# Growth and Governance: Models, Measures, and Mechanisms

**Marcus J. Kurtz** The Ohio State University
**Andrew Schrank** University of New Mexico

*The regnant scholarly consensus linking good governance—the quality of public administration—to economic development has undergone surprisingly little empirical scrutiny. We examine the relationship by asking two questions: How confident are we in our cross-national measures of good governance? How solid are the empirical foundations of the growth-governance causal linkage? Our results suggest that the dominant measures of governance are problematic, suffering from perceptual biases, adverse selection in sampling, and conceptual conflation with economic policy choices. Within the limits of somewhat problematic measures, the evidence suggests that there is far more reason to believe that growth and development spur improvements in governance than vice versa. The policy implications are profound, for international organizations and governments are beginning to condition developmental aid on problematic measures of administrative performance.*

Most analysts agree that political corruption and malgovernance are among the principal barriers to economic development and social betterment in the Third World (see, e.g., Castañeda 2003; Wolf 2005). Conversely, the belief that good governance—the quality of public administration—promotes growth and development is all but entirely uncontroversial (Kaufmann 2005). It forms a framing assumption in a host of academic analyses, a core piece of advice provided by the international financial institutions, and the rationale for new conditions imposed upon recipients of bilateral and multilateral aid (*Economist* 2005; Hopkin 2002; Radelet 2002, 2003; Seligson 2002).[1] In fact, the contemporary paeans to public sector probity are so pervasive as to imply that the link between growth and governance is an article of faith or a starting point for analysis rather than a hypothesis subject to falsification.

Nevertheless, the relationship between the quality of administration and the level or rate of economic development has received little direct scrutiny. Neither a theoretically nor an empirically convincing case for the *beneficial* effects of corruption or malgovernance has been advanced, of course, but the developmental costs are not nearly so clear as the conventional wisdom implies.[2] In fact, we will argue below that we lack genuine consensus as to what malgovernance really *is*; we are further still from cross-nationally valid measures thereof; and we are therefore decidedly premature in assigning causal priority to governance and not vice versa.

What *is* well known is that exceptionally high levels of economic development are associated with what are commonly seen as competent public sectors. We plan to examine the causal status of this correlation. Does good governance actually cause growth? Does economic growth itself promote better governance? Or, are the two phenomena simply the independent products of an underlying, but unmeasured, omitted variable? Do the available measures—i.e., the ones that are in widespread use—give us the tools to directly answer these (and other) questions in a cross-nationally valid way? The answers have important

[1]We want to be very clear at the outset that the phrase "good governance" describes the probity of public administration and implies no particular policy regime or level of public goods.

[2]A small literature suggests that political corruption can facilitate development (see, e.g., Leff 1964 and at least conditionally Huntington 1968, Lui 1985, and Rashid 1981). This is most assuredly *not* our claim.

***The Journal of Politics,*** Vol. 69, No. 2, May 2007, pp. 538–554

 ISSN 0022-3816

theoretical and policy implications, for if economic development or underlying sociopolitical variables which are logically prior to economic development are principally responsible for historical improvements in the quality of governance, and not vice versa, then we should expect institutional reforms that are not accompanied by substantial complementary transformations of society or the political economy to be at most of marginal impact in the quest for good government *and* economic development.

In this paper we advance the simple but novel claim that the relationship between governance and growth rests on far weaker empirical foundations than is customarily claimed. Indeed, we contend that the opposite hypothesis—that is, that economic development drives political modernization—may have more empirical support than the current conventional wisdom implies.

Our potentially controversial claim is based on two types of evidence. First, we examine the best existing measures of the quality of political institutions—the governance indicators recently developed under the auspices of the World Bank (Kaufmann, Kraay, and Mastruzzi [KKM] 2003, 2005). We show that these—and indeed most—indicators that include perception-based measurements of the probity and efficacy of public institutions are quite colored by recent economic performance (see also Seligson 2006, 385), riddled with problems of adverse selection, and feature deeply entrenched biases both for and against various public *policy alternatives* that are logically distinct from the question of public sector effectiveness per se. The consequences are profound, as apparent links between governance and growth are thus more to likely to be artifacts of measurement than reflections of underlying causal dynamics. The second part of the paper seeks to directly evaluate this possibility through a careful examination of the question of causal order and the predictive power of these substantially perception-based measures. The results ratify our concern: Antecedent economic conditions are strong predictors of perceptions of the quality of public institutions, but the *ex ante* measure of governance shows little capacity to predict *subsequent* patterns of economic performance.

What are the ultimate implications? And what should be done? In the first place, we need to be more careful about how we conceptualize governance—to avoid dependence on nonneutral sources and the corresponding tendency to embed policy preferences within the concept. Second, we must build historically valid indicators that allow us to evaluate the growth-governance linkage over longer spans of time. And, finally, we counsel the avoidance of research programs that put the cart in front of the proverbial horse by taking as their starting points the *assumption* that improvements in the institutional rules of government will drive broader socioeconomic development.[3] Instead, we believe that intellectual energy would be better spent in an effort to discern whether in fact it is economic development that drives improvements in governance or allows institutional changes to have practical effect, or, alternatively, if there are unobserved causal factors that select countries into high-growth/good governance or low-growth/malgovernance equilibria (see, e.g., Caselli and Morelli 2003; Mauro 2004). Extant research on malgovernance and corruption has focused quite narrowly on the question of *institutional* context, examining, for example, whether democratic politics, federalism, transformations of administrative structure, or the incentives embedded in electoral or legislative institutions can drive improvements in probity.[4] But if we are right, none of these may be as fruitful avenues of exploration as they seemed at first.[5] Instead, the efficacy of such institutional reforms may be conditional on transformations of underlying economic and social structures that themselves determine the degree to which governments can be held to the goals embodied in such reforms or whether they are yet another in a long series of dead letters. What these structures are and how their effects are manifested is precisely where we think the greatest marginal returns to future investigation lie.

## The Theoretical Terrain

The principal empirical research puzzle can be stated simply enough: Does growth underwrite good governance? Does bureaucratic probity promote growth? Or is their strong apparent linkage related to unex-

[3]This does not mean that efforts to combat corruption are not useful in and of themselves. We merely claim that they are likely to be more effective in the context of changes to underlying socioeconomic characteristics that are themselves likely to reduce malgovernance.

[4]See, for example, Geddes (1994) on legislative politics; Weingast (1995) on federalism; and Rose-Ackerman (1999) and Gerring and Thacker (2004) on the structure of political institutions.

[5]Worse, yet, there are potentially pernicious practical consequences. By tying development aid to improvements in governance, the international donor community could well aggravate poverty and inequality. International aid might be directed away from precisely those states that need it most and whose political institutions will in all likelihood resist effective reform without aid.

plored exogenous factors?[6] While the questions are easy to ask, they are hard to answer. To begin with, while growth can be measured in a fairly straightforward fashion, good governance is much more problematic. And to the extent that current explanations suggest that probity promotes *long-term* economic development, we are further constrained to examine historical indicators of good governance. Even where good historical data might be available, evaluating the direction of causality (from growth to governance or the reverse, and in what proportion) relies on our ability to find appropriate instruments that are correlated with, for example, governance, but unrelated to development. This search has proven to be difficult indeed, as nearly all the factors that are related to growth are also typically correlated with measures of governance (Durlauf, Johnson, and Temple 2005; Rodrik 2005).[7]

A substantial and growing body of literature nonetheless holds that governance is more cause than consequence of growth (see, e.g., Kaufmann 2005). After all, Reynolds identified "administrative competence" as the "single most important explanatory variable" (1983, 976) in his magisterial survey of development outcomes in the Third World. Economists and political scientists self-consciously embraced—and *quoted*—his conclusions (see, e.g., Brautigam 1992, 16; Jomo 2000, 345; Riedel 1988, 37; Stern 1989, 614). And they eventually discovered, developed, and deployed cross-national indicators designed to put the growth-governance relationship to the test. Thus, Mauro finds that investment and growth are related to indicators of "bureaucratic efficiency" developed by a private vendor—and portrays the high market price of the indicators as a testimonial to their "accuracy and relevance" (1995, 684; see also Chong and Calderón 2000). Gupta, Davoodi, and Alonso-Terme (1998, 28) find that economic growth is inversely related to Transparency International's index of perceived corruption as well as the indicators used by Mauro. And Friedman et al. (2000) trace informality, tax evasion, and their attendant political and economic ills to a number of different indicators of bureaucratic inefficiency and corruption. "So widespread is the confidence in these findings," writes a justifiably cautious Seligson, "that international lending agencies have embarked upon major efforts to reduce corruption, conditioning many of their loans on formal, widespread efforts to clean it up" (2002, 410).

Nor are the international lending agencies alone. The Bush Administration partially limits access to the foreign aid provided under the auspices of the Millenium Challenge Account to countries that display superior governance—as measured by, *inter alia*, the "aggregate governance indicators" developed by Kaufmann et al. for the World Bank (*Economist* 2005; Radelet 2002, 2003). While Kaufmann holds that that governance fosters growth and not vice versa and asserts that "a country that improves its governance from a relatively low level to an average level could almost triple the per capita income of its population in the long term" (Kaufmann 2005, 41), he and his collaborators laudably admit that their indicators may be too blunt for policymaking purposes.[8] "In a ranking of 61 poor countries for which data were available in 2000–01," notes the *Economist*, "they could be 90% certain that Sudan and Burundi were correctly classified in the bottom half of the table. They could not be so sure of any of the other 28 countries that would fail to make the cut" (*Economist* 2005, 75).

We not only acknowledge and underscore the imprecision in Kaufmann's estimates but demonstrate that—within the limits imposed by his admittedly problematic but nonetheless increasingly popular measures—good governance is in all likelihood a consequence, rather than a cause, of economic growth and

[6]As obvious as these questions are, they have not attracted widespread scholarly attention. Kaufmann and Kraay (2002) and Kaufmann (2003–2004) are among the few analysts to pose these questions directly, finding that governance is a direct cause of development. Glaeser et al. (2004), however, suggest that good institutions are not nearly as important to growth as commonly thought, while Ritzen, Easterly, and Woolcock (2000) have suggested that the degree to which public institutions can be improved is highly constrained by societal factors.

[7]One of the best recent attempts is that of Acemoglu, Johnson, and Robinson (2001), who use the mortality rates of colonial settlers as an instrument for the quality of early political institutions. The intuition is that where mortality was low, higher levels of colonial immigration were possible, which promoted the development of bigger, more effective states. These early institutional advantages are then assumed to persist into the present era. Another approach, Kaufmann and Kraay (2002), relies on external information about measurement error in indicators of good governance to identify a system of equations linking governance to growth, and the reverse. This approach, which comes to quite different conclusions as Acemoglu, Johnson, and Robinson, relies on heroic assumptions about the nature of the errors in measurement, the degree to which contemporary measurements of governance are proxies for historical data on the quality of governance, and the unknown correlation between the errors in the system of equations.

[8]Kaufmann's estimated payoff to good governance has diminished of late. In 2003 he posited a 400% improvement in per capita income attendant upon a broadly similar improvement in governance (see Kaufmann cited in Francis 2003). Earlier he asserted that "halving the level of corruption" in Russia "would see per capita income, at least double, perhaps quadruple" (Kaufmann cited in Sweeney 1999).

the current effort to build "administrative competence" as part of a policy imperative is therefore at best insufficient and at worst misguided. Moreover, we suggest that there may be underlying political and social structures that can independently promote both effective state building and economic development, and until they are empirically investigated, and their effects estimated, we must remain cautious at best about any assertions of a *causal* linkage between governance and growth, however intuitively appealing it might be.

*The Intuition*. Our perspective builds on observations in the extensive qualitative literature linking public action and economic development. Many scholars have made the case that unusually high-quality public sector performance characterizes the polities of the newly industrialized countries (NICs) of East Asia. Indeed, scholars of all stripes, from developmentalists like Wade (1990) and Amsden (2001) to neoclassical economists at the World Bank (1993, 6) acknowledge that "government interventions resulted in higher and more equal growth than otherwise would have occurred" in the East Asian region. But these governments were not always particularly capable. The Kuomintang ruled mainland China through a combination of cronyism, clientelism, and naked force until 1949. It is hard to imagine that these same political leaders created a "developmental state" in Taiwan out of whole cloth a few short years thereafter. Similarly, the South Korean government of Syngman Rhee was known for its corrupt practices, economic malgovernance, and slow growth. The mere advent of a military coup in 1961 seems inadequate to explain the oft-asserted professionalization and modernization of the Korean state apparatus—and the wholesale modification of the developmental strategy and the achievement of world-beating economic growth rates over most of the subsequent 35 years. And indeed, recent evidence suggests that substantial problems of public probity and crony capitalism persisted throughout the long period of rapid economic development (Kang 2002). This forces one to ask whether development helped produce the developmental state almost as much as the developmental state impelled rapid economic development.

Similarly, quite a few of the countries currently among the most developed in the world were, during the period of their industrial takeoffs, clearly malgoverned and riddled with corruption. Glaeser and Shleifer (2001), for example, go to great pains to demonstrate the degree to which U.S. economic governance between the Civil War and the Roosevelt and Wilson administrations was shot through with cronyism and corruption, rendering corporate behavior almost immune to effective oversight. Indeed, the rise of regulatory agencies at the state and federal levels during the Progressive era was largely due to the overwhelming corruption of the judicial system, then the principal entity that governed economic practices. Nonetheless, during this period (from the 1860s to the 1900/1910s) the U.S. industrial economy underwent a dramatic and sustained expansion. And indeed, *in the wake of this development*, substantial improvements in the quality of governance were completed, including direct and responsible federal oversight of the money supply, banking, and interstate commerce; the professionalization of the civil service; and the regulation of trusts and monopolies. Similarly, rapid economic modernization in postwar Italy was possible almost in spite of, rather than on account of, an often corrupt, and typically unstable political system. Indeed, even as Italy remains a wealthy European nation, the headlines of its dailies continue to be dominated by charges of corruption—stunning for both their size and the upper reaches of government that they so frequently touch.

Our point is simple: Clean, effective government is desirable, but what is not so clear is whether it is an essential or even important antecedent of rapid economic growth—let alone whether it can be created through the administrative and judicial reforms most commonly recommended by donor governments and international financial institutions. Such reforms may in the end be essential, but they may also be ineffective in the absence of economic development or simply find their emergence blocked until underlying socioeconomic structures or sociopolitical interests are transformed. We also worry that popular measures of malgovernance are only partially adequate. Before we can with certainty estimate the strength (and causal direction) of the growth-governance linkage, we need measures of the latter uncontaminated by knowledge of antecedent economic performance or assumptions about economic policy choices.

We contend, in fact, that the record of political reform is far better in the places in which economic development has taken place—that is, political reform is more a consequence of economic reform than its cause. This does not imply that political development is an automatic consequence of economic expansion, but rather that political reforms are both more likely and more likely to succeed where such development has already taken place. This subtle point has profound consequences. It suggests that political modernization cannot be had on the cheap "merely" through the implementation of administrative and judicial

reforms—though these are certainly valuable in and of themselves. Instead, it may require ongoing efforts to undertake the hard and costly work of economic development—efforts that may well be impeded by government inefficiency but without which governance will not be improved.

## Measurement: Are We Sure We Know How Good a Government Is?

To know whether good governance induces growth requires us to be able to measure the quality of public administration in a cross-nationally valid way. This is difficult enough, but it is made all the more so because operationalization begs the prior question, characterized by ongoing differences of opinion, of what government should (and should not) be doing in the first place. As a conceptual matter most economists—with some notable exceptions—subscribe to some variation of the maxim "he who governs best, governs least" (see Becker 1995; Krueger 1974; Shleifer and Vishny 1993). It is an approach that is dominant in the cross-national research.

But measuring state capacity in the manner most common among economists—in terms of what the state refrains from doing (regulating, taxing, stealing)—is neither easily nor necessarily profitably accomplished (see Hopkin 2002). Measurement typically relies, in whole or in part, on survey instruments—applied, alternatively, to foreign investors, domestic firms, or citizens. Questions seek to glean assessments of the national legal system, the level of "red tape," the speed of the permitting process, or the extent of corruption (see, e.g., Business Environment Risk Intelligence 2006; Chong and Calderón 2000; Mauro 1995; Transparency International [TI] 2004; World Economic Forum 2004). For Mauro, for example, the results "are taken to represent [international] investor's assessments of conditions in the country in question" (1995, 684). These approaches and other information have been incorporated into the ambitious metasurvey-based aggregate governance indicators developed by Kaufmann and colleagues at the World Bank (Kaufmann and Wei 1999; KKM 2003, 2005). This project has many commendable features and clearly represents the state of the art. That said, important questions remain.

Reliance on these sorts of surveys, in whole or in part, requires the assumption that the interests of investors (foreign and domestic) and the interests of the nation are essentially coterminous. But this is an exceedingly selective notion of state capacity, and efforts at measurement that hinge on surveys of businesspersons are thus likely to contain substantial biases. Why? To the extent that public bureaucracies *are* effective in imposing taxes or regulatory demands (e.g., securities and prudential banking regulations, labor laws, industrial performance standards, environmental controls, or antitrust actions), they are likely to be judged "burdensome" and "growth-inhibiting" by many businesspersons. By contrast, where such controls don't exist or are easily evaded, states will be judged less harshly by business elites. This introduces policy preferences into measures of governmental quality or effectiveness and thereby injects *systematic* bias into the measures to the extent that public policy mirrors or diverges from the interests of surveyed business elites. This is unfortunate, since good governance is in principle conceptually independent of policy choices—it means that public officials are willing and able to effectively implement policy choices, whatever they might be. The key here is thus *not* measurement error in the sense of signal-to-noise problems. Rather, it is systematic bias based on the policy preferences of vested interests that would make even perfectly reliable measurement of perceived levels of governance diverge from the actual underlying level of administrative competence.

But the problems do not end here. Surveys of businesspeople are riddled with potential sample selection problems. They systematically censor the opinions of former investors who did not succeed in the marketplace, or potential investors who were deterred from entering local markets by pervasive malgovernance or corruption itself, and thereby sample a very unrepresentative group of firms.[9] This is not easily remedied—it is generally impossible to identify, and impractical to interview, "potential" investors deterred by malgovernance and/or malfeasance from entering local markets. By contrast, investors who *are* competing successfully in the marketplace, and therefore show up in the surveys, may be doing so precisely because they are the beneficiaries of corruption and cronyism—and are therefore unlikely to report it accurately. And where malgovernance *is* effectively reported, this may well be because it is *not* pervasive enough to create sufficiently strong distortions in firm-level survival or investor behavior to induce selection bias. And thus in such contexts those who do not win from malfeasance can survive to report it! But how can we determine which situation obtains in a particular case?

[9]Hopkin (2002) notes that studies of corruption have also tended to select on the dependent variable, often not examining comparable cases in which corruption was less severe.

An additional problem that may bedevil not simply business surveys but all opinion data is the possibility that respondents' estimates of bureaucratic competence are colored by cultural blinders—i.e., people in different countries have different definitions and opinions of "corruption"—and recent economic performance (see Seligson 2006). A government that presides over a period of strong growth may be perceived by many respondents, ceteris paribus, as comparatively efficient and effective regardless of actual bureaucratic practice—especially in light of the aforementioned conventional wisdom regarding the nature of the growth-governance linkage. By way of contrast, a government that presides over crisis, like the ones that occurred in Korea and Argentina in the late 1990s and early 2000s, will almost certainly be perceived as more incompetent and corrupt—whether the depth or extent of malgovernance has actually changed (see, e.g., Seligson 2006, 385 on Argentina). This is particularly true for citizen surveys that perforce include principally respondents who have little direct basis on which to form judgments of the quality of public administration other than easily visible knowledge of economic or other basic performance measures. While growth rates and bureaucratic quality may be correlated in the very long term, since most scholars think institutions change only slowly and/or episodically (Evans and Rauch 1999), a valid survey-based measure of governance should not move in tight relationship to short-term changes in economic growth.[10]

Clearly, the most comprehensive source for cross-national measures of governance is the series of indicators developed by KKM (2003, 2005) at the World Bank.[11] Of the six principal governance indicators produced by KKM, only the measure of "government effectiveness" clearly attempts to capture the ability of the state to formulate and implement its goals. This they define, quite properly, as "the competence of the bureaucracy and the quality of public service delivery" (2005, 4). Two of the other indicators are measures of regime characteristics ("voice and accountability" and "political stability") that are not conterminous with governance, while the measure of "regulatory quality" is premised on the notion that minimal regulation and minimal barriers to trade and investment flows are optimal and is thus conflated with (controversial) policy prescriptions. Measures of the "rule of law" have useful data on the enforceability of private and government contracts and the costs and independence of the judicial system, but are similarly conflated with policy preferences over the structure of private property rights, and business-elite oriented questions about whether judicial action "interferes" with business.[12] Similarly, the measure of "corruption control" unfortunately combines survey results as to the presence of nepotism, cronyism, and bribe taking in government with questions about the "intrusiveness of the bureaucracy" or the "amount of red tape." But just as in the rule of law case, intrusiveness and red tape can be a sign of *either* effective or ineffective governance, depending on the content of the policies being enforced.

Finally, when it comes to evaluating the growth-governance linkage, the policy biases embedded in these measures become even more problematic. For example, one prominent school of thought has highlighted the importance of developmentalist policies and competent but interventionist bureaucracies for rapid economic development (e.g., Amsden 2001; Wade 1990). Those working in this context have pointed out, according to Amsden (2001), that such states are necessarily "disciplinary" of capitalists—something that survey measures of businesspeople's opinions are likely biased against. A simple example will illustrate the problem. In his classic study of the developmental state in Taiwan, Wade (1990) notes that Kuomintang officials compelled export-oriented North American electronics firms to source their inputs locally by, first, delaying their applications for import permits and, second, introducing them to capable local suppliers. In the qualitative case study

[10]It might be thought that the aforementioned work of Acemoglu, Johnson, and Robinson (2001) overcomes these objections by using data on settler mortality as an instrument for the quality of governance in contemporary polities. Nothing could be further from the truth. After all, the variable for which Acemoglu, Johnson, and Robinson instrument is a measure of "expropriation risk" as perceived by foreign investors (2001, 1377), a variable that suffers from all the same selection and perception problems identified above. Nor should it escape notice that Acemoglu, Johnson, and Robinson's instrument for expropriation risk—which, importantly, is *not* the same thing as state capacity—are the mortality rates of the biggest expropriators in history: the European colonists.

[11]Kaufmann, Kraay, and Mastruzzi construct a meta-indicator that aggregates a host of different measures, from firm, investor, and population surveys to expert and international organization assessments to come to their overall measurements of the quality of governance. The only other reasonably broad survey, that of Transparency International, is not as complete, incorporates fewer source inputs, and in 2001 chose to eliminate citizen survey data altogether (Lambsdorff 2001, 2).

[12]The problem is that government interference is often a symptom of *good* governance (e.g., when public action prevents negative externalities, inhibits monopolies, or draws investors into productive sectors under developmentalist policy regimes). At the same time it can foster or signal inefficiency, the prevalence of graft, or judicial capture by private agents.

literature, these actions are considered the essence of good government, for they generated additional value added and thereby deepened the country's industrial structure. But in constructing their own indicator of "government effectiveness," Kaufmann and his colleagues have explicitly equated the "quality of bureaucracy" with the absence of "red tape" and have quoted one of their source surveys to the extent that "the better the bureaucracy the quicker decisions are made and the more easily foreign investors can go about their business" (KKM 2003, 93). Taiwan, by this measure, was poorly governed. Of course the problem is that bureaucratic delay can indicate *either* malgovernance *or* an effective state that seeks to compel business to behave in ways consistent with the long-run national interest rather than short-run private profit. The insensitivity of the existing quantitative measures to this particular problem might explain why Taiwan and South Korea are ranked 32nd and 42nd, respectively, in terms of government effectiveness while being almost universally hailed in the qualitative literature for possessing unusually high-quality public administrations. The problem is potentially more severe in studies that use these measures to assess the relationship between free-market policies and the quality of governance—since the former will tend to foster the latter by design.

Nor do the problems stop there. The KKM measure also incorporates questions about the quality and reliability of public and quasi-public goods like infrastructure, schools, and telecommunications (KKM 2003, 93). We worry not that public and quasi-public goods are unimportant but that their quality and reliability are likely to (1) reflect policy decisions as well as institutional capacity and (2) have independent—and therefore statistically inseparable—effects on growth in any event. Is growth a product of the quality of public services or the volume of public investment? Unfortunately, questions like, "How problematic is transportation for the growth of your business?" (KKM 2003, 93) are unlikely to provide the answer.

Because of these serious potential biases as well as the incongruous results across the quantitative and qualitative evaluations of state capacity, it is very important that the validity of our quantitative indicators be carefully examined before they are used to support or refute hypotheses linking governance and growth. This is, of course, more easily said than done. Here we take three approaches to the validation of the governance measure: (1) Do repeated observations taken at different points in time correlate with each other? (2) Do alternative indicators of governmental performance correlate with each other? and (3) Can construct validity be established?

We should emphasize that while KKM have been quick to point out that their indicators of government effectiveness necessarily contain measurement error, this is not our principal worry. While random error in measurement is problematic, it is tractable. Indeed, with respect to this type of problem their aggregated measures are clearly state-of-the-art. Our concern is with potentially *systematic* errors that may result from selection problems, perceptual biases, and survey design and aggregation. While KKM have made much progress, we worry that the study of governance may to some extent still be characterized by what Klitgaard, Fedderke, and Akramov call "an explosion of measures, with little progress toward theoretical clarity or practical utility" (2005, 414).

*Reliability*. We begin by examining the stability of KKM's measure of government effectiveness across time. It has long been conceptually established that quality of governance is a feature of public administration that tends to change only very gradually over time. Indeed, Acemoglu, Johnson, and Robinson (2001) go so far as to suggest that differences in the quality of governance at the dawn of colonization between the sixteenth and nineteenth centuries are quite well associated with the character of contemporary political institutions. Evans and Rauch (1999) are comfortable with the far less heroic assumption that the quality of bureaucratic structures is effectively constant over periods of at least 20 years in length. By this standard, we propose a simple test: Do the measures of government effectiveness correlate with each other across the four observations available in the 1996–2004 period?

If the assumption that the underlying quality of public administration is constant over short periods of time is reasonable, then the Kaufmann data are effectively repeated observations of the same concept. That being the case, if the measure is reliable we would expect these repeated observations to be very highly correlated with each other. The results (available from the authors) show strong cross-temporal correlation—as would be expected of measures of a concept usually thought to be constant over short periods. The bivariate correlations vary in strength from .902 to .965. This gives us a sense that the KKM measures are picking up a consistent underlying concept. But is it governance?

*Validity*. This does not yet, however, address the validity of the concept—is "government effectiveness" really capturing (just) the quality of the public administration? To begin to assess whether in fact this is the

case, we examine whether this measure correlates with the next most widely employed indicator of bureaucratic quality, Transparency International's (TI) Corruption Perceptions Index. Data from 2000 are employed as earlier TI datasets are confined to a relatively smaller and disproportionately wealthy subset of countries, naturally overrepresenting cases at one end of the governance spectrum. That said, the TI data still cover fewer than half the number of countries available in the KKM dataset. Despite this, the measures are quite strongly correlated ($r = .922$). Similarly, the "country risk" measures from the International Country Risk Guide, another widely employed proxy for the quality of governance, is also quite strongly correlated with KKM's government effectiveness measure ($r = .821$ for the four periods). While these results are certainly comforting with respect to the validity of the KKM measure, they are far from definitive. All these measures are liable to suffer shared biases as a consequence of their underlying methodological similarities—a reliance on firm, investor, and/or citizen surveys and a conflation of indicators of policy choice and governance quality.

The results are far less felicitous, however, when compared with another measure of government effectiveness that is not constructed through the reliance on citizen or investor surveys. Evans and Rauch (1999; [ER]) have produced a strictly institutional measure of bureaucratic quality, which they call "Weberianness," for 35 middle- and lower-income countries in the mid-1990s. For us, the key difference is that the ER measures are not obviously subject to either contamination with indicators of policy choice or biases introduced by the perceptions or preferences of citizens or investors. The timing of their measures is also essentially the same as (especially the earlier) KKM measurements. The correlation between the ER and KKM measures ranges from .587 to .649. This is at best a modest relationship (given that they should be measures of the same concept), and it is consistent with our worry that the KKM measures, while capturing aspects of government effectiveness, are probably *also* capturing biases induced by the simultaneous incorporation of policy indicators and the misperceptions of the (potentially biased) survey respondents on whom they rely.

We proceed, however, using KKM's government effectiveness measure instead of either alternative. In addition to its greater popularity and growing policy relevance, it has two principal strengths that commend its use: it displays reasonable reliability and has much broader coverage, avoiding sample selection problems at the country-level. Such problems would loom large were the smaller and nonrandom TI or Evans and Rauch data sets used.

Our next task is to examine the convergent and discriminant validity of the KKM measure. Fortunately we have strong theoretical expectations we can use to structure this assessment. First, almost all analysts would expect government effectiveness and the level of development to be strongly correlated (though the direction of causality would be in dispute). Second, it is widely expected that levels of education prevailing in the adult population and the quality of the bureaucracy would be positively related (Rodrik 1994). Finally, we examine whether the size of the population is related to the quality of governance, controlling for wealth and education. This follows from the argument that, all else equal, larger societies are more complex and in principle more difficult to administer (Xin and Rudel 2004). These hypotheses, then, provide standards against which convergent validity can be assessed. By contrast, since most analysts consider governance quality to be substantially constant over relatively short periods of time (e.g., 20 years or less), we would have a strong prior for discriminant validity: government effectiveness should *not* vary with the rate of recent (antecedent) economic growth. Indeed, to the extent that it does, it is possible that perception-bias tied to economic performance is corrupting the measure of governance, or growth itself is improving governance even in the very short term.

Table 1 presents the results of a series of tests of both convergent and discriminant validity. In Models I through IV each biannual observation in the KKM data set is examined separately. Because the data are normalized to mean zero, standard deviation one on an annual basis, the year-to-year changes in governance score are not, in the strictest sense, directly interpretable, though they are clearly appropriate for cross-sectional analysis. Nevertheless, we include a pooled model for comparative purposes—as KKM (2005, 2) point out that there is no discernable year-to-year trend in the governance averages.[13] In all models

we find, as expected, a strong positive relationship between wealth and governance. Regardless of the model estimated, GDP/capita maintains a substantively and statistically important relationship to government effectiveness. But this is not the case with the

[13]Strictly speaking this is still not appropriate, since the data were not only mean centered but also set to a standard deviation of one for each year. To be perfectly valid one would have to assume that the original data in question were distributed similarly across each of the years.

**TABLE 1 Convergent and Discriminant Validity: How Well Does "Government Effectiveness" Measure the Effectiveness of Government?**

| Dependent Variable: | I Government Effectiveness, 1996 | II Government Effectiveness, 1998 | III Government Effectiveness, 2000 | IV Government Effectiveness, 2002 | V Random Effects Pooled Analysis, 1996–2002 |
|---|---|---|---|---|---|
| GDP per capita | .111*** | .097*** | .081*** | .081*** | .073*** |
| | (.008) | (.009) | (.008) | (.008) | (.009) |
| Education | .010 | .018 | .018 | .045 | .075*** |
| | (.023) | (.024) | (.024) | (.025) | (.027) |
| GDP growth rate$_{(t-1,\ t-2)}$ | .063*** | .072*** | .068*** | .046** | .031*** |
| | (.014) | (.019) | (.013) | (.022) | (.007) |
| log (population) | −.031 | −.044* | −.016 | −.033 | −.033 |
| | (.024) | (.026) | (.025) | (.027) | (.022) |
| Constant | −.359 | −.170 | −.498 | −.437 | −.490 |
| | (.392) | (.422) | (.431) | (.465) | (.383) |
| Year 1996 | | | | | .181*** |
| | | | | | (.039) |
| Year 1998 | | | | | .151*** |
| | | | | | (.037) |
| Year 2000 | | | | | .082*** |
| | | | | | (.026) |
| N | 104 | 105 | 105 | 104 | 418 |
| $R^2$ | .87 | .80 | .81 | .84 | .81 |

*Notes:* GDP/capita expressed as thousands of U.S. dollars at purchasing power parity for the year in question. Education is measured as the average number of years of schooling in the over-15 population in 1990 (last year available). GDP growth rate is the two-year average rate of GDP per capita growth, for the two years prior to the measurement of government effectiveness.
*Sources:* GDP/capita, population, and growth rates from World Bank (2005); Education from Barro and Lee (1996). Government Effectiveness from KKM (2005). For details, see the appendix (available online at http://www.journalofpolitics.org).
***$p < .01$; **$p < .05$; *$p < .10$.

educational attainment in the population. Here, while all the parameter estimates are appropriately signed, none achieves statistical significance, save for the pooled model (V).[14] While this limited relationship is a cause for concern, it is certainly not a definitive test of the validity of the government effectiveness measure. Population educational attainment is measured approximately a decade before the KKM governance data, the latest time period available. All else equal, a larger population also seems related to a lower governance score, though again these parameter estimates do not achieve even minimal statistical significance except in one case (Model II).

The test of discriminant validity is more troubling. If perception bias is a real problem in survey-based measures of bureaucratic quality, then we should see a strong relationship between *antecedent* economic performance and the governance quality measure. If on the other hand the KKM measure does effectively capture the fairly stable underlying quality of the public administration, this should be largely unaffected by short-term fluctuations in growth—the quality of governance should, after all, not simply follow the business cycle. Here the results are quite troubling. Across all of the models (I–V), antecedent economic growth (the average of the two years prior to the governance measure) is a strong predictor of government effectiveness. It seems that either economic performance induces biases in perceived governance quality, or we must believe that growth almost instantaneously induces improvements in governance. Whether this is really the case depends in part on whether one believes that economic improvements can be translated into institutional improvements in the very short run. As a whole these results raise the unfortunate possibility that while the KKM governance measure partially captures the underlying concept, at the same time it may also be substantially contaminated by respondents' perceptions of immediate economic conditions or biases that are products of sample selection.

## Does Good Government Cause Growth?

Recent scholarship has emphasized the importance of good governance for economic performance. Mauro has gone so far as to declare that "a consensus seems to have emerged that corruption and other aspects of poor governance and weak institutions have substantial, adverse effects on economic growth" (2004, 1). More typical are efforts like those of Kaufmann (2003–2004) and Kaufmann and Kraay (2002) to explore the causal linkage between good governance and growth. These approaches have, however, been almost entirely cross-sectional in nature, utilizing either simple OLS or instrumental variables approaches. Kaufmann and Kraay (2002, 22) depart from this somewhat, by introducing a novel simultaneous equations model to assess the direction of the causal relationship, relying on a series of assumptions about nonsample information to achieve identification. Neither the instrumental variables nor simultaneous equations approaches are entirely satisfying as there is much disagreement as to whether appropriate instruments exist (see Durlauf, Johnson, and Temple 2005; Frankel et al. 2003; Glaeser et al. 2004), and the assumptions about measurement error necessary for the identification of the simultaneous equations model are implausible in the face of the biases discussed here.

We suggest a simple alternative. While Kaufmann's measure has been shown to have statistical power in cross-sectional research (Kaufmann, Kraay, and Zoido-Lobatón 1999), the true test of his theory must be longitudinal (Lieberson 1985). Only then can we be confident that the survey responses used in the construction of the measures were uninfluenced, for example, by the recent growth history of the country in question. And if a measure of state capacity is to be useful, it must be because it can help tell us whether we can expect, ceteris paribus, *future* growth in that country. But can the Kaufmann measures predict *future* growth?

The Kaufmann data set is of very recent vintage, and it therefore circumscribes our ability to carry out all but the most rudimentary of analyses. Five separate iterations of this indicator have been produced, biannually between 1996 and 2004. Since we are interested in predictive power, the last two sets of measures are not helpful, for enough data on cross-national growth rates are not available after 2003. We saw above that antecedent growth was quite predictive of scores on the quality of government measure. But if it is useful for policy purposes, the KKM measure must itself predict future growth (the two years after the taking of the KKM measure). In Table 2 we examine the relationship between government effectiveness and future growth in a very simplified model. Each model also controls for the level of economic development, as it is usually hypothesized that wealthier countries are not capable of as rapid rates of growth as the less developed—and thus omission of this variable might

[14]It might be that this is because GDP/capita and years of schooling in the adult (over age 15) population are strongly related. The correlation between these two variables is r = .75.

**TABLE 2 Does Government Effectiveness Predict Subsequent Growth?**

| Dependent Variable: GDP/capita growth | I 1996 | II 1998 | III 2000 |
|---|---|---|---|
| GDP/capita | .082 | .086 | −.023 |
| | (.149) | (.074) | (.048) |
| Government | −.337 | .005 | −.118 |
| Effectiveness | (1.436) | (.777) | (.608) |
| Constant | 1.473* | 1.474*** | 1.819*** |
| | (.856) | (.502) | (.418) |
| N | 163 | 164 | 163 |
| $R^2$ | .006 | .04 | .007 |

*Source:* GDP/capita and growth rates from World Bank (2005). Government Effectiveness from KKM (2005).
***$p < .01$; **$p < .05$; *$p < .10$.

lead to a spurious (negative) association between government effectiveness and growth since the former is so tightly correlated with wealth. None of the panels provides support for the hypothesis that governance is a useful predictor of *future* economic growth, at least with the limited two-year time horizon that we employ. Indeed, no relationship at all appears in the data. In the online appendix, to check for robustness, we also estimate a series of alternative basic models, which in no case produce a positive or significant association between government effectiveness and subsequent growth.

Still, this is only a very preliminary examination. It is well known that economic growth responds to a series of other factors, whose omission could be affecting the results we present. Investment levels and the human capital stock are, after all, quite likely to be correlated with the quality of public administration. Our measure of the former is the level of investment (gross fixed capital formation) relative to GDP in the antecedent year, while human capital is measured as the average years of schooling in the adult (over age 15) population in 1990.[15] In addition, controls for the logarithm of the inflation rate in the antecedent year are included to capture the effects of short-term crises on growth rates.[16] Regional dummy variables are also included in models I to III to try to capture the effects of unmeasured regional heterogeneity. In model IV we present a pooled analysis, which vastly increases our analytic leverage. This permits us to use country and year dummy variables to account for underlying national characteristics and time-bound international shocks that affect growth performance.

Table 3 presents the results of this analysis, which at first blush suggest that government effectiveness bears at best an uncertain relationship to subsequent levels of economic growth. Only for model II is the coefficient substantively fairly large and statistically significant at conventional levels. In model I, government effectiveness retains a positive relationship to subsequent growth, but its estimated effect is not statistically significant. In model III, the estimate falls far short of conventional statistical significance. The pooled model is the most troubling, however, for proponents of the governance-growth linkage. Here, the only model in which country-specific effects can be controlled—which is crucial as countries are well-known to have distinct underlying long-term "normal" growth rates that reflect their specific individual institutional and political conditions—in fact produces a *negative* (but insignificant) coefficient on the estimate of the relationship between governance and growth.

Since the government effectiveness measure is normalized to a mean of zero and a standard deviation of one, the effect estimate can be understood as the increase in the two-year average growth rate for a standard deviation increase in this indicator. The level of wealth has the conventional negative relationship with growth rates—it is widely assumed that poorer economies are able to grow at higher rates than wealthier ones. Neither investment levels nor human capital (education) have a consistent relationship to short-term growth in most of these models, though this may simply reflect collinearity problems as they are usually correlated with each other and the level of economic development.[17] Finally, crisis, at least as signaled by inflation, also does not have a statistically significant relationship to growth. This, however, may simply be an artifact of the tendency for reductions in growth to come as a consequence of stabilization efforts, not inflation per se.

[15]This is the last year for which data are available. Alternative measures are more problematic. Literacy rates suffer ceiling effects and enrollment rates measure *potential* human capital.

[16]The inflation rate is maldistributed on the right-hand side—using it would render a few hyper-inflationary cases far too important in the estimation. Logarithms of inflation rates that are occasionally negative, or positive but close to zero, are also problematic as the former are undefined and the latter will produce very large negative numbers. We therefore recode inflation rates less than 1% as 1%, so that their logarithm would be zero.

[17]As a robustness check, the pooled model was reestimated three times, serially removing either controls for gdp/capita, investment, or education in order to make sure that the coefficient on government effectiveness was unaffected by collinearity. In no case did doing so render the government effectiveness coefficient statistically significant, nor did its sign change to match conventional expectations.

**TABLE 3 Government Effectiveness in a Basic Growth Model (Dependent Variable: Average Rate of Growth of GDP/Capita Over the Two Years Subsequent to the Measurement of Government Effectiveness)**

| | I<br>1996 | II<br>1998 | III<br>2000 | IV<br>Pooled Model |
|---|---|---|---|---|
| GDP/capita | −.166* | −.151** | −.211*** | −.653*** |
| | (.098) | (.065) | (.062) | (.234) |
| Government Effectiveness | 1.372 | 1.133** | .583 | −.516 |
| | (.829) | (.534) | (.519) | (1.429) |
| Investment | −.053 | .132*** | .153*** | −.173** |
| | (.051) | (.048) | (.053) | (.085) |
| Education | .017 | .080 | .216 | N/A |
| | (.220) | (.176) | (.159) | |
| Log (inflation) | −.567 | −.295 | −.176 | .101 |
| | (.403) | (.281) | (.305) | (.561) |
| Africa | −1.687 | −2.386** | −2.185 | |
| | (1.549) | (1.151) | (1.289) | |
| Latin America | −.076 | −3.843*** | −4.595*** | |
| | (1.359) | (1.075) | (1.309) | |
| Asia & Oceania | −2.836*** | −.859 | −2.181** | |
| | (1.074) | (1.081) | (1.028) | |
| Europe | −.321 | −.895 | −.407 | |
| | (.823) | (.568) | (.580) | |
| Middle East | −1.433 | −3.378*** | −2.810** | |
| | (1.375) | (1.263) | (1.220) | |
| Year 1996 | | | | −.387 |
| | | | | (.799) |
| Year 1998 | | | | .466 |
| | | | | (.519) |
| Country Fixed Effects | | | | [suppressed] |
| Constant | 5.970*** | 2.355 | 1.203 | −13.725* |
| | (2.079) | (1.758) | (1.879) | (7.035) |
| N | 105 | 103 | 103 | 311 |
| $R^2$ | .187 | .402 | .341 | .601 |

*Notes:* Pooled model estimated with robust standard errors, assuming clustering by country. Estimated in Stata 9 using the xtreg command. Model IV is effectively a fixed effects regression, and when estimated thusly the coefficient estimates are identical, save Schooling which is omitted as constant within all units. Similarly, an estimation of Model IV as in the table omitting the schooling variable results in an even more negative (but still insignificant) estimate of the effect of government effectiveness on future growth. The coefficient on education is suppressed as it is not time-varying, and thus not meaningful in what is effectively a fixed-effects specification.
*Sources:* GDP/capita at ppp, inflation, and investment (gross fixed capital formation as a share of GDP) and growth rates from World Bank (2005). Education from Barro and Lee (1996). Government Effectiveness from KKM (2005). Inflation rates less than 1% recoded to equal 1% before taking the logarithm.
***$p < .01$; **$p < .05$; *$p < .10$.

This is not, however, sufficient to sustain the oft-asserted notion that growth and governance are linked in a reciprocal and self-reinforcing relationship. The problem is that, as we saw in Table 1, governance is very tightly correlated to antecedent economic growth rates, which raises real questions as to whether perception biases are contaminating the measure. It is also well known that growth rates are serially correlated—the unmeasured factors making growth rates especially high (or low) in a particular year are likely to persist into subsequent periods. As a consequence, a more valid test of the linkage between governance and growth would try to control out that portion of the governance measure that is really due to a correlation with preceding rates of growth, and leave us with a much purer measure of institutional capacity.

In Table 4 we present the results of an analysis that attempts to do precisely this. Here we replicate the analysis of Table 4, but include an additional control

**TABLE 4 Government Effectiveness and Growth, Controlling for Inertial Effects (Dependent Variable: Average Rate of Growth of GDP/Capita Over the Two Years Subsequent to Measurement of Government Effectiveness)**

| | I 1996 | II 1998 | III 2000 | IV Pooled Model |
|---|---|---|---|---|
| GDP/capita | −.044 | −.135* | −.152** | −.687*** |
| | (.123) | (.068) | (.061) | (.241) |
| Government Effectiveness | .535 | .932 | −.179 | −.784 |
| | (1.066) | (.584) | (.521) | (1.504) |
| Investment | −.081* | .092 | .130*** | −.182* |
| | (.042) | (.058) | (.041) | (.094) |
| Education | −.021 | .105 | .246* | N/A |
| | (.227) | (.178) | (.137) | |
| Lagged GDP/capita growth (t-1, t-2) | .274* | .168 | .323*** | .058 |
| | (.161) | (.163) | (.087) | (.132) |
| Log (inflation) | −.472 | −.282 | −.098 | .088 |
| | (.391) | (.301) | (.316) | (.564) |
| Africa | −.431 | −2.337* | −1.180 | |
| | (1.465) | (1.120) | (1.295) | |
| Latin America | .707 | −3.700*** | −3.549*** | |
| | (1.312) | (1.178) | (1.278) | |
| Asia & Oceania | −2.071** | −.742 | −.943 | |
| | (1.030) | (1.130) | (.984) | |
| Europe | −.014 | −.744 | .012 | |
| | (.737) | (.618) | (.544) | |
| Middle East | −.221 | −2.942** | −1.653 | |
| | (1.408) | (1.305) | (1.258) | |
| Year 1996 | | | | −.499 |
| | | | | (.807) |
| Year 1998 | | | | .391 |
| | | | | (.506) |
| Country Fixed Effects | | | | [suppressed] |
| Constant | 4.180* | 2.426 | .333 | −14.205** |
| | (2.388) | (1.768) | (1.857) | (6.954) |
| N | 104 | 103 | 103 | 310 |
| $R^2$ | .234 | .419 | .435 | .603 |

*Sources and Notes:* see Table 3. Model IV was subjected to the same robustness checks as in Table 3.
***$p < .01$; **$p < .05$; *$p < .10$.

for antecedent rates of economic growth.[18] In no case is the coefficient on this variable close enough to unity to signal problems. Indeed, from the perspective of our argument, this is a conservative specification, as we are not simply incorporating the immediate lag of the dependent variable, but rather an average of the two periods that antedate it by a year. The results reinforce the doubts generated by the analysis in Table 3. Once inertial effects of growth are controlled for, government effectiveness is in no instance related to subsequent rates of economic growth. Moreover, in two of the models—III and IV—the sign of the estimate is indeed negative (though insignificant). The controls for wealth, human capital, and investment behave much as in Table 3.

Where does this leave us? We are still far from a definitive statement as to the relationship between good governance and growth. That said, several principal findings are apparent. First, it is likely that the KKM governance measure, while capturing important

[18]Antecedent growth is the average of the two years prior to the time of the government effectiveness measure. The dependent variable refers to the average of the two years *after* the taking of the government effectiveness measure. A gap of a year helps reduce the potential for bias that can be introduced by including a lagged dependent variable—the temporal separation helps to reduce the likelihood that this included variable is correlated with the error term.

aspects of the institutional quality of the public bureaucracy, is also contaminated by perception and/or selection biases. The strong linkage between reported government effectiveness and antecedent rates of economic growth suggests that respondents may, at least in part, be basing their assessments on this performance criterion rather than on the much more stable underlying features of the institutional organization of the state. This is critical to the measure insofar as these surveys form a component of KKM's index.

Second, insofar as the KKM measure is valid, we find only tepid support for the notion that improvements in governance lead directly to improvements in the short-run rate of growth. This is not to say that malgovernance is a good thing—nowhere do we find meaningful evidence that lower government effectiveness predicts higher rates of growth. But it does undermine the notion that improvements in public administration alone will improve *subsequent* economic performance. It is quite possible that other analyses that have found a strong such link do so because they are cross-sectional in design. In that context, the perception bias partly embedded in the measure of government effectiveness is likely to create a spurious correlation with growth rates. Our longitudinal analysis, while hardly sufficient to establish the appropriate causal direction, does cast doubt on the "virtuous cycle" assumption that is prevalent in the literature.[19] It also raises the possibility that economic performance can be improved even in malgoverned polities if "growth oriented" economic policies are implemented—even if they are "leaky" in terms of resource diversion. This may be because the economic losses entailed by malgovernance are not catastrophic relative to the gains to be had from policy improvement or because growth itself subsequently leads to the improvement of the public administration, providing in essence an intertemporal positive externality. If anything, it raises red flags about the current effort to condition international aid on the quality of governance.

## Where Do We Go From Here?

This paper departed from two simple questions: Does good governance cause growth? Does growth improve governance? We also raised but did not explore the possibility that the widely heralded cross-sectional correlation between growth and governance is a largely spurious result brought about by underlying factors that promote, independently, both state building and economic development.

Lest the reader think we're attacking a straw man, note the growing academic and popular sense that "bad government is the single most important cause of failure" in the developing world (Wolf 2005; see also Castañeda 2003). Some observers go so far as to portray good government as a "necessary" precondition of economic development (see, e.g., M'Dhaffar quoted in Kim et al. 2005). And almost all parties acknowledge and underscore the centrality of governance to development (Francis 2003). "There has been a sea change in the past seven or eight years in awareness of the issue," suggests Kaufmann (quoted in Francis 2003, 16), and his readily available indicators are at least partially responsible. "Economists can now prove the enormous cost of corruption," writes David Francis of the Christian Science Monitor, and disseminate their findings over the Internet. "The World Bank site on corruption gets some 500,000 visitors a month," he concludes, "half from developing countries" (Francis 2003, 16).

Our results suggest that the data and conclusions found on the World Bank site—at least with respect to government effectiveness—are at best partial and at worst misleading, however, for we are at the beginning—rather than the end—of our efforts to unpack the complicated relationship between growth and governance. As a next step, we believe, we need better measures of governance, particularly ones that feature a much wider historical sweep and do not rely on surveys that embed perceptual and policy biases. Since many consider the effects of governance to be perceptible only over the relatively long term, it behooves us to find direct measures of governance that can be found for long historical periods. This would allow us to avoid either the assumption that institutional quality (or the global hierarchy of the same) is relatively constant over centuries (Acemoglu, Johnson, and Robinson 2001) or to project backwards over decades the results of contemporary analyses (Evans and Rauch 1999).

The literature on "democratization" provides a model. The Polity IV data set maintained by Marshall and Jaggers at the University of Maryland relies upon neither an overly broad definition of democracy nor a biased sample of respondents but instead employs disinterested expert evaluations of the narrowly institutional features of political regimes. It extends

[19]This is an enormously complicated task. Unless suitable instruments can be found—and the task has so far proven difficult indeed—we must rely on alternative approaches that are at best suggestive. Our approach has been to use a longitudinal analysis to try to gain some leverage on the direction of the causal processes. It is necessarily only a first step.

backward to 1800, includes annual observations, and is updated continuously. If academics and policymakers really believe that the impact of good governance is as profound as their scholarship and policy choices suggest, and are willing to put their increasingly consequential beliefs to the test, an equally comprehensive data collection effort would appear to be more than worthy of national or international support.[20]

The second step is to take seriously the underlying social and political dynamics that could potentially explain away the assumed causal connection between growth and governance. This is fertile but comparatively unplowed terrain. But the disjuncture between long-standing approaches to the understanding of state building—that have emphasized structural features of the economy or the international system such as resource wealth or strategic conflict—and studies of governance that have assumed that the improvement of public administration is largely a function of easily changed legal structures begs questions we must answer. Similarly, in the qualitative literature on East Asian development, which almost always emphasizes state capacity and "market governance" as key predictors of world-beating growth rates, underlying structural factors are often mentioned but not systematically explored. It is usually noted that these societies have unusually high levels of educational attainment, unusual social equality, or have radically transformed agrarian social structure and property rights—oftentimes *prior* to building administrative capacity.[21] But all of these factors could quite plausibly be directly related both to economic development and the building of strong states. Equally suggestive are the variations in the quality of governance and level of development even within a single polity. Consider the United States—effective governance and higher levels of development map quite directly onto long-run structural features of our society and economy. Why, for example, is the former plantation South persistently underdeveloped and malgoverned relative to the North and Midwest where more egalitarian distributions of property and an absence of chattel slavery prevailed (Schrank 2004)?

The balance of the evidence available to date leaves us with two imperfect conclusions. Either we cannot reasonably conclude that improvements in governance produce meaningful increases in the rate of economic growth, or the absence of such an observed connection implies that our conceptualization and measurement of governance is as of yet quite imperfect. We remain agnostic as to which (or perhaps both?) is true, but have sought to make the case that the oft-asserted connection between growth and governance lies on exceedingly shaky empirical pilings. At the same time, potentially flawed indicators of governance quality are being utilized by policy makers to condition development aid and shape development efforts. But until we know more about what is (and is not) malgovernance, and the process by which it can be cured, such conditionality may do more harm than good.

[20]Evans and Rauch have made a noble effort by devising an institutional measure of administrative capacity in low to middle income countries in the mid-1990s. But funding limitations restricted their effort to 35 countries and a single time point and to therefore regress *prior* growth rates on *current* administrative capacity under the explicit assumption that the latter variable is sticky over time. It is telling in this regard that the bivariate correlation between their more narrowly institutional measure of "Weberianness" and the measure we have examined (KKM) is about .6 for the 35 available countries—and that the relationship between the Evans and Rauch measure and *subsequent* growth rates is nonetheless insignificant. While we believe that a more comprehensive version of the ER measurement strategy would be more fruitful than the KKM approach, we are by no means convinced that it would reveal a causal relationship leading from governance to growth. Again: the opposite may in fact be the case.

[21]Nor is it obvious that radical social reform requires East Asian-style bureaucracy to be effective. See, e.g., Turits (2003) for a fascinating account of successful land reform under the patrimonial Trujillo regime in the Dominican Republic.

## Acknowledgments

We would like to thank Sarah Brooks, Jonathan Hopkin, Luke Keele, Cheol-Sung Lee, Kenneth Shadlen, the participants in The Ohio State University comparative politics research workshop, and panelists and audience members at the 2004 annual meeting of the American Political Science Association for their comments and advice.

*Manuscript submitted 7 October 2005*
*Manuscript accepted for publication 6 May 2006*

## References

Acemoglu, Daron, Simon Johnson, and James Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *The American Economic Review* 91 (5): 1369–401.

Amsden, Alice. 2001. *The Rise of "the Rest": Challenges to the West from Late-Industrializing Economies*. Oxford: Oxford University Press.

Barro, Robert J., and Jon Wha Lee. 1996. "International Measures of Schooling Years and Schooling Quality." *The American Economic Review* 82 (2): 218–23.

Becker, Gary. 1995. "If You Want to Cut Corruption, Cut Government." *Business Week*, December 11.

Brautigam, Deborah. 1992. "Governance, Economy, and Foreign Aid." *Studies in Comparative International Development* 27 (3): 3–26.

Business Environment Risk Intelligence. http://www.beri.com (May 1, 2006).

Caselli, Francesco, and Massimo Morelli. 2003. "Bad Politicians." *Journal of Public Economics* 88: 759–82.

Castañeda, Jorge. 2003. "The Forgotten Relationship." *Foreign Affairs* 82 (3): 67–81.

Chong, Alberto, and César Calderón. 2000. "Causality and Feedback between Institutional Measures and Economic Growth." *Economics and Politics* 12 (1): 69–81.

Durlauf, Steven, Paul Johnson, and Jonathan Temple. 2005. "Growth Econometrics." In *Handbook of Economic Growth*, eds. Philippe Aghion and Steven Durlauf. Amsterdam: Elsevier, pp. 555–677.

*Economist*. 2005. "A Choosier Approach to Aid." April 23.

Evans, Peter, and James Rauch. 1999. "Bureaucracy and Growth: A Cross-National Analysis of the Effects of "Weberian" State Structures on Economic Growth." *American Sociological Review* 64 (5): 748–65.

Francis, David. 2003. "Why Fighting Corruption Helps the Poor." *Christian Science Monitor*, 13 November.

Frankel, Jeffrey, Nancy Birdsall, Jeffrey Sachs, and Guillermo Ortiz. 2003. "Panel Discussion—Promoting Better National Institutions: The Role of the IMF." *IMF Staff Papers* 50: 21–40.

Friedman, Eric, Simon Johnson, Daniel Kaufmann, and Pablo Zoido-Lobatón. 2000. "Dodging the Grabbing Hand: The Determinants of Unofficial Activity in 69 Countries." *Journal of Public Economics* 77 (3): 459–93.

Geddes, Barbara. 1994. *Politician's Dilemma: Building State Capacity in Latin America* Berkeley: University of California Press.

Gerring, John, and Strom Thacker. 2004. "Political Institutions and Corruption: The Role of Unitarism and Parliamentarism." *British Journal of Political Science* 34 (2): 295–330.

Glaeser, Edward, and Andrei Shleifer. 2001. "The Rise of the Regulatory State." *NBER Working Paper No. 8650*: 1–39.

Glaeser, Edward, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2004. "Do Institutions Cause Growth?" *National Bureau of Economic Research Working Paper*. No. 10568: 1–54.

Gupta, Sanjeev, Hamid Davoodi, and Rosa Alonso-Terme. 1998. "Does Corruption Affect Income Inequality and Poverty?" *IMF Working Papers 98/76*. Washington: IMF.

Hopkin, Jonathan. 2002. "States, Markets and Corruption: A Review of Some Recent Literature." *Review of International Political Economy* 9 (3): 574–90.

Huntington, Samuel. 1968. *Political Order in Changing Societies*. New Haven: Yale University Press.

Jomo, K. S. 2000. "Economic Considerations for a Renewed Nationalism." *Journal of Contemporary Asia* 30 (3): 338–69.

Kang, David. 2002. *Crony Capitalism: Corruption and Development in South Korea and the Philippines*. Cambridge: Cambridge University Press.

Kaufmann, Daniel. 2003–2004. "Governance Redux: The Empirical Challenge" *Global Competitiveness Report*. Geneva: World Economic Forum.

Kaufmann, Daniel. 2005. "10 Myths about Governance and Corruption." *Finance and Development* 42 (3): 41–3.

Kaufmann, Daniel, and Aart Kraay. 2002. "Growth without Governance." *Economía* 3 (1): 169–215.

Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi. 2003. "Governance Matters III: Governance Indicators for 1996–2002." Typescript. World Bank.

Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi. 2005. "Governance Matters IV: Governance Indicators for 1996–2004." *World Bank Policy Research Paper*. No. 3630: 1–60. Associated online data set available at: http://www.worldbank.org/wbi/governance/govdata/ (May 1, 2006).

Kaufmann, Daniel, Aart Kraay, and Pablo Zoido-Lobatón. 1999. "Governance Matters." *World Bank Policy Research Working Paper*. No. 2196: 1–61.

Kaufmann, Daniel, and Shang-Jin Wei. 1999. "Does 'Grease Money' Speed up the Wheels of Commerce?" *NBER Working Papers*. No. 7093: 1–29.

Kim, Pan Suk, John Halligan, Namshin Cho, Cheol H. Oh, and Angela Eikenberry. 2005. "Toward Participatory and Transparent Governance: Report on the Sixth Global Forum on Reinventing Government." *Public Administration Review* 65 (6): 646–54.

Klitgaard, Robert, Johannes Fedderke, and Kamil Akramov. 2005. "Choosing and Using Performance Criteria." In *High Performance Government: Structure, Leadership, Incentives*, eds. Robert Klitgaard and Paul Light. Santa Monica, CA: RAND Corporation.

Krueger, Anne. 1974. "The Political Economy of the Rent-Seeking Society." *The American Economic Review* 64 (3): 291–303.

Lambsdorff, Johann. 2001. *Framework Document: Background Paper to the 2001 Corruption Perceptions Index*. Göttingen, Germany: Göttingen University and Transparency International.

Leff, Nathaniel. 1964. "Economic Development through Bureaucratic Corruption." *American Behavioral Scientist* 8 (2): 8–14.

Lieberson, Stanley. 1985. *Making It Count: The Improvement of Social Research and Theory*. Berkeley: University of California Press.

Lui, Francis. 1985. "An Equilibrium Model of Queuing and Bribery." *Journal of Political Economy* 95 (4): 760–81.

Mauro, Paolo. 2004. "The Persistence of Corruption and Slow Economic Growth." *IMF Staff Papers* 51: 1.

Mauro, Paolo. 1995. "Corruption and Growth." *Quarterly Journal of Economics* 110 (3): 681–712.

Radelet, Steven. 2002. "Qualifying for the Millennium Challenge Account." Typescript. Center for Global Development.

Radelet, Steven. 2003. "Bush and Foreign Aid." *Foreign Affairs* 82 (5): 104–17.

Rashid, Salim. 1981. "Public Utilities in Egalitarian LDC's: The Role of Bribery in Achieving Pareto Efficiency." *Kyklos* 34, Fasc. 3: 448–60.

Reynolds, Lloyd. 1983. "The Spread of Economic Growth to the Third World: 1850–1980." *Journal of Economic Literature* 21 (3): 941–80.

Riedel, James. 1988. "Economic Development in East Asia: Doing What Comes Naturally?" In *Achieving Industrialisation in Asia*, ed. Helen Hughes. Cambridge: Cambridge University Press, pp. 1–38.

Ritzen, Jo, William Easterly, and Michael Woolcock. 2000. "On 'Good' Politicians and 'Bad' Policies: Social Cohesion, Institutions, and Growth." *World Bank Policy Research Working Paper No. 2448*.

Rodrik, Dani. 1994. "King Kong Meets Godzilla: The World Bank and the East Asian Miracle." In *Miracle or Design? Lessons from the East Asian Experience*, ed. Albert Fishlow. Washington, DC: Overseas Development Council.

Rodrik, Dani. 2005. "Why We Learn Nothing from Regressing Economic Growth on Policies." Typescript.

Rose-Ackerman, Susan. 1999. *Corruption and Government: Causes, Consequences, and Reform*. Cambridge: Cambridge University Press.

Schrank, Andrew. 2004. "Reconsidering the Resource Curse: Selection Bias, Measurement Error, and Omitted Variables." Presented at the annual meeting of the American Political Science Association.

Seligson, Mitchell. 2002. "The Impact of Corruption on Regime Legitimacy: A Comparative Study of Four Latin American Countries." *Journal of Politics* 64 (2): 408–33.

Seligson, Mitchell. 2006. "The Measurement and Impact of Corruption Victimization: Survey Evidence from Latin America." *World Development* 34 (2): 381–404.

Shleifer, Andrei, and Robert Vishny. 1993. "Corruption." *Quarterly Journal of Economics* 108 (3): 599–617.

Stern, Nicholas. 1989. "The Economics of Development: A Survey." *Economic Journal* 99 (397): 597–685.

Sweeney, Paul. 1999. "The World Bank Battles the Cancer of Corruption." *Global Finance* 13 (10): 110–14.

Transparency International. 2004. http://www.transparency.org (May 1, 2006).

Turits, Richard. 2003. *Foundations of Despotism: Peasants, the Trujillo Regime, and Modernity in Dominican History*. Stanford, CA: Stanford University Press.

Wade, Robert. 1990. *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization*. Princeton: Princeton University Press.

Weingast, Barry. 1995. "The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development." *Journal of Law, Economics, and Organization* 11 (1): 1–31.

Wolf, Martin. 2005. "Aid Is Well Worth Trying." *Financial Times*. 5 July.

World Bank. 1993. *The East Asian Miracle: Economic Growth and Public Policy*. Oxford: Oxford University Press for the World Bank.

World Bank. 2005. *World Development Indicators* CD/ROM. Washington D.C.: World Bank.

World Economic Forum. 2004. *Global Competitiveness Report*. Geneva: World Economic Forum. Also at http://www.weforum.org/en/initiatives/gcp/index.htm (December 1, 2006).

Xin, Xiaohui, and Thomas K. Rudel. 2004. "The Context for Political Corruption: A Cross-National Analysis." *Social Science Quarterly* 85 (2): 294–309.

Marcus J. Kurtz is associate professor of political science, The Ohio State University, Columbus, OH 43210. Andrew Schrank is assistant professor of sociology, University of New Mexico, Albuquerque, NM 87131-0001.