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How governance affected progress on the Millennium Development Goals: A quantitative analysis

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Eric Zusman
1 Introduction

In recent years, the international development community has proposed a range of reasons why good governance contributes to socioeconomic development. Multilateral banks endorse good governance agendas to improve contract enforcement and lending performance; civil society organisations initiate good governance campaigns to curb corruption and enhance transparency; and national governments undertake governance reforms to shore up legitimacy and bolster administrative capacities. In recent years, the international development community has also subscribed to the view that the Millennium Development Goals (MDGs) have helped the promotion of socioeconomic development. By focusing the work of development banks, civil society organisations, and national governments on a clear set of policy targets and funding priorities, the MDGs helped improve childhood health, combat disease, increase educational access, and achieve other long-held objectives. A logical but difficult question is whether and to what extent governance contributed to progress with the MDGs.

The reason that this question is difficult involves the challenges of specifying what aspects of governance mattered most for performance on the MDGs. The widespread appeal of governance often comes at the expense of clarifying why and how governance contributed to a particular goal. This chapter employs a statistical technique known as multivariate regression to help shed light on which different elements of governance contributed to cross-national differences in progress with MDGs. The chapter uses regression to test hypotheses on possible associations between national progress on the MDGs and indicators on four features of governance: 1) voice and accountability; 2) government effectiveness; 3) rule of law; and 4) control of corruption. The results indicate that “government effectiveness” and “rule of law” were positively correlated with progress made on the MDGs. As such, international organisations may want to devote more resources to building public institutions and strengthening legal systems when supporting the implementation of the SDGs. The chapter also argues that the findings on the MDGs should be
extrapolated to the SDGs with care. The proposed integrated, transformational and universal nature of the SDGs may require moving beyond strengthening public institutions and legal systems to enabling multi-stakeholder engagement. This is bound to entail a different set of skills and competencies (discussed in greater detail in Chapter 3).

2 Governance and the MDGs

Good governance is frequently held up as being an essential enabler of development. But the extent to which governance actually strengthens implementation of development policies requires delineating what makes governance good. International negotiations have often underlined the virtues of governance while leaving these details undefined (Doornbos, 2001; Weiss, 2000). Some have given these details greater definition by highlighting common themes in international organisations’ proposals for improving governance in the future development agenda. These include “legitimacy, rights-based and access issues, as well as well-functioning institutional frameworks that can address crosscutting development issues” (Olsen and Elder, 2013). Others have argued persuasively for “good enough governance,” noting that developing countries may lack the capacity to take forward an overly ambitious governance agenda (Grindle, 2004, 2007).

One way of defining the key attributes of governance draws from the political economy literature. Studies in this literature often use quantitative methods to analyse the correlations between a set of governance-related causes and development results. A conventional line of argument in this work is that when countries have less corruption, more democratic institutions, stronger rule of law, and more effective public agencies, they tend to do better on a range of development outcomes (Acemoglu & Robinson, 2006; Barro, 1997; Brown & Mobarak, 2009; Chaudhury, Hammer, Kremer, Muralidharan, & Rogers, 2006; Dzhumaseshev, 2009; Gamble, 2003; Gupta, Davoodi, & Alonso-Terre, 2002; Mauro, 1995; Meltzer, 1981; North, 1991; Sen, 1981, 1999; Weber, 1979). To date, however, this line of reasoning has not been used to assess the performance on the MDGs. The World Bank’s World Governance Indicators (WGIs) are well-suited for such an analysis. The WGIs are based on the views of experts,
policymakers, business people and representatives of civil society, and are reported in 32 data sources. These views and data are then used to construct indicators for six functional properties of governance. The definitions of four of the six key properties used in this chapter are displayed in Box 2.1.

1 The other two properties, political stability and regulatory quality, were not included because there is relatively little debate about the positive effects of stability and relatively little literature on regulatory quality. Further, runs of the models used in this study revealed that neither set of indicators had a discernible effect on progress with the MDGs.
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Definitions of Governance Indicators

1. Voice and Accountability (VA) – measured by perceptions of the extent to which a country’s citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.

2. Government Effectiveness (GE) – measured by perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government’s commitment to such policies.

3. Rule of Law (RL) – measured by perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.

4. Control of Corruption (CC) – measured by perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as “capture” of the state by elites and private interests.

The WGI draws on four different types of source data:

- **Surveys of households and firms**
  (9 data sources including the Afrobarometer surveys, Gallup World Poll, and Global Competitiveness Report survey)

- **Commercial business information providers**
  (4 data sources including the Economist Intelligence Unit, Global Insight, Political Risk Services),

- **Non-governmental organizations**
  (11 data sources including Global Integrity, Freedom House, Reporters Without Borders), and

- **Public sector organizations**
  (8 data sources including the CPIA assessments of World Bank and regional development)


Box 2.1 Definitions of the World Bank’s worldwide governance indicators

The next section of the chapter outlines some of the main arguments
from studies that associate these four key WGI s with various development outcomes. The claims in this literature are largely — albeit not perfectly — aligned with the tests in subsequent sections of the chapter. They therefore provide a sense of possible associations and supporting logic between four key governance indicators and measures of development.

2.1 Voice and accountability

The WGI receiving arguably the most attention is voice and accountability. This is largely because accountability and transparency are two defining features of a democracy, and there is a sizable body of literature on the links between democracy and development (Acemoglu & Robinson, 2006; Brown & Mobarak, 2009; Chaudhury et al., 2006; Helliwell, 1994; Levine & Renelt, 1992, 1992; Meltzer, 1981; Mukherjee & Chakraborty, 2010; Przeworski, 2000; Sen, 1999, 1981). Some studies argue that more accountable and transparent political systems create stronger incentives for decision-makers to pursue development goals (Brown & Mobarak, 2009). Others suggest that democracy is good for development because it targets the needs of the poor. Sen, for instance, maintains that democratic elections provide the poor with opportunities to punish governments that fail to enable access to adequate food, shelter, and other essential goods and services (Sen, 1981, 1999). These claims are often supported by literature that suggests that democracies generate more public goods and redistribute income more evenly because the electoral process motivates officials to spend revenues on education, health and other critical goods and services; autocratic governments face no such referendum on their performance (Acemoglu & Robinson, 2006; Chaudhury et al., 2006; Meltzer, 1981).

Some studies, however, have found an inverse relationship exists between development goals and democracies — that is, development increases the demand for democratisation rather than the other way around. For instance, Mukherjee and Chakraborty (2010) note that development fuels demand for a responsive and transparent regime. Others are even less convinced of an association between democracy and development. For those subscribing to this more skeptical view, a frequently-heard rejoinder

Studies suggest that development increases the demand for democratisation rather than the other way around.
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is that democracy benefits higher income groups since the benefits of investing in social welfare accrue to politically active middle- and upper-income groups but the less privileged do not receive these benefits. A comparable line of reasoning suggests that part of the explanation for this inequality stems from the incomplete information on government policy and social polarisation (Ross, 2006).

2.2 Controls on corruption

The effect of corruption on development outcomes is also important when assessing the effectiveness of governance. Corruption has been found to have a negative influence on economic growth (Mauro, 1995), income inequality (Gupta et al., 2002) as well as education, health and other development indices (Dzhumashev, 2009). Gupta et al. (2002) demonstrate that high and rising corruption increases income inequality and poverty by undermining economic growth; the progressivity of the tax system; the level and effectiveness of social spending; the formation of human capital; the distribution of asset ownership; and access to education. Others have pointed to a similar result through a different causal logic. Illustrating this alternative perspective, Mauro concludes that corruption (institutional inefficiency) lowers investment and thereby suppresses economic growth in an analysis of subjective indices of corruption, red tape, judicial system efficiency, and various categories of political stability (Mauro, 1995).

A related body of work focused chiefly on institutional channels through which corruption operates (Everhart, Vazquez, & McNab, 2009; Pellegrini & Gerlagh, 2004). Pellegrini and Gerlagh, for example, conducted one of the first empirical studies that attempted to examine the effect of corruption on different aspects of economic growth. Everhart et al. observed that the direct effect of corruption on economic growth measured in terms of per capita GDP is difficult to discern, while the indirect effects of corruption (through private investment, the quality of bureaucracy and public investment) are more clearly visible (Everhart et al., 2009). Therefore, corruption may have both negative and/or positive effects on economic growth depending upon how one examines the relationship. An alternative – and somewhat controversial – view is that corruption, or the use of public funds for private means, “greases the wheels“ of change, improves government performance, and stimulates economic growth. For instance, Leff (1964) and Huntington (1968) claim that corruption might raise economic growth through two main
mechanisms: 1) “speed money” that helps individuals to avoid bureaucratic delay, and 2) “bribes” which motivate workers to work harder (Huntington, 1968).

2.3 Government effectiveness

A third category of possible causes relates to the government capacities to provide essential goods and services. Effective governments usually perform better on development outcomes thanks to efficiency in the delivery of public services. Effective governments are known to offer not only higher quality public services, but attract investment, encourage human capital accumulation, use foreign aid more efficiently, accelerate technological innovation, and increase the productivity of government spending (Gupta et al., 2002; Mauro, 1995). Effective governments are also more capable of introducing reforms that promote development, although in some cases the potential to push forward reforms is not good for development. Such cases could include, for example, imposing taxes to seize revenues for a self–interested leadership (North, 1981).

Effective governments are also more capable of introducing reforms that promote development

A related contention is that effective governments might only be motivated to pursue development-friendly outcomes when they are compelled to do so by other dimensions of governance such as democratic elections, a free press, or other political and cultural factors. Studies assessing the correlation between per-capita income and government performance find that ethnolinguistic heterogeneity and the use of a more interventionist legal system, such as socialism or French civil law, predicted inferior government performance, which may, in turn, impair development (La Porta, Rafael, Florencia Lopez-de-Silances, Andrei Shleifer, 1999).

2.4 The rule of law

The rule of law – the fourth and final WGI examined in this chapter – has been portrayed as an enabler of economic development. This is largely because it protects property rights, guarantees fair and credible contract enforcement, supports the enforcement of labour laws, and provides
checks on government and judicial independence. These characteristics are particularly useful for curbing government predation that can undermine economic growth. Similar to the discussion of government effectiveness, this reasoning underlines that sometimes holding back government is crucial for economic performance. Weber, Barro and North emphasise that the legal system’s protection of property rights and enforcement of contracts lowers the transaction costs involved in exchanges and allows resources to be transferred to those who can use them most productively (Knack & Barro, 1998; North, 1981; Weber, 1979).

Slightly different views on this matter stress the variant effects of rule of law among countries. These varying effects occur because the legal traditions of particular countries may be rooted in unique culture, history, politics, institutions and conceptions of justice (Berg & Desai, 2013). Haggard and Tiede, for example, suggest that the fundamental constraints on growth that often exist in developing countries are the inability to provide law and order in the most basic sense, which often results in state failure and weak governments (Haggard & Tiede, 2011). Berkowitz et al. also shows that countries that have developed legal orders internally, adapted transplanted law, and/or had a population that was already familiar with basic principles of the transplanted law have more effective legality than countries that received foreign law without any similar predispositions. The relative ease of this transplanting process has a strong but indirect effect on economic development via its impact on legality (Berkowitz, Pistor, & Richard, 2000).
<table>
<thead>
<tr>
<th>Authors</th>
<th>Independent Variable</th>
<th>Dependent Variable</th>
<th>Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sen A. 1981, 1999</td>
<td>Democracy</td>
<td>Politicians' behaviour</td>
<td>Democracies provide for free elections and protections on press freedoms that hold politicians accountable for meeting basic needs and providing public goods. Democracies have higher levels of accountability, leading to greater expenditures on education and health. Democracy benefits the wealthy, and the benefits of investing in social welfare accrue to more politically-active, wealthier groups. The provision of incomplete information related to government policy and social polarisation common in democracies creates greater inequality.</td>
</tr>
<tr>
<td>Nazmul, 2006</td>
<td>Democracy</td>
<td>Education/ Health systems</td>
<td>Development increases the demand for democratisation rather than the other way around. Democracy benefits the wealthy, and the benefits of investing in social welfare accrue to more politically-active, wealthier groups. The provision of incomplete information related to government policy and social polarisation common in democracies creates greater inequality.</td>
</tr>
<tr>
<td>Brown and Mobarak, 2009</td>
<td>Democracy</td>
<td>Regime type</td>
<td>Development increases the demand for democratisation rather than the other way around. Democracy benefits the wealthy, and the benefits of investing in social welfare accrue to more politically-active, wealthier groups. The provision of incomplete information related to government policy and social polarisation common in democracies creates greater inequality.</td>
</tr>
<tr>
<td>Ross, 2006</td>
<td>Democracy</td>
<td>Income levels/inequality</td>
<td>Development increases the demand for democratisation rather than the other way around. Democracy benefits the wealthy, and the benefits of investing in social welfare accrue to more politically-active, wealthier groups. The provision of incomplete information related to government policy and social polarisation common in democracies creates greater inequality.</td>
</tr>
<tr>
<td>Mauro, 1995</td>
<td>Corruption</td>
<td>Economic growth</td>
<td>Development increases the demand for democratisation rather than the other way around. Democracy benefits the wealthy, and the benefits of investing in social welfare accrue to more politically-active, wealthier groups. The provision of incomplete information related to government policy and social polarisation common in democracies creates greater inequality.</td>
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<tr>
<td>Author(s)</td>
<td>Year(s)</td>
<td>Topic</td>
<td>Effect</td>
</tr>
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<tr>
<td>Gupta et al.</td>
<td>1998</td>
<td>Corruption</td>
<td>Income inequality</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• High levels of corruption increase the progressivity of the tax system, reduce the level and effectiveness of social spending, undermine the formation of human capital, and cause unequal distribution of asset ownership and access to education.</td>
</tr>
<tr>
<td>Dzhumsashev</td>
<td>2009</td>
<td>Corruption</td>
<td>Education and health</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Corruption gives rise to significant inefficiencies in the public sector, which curtails spending on education and health.</td>
</tr>
<tr>
<td>Leff, 1964 and</td>
<td>1968</td>
<td>Corruption</td>
<td>Economic growth</td>
</tr>
<tr>
<td>Huntington</td>
<td></td>
<td></td>
<td>• Corruption can have virtuous effects on the economy through two mechanisms: 1) “speed money” that enables individuals to avoid bureaucratic delay; and 2) “bribes” which motivate workers to work harder.</td>
</tr>
<tr>
<td>Pellegrini and Gerlagh</td>
<td>2004</td>
<td>Corruption</td>
<td>Economic growth</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• The effect of corruption is statistically insignificant when controlling for private investment and other factors.</td>
</tr>
<tr>
<td>Everhart et al.</td>
<td>2009</td>
<td>Corruption</td>
<td>GDP per capita</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>• The direct effect of corruption on GDP per capita is difficult to see clearly; the indirect effect of corruption is more noticeable on private investment and the quality of governance, including quality of bureaucracy and public investment.</td>
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<tr>
<td>Author(s)</td>
<td>Concept</td>
<td>Subfield</td>
<td>Summary</td>
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| North 1991, Mauro 1995 and Gupta et al., 2002 | Government effectiveness | Public services delivery | • Effective governments are better equipped to protect property and thereby encourage greater private investment.  
• Effective governments produce higher levels of political stability and more efficient bureaucracies.  
• More stable and efficient governments tend to be associated with many factors that enable growth such as human capital accumulation and technological innovation. |
| Weber 1979, North 1991 | Rule of law | Economic development | • The legal system’s protection of property rights and enforcement of contracts lowers transaction costs; this eases exchange and allows resources to flow to more productive investors. |
| Barro 1997 | Rule of law | Economic development | • Formal institutions, including democracy and bureaucratic quality, have a less significant effect on growth than adequate protection of property rights. |
| Haggard 2011 | Rule of law | Economic development | • The rule of law not only places restraints on the capricious use of state power but limits the reach of the private sector into public affairs. |
3 Hypothesis testing and regression analysis

One way of exploring whether and to what extent the above effects influenced performance of the MDGs is hypothesis testing. Hypothesis testing involves positing a set of plausible cause-effect relationships and then determining whether the proposed associations are borne out in actual data. A useful method for testing hypothesis is multivariate regression. Multivariate regression can help determine whether and to what extent quantitative measures of key properties of governance (captured by the World Bank governance indicators) correlate with quantitative measures of performance on the MDGs. In the language of regression, the possible causes are known as independent variables (in this case, the WGIs) and the possible effects are known as a dependent variable (in this case, progress on the MDGs).

The independent variables used in the study covered four WGIs: 1) voice and accountability; 2) government effectiveness; 3) rule of law; and 4) control of corruption. Each of these variables were rescored on a 0 to 5 scale (from their original -2.5 to 2.5 scale), with 5 representing the higher, more desirable level and 0 representing the opposite. To ensure that the governance scores track with the period during the implementation of the MDGs, each score was based on per country average taken between 1996 and 2011. The MDG Progress Index (initially developed by the Center for Global Development in 2010 and then updated for 2011) is used for the dependent variables. The index is made up of trends of how individual countries fared against eight core MDG targets based on 2009 and 2010 data. The MDG Progress Index scores countries on whether they are on track (1 point), made some progress (0.5 points), or no progress (0 points) for 7 of the MDGs. Deficiencies in the data continue to make tracking progress on the MDGs difficult and sensitive to missing data, revisions and retractions; however, the MDG Progress Index deals with these possibilities by reporting both an overall and adjusted score that is designed to avoid penalising countries with missing data. Both of the models used in the study included data from 141 developing countries on the MDGs.

The results of the regression analysis are reported in Table 2.2. Variations of the models were employed in previous research; the results from those additional models did not dramatically depart from those reported in Table 2.2. The main finding from the regressions is that “government effectiveness” and “rule of law” appear to have a positive impact on
progress with the MDGs (World Bank, 2014). More concretely, government effectiveness is associated with a coefficient value of 1.23 and p-value just below the 0.05 significance threshold. In non-technical language, the effect of government effectiveness is likely to be positive and unlikely to be due to random associations in the data. Another notable effect involves the rule of law; the coefficient for this has an estimate of 1.39 that is below the 0.05 significance level. Similar to government effectiveness, rule of law is likely to be positive and unlikely to be due to chance alone. Government effectiveness and rule of law hence appear to have a clear effect on progress with the MDGs. For instance, if a country improved its rule of law or government effectiveness by a score of one, this could have the equivalent effect of increasing their MDG progress score by nearly one point. This could be the difference between making no progress and being on track for achieving one of the MDGs.

Table 2.2 Regression results

<table>
<thead>
<tr>
<th>Variables</th>
<th>Estimated Coefficients/Standard Errors</th>
</tr>
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<tbody>
<tr>
<td>Intercept</td>
<td>2.71*** (0.48)</td>
</tr>
<tr>
<td>Voice</td>
<td>-0.50* (0.24)</td>
</tr>
<tr>
<td>Corruption</td>
<td>-1.41* (0.52)</td>
</tr>
<tr>
<td>Law</td>
<td>1.39 ** (0.50)</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>1.23* (0.45)</td>
</tr>
<tr>
<td>R²</td>
<td>0.18</td>
</tr>
</tbody>
</table>

Note: The “intercept” refers to the estimated value on MDG progress when all of the effects of the WGIs equal zero. This is equivalent to the base case when there is no governance. It also suggests that there are other factors that affect MDG progress beyond governance.

The standard errors of the estimated coefficients for the independent variables are listed in parentheses.

Significance values are coded as such: 0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1. The significance suggests the likelihood that the estimated coefficient might actually equal zero. As such, the lower the significance value, the less likely that the actual coefficient would be equal to zero.

The R² is a measure of what percentage of the variation in MDG progress is explained...
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by all of the WGI. While it used to be convention to aim for high R², this is no longer the case. Instead more attention is placed on whether and to what extent the independent variables are associated with the dependent variable.

Data: Center for Global Development, MDGs Progress Index 2011; World Bank Governance Indicators, 2012.


The study also produced some surprising results; namely that the control of corruption and voice and accountability seem to have muted and/or had a counterproductive effect on achievement of the MDGs. These findings should nonetheless be treated with caution in a few respects. The first is that many of the WGI are correlated with each other. When there are strong correlations between the independent variables this can weaken or even alter the sign of the effect with a dependent variable. The second consideration is that voice and accountability and controls on corruption may not be essential for making progress on the core development priorities in the MDGs. For many of these priorities, having strong institutions and a credible legal system may be essential first steps. The pursuit of more integrated and aspirational goals like the SDGs may require increased voice and accountability to a greater extent than the MDGs, because of the possible trade-offs between different SDGs. A third consideration is that the WGI for voice and accountability and controls on corruption may capture a bundle of related institutional factors that do not all correlate positively with development needs. In consequence, they may miss some of the narrower instruments such as a free press that make up the variables. Hence there may be a need to further unpack governance indicators.

4 The way forward

In sum, the study findings are largely consistent with the development literature, namely, that government effectiveness and rule of law appear to have a positive impact on progress with the MDGs. Several policy implications follow from these findings. First, rule of law seems to have an important impact on achievement of the MDGs. Second, government effectiveness may also be a useful area to target for improving governance — enhancing the quality of public institutions may engender positive developmental outcomes.
An area for potentially fruitful research would be expanding the scope of governance to look more broadly at the role of actors outside of governments. A fast growing body of literature on multi-level, multi-stakeholder governance underscores the diversity of actors that play important roles in delivering global and local public goods (Hooghe & Marks, 2001). Of particular importance for the post-2015 development agenda would be how interactions between the public and private sector and a growing variety of means of implementation (MOI) influence development outcomes. These issues are discussed in greater detail in the next chapter.

Rule of law seems to have an important impact on achievement of the MDGs—enhancing the quality of public institutions may engender positive developmental outcomes.

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