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Does Decentralisation Make Government More Efficient and Effective?

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ABSTRACT *In this paper we use a broad cross-national sample to test decentralisation's relationship with two important indicators of the quality of governance: efficiency and effectiveness. Contrary to much of the conventional wisdom, we find that the effects of decentralisation are minimal when controlling for basic structural variables such as per capita GDP and degree of democracy. In addition we find that different types of decentralisation – fiscal, administrative, and political – have differing and sometimes opposing impacts on the quality of governance. Finally, we find that political decentralisation in particular is associated with higher government efficiency among high GDP per capita countries while it is associated with lower government efficiency among low GDP per capita countries.*

KEY WORDS: Fiscal decentralisation, administrative decentralisation, political decentralisation, government efficiency, government effectiveness

Does the decentralisation of state structures lead to better governance? In recent years, economists and political scientists have often made the case that decentralised political institutions are more efficient, lean and effective (Bolton, 1997; Buchanan, 1977). Others have analysed decentralisation's relationship to the size of government and government's ability to contain

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budget deficits and inflation (Rodden, 2003; Rodden & Wibbels, 2002; Rodden *et al.*, 2003). Drawing on this research, policy makers and politicians have frequently pushed for decentralisation as a panacea for the ills of poor governance. Yet surprisingly little systematic empirical cross-national work has been done to determine whether decentralised political institutions actually improve the quality of governance – that is, how well (efficiently and effectively) government goes about achieving its goals.

This paper undertakes a cross-national study to test the relationship between decentralisation and the quality of governance. We first present our conceptions of government efficiency and effectiveness and discuss why these concepts help us assess the quality of governance. Second we conduct a series of empirical tests to explore the relationship between decentralisation and the quality of governance. Our study of 68 countries comes to three counterintuitive findings, which challenge both the critics and defenders of decentralisation. First, decentralisation itself is a multifaceted concept that has three main dimensions, administrative, fiscal and political, which each have distinctive and often opposing impacts on the quality of governance (Schneider, 2003). Second, the putative benefits of decentralisation for the most part disappear in multivariate analysis, as the effect of basic political and economic development control variables are considered. Third, even when the decentralisation variable survives the inclusion of control variables like economic development and regime type, our cross-national evidence suggests that none of the three dimensions of decentralisation is a universal solution across all contexts for the ills of poor governance. In fact, though decentralisation has a beneficial impact on the quality of governance in wealthy countries, in economically underdeveloped countries our study finds that decentralisation actually is associated with *poorer* quality of governance. In short, what Aaron Schneider (2003) dubs the ‘cheerleaders’ and ‘detractors’ of decentralisation would do well to look at the socio-economic and political context in which decentralisation is carried out.

A word about our dependent variables and how they differ from the subject of other studies: in trying to assess the ‘quality of governance’, we run up against one of the most contested concepts in political science. It is a term that is often normatively disputed (and mistakenly confused with democracy). Moreover, it is a term that overlaps with a confusing myriad of other similar concepts.¹ Our concept of ‘quality of governance’ is a shorthand term for what we consider to be two important measures of how well government does its job: efficiency and effectiveness. Although we recognise their bluntness, our concept and measures allow us to collect broadly comparable data over a relatively wide range of cases. Moreover, when compared to other studies of the effects of decentralisation – which tend to focus on the impact on either government expenditures as a percentage of GDP, public employment

as a percentage of the labour force, budget deficit rates and inflation rates – our measures of governance quality offer a new way to assess the impact of decentralisation on governance.²

To explore government efficiency, we adopt a concept used by economists of the public sector who distinguish between public sector performance and public sector efficiency. While public sector performance refers to the outcome of public sector activities, public sector efficiency refers to the outcome in relation to the resources employed (Stiglitz, 2000). More precisely, since ‘efficiency’ means how many employees it takes to deliver a given value of service and cash, we can measure the concept by dividing the broadest comparable measure of social spending – social security plus education – by the number of government civilian employees.³

Our second related indicator of governance quality is ‘government effectiveness’. Although intuitively clear, government effectiveness is, of course, a concept that is contested and difficult to measure (Linz & Stepan, 1978). Rather than add to the multitude of definitions and measures already proposed, we have opted to use the already extant and methodologically self-conscious operationalisation of this concept provided by a group of scholars associated with the World Bank (Kaufmann *et al.*, 1999). Their measure of effectiveness is based on surveys assessing ‘perceptions of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government’s commitment to policies’ (Kaufmann *et al.*, 1999: 8).

Explaining the Quality of Governance: Some Hypotheses

The central relationship that we are interested in exploring is that between the degree of decentralisation of a country’s political institutions and the quality of its governance. But we are also interested in examining other political, economic and social factors that might affect the quality of governance. With a cross-national quantitative analysis, we are able to provide a systematic test of a set of propositions about how decentralisation affects the quality of governance. Moreover, we are able to test recent claims made by political scientists and economists in case studies that have not been tested against a larger set of cases regarding the determinants of the quality of governance.⁴

First, we test the impact of decentralisation on the quality of governance by using a differentiated operationalisation of the concept of decentralisation that is not typical in much of the extant research. Although the theoretical literature is careful to distinguish between different types of decentralisation – administrative, fiscal and political – it is usual for empirical research to focus on only one of these facets or to collapse all three into a composite index.

Our study builds on the recent and important research of Aaron Schneider (2003), who uses factor analysis to distinguish three types of decentralisation.⁵ First, we measure fiscal decentralisation as total subnational government expenditures and revenues as a percentage of total government expenditures and revenue. Drawing on Schneider's work, we define expenditures as all cash outlays made by a given level of government, and revenues include all cash inflows to subnational governments, including taxes, loans and grants (Schneider, 2003: 21–22). The larger the percentage of revenues and expenditures passing through subnational governments, the greater the level of fiscal decentralisation. Our fiscal decentralisation scores are constructed using factor analysis and subnational public finance data from the World Bank and range from 0 (fully centralised) to 1 (fully decentralised) (see Appendix).

Second, we define administrative decentralisation in terms of the degree of autonomy enjoyed by subnational levels of government and, more specifically, in terms of the 'control exercised over local revenue' (Schneider, 2003: 22). The higher the percentage of local revenues that comes from taxes the higher the level of administrative decentralisation since, of all forms of revenue, taxes offer subnational governments the greatest autonomy in policy making. Grants and loans offer less autonomy, and discretionary transfers offer the least. As with fiscal decentralisation, our indicator is taken from Schneider and ranges from 0 (fully centralised) to 1 (fully decentralised) (see Appendix). The third dimension of decentralisation, political decentralisation, also varies between 0 and 1. We assess political decentralisation in terms of the amount of 'representation' at subnational levels (see Appendix).

In addition to the decentralisation hypothesis, we control for three alternative explanations for the quality of governance. One common factor frequently cited in the study of the size of government is the level of socio-economic development. In one version, this argument takes the form of Wagner's Law – which asserts that there is a positive relationship between socio-economic development and the size of government (Bolton & Roland, 1997). Interestingly, other analysts using subnational data have made the reverse case that lower levels of socio-economic development breed an expanding public sector (Alesina *et al.*, 1999; Gimpelson *et al.*, 2000). The hypothesis that governance structures are a product of the level of socio-economic development of their societies may take many forms, but it is clear that in order to test the impact of decentralisation on the quality of governance, it is necessary to control for levels of socio-economic development. Our measure for socio-economic development for our 34 cases is log GDP per capita in 1996.

Next, we examine the impact of a nation's position in the international economy on the quality of governance. According to some analysts, the

state is undermined by integration in the international economy (Evans, 1997). This argument suggests that government effectiveness may be undermined by globalisation. A counter-argument has also been made that integration in the international economy in fact strengthens the state's ability coordinate economic life within its borders (Rodrik, 1998). According to the logic of this argument, efficiency and effectiveness might be increased with increased integration in the international economy. Whichever direction the effect of increased integration runs, it is clear that theory suggests that a state's position in the international economy should have an impact on state political institutions. In this paper we measure integration in the international economy as the total value of imports as a percentage of GDP (see Appendix).

Finally, the regime-type hypothesis suggests that democratic regimes produce higher quality governance than authoritarian regimes. While there is a proliferation of definitions of democracy, we utilise the minimalist Dahlian definition used by Freedom House. In their cross-national data set, Freedom House utilises a 'freedom rating' that assesses the degree of political and civil liberties in a country. We use these scores to control for this potentially confounding factor and isolate the impact of decentralisation on governance.

Data Analysis

In this section, we first describe the data set and then present the analysis. As mentioned earlier, our overall data set includes 68 countries from Western Europe, North America, Eastern Europe, Asia, Africa and South America. Because of problems of data availability, the sample size shrinks to around 33 countries for the variable government efficiency. Despite the usual limitations of cross-national comparative data, our sample has the advantage of being broad and cross-regional.⁶

Given that there is little extant research on decentralisation using a sample as broad as the one here, we address our data analysis first to the basic question of determining whether there is a relationship between our variables. This is valuable in and of itself since it allows us to test the bounds of conventional wisdom regarding decentralised political systems. Table 1 lists the mean, median and standard deviation for the main dependent and independent variables.

To put some of these figures in perspective, the top performers in terms of government efficiency are Germany (which receives \$171,086 of government output per public employee), Denmark (which receives \$110,134 per public employee), and the Netherlands (which receives \$124,886 per public employee). By contrast, appearing among the below-average efficiency cases are the more surprising cases of Sweden (\$32,491 of government output per public employee) and Australia (\$44,260 of government output per public employee), which is even less efficient than below-average cases

Table 1. Mean, median, and standard deviation of the main variables

	Median score	Mean score	Standard deviation	Observations
205				
Government efficiency (in dollars of government output per public employee)	18,201	128,836	535,886	35
Government effectiveness	0.173	0.355	0.911	67
Administrative decentralisation	0.575	0.555	0.235	68
Fiscal decentralisation	0.39	0.423	0.230	68
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Political decentralisation	0.505	0.545	0.282	68
Economic development (GDP per capita, 1996, in dollars)	6,991	10,629	8,639	67
Trade openness (imports as a percentage of GDP, 1990)	0.335	0.365	0.191	66
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Regime type (average Freedom House scores 1996–97)	2.5	2.6	1.62	67

such as Chile (\$63,964 of government output per public employee). Other inefficient states include Croatia (\$18,201 per employee) and Hungary (\$11,332 per employee). Second, government effectiveness scores varied very widely in the sample: Estonia, Argentina, Slovenia and Trinidad are around the mean score. Far below the average in terms of government effectiveness (around the 25th percentile) are Moldova, Georgia and Indonesia. Austria, the United States and France have above-average government effectiveness (around the 75th percentile), while the United Kingdom, Switzerland and the Netherlands top the list of most effective governments.

Correlation provides an initial, intuitive method for gauging the relationship between decentralisation and the quality of governance. Table 2 presents the Pearson product-moment correlations between the main variables.

230 There are a number of interesting results in Table 2.⁷ First and somewhat counter-intuitively, there is only a very weak correlation among the three types of decentralisation (administrative, fiscal and political) themselves. The strongest such correlation, between political and fiscal decentralisation ($r = 0.3236$), is only weak to moderate at best, while the correlation between political and administrative decentralisation is virtually nil. These findings provide further validation for our decision to distinguish between these different types of decentralisation. Second, the table shows that political and fiscal decentralisation are moderately to strongly correlated with government efficiency. Efficiency's relationship with administrative decentralisation is positive but weak. Similarly, effectiveness shows a weak but positive relationship with each of the dimensions of decentralisation. Overall, then, the correlations suggest that decentralisation – in all three of its guises – is

Table 2. Correlation matrix of the main variables (n = 30)

	Government efficiency	Government effectiveness	Administrative decentralisation	Fiscal decentralisation	Political decentralisation
Government efficiency	1				
Government effectiveness	0.8033	1			
Administrative decentralisation	0.0934	0.0532	1		
Fiscal decentralisation	0.4920	0.4194	0.2092	1	
Political decentralisation	0.4170	0.3060	0.0051	0.3236	1

related to the quality of governance. It is important to note, of course, that these are only pairwise correlations, not causal statements. They do not control for the effect of competing factors.

Given the caveat that pairwise relationships among the variables may mask more complicated causal relationships, what is the size and statistical significance of the bivariate relationships between decentralisation and governance quality? We first use bivariate OLS regressions of government efficiency and effectiveness on the three types of decentralisation to answer this question. The results of the bivariate regressions are presented in Table 3.⁸

To put some of these coefficients in perspective, the bivariate regression of government efficiency on fiscal decentralisation would indicate that a 0.1 increase in fiscal decentralisation would lead to an efficiency gain of \$1,471 per public employee. Though statistically significant, the substantive effect of greater democratisation is quite small. A 1 per cent increase in per capita GDP would yield a 1.7 per cent increase in government efficiency. In terms of government, fiscal and political decentralisation seem to have an equal, positive effect, substantively. As we might also expect, increasing

Table 3. Bivariate regressions of the quality of governance on the hypothesised determinants

Variable	Coefficient	Adj. R ²	Number of cases
<i>Quality of governance measure #1: log government efficiency</i>			
Fiscal decentralisation	3.886**	0.092	35
Administrative decentralisation	1.177	-0.017	35
Political decentralisation	-0.761	-0.024	35
Economic development (log GDP per capita, 1996)	1.771***	0.356	35
Regime type (Freedom House score, 96-97)	-0.28**	0.15	35
Trade openness (Imports as % of GDP, 1990)	-3.451	0.01	35
<i>Quality of governance measure #2: government effectiveness</i>			
Fiscal decentralisation	1.103**	0.059	67
Administrative decentralisation	-0.630	0.011	67
Political decentralisation	1.156***	0.110	67
Economic development (log GDP per capita, 1996)	0.824***	0.719	67
Regime type (Freedom House Score, 96-97)	-0.424***	0.569	67
Trade openness (imports as % of GDP, 1990)	0.230	-0.013	66

*p < 0.1; **p < 0.05; ***p < 0.01.

per capita wealth and greater democracy are related to higher government effectiveness.

Another way to present these findings is graphically (see the scatterplots of the data in Figure 1). These scatterplots show the effect of the three types of decentralisation on our indicators of governance. On the first row are scatterplots of log government efficiency (vertical axis of each plot) on decentralisation (horizontal axis of each plot). The second are scatterplots of government effectiveness on decentralisation, with government effectiveness on each plot's vertical axis and decentralisation on the horizontal one.

In all, two main results stand out from the bivariate regressions. First, the different types of decentralisation fare differently in terms of their relationship to governance. Fiscal decentralisation always shows a substantively strong and statistically significant relationship with our governance indicators: the more fiscally decentralised, the better the governance. Political decentralisation is important for effectiveness, though not for efficiency. Surprisingly, administrative decentralisation – i.e. the amount of financial autonomy enjoyed by subnational governments – was not significantly related to any of our measures of governance. Second, the competing variables of economic development and regime type (though not trade openness) were consistently and strongly significant for both indicators of governance. It is also interesting to note that the R^2 adjusted scores for economic development and regime type are far higher than those associated with any form of decentralisation. As one might suspect, wealthier, more democratic countries tended to be more efficient, and more effective. This finding raises, of course, the question of what is doing the real work here in creating good governance – decentralisation or

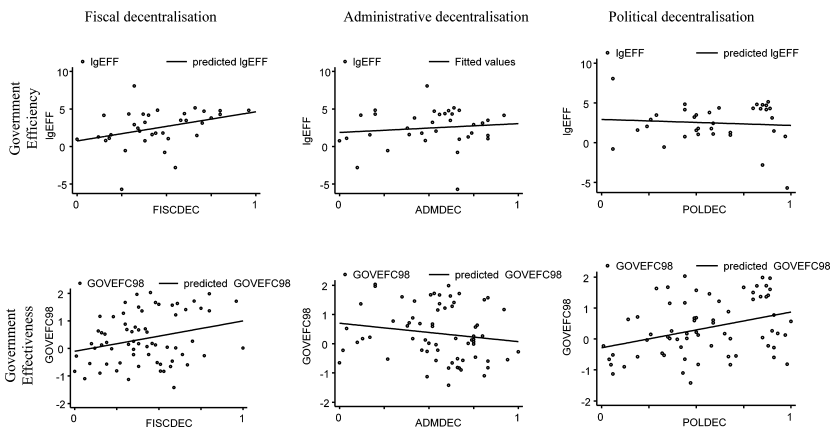


Figure 1. Bivariate scatterplots of the relationship between decentralisation and government efficiency and effectiveness

the general level of economic and political development. We will tackle this question in the next section using multivariate analysis.

Control Variables and Rival Explanations

365 Although we have shown strong bivariate relationships, how do our findings so far stand up in a context of multivariate analysis? As noted in the introduction, the most obvious rival hypotheses to explain government efficiency and effectiveness are the general level of economic development, trade openness and regime type. Our sample has the great advantage of including country cases that vary considerably along these dimensions. In terms of regime type, we include authoritarian countries like China (with a Freedom House rating of 7) and very democratic countries like Sweden (with a Freedom House rating of 1). In terms of economic development, we have balanced the number of country cases from the first world and the third world, as well as those in between. To ensure the correct temporal ordering of our data, we have taken figures on GDP from 1996, trade openness from 1990, and regime type from 1996.⁹

370 We will consider each of our governance indicators in turn, starting with government efficiency. Table 4 displays the results of our OLS multivariate regressions of government efficiency on decentralisation, controlling for economic development, regime type and trade openness.

380 The first column in Table 4 presents the fully specified model, and the others are trimmed models. If we combine all types of decentralisation in one model (see Model 2), then fiscal decentralisation still appears important, as it did in the bivariate analysis (see Table 3). In Model 1, however, the apparent relationship between fiscal decentralisation and government efficiency disappears after controlling for the wealth and the degree of democracy in a country. Administrative decentralisation is still not important in any of the models. Of the control variables, higher democracy scores and greater trade openness do not guarantee greater government efficiency. A significant positive finding stands out in all models: economic development matters a great deal to government efficiency.

385 Perhaps the most interesting finding to emerge from Table 4 is the relationship between political decentralisation and government efficiency. In Model 2 as well as in the simple bivariate analysis, political decentralisation did not appear to be important in terms of government efficiency. When taking into account difference in per capita GDP, however, political decentralisation becomes substantively and statistically significant. Other things being equal, a one-tenth increase in political decentralisation (using our 0 to 1 scale) actually reduces government efficiency by approximately \$1,375. This runs 390 very much against the conventional wisdom.

Table 4. Regressions of log government efficiency on hypothesised determinants

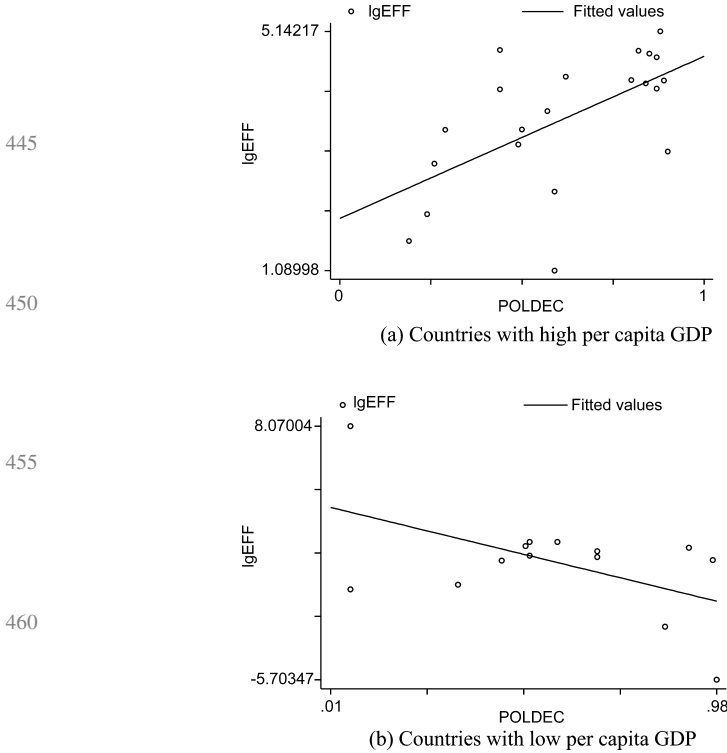
Variable	Model 1	Model 2	Model 3	Model 4	Model 5
405 Constant	-12.102* (6.445)	1.311 (1.422)	-16.038** (6.690)	-13.907** (6.212)	-16.641** (6.433)
Fiscal decentralisation	0.345 (1.796)	4.242** (1.963)	0.726 (1.808)		
Administrative decentralisation	-0.036 (1.389)	0.471 (1.722)			
410 Political decentralisation	-3.812** (1.469)	-1.629 (1.636)		-3.074** (1.407)	
Economic development (log GDP per capita, 1996)	2.003*** (0.657)		1.952*** (0.685)	2.023*** (0.595)	2.052*** (0.629)
415 Regime type	-0.020 (0.384)		-0.210 (0.383)	-0.042 (0.376)	-0.219 (0.377)
Trade openness	-4.100 (2.570)				
Adj. R ²	0.413	0.066	0.325	0.412	0.343
420 N	35	35	35	35	35

*p < 0.1; **p < 0.05; ***p < 0.01.

425 How do we interpret this puzzle? We view the coefficient as meaning that the socio-economic, developmental context in which political decentralisation takes place is vitally important to its effect on government efficiency. To show this, we divided the sample of countries into two groups (high per capita GDP and low per capita GDP countries, using the median per capita GDP as the breaking point) and plotted the relationship between political decentralisation and government efficiency for each group. The results, which are presented in Figure 2, confirm our intuition graphically. The first graph (a) shows that among wealthier countries there is a positive relationship between political decentralisation and government efficiency, which conforms to the conventional wisdom. In the second graph (b), which charts this relationship among poorer countries, decentralisation has exactly the opposite effect.

435 In short, it seems that political decentralisation has a beneficial impact on efficiency in some contexts but not others. In less economically developed countries, political decentralisation may actually make government *less* efficient. It is only in more economically developed countries that political decentralisation is associated with more efficient government. Though preliminary, of course, this finding is important, interesting, and goes against much of the

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465 **Figure 2.** The Relationship between government efficiency and political decentralisation in high and low per capita GDP countries

470 conventional wisdom. It suggests that political decentralisation is not a silver bullet for improving governance in the less developed world. Moreover, this intuition resonates with a Gerschenkronian view of political and economic development, in which economically backward countries require different political models than early developers do (Gerschenkron, 1963).

475 Finally, we turn to our multivariate analysis of government effectiveness. In Table 5, the first column shows the full specification with trimmed specifications in the other columns.

480 The results in Table 5 show that decentralisation impacts government effectiveness differently than it does government efficiency. Where political decentralisation was closely related to efficiency (see Table 4), its relationship to government effectiveness is insubstantial. Where fiscal decentralisation was basically unrelated to efficiency (see Table 4), it has a substantively modest but statistically significant impact on effectiveness: a one-tenth increase in

Table 5. Regressions of government effectiveness on hypothesised determinants

Variable	Model 1	Model 2	Model 3	Model 4	Model 5
Constant	-4.281*** (0.933)	-0.323 (0.376)	-4.518*** (0.939)	-4.592*** (0.995)	-4.841*** (1.030)
Fiscal decentralisation	0.879*** (0.258)	0.977** (0.458)	0.827*** (0.248)		
Administrative decentralisation	-0.555** (0.230)	-6.43 (0.440)		-0.595** (0.245)	
Political decentralisation	-0.134 (0.235)	1.131*** (0.370)			
Economic development (log GDP per capita, 1996)	0.563*** (0.092)		0.561*** (0.094)	0.632*** (0.097)	0.628*** (0.100)
Regime type	-0.181*** (0.055)		-0.175*** (0.054)	-0.140** (0.056)	-0.145** (0.060)
Trade openness	0.345 (0.317)			0.090 (0.301)	-0.010 (0.310)
Adj. R ²	0.788	0.174	0.771	0.752	0.733
N	66	67	67	66	66

*p < 0.1; **p < 0.05; ***p < 0.01.

the level of fiscal decentralisation leads to an approximately 0.1 increase in government effectiveness in our government effectiveness scale – which would be an increase of about 2 per cent.¹⁰ These results point to a more complex relationship between decentralisation and governance. There is, after all, no reason why effectiveness and efficiency *need* be related to each other: a government may be effective, but it may expend resources inefficiently at the same time. That said, administrative decentralisation seems to be consistently unimportant in terms of its effect on governance.

Conclusion

We have explored the impact of decentralisation on the quality of governance among a broad range of countries. Most scholarship has tended to focus on how decentralisation has affected outcomes such as the size of government and economic performance. The relationship between decentralisation and the quality of governance, however, is typically assumed and not as frequently tested in a comparative context. The contribution of this paper is twofold: First, the development of some initial indicators of governance quality and, second, the testing of the impact of decentralisation on governance quality with a cross-national sample of countries.

Our theoretical conclusions, though admittedly tentative, make two points. First, our findings show that much of the apparent impact of decentralisation that one finds in simple correlations of decentralisation and government efficiency disappears when basic structural variables such as economic development and political regime type are incorporated into the analysis. This suggests that the apparent impact of fiscal decentralisation is more a product of level of socio-economic development than of institutional design. Our most interesting and counter-intuitive finding is that political decentralisation brings greater government efficiency among high GDP per capita countries while political decentralisation actually *reduces* government efficiency among low GDP countries. Not only does this alert us to the fact that socio-economic context is decisive for any effort at institutional reform, but also, we see that the institutional designs that might work in the wealthiest countries of the world may not work in the poorest countries of the world. This evidence is intriguing on two levels. We see here, first of all, evidence that supports the insights of Alexander Gerschenkron's thesis that late developers might face a different set of developmental challenges than early developers and as a result ought to opt for different and more centralised political institutions than early developers. In addition, this raises the question of why precisely centralisation appears to be advantageous in poorer countries.

Our second broad conclusion is that decentralisation itself is a multifaceted concept that has an uneven impact on quality of governance; the relationship hinges on whether one is interested in fiscal, administrative or political decentralisation. For example, according to our findings, political decentralisation is linked to efficiency while fiscal and administrative decentralisation are not. By contrast, while fiscal decentralisation is modestly related to effectiveness and administrative decentralisation has a minimal impact on effectiveness, political decentralisation is not all-important for effectiveness. One consistent finding is that administrative decentralisation is not related to any of our components of quality of governance. There is also a broader implication to the finding that decentralisation is a multifaceted concept: Though much cross-national work uses fiscal decentralisation as its sole measure of decentralisation, we have found that political decentralisation also exercises influence on governance, sometimes in contexts where fiscal decentralisation does not. In order to understand the impact of decentralisation, future scholarship could build on this insight to distinguish among types of decentralisation. Moreover, the precise linkage that explains the relationships we have found between different forms of decentralisation and the different indicators of governance also requires more research. Research that covers a wide time span and that compares a few case studies intensively would be particularly beneficial. It would provide additional leverage to answer questions such as the following: why does political decentralisation have an impact on efficiency but not

effectiveness? Why does fiscal decentralisation impact positively on effectiveness while has no impact on efficiency? Or, why does administrative decentralisation never seem to matter, despite the expectations of theory?

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Data Appendix

The main variables in our analysis are described below as well as the sources from which they come:

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Government Efficiency (EFF): Our measure of government efficiency is inspired by Wilensky, who defines it as ‘how many employees it takes to deliver a given value of service and cash’ (Wilensky, 2002: 344). We use social security and education spending as our indicator of social spending. Thus, government efficiency is defined as,

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$$\frac{\text{Total Social Expenditures}}{\text{Total Number of Public Employees}}$$

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Total social expenditures data are in 1998 US dollars. To compute total social expenditures, we used the broadest comparable indicators of social spending: social security and education. Using the IMF’s *Government Finances Statistics Yearbook*, we aggregated expenditure data for these two areas from central-, provincial-, and local-level governments (IMF, 2001). When possible, we used data from 1998; however, for some cases we had to settle for earlier data (the earliest was 1993). We standardised expenditures by converting them to 1998 US dollars, using exchange rate data from the *United Nations Statistical Yearbook*.

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Data on the total number of public employees are from Schiavo-Campo *et al.* (1997). Due to differences between countries in defining and counting public employees, these are highly vulnerable to measurement validity issues. That said, Schiavo-Campo *et al.* were acutely aware of these difficulties when they gathered their data and tried to correct against them as much as possible. Moreover, these are the best data available for our purposes.

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Government Effectiveness (GOVEFC98): This variable comes from Kaufmann, Kraay and Zoido-Lobaton’s composite measure of ‘perceptions

of the quality of public service provision, the quality of the bureaucracy, the competence of civil servants, the independence of the civil service from political pressures, and the credibility of the government's commitment to policies' (Kaufmann *et al.*, 1997: 8). This variable takes on values from -2.5 (least effective) to 2.5 (most effective) and is based on data from 1997-98.

Fiscal Decentralisation (FISCDEC): This variable is taken from Schneider, who defines fiscal decentralisation in terms of subnational government expenditures as a percentage of total government expenditures (Schneider, 2003). Expenditures are all cash outlays made by a given level of government, and revenues include all cash inflows to subnational governments, including taxes, loans and grants. The larger the percentage of revenues and expenditures passing through subnational governments, the greater the level of fiscal decentralisation. As with administrative decentralisation, Schneider's cross-national measure of fiscal decentralisation is constructed using factor analysis and subnational public finance data from the World Bank.

Administrative Decentralisation (ADMDEC): This variable is also taken from Schneider. Administrative decentralisation is defined in terms of the degree of autonomy enjoyed by subnational levels of government, and more specifically, in terms of the 'control exercised over local revenue' (Schneider, 2003: 22). The higher the percentage of local revenues that comes from taxes the higher the level of administrative decentralisation since, of all forms of revenue, taxes offer subnational governments the greatest autonomy in policy making. Grants and loans offer less autonomy, and discretionary transfers offer the least. Schneider uses factor analysis and the IMF's *Government Finances Statistics* to assign countries aggregate measures of administrative decentralisation, which can range from 0 (fully centralised) to 1 (fully decentralised).

Political Decentralisation (POLDEC): The third dimension of decentralisation, political decentralisation, also varies between 0 and 1. We use Schneider's indicator of the amount of 'representation' at subnational levels, which measures the importance of municipal and provincial elections (Schneider, 2003).

Trade Openness (IMP): Our score for trade openness is the value of a country's imports as a percentage of GDP (World Bank, 2003: 286-289).

Regime Type (AUTH): We average the Freedom House 'political freedoms' and 'civil freedoms' scores for the year 1996-97. This variable takes on values from 1 (most free) to 7 (least free) (Freedom House).

Economic Development (GDP96 per capita): To get per capita figures we took overall GDP in current dollars and divided it by total population (World Bank).

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Notes

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1. See, for example, classic statements by Linz and Stepan (1978), Migdal (1990), and Putnam (1993).
2. On the measure government expenditures as a percentage of GDP, see Rodden (2003). On public employment as percentage of labour force, see Gimpelson *et al.* (2000). On budget deficits and inflation rates, see Rodden and Wibbels (2002).
3. Our measure of government efficiency is inspired by Wilensky (2002). See the data appendix for a description of our operationalisation of this variable.
4. It should be noted that there are several downsides of our cross-national quantitative approach. First, we learn less about the cases we examine than a more intensive case-centred approach would. Second, we just test hypotheses that can be tested only quantitatively. Third, our sample is not a random one, though the broadly cross-regional character makes it more representative and reduces the problem of selection bias.
5. Schneider uses six different indicators and using factor analysis identifies three dimensions along which these indicators cluster. In addition to high levels of correlation *within* each dimension, the correlations from one dimension to the next is extremely low ($r = -0.13, 0.11, 0.0$) which supports the idea that fiscal, administrative and political decentralisation are conceptually distinctive; see Schneider (2003: 37–39).
6. That said, our data set is, admittedly, less than ideal in a number of respects. It would be useful, for example, to have a greater number of country cases. Although our sample includes more of the rest of the world than is usual for such studies, certain regions are still over-represented relative to others; for example, Eastern Europe is better represented than South America and Asia. As noted earlier, it would also be better to have a randomly drawn sample rather than the convenience sample used here.
7. We do not print p-values to test the statistical significance of each correlation in the matrix. Doing so is a temptation to scan the matrix for statistically significant correlations and then build models from them that circularly discover the significance of those variables. The following sections will give a sense of the statistical significance of the relationships using bivariate and multivariate regressions.
8. In these and the following regressions, we have logarithmically transformed the variables government bloat, government efficiency and economic development (GDP in 1996). This resolves the problem posed by the distribution of the country cases, which includes country clusters at the high and low ends – in terms of wealth and social spending, which is used to compute government efficiency – but fewer countries in between.
9. The data for our dependent variables are from 1998.
10. In the case of administrative decentralisation, the direction of the relationship – though statistically significant – is so small substantively as to be negligible.

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