weak in terms of property rights and legal protections.

EFFECTS OF LAW AND ORDER AND DEMOCRACY ON ECONOMIC GROWTH

In the late 1990s, I developed an empirical framework for assessing the effects of various factors on the rate of growth of real per capita gross domestic product (GDP).[13] The growth rate is determined from an equation: growth rate = $F(y, y^*)$. The variable y represents the starting position of the economy—specifically, the initial level of per capita GDP. The variable y^* represents the long-run position toward which the economy is heading. This position depends on government policies and other factors. As an example, improved maintenance of property rights raises y^*.

For given y^*, the growth rate falls with y because of diminishing returns to the accumulation of physical and human capital and to the assimilation of advanced technologies from leading countries. These forces tend to generate a convergence pattern whereby poor countries catch up to rich ones. For given y, the growth rate rises with y^*. Therefore, improved policies, such as better maintenance of property rights, increase the growth rate for given y.

In a recent study,[14] I reexamined the determinants of economic growth in a sample of 80 countries with GDP data from 1960 to 2009. Specifically, the analysis seeks to explain the average growth rate of real per capita GDP for each country over 10 five-year periods: 1960–1965 through 2005–2009 (where the last period has only four years of data). In this study, the GDP figures are the ones reported by Penn World Tables on an internationally comparable basis.[15] The sample includes countries at vastly different levels of economic development, and places are excluded only because of missing data.

Chart 3 shows a simple scatter diagram for the five-year growth rates against the levels of real per capita GDP at the start of each sub-period. That is, the growth rate from 1960 to 1965 is matched with the level for 1965, the growth rate from 1965 to 1970 is matched with the level for 1965, and so on. Since each country is observed 10 times (data permitting), there are roughly 800 data points (actually 783) in this diagram.

A simple convergence hypothesis would predict an inverse relationship between the growth rate and the starting level of per capita GDP. However, as is clear from Chart 3, there is no such relationship in the broad cross-country

Growth Rate and Starting Level of Per Capita GDP

Five-Year Growth Rate
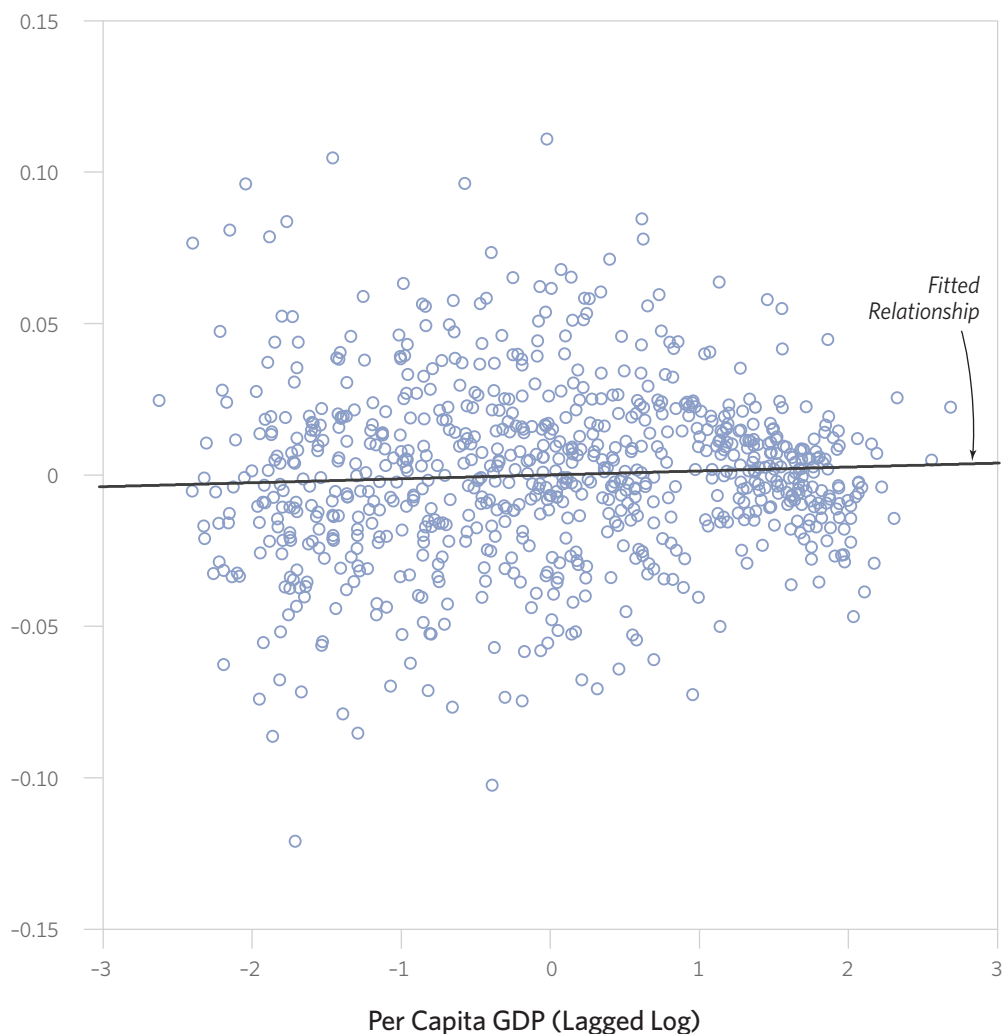
Note: Data are for 80 countries. The horizontal axis has the log of per capita GDP in 1960, 1965, and so on through 2005. Values are expressed relative to the mean of this GDP variable in the full sample. The vertical axis shows the growth rate of per capita GDP for each country over the subsequent five years; that is, for 1960–1965, 1965–1970, and so on through 2005–2009. These values are expressed relative to the mean of this growth-rate variable in the full sample.

Source: Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, http://www.nber.org/papers/w18295 (accessed October 31, 2012).

Chart 3 ☎ heritage.org

data. If the only thing one knows about a country is how rich it is at some point in time, then this information reveals basically nothing about how fast the country will grow over the next five years (or the next 10 years and so on). This lack of

simple convergence implies that there has been no tendency for equalization of per capita GDP across this broad set of 80 countries since 1960.

From the standpoint of the framework laid out in the foregoing equation, the lack of simple

convergence can be explained by the role of the variables that underlie y*, which represents a country's long-run target for per capita GDP. If a country is observed to be poor—that is, to have a low value of y—at some point in time, this condition likely reflects the presence of a low value of y* for a long time in the past. A country observed to be poor in 1960, for example, was likely maintaining weak institutions and pursuing bad policies for a long time before 1960. Furthermore, a low value of y* tends to persist, partly because governments that have maintained weak institutions and pursued bad policies in the past tend to continue this pattern. Therefore, although a low value of y predicts high growth for given y*, the tendency for a low value of y* to accompany a low value of y offsets the simple convergence effect. In the cross-country data since 1960, these two influences are nearly fully offsetting so that poor countries grow, on average, at roughly the same rate as rich ones.

Chart 4 recomputes the relationship between growth rates and starting levels of per capita GDP after holding constant an array of explanatory variables that have been found to influence the target position, y*. The variables[16] are the indicator for law and order (or rule of law); the Freedom House indicator of political rights (democracy) and its square; starting levels of life expectancy at birth and the total fertility rate; starting levels of school attainment of females and males; ratios of investment and government consumption to GDP; a measure of international openness; variations in the terms of trade; and the inflation rate.

In contrast to Chart 3, Chart 4 reveals a clear and statistically significant inverse relation between the growth rate and the starting level of per capita GDP. The key reason for the difference is that Chart 4 holds constant an array of growth determinants aside from the starting level of per capita GDP; that is, it effectively holds fixed the long-run position, y*, shown in the foregoing growth-rate equation. Hence, the data exhibit a pattern of *conditional convergence* whereby the growth rate declines with y for given y*. This effect can be interpreted as diminishing returns to the accumulation of physical and human capi-tal or to the absorption of superior technologies from leading countries. For given underlying policies and institutions and other variables, represented by the variable y*, the rate of economic growth tends to decline as a country gets richer.

For present purposes, I want to highlight the role of the two political/institutional variables—the indicators for law and order and democracy—that were included among the determinants of the growth rate; that is, of the long-run position, y*. For the law-and-order indicator, the empirical relation with the rate of economic growth is in Chart 5. As in Chart 4, the association between the growth rate and the variable on the horizontal axis—in this case, the law-and-order indicator—is computed after holding constant the influences from a set of other explanatory variables (including now the initial level of per capita GDP).

The important implication of Chart 5 is that a higher value of the law-and-order indicator predicts a higher rate of economic growth. This relation is significant in a statistical sense. However, I am surprised that the explanatory power of the law-and-order variable is not even greater than it turns out to be. This outcome may reflect the imperfect measurement of institutional quality by the *International Country Risk Guide*.

The estimated effect of improved law and order on economic growth is substantial. Specifically, a rise by one category (among the seven used) in the indicator is estimated to raise the growth rate on impact (that is, over five years) by 0.3 percent per year, compared to the over-all mean growth rate of 2.1 percent per year.[17] A change from the worst rule of law (0.0) to the best (1.0) would contribute 1.6 percent per year to the growth rate.

However, this kind of growth dividend from legal reform could arise only for cases, such as Haiti and Zaire in the past, that began as total institutional disasters. For countries that have already achieved well-functioning legal systems, such as the United States and most other OECD countries in recent years, the potential for this kind of growth enhancement through institutional improvement is limited (although, given

Relation Between Growth Rate and Starting Level of GDP
Holding Other Explanatory Variables Constant

Five-Year Growth Rate

Fitted
Relationship

Per Capita GDP (Lagged Log)
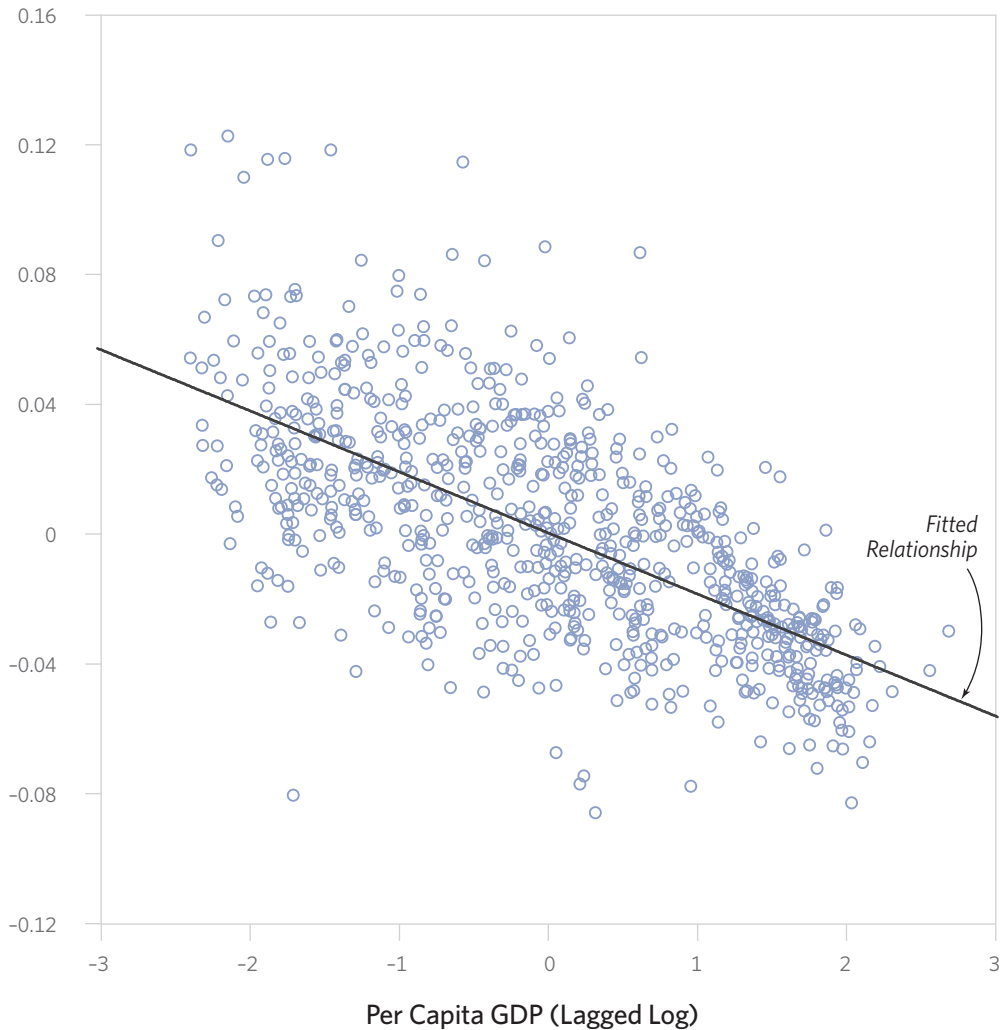
Note: The horizontal axis has the same variable as in Chart 3: the log of per capita GDP in 1960, 1965, and so on through 2005 for 80 countries. These values are again expressed relative to the mean of this GDP variable in the full sample. The vertical axis shows the growth rate of per capita GDP for each country over the subsequent five years; that is, for 1960–195, 1965–1970, and so on through 2005–2009. Unlike in Chart 3, these growth rates were filtered for the growth rate predicted by 12 other explanatory variables as estimated in Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, Table 1, column 3. The values shown in the graph are expressed relative to the mean of this filtered growth-rate variable in the full sample. The black line shows the fitted relationship between the filtered growth rate and the lagged log of per capita GDP.

Source: Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, http://www.nber.org/papers/w18295 (accessed October 31, 2012).

Chart 4 ☎ heritage.org

Partial Relation Between Growth Rate and Law-and-Order Indicator from International Country Risk Guide

Five-Year Growth Rate

Fitted Relationship
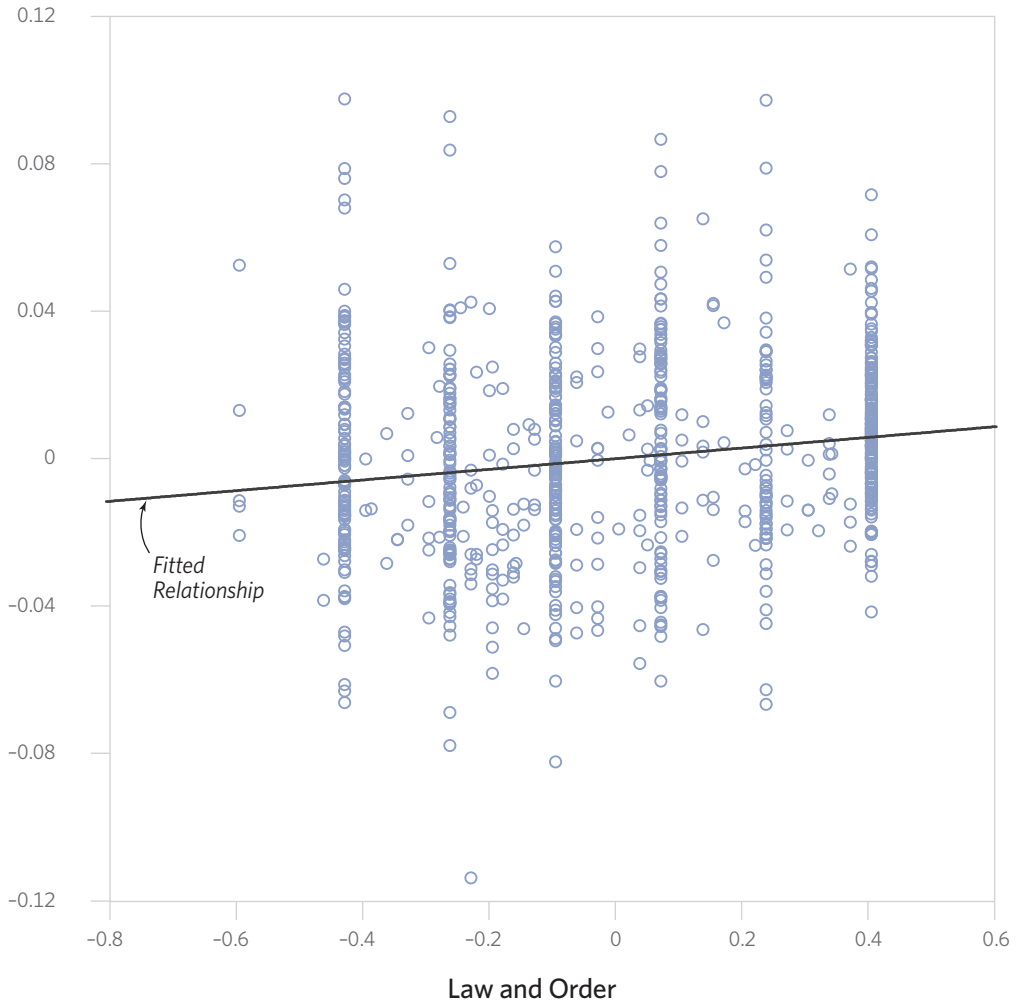
Law and Order

Note: Data are for the 80 countries considered in Chart 4. The horizontal axis has the law-and-order indicator, with values observed from 1982 (the first date available for the variable given in the Political Risk Services International Country Risk Guide) to 2005. These values are expressed relative to the mean of this variable in the full sample. The vertical axis shows the growth rate of per capita GDP over the associated five-year intervals for each country for 1960–1965, 1965–1970, and so on through 2005–2009. As in Chart 4, these growth rates were filtered for the growth rate predicted by 12 other explanatory variables (aside from the law-and-order indicator but including the lagged log of per capita GDP) as estimated in Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, Table 1, column 3. The values shown in the graph are expressed relative to the mean of this filtered growth-rate variable in the full sample. The black line is the fitted relationship between the filtered growth rate and the law-and-order variable.

Source: Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, http://www.nber.org/papers/w18295 (accessed October 31, 2012).

Chart 5 ☎ heritage.org

its downgrading from the top to the second rank in 2003, the United States could move up one notch from its current ranking).

Chart 6 shows the relation between the growth rate and the extent of democracy as measured by the Freedom House political-rights index. The overall relation between economic growth and democracy is weak, as is clear from the fitted curve in the chart. In particular, there are examples of dictatorships (values of political rights near 0) with high and low rates of growth and similarly for democracies (values of political rights near 1).

There is some suggestion of a nonlinear relation—an inverted U-shape—in which growth rises initially with democracy, reaches a peak at a value for the political-rights index around 0.5, and then declines subsequently with further rises in democracy. This relationship, shown by the fitted curve in the chart, is only marginally significant in a statistical sense. One way to interpret this pattern is that in the worst dictatorships, an increase in democracy tends to increase economic growth because the benefit from the limitations on governmental power is the key matter. In contrast, for places that have already attained a moderate amount of democracy, a further increase in political rights impairs growth because the dominant effect comes from the intensified concern with social programs and income redistribution.

The main information from Chart 6 is that the overall relation between growth and democracy, measured by political rights, is weak. Therefore, the findings support neither the popular notion that democracy is necessary for growth nor the idea that dictatorship (in all its forms) is the route to prosperity.

DETERMINANTS OF DEMOCRACY AND THE RULE OF LAW

Thus far, the analysis has considered the impact of alternative institutional arrangements—specifically, more or less law and order and democracy—on the economy, but nothing has yet been said about how the different institutional arrangements come about and, particularly, how these arrangements are influenced by economic development.

According to the well-known "modernization hypothesis," economic development spurs the introduction and maintenance of higher-quality institutions, including well-functioning representative democracy.[18] Specifically, the research of Seymour Lipset supported the idea that prosperity, measured particularly by per capita GDP and education, stimulates democracy.[19] This idea is often called the Lipset hypothesis, although Lipset credits the basic notion to Aristotle:

> From Aristotle down to the present, men have argued that only in a wealthy society in which relatively few citizens lived in real poverty could a situation exist in which the mass of the population could intelligently participate in politics and could develop the self-restraint necessary to avoid succumbing to the appeals of irresponsible demagogues.[20]

The fair thing seems to be to refer to this idea as the Aristotle–Lipset hypothesis.

From a theoretical perspective, Lipset emphasized increased education and an enlarged middle class as key elements, and he also stressed Tocqueville's idea[21] that private organizations and institutions are important as checks on centralized government power.[22] Edward Glaeser, Giacomo Ponzetto, and Andrei Shleifer provide a rationale for the effect of education on democracy through the channel of higher education motivating greater participation in political and other social activities.[23] In some theoretical models, an autocrat would voluntarily relinquish authority—for example, by establishing a constitution, allowing power to a legislative body, expanding voting rights, and extending civil liberties—to deter revolutions and to encourage the private sector to invest (and thereby to expand the pie that the government can tax).

Previous empirical analyses using cross-country data tend to confirm the Aristotle–Lipset hypothesis. In particular, increases in various measures of the standard of living forecast a gradual rise in democracy. In contrast, democracies that arise without prior economic development—sometimes because they are

imposed by former colonial powers—tend not to last.

My recent study used updated cross-country data to reevaluate the modernization hypothesis.[24] In this research, democracy was gauged by the Freedom House political-rights indicator and the Polity measures of democracy and autocracy. The data covered over 100 countries observed since 1972 (for the Freedom House data) or 1960 (for the Polity data). The results strongly confirmed the Aristotle–Lipset idea that economic development, gauged by increases in per capita GDP and years of school attainment, predicted rises in the two measures of democracy. Within education, the greatest predictive power for democracy came from female schooling at the primary level.

The modernization hypothesis was also confirmed for the indicator of law and order using the data since 1982 from the *International Country Risk Guide*. Increases in per capita GDP and years of schooling had significant predictive power for the law-and-order indicator.

My recent study also examined the modernization idea in the context of much longer-term data for 26 countries going back as far as 1870.[25] This work relied on recent compilations of long-term data on GDP and schooling, along with the Polity measures of democracy and autocracy. This setting also confirmed the idea that advances in per capita GDP and years of education predicted expansions of democracy.

The empirical framework for explaining the indicators for democracy and law and order includes as an explanatory variable the five-year lag of the dependent variable. The estimated effects are positive (and statistically highly significant) and thereby indicate substantial inertia in changing institutions in response to changes in per capita GDP and education. In practice, the changes in institutional quality (as measured and also in reality) are often discrete, with either no change or a substantial shift occurring in a particular year. If, for example, per capita GDP or education rises, then an increase in democracy becomes more likely, and the probability of this increase occurring becomes greater as time passes.

Quantitatively, the results imply that, on average, about 20 percent of the full adjustment of democracy to a change in per capita GDP or schooling occurs over five years, and over 80 percent occurs over 40 years. Thus, after 40 or more years, the level of democracy is determined nearly entirely by the economic and schooling variables—the kinds of influences stressed by Aristotle and Lipset—and very little by the country's longer-term history of democracy.

Colonial heritage would be important for democracy and law and order if countries inherit a tendency for more or less institutional quality from their former rulers. For example, Lipset argued that British rule provided a crucial learning experience for subsequent democracy.[26] It is true that former colonies are less likely than non-colonies to be democratic; the average of the Freedom House political-rights index from 1972 to 2010 was 0.62 for 58 non-colonies and 0.47 for 117 former colonies. Similarly, the average of the law-and-order indicator from the *International Country Risk Guide* from 1982 to 2010 was 0.77 for 49 non-colonies and 0.53 for 90 former colonies.

If one adds colonial status to the empirical framework discussed earlier, the result is that former colonies are significantly less democratic, even holding constant per capita GDP and education. These negative effects on democracy show up most strongly for former colonies of France and a group of other countries (Australia, Belgium, the Netherlands, New Zealand, and the United States); more weakly for former colonies of the United Kingdom; and not significantly for former colonies of Spain and Portugal. For the law-and-order indicator, the negative effect of former colonial status shows up primarily for former colonies of Spain, Portugal, and the group of other countries and does not show up for former colonies of the United Kingdom and France. Thus, in terms of connections with economic growth, being a former colony of the United Kingdom or France does not seem to have adverse implications, because law and order is not diminished, whereas being a former colony of other countries has negative implications.

Partial Relation Between Growth Rate and Freedom House Democracy Indicator

Five-Year Growth Rate

Fitted
Relationship

Political Rights (Freedom House)
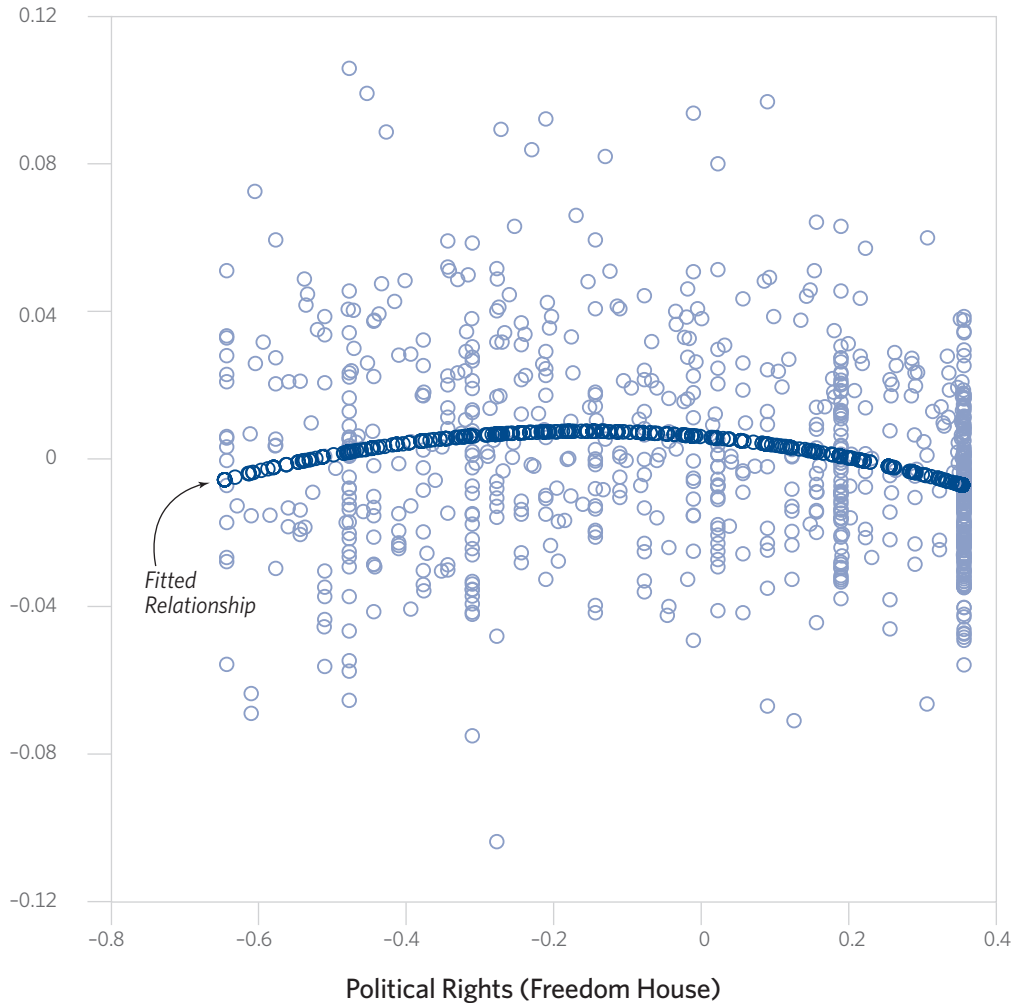
Note: Data are for the 80 countries considered in Chart 4. The horizontal axis has the political-rights (democracy) indicator from Freedom House. These data start in 1972 but were supplemented by information from Kenneth A. Bollen, "Issues in the Comparative Measurement of Political Democracy," *American Sociological Review*, Vol. 45 (June 1980), pp. 370–390 for 1960 and 1965. These values are expressed relative to the mean of this variable in the full sample. The vertical axis shows the growth rate of per capita GDP over the associated five-year intervals for each country for 1960–1965, 1965–1970, and so on through 2005–2009. These growth rates were filtered for the growth rate predicted by 11 other explanatory variables (aside from the democracy indicator and its square but including the lagged log of per capita GDP) as estimated in Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, Table 1, column 3. The values shown in the graph are expressed relative to the mean of this filtered growth-rate variable in the full sample. The dark blue curve is the fitted quadratic relationship between the filtered growth rate and the political-rights variable.

Source: Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012, http://www.nber.org/papers/w18295 (accessed October 31, 2012).

Chart 6 ☎ heritage.org

One important idea stressed by Friedman and others is that political and economic freedoms are reinforcing.[27] My interpretation of this idea is that greater law and order (or rule of law) should predict more democracy in the future and that, similarly, greater democracy should predict more law and order in the future.

An extension of my recent empirical analysis fails to confirm a significant direct effect of the law-and-order indicator on the democracy measures. That is, given the current values for democracy, per capita GDP, and schooling, a higher level of the law-and-order indicator does not predict future increases in democracy. An indirect connection, however, might be important. An expansion in law and order promotes economic growth, as discussed before, and leads thereby to higher levels of per capita GDP over time. The levels of school attainment would probably also rise along with per capita GDP. Then the higher future values of per capita GDP and schooling would tend to expand future democracy. Through these channels, an improvement in law and order would lead to more democracy in the long run.

I also found from an extension of my recent empirical research that expansions of democracy do not predict increases in the law-and-order indicator. That is, given the current values of the law-and-order indicator, per capita GDP, and schooling, there is no separate predictive power from the current value of the democracy indicator. Since democracy has little connection with economic growth (as discussed before), there would also not be much indirect linkage between democracy and institutional quality working through changes in per capita GDP and schooling.

Putting the results together, my conclusion is that, given per capita GDP and schooling, the evolution of democracy and law and order are largely independent. That is why one finds numerous instances of substantial gaps between the two types of indicators of institutional quality. Nevertheless, there is also substantial persistence in the two kinds of indicators over time and also substantial positive correlation of these indicators across countries and over time.

We can explain these patterns by noting that movements in per capita GDP and schooling tend to shift the two institutional measures—democracy and law and order—in the same direction. Specifically, economic development tends to raise the levels of both indicators.

CONCLUDING OBSERVATIONS

The findings about institutional quality can be summarized by considering U.S. foreign policy toward developing countries. The U.S. focus for many years has been toward promoting democracy—notably free elections with multiple parties—in all times and places. For example:

- In 1994 when Haiti was run by a military dictator, Raoul Cedras, the United States intervened to restore the previously elected president, Jean-Bertrand Aristide, despite his doubtful credentials.
- When President Alberto Fujimori of Peru disbanded the legislature and assumed dictatorial powers in 1992, ostensibly in a temporary way to counter a terrorist threat and enact drastic economic and political reforms, the United States complained bitterly.
- When President Mobutu Sese Seko of Zaire was finally toppled by a revolution in 1997 after more than 30 years of mismanagement and corruption, the United States called immediately and unrealistically for the new leader, Laurent Kabila, to organize free elections.
- More recently, in Egypt, despite Hosni Mubarak's credentials as a relatively benign dictator, the United States supported a revolution that, although carrying out a free election with reasonable speed, has an uncertain future with regard to Islamic extremism, tensions with Israel, and so on. Similar concerns about the Arab Spring and its associated expansion of democracy apply in Tunisia, Libya, and elsewhere.

Former U.S. Secretary of State Madeleine Albright was once asked whether it was sometimes necessary to sacrifice democracy in the short run in order to promote economic growth. She replied to the effect that there was no such

tradeoff because democracy was a prerequisite for economic growth. This response sounds pleasant but is simply false. The idea that democracy is necessary for growth is just as false as the proposition that dictatorship is essential for poor countries to escape poverty. The more nearly correct statement is that the extent of democracy has little relation with subsequent economic performance.

For a country that starts with weak institutions—little democracy and law and order—an increase in democracy is less important than an expansion of law and order, based on enhancement of the rule of law, as a stimulus for economic growth. In addition, democracy does not seem to have a strong role in fostering law and order. Thus, one cannot argue that democracy is critical for growth because democracy is a prerequisite for law and order.

The problem with the United States recommending democracy to a country such as Egypt or Libya is not that democracy would harm economic performance, but rather that it would have little impact. If there is a limited amount of energy that can be used to accomplish institutional reforms, then it is much better spent in a poor country by attempting to implement the rule of law—or, more generally, property rights and free markets. These institutional features are the ones that matter most for economic growth, and these features are not the same thing as democracy. Moreover, in the long run, the rule of law tends to generate sustainable democracy by first promoting economic development.

Thus, even if democracy is the principal objective in the long run, the best way to proceed is to encourage the rule of law in the short run. U.S. advice to poor countries should therefore focus more on the rule of law, property rights, and free markets and less on the romance of democracy.

Endnotes

1 Milton Friedman, *Capitalism and Freedom* (Chicago: University of Chicago Press, 1962).

2 See, for example, Norman V. Loayza, "The Economics of the Informal Sector: A Simple Model and Some Empirical Evidence from Latin America," *Carnegie–Rochester Conference Series on Public Policy*, 1996, pp. 129–162.

3 Casey B. Mulligan, *The Redistribution Recession: How Labor Market Distortions Contracted the Economy* (Oxford: Oxford University Press, 2012).

4 Alex Inkeles, *On Measuring Democracy* (New Brunswick, N.J., Transaction Publishers, 1991), p. x.

5 Raymond D. Gastil, *Freedom in the World* (Westport, Conn.: Greenwood Press, 1982–1983 and subsequent years).

6 Gastil, *Freedom in the World*, 1986–1987 ed., p. 7.

7 I used data on an analogous concept for 1960 and 1965 from Kenneth A. Bollen, "Issues in the Comparative Measurement of Political Democracy," *American Sociological Review*, Vol. 45 (June 1980), pp. 370–390, which differs mainly in that the concept of democracy goes beyond electoral rights. Freedom House provides a separate indicator for civil liberties since 1972, but this indicator is highly correlated with the political-rights variable.

8 Organisation for Economic Co-operation and Development.

9 The data from the Polity IV version are on the Polity website, at www.systemicpeace.org.

10 Bollen, "Issues in the Comparative Measurement of Political Democracy."

11 The World Bank provides survey information on perceived quality of governance (available at www.govindicators.org), but these data have the serious shortcoming of being available only since the late 1990s.

12 See Political Risk Services Group, International Country Risk Guide, website, at www.prsgroup.com/ICRG.aspx. These data were introduced to economists by Stephen Knack and Philip Keefer. See Stephen Knack and Philip Keefer, "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures," *Economics and Politics*, Vol. 7 (1995), pp. 207–227. Two other consulting services that construct these types of data are BERI (Business Environmental Risk Intelligence) and Business International (now a part of the Economist Intelligence Unit).

13 Robert J. Barro, *Determinants of Economic Growth: A Cross-Country Empirical Study* (Cambridge, Mass.: MIT Press, 1997).

14 Robert J. Barro, "Convergence and Modernization Revisited," National Bureau of Economic Research *Working Paper* No. 18295, August 2012.

15 The PPP-adjusted real per capita GDP data are from Penn World Tables, version 7.0, at www.pwt.econ.upenn.edu, and are in units of 2005 international dollars.

16 Detailed in Barro, "Convergence and Modernization Revisited."

17 In the framework used, this growth-rate effect persists for a long time. However, the magnitude of the effect diminishes slowly as the economy develops, and the influence in the very long run is on the level of economic activity, not its rate of growth.

18 Contributions to the modernization literature include Aristotle, *Politics*, trans. H. Rackham (Cambridge, Mass.: Harvard University Press, 1932); Seymour M. Lipset, "Some Social Requisites of Democracy: Economic Development and Political Legitimacy," *American Political Science Review*, Vol. 53 (1959), pp. 69–105; Robert A. Dahl, *Polyarchy: Participation and Opposition* (New Haven, Conn.: Yale University Press, 1991); and Samuel P. Huntington, *The Third Wave: Democratization in the Late Twentieth Century* (Norman: University of Oklahoma Press, 1991). Marx extended the modernization idea to a predicted collapse of organized religion under capitalism. Karl Marx, *A Contribution to the Critique of Political Economy* (Chicago: Kerr, 1913).

19 Lipset, "Some Social Requisites of Democracy: Economic Development and Political Legitimacy."

20 Lipset, "Some Social Requisites of Democracy: Economic Development and Political Legitimacy," p. 75.

21 Alexis de Tocqueville, *Democracy in America*, trans. Henry Reeve (London, Saunders & Otley, 1835).

22 Lipset, "Some Social Requisites of Democracy: Economic Development and Political Legitimacy," pp. 83–84.

23 Edward L. Glaeser, Giacomo A. M. Ponzetto, and Andrei Shleifer, "Why Does Democracy Need Education?" *Journal of Economic Growth*, Vol. 12 (June 2007), pp. 77–99.

24 Barro, "Convergence and Modernization Revisited," Table 4.

25 Barro, "Convergence and Modernization Revisited," Table 5.

26 Lipset, "Some Social Requisites of Democracy:
    Economic Development and Political
    Legitimacy."

27 Friedman, *Capitalism and Freedom.*