Are You Being Served? Political Accountability and Quality of Government

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How well any government functions hinges on how good citizens are at making their politicians accountable for their actions. Political control of public officials depends on two factors. First, free and regular elections allow citizens to discipline politicians—the credible threat of losing office in the next period compels policy makers to respond to the voters' interests. Second, and equally important, the degree of citizen information curbs the opportunities politicians may have to engage in political corruption and management. The presence of a well-informed electorate in a democratic setting explains between one-half and two-thirds of the variance in the levels of governmental performance and corruption.

1. Introduction

Although the number of democratic regimes and thus the use of proper constitutional mechanisms to make politicians accountable to citizens have expanded substantially in the last decades, corruption among public officials and, more generally, malfunctioning governments remain widespread phenomena across the globe. Unfortunately this failure to create

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good governing institutions has dramatic economic and political consequences. On the one hand, growth and, in broader terms, the welfare of citizens have been shown to be enhanced by well-functioning governments, that is, governments that abide by the rule of law, whose bureaucrats and policy makers are not affected by graft practices, and whose administrative machinery delivers goods and services in an efficient manner (Knack and Keefer, 1995; Mauro 1995; Easterly and Levine, 1997; Kaufmann, Kraay, and Zoido-Lobaton, 1999a). On the other hand, the presence of political corruption and administrative inefficiency fundamentally defeats the purposes of representative democracy.

In contrast to the mounting scholarly research on the consequences of good governance, our knowledge about what causes governments to be clean and efficient is still at its infancy. The current literature has alternatively embraced preexisting economic conditions, broad cultural patterns, the existence of a particular cooperative milieu among social agents, and certain constitutional frameworks as the causes that lie behind good governance. For those researchers that stress the role of the economy, well-performing public institutions are the result of having enough physical and human assets to enable policy makers to fund and manage in an effective manner comprehensive policies and modern administrative agencies. Cultural theorists emphasize instead the set of normative bonds in which political action is embedded. Effective and uncorrupted governments only arise whenever public civicness or certain ethical beliefs constitute a dominant value in the political community. More recently, good governance has been related to the existence of social capital, that is, the presence of institutionalized norms of reciprocity and trust, empowering citizens to overcome potential collective action problems. Finally, and in direct correspondence with the Federalist debates of two centuries ago, for the neoinstitutionalist strand of political science, effective governance is a function of good constitutional engineering. Two problems, however, beset this research. On the one hand, the prevailing theories of political corruption and governmental performance have hardly fleshed out the micromechanisms through which policy makers comply or, more exactly, are made to comply with the law and behave in a benevolent fashion. On the other hand, the current empirical work, although growing, is still inconclusive. Most studies on corruption have focused on case studies. Although, more recently, Ades and Di Tella (1999), LaPorta et al. (1999), and Treisman (2000) have offered the first systematic statistical analyses, their evidence is limited to cross-national evidence and, generally speaking, they do not test with precision for the ways in which political accountability takes place.[1]

Accordingly, to account for varying levels of public corruption and effective governance across nations, this article discusses, in the next

1. Putnam (1993) explores the broader issue of governance for the universe of Italian regions.

section, how, in a standard principal-agent model, good governance is a function of the extent to which citizens can hold political officials accountable for their actions. Particularly it shows that as both democratic institutions are established and the information citizens have about both the state of the world and the policy-maker's decisions increases, the space left for rent appropriation shrinks. This model of political accountability is briefly compared to the main alternative theoretical accounts that have been put forward by the existing literature on the causes of corruption and government performance. The following two sections of the article test the model. Section 3 shows that both the presence of democratic mechanisms of control and an increasingly informed electorate, measured through the frequency of newspaper readership, explain well the distribution of corrupt practices and governmental ineffectiveness across two types of world samples: panel data for more than 100 countries in the period 1980–95, and a cross-national analysis of recent indicators of corruption and governance effectiveness for 1997–98. In performing this rather encompassing test, it also reveals that economic development, political stability, and the weight of fuels in the economy affect the levels of corruption and governmental quality. By contrast, the type of legal culture and religion, ethnic fractionalization, the degree of trade openness, the extent of financial liberalization, and the kind of constitutional structure (with the likely exception of federalism) have no impact on our governance indicators. Section 4 extends these results to the universe of U.S. states. Section 5 concludes.

2. Theory

2.1 Public Control of Politicians

An extensive literature on the sources of political accountability describes the machinery of government as a game between a principal—the public—and an agent—the politician or policy maker—in which the former delegates into the latter a given set of instruments to execute certain goals. In the game, the interests of both parties may be at odds. Even while partly acting on the interests of their potential electors (either the wealthy, the middle class, the workers, or a particular economic sector), policy makers are likely to pursue their own political agenda: they may be interested in enriching themselves while in office; or, even if they are honest, their ideas about what enhances the welfare of the public may differ from what the public itself wants. With self-interested politicians and state elites, the delegation of decision-making and policy implementation responsibilities automatically opens up the space for significant inefficiencies and corruption among politicians.

As shown in seminal articles by Barro (1973) and Ferejohn (1986), the solution to the delegation problem described above, in which politicians may be tempted to exploit the lack of information that citizens have about policies and their consequences either to pursue their own agenda or

appropriate rents, lies in the public establishing a control mechanism, such as regular elections, to discipline the policy maker. If electors vote retrospectively, that is, if they look backward to the results provided by the incumbent before casting their ballot, elections should make policy makers accountable to the public. The credible threat of losing office in the next period compels policy makers to deliver good services and refrain from extracting rents.

As formally proved in Appendix A, in a principal-agent model that extends Persson and Tabellini's (2000) setup, the effectiveness of any control mechanisms varies with the type of political regime, the level of information among the public, and the type of assets that prevail in the economy. First, political accountability is lower and corruption should be higher in dictatorships than in democracies. Even though authoritarian regimes eventually rely on the active support of specific social sectors and/or some tacit tolerance or minimal consent across the population, dictators employ repressive methods to remain in power. Thus the cost of overthrowing a dictatorship is higher than the effort citizens need to get rid of an incumbent through democratic elections. The use of repression and the cost to change a dictatorial regime make the threat of removal of an authoritarian government lower on average than that of a democratic cabinet. Authoritarian elites thus have more leeway to appropriate income than democratically elected politicians. Similarly the public will accept lower levels of government performance under a dictatorship than in a democracy because they discount the costs they would have to incur to otherwise bring down the regime.

Second, the degree of information citizens have, either through news media, personal networks, or their own direct experiences, curbs the opportunities politicians may have to engage in political corruption and mismanagement. As citizens have more precise knowledge about both the policies adopted by politicians and the environment in which they are implemented, policy makers have less room to divert resources to themselves. Provided that there are mechanisms (such as competitive elections in democracies) in place to punish the incumbent, rent appropriation should decline. In fact, with perfectly informed voters, politicians' rent should disappear.

Finally, rent appropriation by politicians should decrease as the economy becomes more diversified, that is, as it moves from producing only one product, say oil, to having many economic sectors, and/or as assets become less specific, that is, as the cost of putting them to alternative uses declines. The reason is straightforward. As the number of types of economic activities rise, their owners can more easily escape the brunt of self-interested policy makers by apportioning their investment among several economic sectors. This is particularly true if the assets are mobile, since, in response to the threat of distortionary regulation or outright expropriation, their holders can shift them away from the policy maker. The exit option of asset owners deters states from engaging in

excessive corruption. In short, capital mobility, such as elections, where voters can switch their vote, acts as a mechanism to discipline state elites.

2.2 Alternative Explanations for Corruption

To explain the causes of corruption and, more generally, of governmental performance, the scholarly literature has suggested a variety of variables that may affect the probability that policy makers and public officials may engage in improper or inefficient types of behavior. We briefly review them here to compare them to the model of political accountability and to clear the way for the comprehensive tests we engage in the next two sections.

The likelihood that politicians may misuse public office for private gains has been attributed to the national legal system in which they operate. According to LaPorta et al. (1999) different legal structures vary in the extent to which they protect private agents against the state. More precisely, they have argued that common law systems developed to defend parliament and property owners from the sovereign's attempts to regulate and expropriate them. By contrast, civil law systems, established in continental Europe as instruments for state building and to control the economy, were biased against property owners and hence opened up a significant space for rent appropriation by public officials.

Politicians' behavior may also be constrained by the set of dominant cultural norms and practices in place in each country. Academics have normally referred here to the influence that religion may have had on culture. If we are to believe LaPorta et al. (1999), countries with larger Protestant contingents should exhibit, in typical Weberian fashion, better governmental performance due to higher ethical standards, widespread literacy, and particularly, nonhierarchical structures of social interaction that lead to the strong monitoring of public officials. More recently, cross-country cultural differences have been associated with the underlying level of social capital, that is, with the extent to which citizens are linked by dense social networks, interact based on norms of reciprocity rather than on short-term self-interested motives, and show relatively high levels of interpersonal trust. Greater levels of civic engagement and interpersonal cooperation should lead to closer monitoring and to more abundant information about the public arena and therefore to better institutional performance (Putnam, 1993).

A third explanation of good governance has been economic development. By increasing the types of physical assets available to policy makers, by spreading education across the population, and by eroding premodern, clientelistic social ties, development should reduce the incentives of public officials to deviate public resources and facilitate the management of public affairs.

Ethnic fractionalization may also depress the quality of governmental performance. If we are to believe Olson's (1982) insights, the prevalence of small groups, which hardly internalize the social costs of pursuing their particular goals, should generate considerable rent-seeking and retard the adoption of efficient policies. Moreover, by leading to more political instability (Horowitz, 1985), ethnic fractionalization may hinder the normal functioning of government. Finally, in the United States, ethnic fractionalization has been found to be associated with high levels of patronage spending (Alesina, Baqir, and Easterly, 1999).

The constitutional structure of the state has also been presented as shaping the types of incentives that constrain policy makers. Still, the literature is split on the effects these variables may have on governance. Researchers have alternatively claimed that proportional representation reduces rent-seeking behavior (Rogowski, 1987) and enhances patronage relationships and hinders governmental responsiveness. Similarly, while some see federal systems and separation-of-powers systems as disciplining devices that sharpen the extent of potential conflict among politicians and therefore reduce the level of rents (Persson and Tabellini, 2000; Treisman, 2000), for others the multiplication of veto points in the political system simply generates wasteful and inefficient policies.

Finally, the type of economic policies followed by states may be seen as affecting the behavior of politicians. Here again, scholars are divided about the sign of the explanatory factor. On the one hand, as the size of the public sector increases, there may be more opportunities for corruption and inefficiencies (Tanzi, 1994). On the other hand, larger governments may imply higher public wages and hence both lower incentives to accept bribes among civil servants and better public services. A higher degree of economic openness has also been seen as operating in opposite directions. Although higher levels of internationalization may discipline politicians into delivering better services to attract foreign investors (Ades and Di Tella, 1999), they could also give politicians a chance to extract rents from traders.

3. Governance and Corruption in the World

We now test the empirical value of the model of political accountability—built on the effect of regime type, informational mechanisms, and nature of assets—in explaining corruption and political governance while examining as well other cultural, economic, and institutional factors that previous researchers have emphasized to date. To do so, we consider data from both across the world and within the United States. In this section we look at cross-national data and employ two types of indicators. First, we examine their impact on time-series cross-sectional measures of corruption, bureaucratic quality, and rule of law developed by the Political Risk Services Group from the early 1980s until the late 1990s for more than 110 countries. Second, we use the recent (and rather comprehensive) indices

of quality of government developed by Kaufmann, Kraay, and Zoido-Lobaton (1999a,b) for a cross section of nations in the mid-1990s.

3.1 Corruption and Governmental Performance Across Countries in the Period 1980–95

Until this date, all analysis of corruption relied on cross-sectional datasets for a single point of time. Since this research strategy provides a limited number of observations and cannot adequately solve questions of causality, we have built a panel of data with cross-sectional and time-series observations. Table 1 shows the mean, standard deviation, and minimum and maximum value of the variables employed in this section. Table B1 in Appendix B displays the correlation coefficients for all variables.

3.1.1 Dependent Variables.

To generate the dataset, we have relied on the set of indicators that the Political Risk Services Group has developed since the early 1980s to assess the political, economic, and financial risks in more than 110 countries and which are published in its "International Country Risk Guide." To measure political accountability and governmental performance, we have employed the following four indexes as our dependent variables:

(1) *Corruption*, which taps both the demand for bribes from business by political and administrative authorities as well as practices such as patronage, nepotism, job reservation, etc.
(2) *Bureaucratic Quality*, which measures the institutional strength, expertise, quality, and stability of the civil service.
(3) *Rule of Law*, which includes an evaluation of the strength and stability of the legal system as well as an assessment of the extent of citizens' compliance.
(4) *Risk of Expropriation of Property*.

The first three indexes range from 0 to 6; the latter one goes from 1 to 10. A higher number indicates a government that is cleaner, more efficient, more embedded in a stable legal system, and less threatening to private property.

We have averaged the data on governmental performance in five-year periods (1982–84, 1985–89, 1990–94, 1995–98) for several reasons: first, the data may contain mistaken evaluations for some country-year observations; second, there may be some year-to-year variability which may not be systematically correlated to actual behavior, but rather to, say, very specific scandals or even electoral episodes; finally, some of our independent variables (e.g., for newspaper readership, which we employ to measure the level of information) are only available for five-year intervals. This gives us a total of 496 observations (from 110 countries for the first period to 131 countries for the last period).

Table 1. Summary of World Statistics

	Observations	Mean	Std. Dev.	Minimum	Maximum
Data for 1980–95					
Lack of corruption	496	3.33	1.42	0.00	6.00
Quality of bureaucracy	496	3.21	1.58	0.50	6.00
Rule of law	496	3.47	1.59	0.50	6.00
Decline in expropriatory risk	493	7.12	2.22	1.00	10.00
Level of democracy	578	0.43	0.42	0.00	1.00
Free circulation of newspapers	530	0.08	0.14	0.00	0.68
Per capita income	631	5810	8735	91	45952
Proportion of Protestants	584	14.77	22.21	0.00	97.80
Proportion of Catholics	584	33.71	36.13	0.00	97.30
Proportion of Muslims	584	22.60	35.75	0.00	99.80
Religious fractionalization	584	0.66	0.24	0.26	1.00
English legal code	812	0.33	0.47	0.00	1.00
Socialist legal code	812	0.17	0.37	0.00	1.00
French legal code	812	0.45	0.50	0.00	1.00

German legal code	812	0.03	0.17	0.00	1.00
Scandinavian legal code	812	0.02	0.16	0.00	1.00
Former Communist regimes	844	0.07	0.25	0.00	1.00
Federalism	752	0.09	0.28	0.00	1.00
Presidentialism	688	0.78	0.93	0.00	2.00
Proportional representation	573	0.26	0.40	0.00	1.00
Trade openness	606	78.73	49.52	3.15	439.03
Public consumption as percent of GDP	602	16.79	7.59	1.90	59.19
Fuel exports as percent of total exports	529	16.76	29.49	0.00	100.00
Index of concentration	325	0.40	0.24	0.06	1.00
Data for 1997–98					
Kaufmann et al.[a] index of graft	152	0.00	0.91	−1.57	2.13
Kaufmann et al.[a] index of effectiveness	153	−0.02	0.89	−1.88	2.08
Kaufmann et al.[a] index of rule of law	161	0.00	0.93	−2.15	2.00
Kaufmann et al.[a] index of political stability	152	−0.03	0.94	−2.59	1.69
Index of financial liberalization	182	0.20	0.36	0.00	1.00

[a]Kaufmann, Kraay, and Zoido-Lobaton (1999a, b).

3.1.2 Model and Independent Variables. To estimate the causes of variation in government effectiveness, we estimate the following regression model:

$$\begin{aligned} \textit{Quality of Government}_{it} = {} & \alpha_0 + \alpha_1\ \textit{Democracy}_{it} \\ & + \alpha_2\ \textit{Informational Mechanisms}_{it} \\ & + \alpha_3\ \textit{Control Variables}_{it} + \varepsilon_{it} \end{aligned}$$

The variable *Quality of Government* is alternatively *Corruption*, *Bureaucratic Quality*, *Rule of Law*, and *Risk of Expropriation*.

Following Beck and Katz (1995), the estimation of the pooled cross-sectional time-series model is done through ordinary least squares (OLS), adjusting the standard errors for unequal variation within panels and correcting for autocorrelation.[2]

Political Accountability. The independent variables employed to test the strength of a political accountability model are

(1) *Level of Democracy*. This variable, which is taken from the Polity III database developed by Jaggers and Gurr (1995), is based on measures of the extent of civil liberties, the degree to which citizens can express their preferences about alternative policies and leaders, and the existence of institutionalized constraints on the exercise of executive power.[3] The variable, which ranges from 0 to 10 in Polity III, is here rescaled from 0 to 1 to ease the interpretation of results. It has been averaged for the periods 1980–84, 1985–89, 1990–93, and 1993–94 (1994 is the last year of the Gurr dataset). Again, this averaging procedure takes care of the possibility of anomalous or mistaken evaluations. Its values range from 0 for most African countries to 1 for western European countries. This measure also shows substantial temporal variation within a substantial part of countries—for example, it changes from 0 in 1980 to 0.48 in 1990–93 and then drops to 0.44 in 1993–94 in Haiti; it gradually goes up from 0 to 0.5 in Romania; it drops from 0.75 to 0 in Nigeria, and it rises from 0 to 0.95 in Turkey. The Jaggers and Gurr index is a relatively robust indicator of level of democracy: it correlates very strongly, with a correlation coefficient around 0.90, with other indexes of political regimes, such

2. The models have also been estimated using a random-effects specification, a fixed-effects model to account for potential idiosyncratic effects for different countries, and change rather than the level of the parameters. Results are extremely robust to these different specifications and may be obtained from the authors.

3. As detailed in Jaggers and Gurr (1995:12–14, 18–25), the index is based on weighing the following variables: the degree to which political participation and the expression of preferences is regulated through stable and consistent rules and implies no coercion; the degree of competitiveness in the process of selection of alternatives and policy makers; whether the executive is (directly or indirectly) elected in popular elections and is responsible either directly to voters or to a legislature elected in free elections; and openness of office, that is, the extent to which any citizens may have an opportunity to attain the executive position through a regularized process.

as the Coppedge–Reinicke scale (for 1978), the Bollen scale, the Gastil index of political liberties, and the Przeworski index of democracy (Przeworski, 2000). If our discussion on the mechanisms that create political accountability is right, a democratic regime should improve governance.

(2) *Free Circulation of Daily Newspapers per Person*. This variable, which measures the quality of informational controls, is built with data on newspaper circulation reported in World Bank (2000). As shown most recently by Putnam (2000:218–20) for American individual data, newspaper readership creates, controlling for all other variables, well-informed citizens with the interest and capacity to hold politicians accountable for their actions. Since newspaper readership can only generate real political accountability under conditions of democratic freedom, the circulation of newspapers is interacted with the existing level of democratic liberties in each country. The data on newspaper circulation corresponds to the initial year of each five-year period, that is, to 1980, 1985, 1990, and 1995.[4] The measure ranges from 0 in Mauritania to around 0.6 daily copies per person in Japan and Norway.[5]

Control Variables. The following control variables are also introduced to test the robustness of the political accountability model as well as its substantive significance in relation to alternative theories of the causes of corruption and governmental performance:

(1) *Economic Development*, measured through the log of per capita income. The data, taken from the World Bank, correspond to the initial year of each period and are expressed in 1995 constant dollars. We have also controlled for educational levels through both mean years of schooling and the sum of primary, secondary, and tertiary enrollment rates.

(2) *Cultural Values*, measured through
   (a) The distribution of religious beliefs, defined as the percentage of the population of each country that belongs to Catholicism, Islam, and Protestantism. Their sample means are 33.7%, 22.6%, and 14.8%, respectively. Those measures are taken from LaPorta et al. (1999). These three measures of religious

4. Data for 1985 are built as an average of the years 1980 and 1990.

5. The daily circulation of newspapers per person is only partly tapping the degree of monitoring that citizens exercise over public officials. Nonwritten media—radio and television—constitute a major and growing source of information for public opinion. As far as we know, however, cross-national studies on television exposure are not large enough to provide data to check the impact of this mass media on institutional performance. Exposure to political information given on radio and television may have a similar impact as newspaper circulation since, although the impact on political information and action of total time watching television is still debated, recent studies show that both newspaper readership and time of exposure to television news programs are correlated across individuals and increase the political sophistication of voters (Norris, 2000).

beliefs and practices tap the cultural and ethnic norms that may influence the behavior of politicians in office.

(b) Ethnic fractionalization, measured through an index built by LaPorta et al. (1999) by averaging five different sources in Easterly and Levine (1997). The index of ethnic fractionalization measures the probability that two citizens picked in a random manner from a country belong to the same ethnic or linguistic group. The index ranges from 0 to 1, with a mean of 0.35 and a standard deviation of 0.31.

(3) *Institutional Framework*, measured through

(a) *Type of Legal Code*. We use here a measure from LaPorta et al. (1999) that considers whether the company law or commercial code of the country comes from (i) English common law; (ii) French commercial code; (iii) Scandinavian commercial code; and (iv) Socialist/Communist laws. The excluded category is countries with German law.

(b) A dummy variable for *Former Communist Countries*, which measures the extent to which corruption and governmental performance in general may be affected by the process of transition to a market economy.

(c) Constitutional framework. We consider three types of political institutions: (i) the relationship between the executive and legislative branches through a variable that takes the value of 2 if the president is elected directly, 1 if the president is elected by the assembly but has substantial powers, and 0 if the system is purely parliamentarian; (ii) a dichotomous variable for the existence of a federal arrangement; (iii) electoral system—measured through a dummy variable that equals 1 if there is a proportional representation electoral system, 0 otherwise. The first variable is taken from the Harvard Center for International Development political dataset. The variable on federalism follows Downes (2000). The third variable has been built based on Shugart and Carey (1992), Linz and Valenzuela (1994), Cox (1997), IDEA (1997), and the Keesing's Contemporary Archives.

(4) *Economic Structure*, which includes

(a) Two measures of *Asset Specificity*, and hence, if the model is correct, of the ability of politicians to appropriate rents. The first measure is the percentage of fuel exports over total exports, taken from World Bank (2000).[6] The second measure is an index of the product concentration of exports in each country. This

6. For evidence on the impact of oil, see Ades and Di Tella (1999). Their interpretation of the impact of fuel exports differs, however, from ours. Whereas they take it as a proxy for lack of domestic competition, which then opens up the space for rent appropriation by firms, we think that its lack of mobility makes it easier for politicians to act as rent seekers.

export concentration measure is a Gini–Hirschman index of concentration based on 239 three-digit standard international trade classification categories of exports as estimated by the United Nations Conference on Trade and Development (UNCTAD). In the sample, it varies from less than 0.06 (a diversified economy like France or Italy) to more than 0.9 (whenever about only one product is exported, such as Iceland or Iraq).

(b) *Size of Government*, measured as the proportion of public consumption of the general government over gross domestic product (GDP). Data comes from the World Bank (2000).

(c) *Economic Openness*, measured as the log value of the ratio of trade (sum of imports and exports) to GDP. Data on exports and imports come from the World Bank.

(d) Proportion of population 65 years or older, taken from the World Bank.

(e) Proportion of population living in cities, taken from the World Bank.

(5) *Population and geographical area of the country.*

3.1.3 Results. Table 2 reports the results for corruption, bureaucratic quality, rule of law, and risk of expropriation. We report results with and without the lagged dependent variable (columns 1 and 2 of each dependent variable, respectively). Except where noted, all results are robust to the introduction of continental dummies.[7] To check for possible measurement error or random variability in the coding of cases, we have performed two additional robustness tests: we have run the regressions excluding each period at a time, and we deleted country-by-country observations to detect any outliers. Results are robust to these procedures.

Results for corruption are strongly in line with our model. Total explained variance is more than 58% in the first model and 80% in the second one. Democracy increases the chances of having a clean government by 0.49 points—a small impact in a scale that goes from 0 to 1. In contrast, free circulation of newspapers has a very strong effect on the level of corruption. A change in the circulation of newspapers from its median value to its maximum level would reduce the level of corruption by 2.2 points, or more than 1.5 standard deviations.[8] The effect and the statistical significance of newspaper circulation remains unchanged

7. Regressions with continental dummies are not displayed in the article. Results are available from the authors.

8. Brunetti and Weder (1999) show also that press consumption and corrupt practices are negatively related in a crossection of countries in the early 1990s. IADB (2000) has preliminary evidence on the relationship between newspaper readership, turnout, and quality of government. Besley and Burgess (2002) show that media penetration improves government responses to food shortages in Indian states. Lederman, Loayza, and Reis-Soares (2001) indicate that press freedom depresses corruption.

Table 2. Panel Data Analysis of the Mechanisms of Political Accountability for the Period 1980–95

Independent variables	Lack of Corruption		Quality of bureaucracy		Rule of law		Decline in expropriatory risk	
	(A1)	(A2)	(B1)	(B2)	(C1)	(C2)	(D1)	(D2)
Constant	0.96**	0.83***	−1.19***	−0.51**	−0.21	0.18	2.87***	1.36***
	(0.37)	(0.21)	(0.37)	(0.24)	(0.46)	(0.30)	(0.66)	(0.35)
Lagged dependent variable		0.68***		0.62***		0.70***		0.77***
		(0.04)		(0.04)		(0.04)		(0.05)
Level of democracy[a]	0.49***	0.24**	0.38**	0.01	0.52***	−0.05	1.52***	0.34*
	(0.17)	(0.11)	(0.17)	(0.12)	(0.20)	(0.14)	(0.32)	(0.19)
Free circulation of newspapers	3.67***	1.19***	2.62***	0.79***	2.51***	0.23	0.70	−1.25***
	(0.55)	(0.39)	(0.53)	(0.31)	(0.59)	(0.36)	(0.85)	(0.42)
Per capita income (log)	0.24***	0.01	0.53***	0.23***	0.43***	0.15***	0.48***	0.14
	(0.05)	(0.03)	(0.05)	(0.04)	(0.06)	(0.05)	(0.09)	(0.06)
R2	0.582	0.808	0.602	0.830	0.433	0.763	0.162	0.709
Wald χ^2	348.64	1341.47	730.9	2146.17	401.57	1477.46	250.74	1030.68
Number of observations	408	303	408	303	408	303	405	303

[a]Variable goes from 0 to 1.
Estimation: Ordinary least squares estimation, panel corrected standard errors, ar-1 autocorrelation.
Standard errors in parentheses.
***$p \leq 0.01$; **$p \leq 0.05$; *$p \leq 0.10$.

after introducing the lagged dependent variable (Model A2): the long-run coefficient of newspaper circulation, at around 3.71, is almost identical to the coefficient in Model A1.[9]

The quality of bureaucracy is also affected by both political regime and the information flow. Democracy again has a positive but small impact on the performance of civil servants. Newspaper readership substantially boosts governmental performance. A change in newspaper circulation from its median to its maximum value increases bureaucratic performance by one standard deviation. The introduction of the lagged dependent variable does not erode the statistical strength of newspaper circulation and, again, the long-run coefficient is very similar to the coefficient in Model B1.

Democracy and media circulation behave in the same manner in relation to the level of the rule of law in Model C1. Their effect disappears, however, once we introduce the lagged value of the rule of law. Finally, in the regression on the level of expropriatory risk, democracy has a dissuasive impact on the temptation policy makers may have to expropriate property owners. But, at least according to Model D2, a democratic setting with high levels of newspaper reading seems to pose a potential threat to property.[10]

In our opinion, these differential results for corruption and governmental performance on the one hand and rule of law and expropriatory risk on the other are not surprising. In fact, they let us delineate in a precise manner the empirical domain where the model of political accountability applies. For the theoretical reasons discussed in Section 2, the presence of democratic institutions and higher levels of information make possible the effective application of pressure from the public onto politicians to exact good behavior from the latter. But those mechanisms of political accountability, which are fundamental to obtain cleaner and more effective governments, are of much less consequence to determine the kind of norms and legal practices that will prevail at the broader societal level. The existence of monitoring mechanisms in the hands of voters may affect how public officials will comply with the law, but they are certainly not geared to elicit virtuous behavior among citizens. Thus free press should (and in fact does) exhibit a weaker relationship to rule of law than to corruption. The quality of electoral and informational controls are even less relevant to determine the kind of policies governments may pursue toward redistribution and private property—the latter will depend on the preferences and demands made by the public or the governing elite.

9. The long-run coefficient is calculated as $\alpha_2/(1-\alpha_1)$, where α_1 is the coefficient of the lagged value of the dependent variable and α_2 is the coefficient of the variable of interest (newspaper circulation in this case).

10. Expropriatory risk is the only case in which the circulation of free press changes into a positive (and statistically significant) coefficient when we exclude the observations for the years 1990 or 1995.

Notice that these results reinforce the empirical validity of the model and the dependent variables we are employing. We are not getting good statistical results merely because we are looking at different components of a well-functioning political system in which all kinds of good behaviors cluster tightly together. On the contrary, we can show that, in line with our theoretical expectations, the impact of political accountability actually varies across different dimensions of political life. It is fundamental to reduce corruption and increase administrative efficiency. But it does not necessarily color the character of substantive policies.[11] The strength of our estimations resides in that they are able to discriminate among different questions (corruption, performance, degree of state intervention) and models in quite a clear-cut manner.

Although the key goal of this article is to assess the empirical relevance of the political accountability model, we take advantage of the extensive dataset we have gathered to test other alternative explanations. We start to do so in Table 2 with per capita income, which has a positive but modest impact on levels of corruption. Moving from a per capita income of $500 to one of $20,000 implies 0.9 points in the index of lack of corruption. A comment is in order. The result does not clarify why, that is, through which channels, does economic development affect governance. At least two mechanisms are conceivable. On the one hand, economic development may just be proxying for the level of physical and human capital available to governments. Regressing educational variables in the benchmark models of Table 2 shows that human capital is not statistically significant—although it is once we exclude per capita income.[12] On the other hand, economic development can be mostly seen as a shift from highly immobile fixed assets to progressively more mobile capital, that is, from societies that rely on the exploitation of mines and agricultural land to economies based on manufacturing industries and human-capital-intensive businesses. In other words, higher levels of per capita income may be associated with better governmental performance because as the proportion of mobile assets increases (due to the process of economic modernization), the capacity of politicians to expropriate resources (the parameter) declines. We will return to this question in discussing the results of Table 3.

Table 3 expands the test of a much broader range of competing explanations. Since the regression on expropriatory risk in Table 2 did not confirm any role for newspaper readership, we restrict the analysis to the first three indexes: corruption, bureaucratic performance, and rule of

11. The differences in the explanatory value of democracy and newspaper circulation are more robust given how relatively well correlated the different Political Risk Services (PRS) indexes are. For example, the lowest Pearson's coefficient of correlation between any of the four indicators is 0.63 (the one between corruption and expropriation of risk). The remaining correlation coefficients fluctuate around 0.75.

12. These results are not shown in the article. The introduction of educational controls does not erode the impact of newspaper circulation. Results are available upon request.

Table 3. Testing the Robustness of the Panel Data Analysis of the Mechanisms of Political Accountability for the Period 1980–95

	Lack of corruption			Quality of bureaucracy			Rule of law		
Independent variables	(A1)	(A2)	(A3)	(B1)	(B2)	(B3)	(C1)	(C2)	(C3)
Constant	0.40	−0.51	−0.07	−1.08***	−1.42***	−0.09	−0.71	−2.56***	−1.45*
	(0.53)	(0.64)	(0.80)	(0.41)	(0.50)	(0.68)	(0.60)	(0.72)	(0.83)
Level of democracy[a]	0.41**	0.22	−0.07	0.31	0.29	0.03	0.69**	0.43	−0.14
	(0.25)	(0.19)	(0.34)	(0.22)	(0.24)	(0.28)	(0.28)	(0.30)	(0.32)
Free circulation of newspapers	2.70***	3.16***	3.50***	1.22**	1.44**	1.77**	1.29*	3.22***	3.83***
	(0.76)	(0.89)	(1.00)	(0.61)	(0.72)	(0.85)	(0.80)	(0.94)	(1.07)
Per capita income (log)	0.29***	0.31***	0.33***	0.54***	0.55***	0.48***	0.46***	0.45***	0.42***
	(0.06)	(0.06)	(0.08)	(0.05)	(0.06)	(0.07)	(0.07)	(0.07)	(0.08)
Proportion of Protestant religion[a]	0.71	0.61	0.51	0.81**	0.77*	1.21**	0.36	−0.04	0.49
	(0.46)	(0.49)	(0.54)	(0.38)	(0.43)	(0.48)	(0.64)	(0.53)	(0.58)
Proportion of Catholic religion[a]	−0.52*	−0.54*	−0.50	−0.61***	−0.64**	−0.73**	−0.07	0.05	−0.00
	(0.32)	(0.30)	(0.35)	(0.27)	(0.27)	(0.33)	(0.38)	(0.36)	(0.41)
Proportion of Muslim religion[a]	−0.38	−0.18	−0.21	−0.49**	−0.32	−0.42	0.29	0.56	0.12
	(0.28)	(0.27)	(0.33)	(0.26)	(0.25)	(0.30)	(0.36)	(0.35)	(0.36)
Socialist legal code	1.21**	1.95***		−0.05	0.89**		0.82*	2.26***	
	(0.48)	(0.43)		(0.39)	(0.40)		(0.48)	(0.43)	
English legal code	0.39	0.61*	0.72**	0.17	0.31	0.30	0.03	0.44	0.59
	(0.35)	(0.32)	(0.37)	(0.18)	(0.20)	(0.23)	(0.32)	(0.32)	(0.37)
French legal code	0.38	0.65**	0.63*	−0.05	0.11	0.06	−0.07	0.52*	0.60
	(0.36)	(0.32)	(0.32)	(0.38)	(0.20)	(0.25)	(0.32)	(0.32)	(0.38)
Scandinavian legal code	0.05	0.14	0.02	0.20	−0.39	−0.77*	0.27	0.76*	0.29
	(0.42)	(0.42)	(0.52)	(0.31)	(0.35)	(0.42)	(0.54)	(0.43)	(0.45)
Former Communist economy	−0.24	−0.58		0.10	−0.56		0.37	−0.45	
	(0.35)	(0.39)		(0.42)	(0.55)		(0.46)	(0.39)	

Continued

Table 3. *Continued*

	Lack of corruption			Quality of bureaucracy			Rule of law		
Independent variables	(A1)	(A2)	(A3)	(B1)	(B2)	(B3)	(C1)	(C2)	(C3)
Federalism	0.20	0.47***	0.43**	0.35**	0.56***	0.47***	0.33*	0.75***	0.72***
	(0.19)	(0.18)	(0.19)	(0.16)	(0.16)	(0.18)	(0.18)	(0.18)	(0.19)
Presidentialism[b]	0.04	−0.06	−0.10	0.21***	0.13*	0.08	0.17*	0.11	0.14
	(0.08)	(0.08)	(0.10)	(0.07)	(0.07)	(0.08)	(0.09)	(0.09)	(0.10)
Proportional representation	0.16	0.13	0.24	−0.08	−0.19	−0.08	−0.24	−0.39	−0.08
	(0.24)	(0.25)	(0.29)	(0.19)	(0.21)	(0.25)	(0.28)	(0.27)	(0.29)
Trade openness (log value)		0.08	−0.00		−0.00	−0.07		0.36***	0.13
		(0.13)	(0.14)		(0.11)	(0.13)		(0.13)	(0.13)
Public consumption as percent of GDP[a]		2.94***	4.17***		2.13**	2.49***		0.04	1.14
		(0.96)	(1.06)		(0.84)	(0.95)		(1.19)	(1.17)
Fuel exports as percent of total exports[a]		−1.14***	−0.63**		−0.84***	0.17		−1.04***	−0.11
		(0.21)	(0.33)		(0.20)	(0.33)		(0.25)	(0.35)
Index of concentration[a]			−1.22**			−1.68***			−1.18**
			(0.50)			(0.48)			(0.52)
R^2	0.608	0.639	0.674	0.659	0.690	0.703	0.473	0.550	0.653
Wald χ^2	804.77	1029.60	850.03	1205.01	1585.62	1066.16	1132.95	1022.88	1101.41
Number of observations	389	346	247	389	346	247	389	346	247

[a]Variable goes from 0 to 1.
[b]Presidentialism is coded 2 for president elected separately from legislature, 1 for president elected by legislature yet retains strong powers, 0 for parliamentarism.
Estimation: Ordinary least squares estimation, panel corrected standard errors, ar-1 autocorrelation.
Standard errors in parentheses.
***$p \leq 0.01$; **$p \leq 0.05$; *$p \leq 0.10$.

Table 4. Impact of Independent Variables on Indices of Governmental Performance

As a result of change from median to maximum value of	Change in index of		
	Corruption	Quality of bureaucracy	Rule of law
Level of democracy	0.15	0.20	0.29
Free circulation of newspapers	2.13*	0.98*	2.18*
Log of per capita income	1.03*	1.81*	1.78*
Proportion of Protestants	0.58	0.73*	0.26
Proportion of Catholics	−0.43	−0.50*	0.33
Proportion of Muslims	−0.18	−0.31	0.84
English legal code	0.61	0.31	0.74
Socialist legal code	1.95*	0.90	2.56*
French legal code	0.65*	0.11	0.82
Scandinavian legal code	0.14	−0.39	1.05
Former Communist economy	−0.58	−0.56	−0.16
Federalism	0.47*	0.56*	1.05*
Presidentialism	−0.13	0.25*	0.50
Proportional representation	0.13	−0.19	−0.10
Log of trade openness	0.15	0.00	0.97
Public consumption	1.28*	0.93*	0.31
Fuel exports	−1.11*	−0.83	−0.73
Index of concentration	−0.77*	−1.06*	−0.74*

All variables except index of concentration based on models A2, B2, and C2 in Table 3.
*A majority of the coefficients in Table 3 are statistically significant.

law. Table 3 includes controls for cultural and institutional factors—that is, religious composition of the population, legal code of each country, a dummy for transition to market economy, and constitutional rules—in the first column of each index (columns A1, B1, and C1). It then adds controls for economic variables, that is, trade openness, size of the state, and fuel exports, in the second column of each dependent variable (columns A2, B2, and C2). Finally, in the third column it adds a control for export concentration—the sample shrinks by about 40% to 247 observations and the controls for Socialist legal code and former Communist economy have to be dropped due to complete collinearity.[13]

To facilitate interpretation of the results, Table 4 reports the variation of the three indexes once we change each independent variable from its median to its maximum value (while holding all the other regressors constant at their median value). Newspaper readership remains a strong

13. Ethnic fractionalization, urbanization, total population, and geographical area have no effect on governmental performance and have not been included in the regression. The proportion of old population slightly improves governance, but since the inclusion of this variable reduces the sample by about one-third, it has not been reported. All results can be obtained upon request.

predictor of the quality of government. Democracy has only a positive and statistically significant effect in the first model—its statistical significance disappears once we introduce economic controls. The coefficients are similar to Table 2, except for quality of bureaucracy, where they are half the size.

Consider now the role of alternative explanatory variables. Different religions do not have the theoretical effects generally claimed by the literature on corruption and the rule of law—the only exception is the proportion of Catholics. By contrast, as the proportion of Protestants increases, the quality of bureaucratic performance goes up. Conversely, Catholicism and Islam depress it. The statistical significance of Catholicism disappears, however, once we introduce a control for Latin America.

Differences in legal codes, which LaPorta et al. (1999) take to be fundamental in explaining the degree of state intervention and the mechanisms through which individuals protect themselves from corrupt or rent-seeking public servants, do not fare very well. The presence of a common law system (as well as French law) is associated with lower levels of corruption, but has no relationship to the other dimensions of governance. Strikingly enough, a Socialist legal code improves governmental performance, but this result completely disappears once we drop the dummy for former Communist economies. All in all, the weak impact of legal codes is not surprising. LaPorta et al. never specify in what particular ways legal codes should make politicians differ in their behavior. In fact, to the best of our knowledge, there is no aspect of Roman law that should make the public sphere more susceptible to corruption than common law.

Varying constitutional procedures have a very limited effect on governmental performance. Federal structures are conducive to lower levels of corruption, improved bureaucratic behavior, and higher levels of legal compliance—the result confirms Treisman (2000). Presidentialism slightly improves the level of bureaucratic quality and the rule of law (although not systematically in all models)—this may be related to an increase in the level of accountability induced by the system of checks and balances. The coefficients cease to be statistically significant once we introduce a control dummy for Latin America. Proportional representation has no effect on governance.[14]

The second and third models consider the impact of variation in economic structures and policies. In line with the predictions of the model, the type of asset has a decisive impact on the quality of government. The level of corruption increases by almost a whole point (two-thirds of one standard deviation of the sample) whenever fuel exports rise from 0 to 100% of total exports. Fuel exports have very similar and negative effects on

14. We have also regressed the interaction of each constitutional structure with democracy. Results are the same except for presidentialism, which reduces corruption in democratic regimes.

bureaucratic quality and the rule of law.[15] The level of export concentration, which proxies for the ease with which politicians can extract rents, also has a strong impact on all indicators of governmental performance. Corruption declines by a whole point as we move from a country with only one type of export to a country that is highly diversified in its productive structure. The effect is even more stark for quality of bureaucracy and very similar for the rule of law. Once we introduce the control for economic concentration, the percentage of fuel exports ceases to be significant for bureaucratic quality and the rule of law. It remains significant for corruption, although the size of the coefficient falls by half. (Since the coefficient of per capita income does not change relative to the results in Table 2, we must assume that it captures the higher leverage that a higher stock of physical and human capital gives to policy makers in developed countries to perform their tasks well.)

Trade openness has no impact on any indicator. Public expenditure, measured through public consumption of general government as a proportion of GDP, has a positive effect on performance and is statistically significant. As the resources of the state increase, graft declines: a larger public sector reduces the incentive public officials have to raise their salaries by illegal means. But the effect is small. An increase in public consumption of 7 percentage points of GDP (about one standard deviation) translates into a reduction in corruption of about 0.2 points. The effect is smaller for bureaucratic quality and not statistically significant for rule of law.

3.2 Political Governance in the Late 1990s

We supplement the panel data analysis performed in Section 3.1 with a cross-sectional analysis based on the rather comprehensive indicators of the quality of government recently gathered by Kaufmann, Kraay, and Zoido-Lobaton (1999a, b). These indicators, which encompass observations for 155–173 countries in 1997–98, have been built merging data drawn from both polls of experts which reflect country ratings (on a global or regional basis) and cross-country surveys of firms or citizens carried out by international and nongovernmental organizations.[16] Among the growing data being generated on corruption and governmental effectiveness,

15. Notice that this insight runs parallel to Ades and Di Tella (1999), where the proportion of valuable raw materials increases the chances of corruption. Still, whereas they attribute this result to the fact that they increase the incentives bureaucrats may have to surrender their control rights in exchange for bribes, we account for the result in the context of a political accountability model in which exit options (particularly limited in the case of fuel) discipline politicians.

16. The aggregate indicators for each cluster were estimated by means of an unobserved components model which expresses the observed data in each cluster as a linear function of the unobserved common component of governance, plus a disturbance term capturing perception errors and/or sampling variation in each indicator. For the estimation procedure, see Kaufmann, Kraay, and Zoido-Lobaton (1999b).

they may be the closest set of indicators to pass the strictest internal validity test.

3.2.1 Dependent Variables. To measure government quality we employ the following three indicators:

(1) *Graft*, providing an indicator of subjective perceptions of public corruption.
(2) *Government Effectiveness*, which combines perceptions of the quality of public services and 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.
(3) *Rule of Law*, based on measures of the extent to which agents have confidence in and abide by the rules of society—it includes perceptions about the incidence of crime, the effectiveness and predictability of the judiciary, and the enforceability of contracts.

All these indicators have been normalized so that they have a mean around 0 and a standard deviation of 0.9 and generally vary from −1.5 to 2. A higher index indicates lower corruption, higher efficiency, and a more reliable and law-abiding state.

3.2.2 Model and Independent Variables. To estimate the causes of variation in government effectiveness, we estimate an OLS regression model in a cross section of nations. The variables of interest are the same employed in Section 3.1 (but now with observations for 1994–95) with the following additions or changes:

(1) We have introduced a control for the national level of *Political Instability*, as reported through Kaufman's Political Instability and Violence Index in 1997–98. The index of political instability combines several indicators to measure perceptions of the likelihood that the incumbent will be destabilized or overthrown by possibly unconstitutional and/or violent means.[17] As predicted in the model, we should expect that, other things being equal, as political instability increases, incumbents will have a much higher incentive to appropriate maximum rents in the present period. In other words, corruption and inefficient policies should rise with instability.
(2) The size of government has been measured as the proportion of public revenues of the central government over GDP.
(3) We have added a control for the level of financial liberalization in the mid-1990s. Financial liberalization is captured by Quinn's Financial

17. For a full description of the measure and how it has been built, see Kaufmann, Kraay, and Zoido-Lobaton (1999b). The measure includes indicators of the risk of riots, terrorism, coups, and civil war.

Table 5. Mechanisms of Political Accountability in the Mid-1990s: A Cross- Sectional Analysis

Independent variables	Corruption	Efficiency	Rule of law
Constant	−1.35***	−1.02***	−1.35***
	(0.38)	(0.36)	(0.28)
Level of democracy[a]	0.01	0.01	0.01
	(0.02)	(0.02)	(0.01)
Free circulation of newspapers[b]	1.74***	1.05*	0.55
	(0.56)	(0.53)	(0.43)
Per capita income (log)[c]	0.16***	0.12**	0.20***
	(0.05)	(0.05)	(0.04)
Political instability[d]	0.39***	0.53***	0.67***
	(0.07)	(0.07)	(0.05)
R^2	0.720	0.742	0.850
Adjusted R^2	0.710	0.732	0.844
Number of observations	117	117	117

[a]Gurr Index of Democracy, rescaled from 0 to 1.
[b]Newspaper circulation per person conditional on level of democratic freedom.
[c]Per capita income. Log of per capita GDP in dollars and 1985 constant prices. Source: World Penn Tables.
[d]Index of Political Stability from Kaufmann, Kraay, and Zoido-Lobaton (1999a).
Estimation: Ordinary least squares estimation.
Standard errors in parentheses.
***$p \leq 0.01$; **$p \leq 0.05$; *$p \leq 0.10$.

liberalization index of government restrictions on international capital movements (based on the International Monetary Fund's [IMF's] coding) (Quinn, 1997), normalized to a range from 0 to 1. A higher number implies fewer capital controls.

3.2.2 Results. Table 5 presents the results for the indicators of *Corruption*, *Government Efficiency*, and *Rule of Law*. In this basic model we regress the level of democracy and newspaper readership, plus two control variables, economic development and political instability, that are very stable and highly significant from a statistical point of view.

The models in Table 5 have strong explanatory power—the explained variance ranges from 72% to 85%. As shown in column 1, the level of newspaper readership has a strong impact on the level of corruption and government efficiency. The difference between the top country in the sample in terms of having a free and strong newspaper circulation and a country with no press readership amounts to 1.05 points in the level of corruption—well over one standard deviation in the sample under analysis. It equals 0.64 points in government efficiency—or two-thirds of the standard deviation. Newspaper circulation has a positive impact on rule of law, but the coefficient is not statistically significant.[18]

18. Djankov et al. (2003) report data on the ownership (public, private) of the five largest newspapers. The effect of newspaper circulation is robust to the share of state ownership—the result has to be looked at with caution since the sample declines by about two-fifths.

Contrary to the panel analysis, democracy has no independent impact on any of the indicators of governmental performance. Once we drop political instability, democracy has a positive and statistically significant effect on the three indicators of governmental performance.[19]

In Table 5, both the level of development and the extent of political stability are statistically and substantively significant in a systematic manner. Economic development is associated with better government. The effect, however, is again mild. Setting all other variables at their means, a country with a per capita income of $500 is predicted to have a corruption index of −0.25. For a per capita income of $20,000, the Corruption index goes up to 0.34. Political stability has a substantial effect on the quality of government. One standard deviation in the level of political stability (from, say, the United Kingdom to Zambia) increases the level of corruption by about half a standard deviation of the sample. The effect and statistical significance of press circulation and democracy do not hinge on the inclusion of any control variables. In fact, once we drop per capita income and/or political stability, the coefficients of democracy and newspaper readership grow both substantively and in statistical significance.

Table 6 considers again the range of competing explanations the literature has examined. Free circulation of newspapers, per capita income, and political instability are robust to the introduction of control variables except for the effect of newspaper readership on government efficiency once we introduce the index of economic concentration—but even in this case the size of the coefficient of free newspaper circulation remains very similar to the other regressions and bordering statistical significance (Model A3).

In line with the panel data estimations in Section 3.1, the percentage of Catholics is associated with higher levels of corruption, but it becomes statistically insignificant once we introduce continental dummies. By contrast, the percentage of Muslims depresses the cleanliness of government even after controlling for region. In contrast with the results of Table 2, the effect of the Socialist legal code on corruption is not statistically significant. None of the constitutional variables has any statistically significant impact on any of the governance indexes.

The impact of economic variables is irregular. Confirming the results of Table 3, the percentage of fuel exports has a very robust and negative impact on governmental performance. In contrast, the index of export

19. In regressions not reported in this article, we have also examined the causes of variation of the index of Regulatory Burden developed by Kauffman, Kraay, and Zoido-Lobaton and based on measures of distortionary policies, such as price controls or inadequate bank supervision, as well as perceptions of the burdens due to excessive regulations in areas like foreign trade and business development. As in the panel data analysis, newspaper readership has no impact on the level of regulations in each country. We must conclude again that newspaper readership is clearly tapping the ability citizens have to control public institutions. Yet it says nothing about the level of state intervention (through policy regulations) citizens demand from their politicians.

Table 6. The Robustness of Political Accountability Mechanisms in the Cross-Section Analysis

	Corruption			Efficiency			Rule of law		
Independent variables	(A1)	(A2)	(A3)	(B1)	(B2)	(B3)	(C1)	(C2)	(C3)
Constant	−1.43***	−2.01***	−1.64**	−1.02**	−1.58**	−1.15	−1.10***	−1.30***	−1.41***
	(0.41)	(0.55)	(0.78)	(0.45)	(0.60)	(0.81)	(0.34)	(0.44)	(0.54)
Level of democracy[a]	0.00	−0.00	−0.00	0.01	−0.01	−0.01	−0.02	−0.02	−0.01
	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.03)	(0.02)	(0.02)	(0.02)
Free circulation of newspapers	1.24*	1.20*	1.58	1.43*	1.29	1.66*	0.62	0.69	0.87
	(0.74)	(0.74)	(0.98)	(0.80)	(0.81)	(1.01)	(0.59)	(0.59)	(0.67)
Per capita income (log)	0.17**	0.25***	0.14	0.11**	0.22***	0.08	0.19***	0.23***	0.17***
	(0.05)	(0.07)	(0.08)	(0.05)	(0.07)	(0.09)	(0.04)	(0.05)	(0.06)
Political instability	0.38***	0.32***	0.40***	0.54***	0.40***	0.48***	0.66***	0.64***	0.60
	(0.06)	(0.08)	(0.10)	(0.07)	(0.08)	(0.11)	(0.05)	(0.06)	(0.07)
Proportion of Protestant religion[a]	0.04	0.01	−0.20	−0.44	−0.42	−0.59	−0.33	−0.69**	−0.46
	(0.38)	(0.47)	(0.50)	(0.41)	(0.45)	(0.52)	(0.30)	(0.33)	(0.34)
Proportion of Catholic religion[a]	−0.46**	−0.50**	−0.52*	−0.35	−0.36	−0.45	−0.42**	−0.45***	−0.28
	(0.20)	(0.21)	(0.31)	(0.22)	(0.23)	(0.32)	(0.16)	(0.16)	(0.22)
Proportion of Muslim religion[a]	−0.51**	−0.41*	−0.49	−0.40*	−0.25	−0.33	−0.22	−0.13	0.06
	(0.20)	(0.22)	(0.33)	(0.22)	(0.24)	(0.35)	(0.16)	(0.17)	(0.23)
Socialist legal code	−0.20	−0.24	−0.04	−0.15	−0.07	0.20	−0.44*	−0.47*	−0.34
	(0.31)	(0.31)	(0.47)	(0.33)	(0.33)	(0.49)	(0.24)	(0.24)	(0.33)
English legal code	0.54*	0.46	0.67	0.47	0.36	0.69	0.21	0.16	0.18
	(0.29)	(0.28)	(0.43)	(0.31)	(0.31)	(0.45)	(0.23)	(0.22)	(0.30)
French legal code	0.32	0.24	0.42	0.45	0.31	0.55	−0.02	−0.06	−0.15
	(0.28)	(0.27)	(0.43)	(0.30)	(0.30)	(0.44)	(0.23)	(0.22)	(0.30)
Scandinavian legal code	0.24	0.11	0.38	0.39	0.35	0.62	−0.05	0.13	0.01
	(0.42)	(0.44)	(0.53)	(0.46)	(0.48)	(0.55)	(0.34)	(0.35)	(0.36)

Continued

Table 6. *Continued*

	Corruption			Efficiency			Rule of law		
Independent variables	(A1)	(A2)	(A3)	(B1)	(B2)	(B3)	(C1)	(C2)	(C3)
Federalism	−0.03	0.04	0.15	0.00	0.03	0.20	−0.07	−0.02	−0.00
	(0.15)	(0.15)	(0.21)	(0.16)	(0.16)	(0.22)	(0.12)	(0.11)	(0.15)
Presidentialism[b]	0.08	0.01	0.07	0.02	−0.04	0.04	0.02	−0.02	0.05
	(0.06)	(0.07)	(0.10)	(0.07)	(0.07)	(0.10)	(0.05)	(0.05)	(0.07)
Proportional representation	0.13	0.07	0.18	0.03	0.01	0.21	0.18	0.10	0.09
	(0.16)	(0.17)	(0.23)	(0.18)	(0.19)	(0.24)	(0.13)	(0.14)	(0.16)
Public consumption (proportion of GDP)[a]		1.06	1.23		−0.22	−0.09		0.70	1.09
		(1.10)	(1.35)		(1.20)	(1.41)		(0.88)	(0.93)
Level of capital controls		0.01	−0.03		0.20	0.15		0.02	−0.10
		(0.14)	(0.18)		(0.16)	(0.19)		(0.11)	(0.13)
Trade openness		0.04	0.04		0.02	0.03		−0.01	0.06
		(0.09)	(0.13)		(0.10)	(0.13)		(0.07)	(0.09)
Percentage of fuel exports over total exports[a]		−0.77***			−0.76***			−0.38**	
		(0.20)			(0.22)			(0.16)	
Index of concentration[a]			0.03			−0.00			−0.05
			(0.24)			(0.25)			(0.17)
R^2	0.818	0.852	0.826	0.780	0.800	0.781	0.892	0.909	0.914
Adjusted R^2	0.792	0.816	0.773	0.748	0.755	0.715	0.876	0.888	0.887
Number of observations	111	99	78	111	99	78	111	99	78

[a]Variable goes from 0 to 1.
[b]Presidentialism is coded 2 for president elected separately from legislature, 1 for president elected by legislature yet retains strong powers, 0 for parliamentarism.
Estimation: Ordinary least squares estimation.
Standard errors in parentheses.
***$p \leq 0.01$; **$p \leq 0.05$; *$p \leq 0.10$.

concentration is not statistically significant—this may be related to the small size of the sample and the fewer number of bad performers. Finally, trade openness, the level of financial liberalization, and public consumption do not affect the quality of governance.

3.2.3 Endogeneity. In exploring the role that the free circulation of newspapers may play on the reduction of corruption and on the general improvement of governmental performance, we finally need to address the extent to which the existence of a free and informed public may not be endogenous to our model. That is, it may be the case that, if a government wants to undertake corruption, it will first attempt to limit information, censoring newspapers, taking over the media, and even restricting access to education.

We tackle this issue in several ways. First, we examine (in the following section) a universe of cases in which public officials have little leverage over civil liberties and the flows of information in the political units they control. As members of a wider national structure, governed according to a constitutional chart, whose implementation is monitored and sustained by autonomous federal institutions, the states of the United States have little capacity (at least in contemporary times) to restrict the free and wide distribution of information across the electorate. Free circulation of newspapers approaches the nature of an exogenous variable and, as shown shortly, it explains a large portion of the variance in corruption across the American states.

Second, taking advantage of the time dimension of the panel of world nations, we conduct a Granger causality test between corruption and free press and present the individual equation estimates for one and two lags in Table 7, Panel A. Results with vector autoregression (VAR) are similar. The lagged values of newspaper readership significantly—or jointly significantly for two lags—affect the level of corruption in the expected direction. The lagged values of corruption, however, do not significantly enter in the regression of free newspaper readership. As an additional test, we study the evolution of changes in both variables conditioned on their starting values.[20] In Table 7, Panel B, changes in newspaper readership significantly affect changes in corruption in the subsequent period, given the initial values of corruption and press at the time changes are measured. Conversely, past changes in corruption do not enter significantly in the estimates of current newspaper circulation changes.

Finally, both in the cross section and in the panel of nations, we have instrumented free newspaper readership for a different set of variables. The results are reproduced in Table 8. Admittedly there is in general not much choice in the set of instruments available. Given these constraints,

20. The level of corruption has changed 9% on average over the four periods of our panel data. Change in the level of free press circulation has averaged 18% (with a peak of 35% from the period 1985–89 to the period 1990–93).

Table 7. A Granger Causality Test of the Mechanisms of Political Accountability

Panel A. Estimates with panel analysis

	Model 1	Model 2	Model 3	Model 4
Dependent variable	Corruption	Free newspaper readership	Corruption	Free newspaper readership
Constant	0.75**	0.009	0.81***	−0.004
	(0.14)	(0.007)	(0.10)	(0.01)
$\text{Corruption}_{(t-1)}$	0.92***	−0.001	0.74***	0.006
	0.097	(0.006)	(0.034)	(0.005)
$\text{Corruption}_{(t-2)}$	−0.17**	0.002		
	(0.08)	(0.006)		
$\text{Free newspaper}_{(t-1)}$	0.21[a]	0.61**	1.1***	0.87**
	(0.73)	(0.18)	(0.33)	(0.08)
$\text{Free Newspaper}_{(t-2)}$	0.97[a]	0.32*		
	(0.77)	(0.19)		
R^2	0.813	0.908	0.811	0.853
Joint χ^2	7.85**			
Number of observations	215	209	335	329

Panel B. Changes in corruption and free newspaper readership

	Model 1	Model 2
Dependent variable	Growth in corruption	Growth in free newspapers
Constant	0.52**	0.18
	(0.24)	(0.21)
$\text{Growth in free newspapers}_{(t-1)}$	0.03***	
	(0.01)	
$\text{Level in corruption}_{(t-1)}$	−0.16**	
	(0.07)	
$\text{Level of free newspapers}_{(t-2)}$	0.85**	
	(0.38)	
$\text{Growth in corruption}_{(t-1)}$		0.02
		(0.14)
$\text{Level of free newspapers}_{(t-1)}$		−1.58***
		(0.66)
$\text{Corruption}_{(t-2)}$		0.07
		(0.07)
R^2	0.10	0.024
Number of observations	195	195

Estimation: Ordinary least squares, panel corrected standard errors.
Standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; *$p < 0.10$.

we have successfully tested the robustness of the results in the panel by using the percentage of the population that has completed secondary schooling and the proportion of the population 65 years and older as instruments for newspaper readership (Models 1 and 2). Similarly, in the cross section of countries, results are also robust to employing the percentage of the population 65 years and older (Model 3). Older as well as highly educated people are more likely to constitute the bulk of newspaper readers. These variables are correlated with both corruption and

Table 8. Estimating the Impact of Political Accountability Mechanisms Through Instrumental Variables

	Panel analysis		Cross-sectional analysis		
	Model 1	Model 2	Model 3	Model 4	Model 5
Instruments	Percent 65 years and older	Percent with complete secondary education	Percent 65 years and older	Percent 65 years and older + literacy rate	Percent 65 years and older + literacy rate + human development index + life expectancy
Constant	2.08***	0.90	−1.01***	−0.92*	−1.05***
	(0.47)	(1.14)	(0.48)	(0.50)	(0.48)
Level of democracy	0.12	0.32	0.0002	−0.003	0.002
	(0.21)	(0.38)	(0.0200)	(0.020)	(0.020)
Free newspaper circulation	7.31***	5.07*	2.81***	3.10***	2.69***
	(1.21)	(2.94)	(1.11)	(1.13)	(1.04)
Per capita income (log)	0.08	0.24	0.11	0.10	0.12*
	(0.07)	(0.16)	(0.07)	(0.07)	(0.07)
Political instability			0.38***	0.37***	0.38***
			(0.08)	(0.08)	(0.07)
R^2	0.506	0.583	0.711	0.702	0.700
Wald χ^2	404.51	105.39			
Adjusted R^2			0.701	0.691	0.710
Number of observations	408	249	117	116	116

Standard errors in parentheses.
***$p \leq 0.01$; **$p \leq 0.05$; *$p \leq 0.10$.

newspaper readership, but particularly with the latter within the sample available. In addition, we have successfully used life expectancy, secondary school enrollment, the United Nations' human development index, and years of schooling as instruments (Models 4 and 5).

4. Corruption in the U.S. States

The validity of any theory ultimately hinges on how well it travels across different universes of cases. So far we have tested our political accountability model on both a cross section and a panel data of independent nations. We turn now to explore its implications as well as its robustness on the universe of U.S. states—that is, in not fully sovereign political units. If the model is correct, higher levels of political information and transparency should lead to more disciplined, less corrupt politicians.

To test our theory in the United States, we examine the underlying causes of political corruption in the American states. The measure of political corruption is the number of public officials in each state who have been convicted of violating laws against public corruption per 100 elected officials in that state. Convictions have been decided at the federal court level: this (jointly with controls we describe later) reduces very significantly the possibility that there may be endogenous or state-driven effects in the observed level of corruption. To eliminate random variations in yearly data, we employ the total number of convictions for two separate periods, 1977–87 and 1986–95. The data, gathered by the U.S. Department of Justice's Public Integrity Section, were collected and reported by Meier and Holbrook (1992) and Schlesinger and Meier (2000). During the first period of analysis, the average state had 1.69 convictions per 100 elected officials, and the standard deviation was 1.71. The number of convictions ranged from 0.03 in North Dakota, Kansas, and Vermont to 5 or more in Alabama, Maryland, and South Carolina. In the period 1986–95, the number of convictions increased: the average was 2.12 with a standard deviation of 2.35. The number of convictions rose in 39 states and now ranged from 0.1 in New Hampshire and Vermont to more than 8 in Florida and Virginia. The universe of cases is 49—data for Hawaii are not reported in Schlesinger and Meier (2000).

We examine the causes of variation in corruption in two ways. First, we estimate our model in a cross section of the average of both periods. Second, we estimate a panel of the two periods using the same procedures discussed above. Results are reported in Table 9. Both models in Table 9 include the variables that are statistically significant: daily circulation of newspapers per person in 1983 and 1995; level of turnout in the presidential elections of 1976, 1980, 1992, and 1996; the log value of per capita income in constant dollars of 1995 for the years 1985 and 1995; the audit capabilities of the states, measured by the number of computer facilities available to the state legislature; and the index of social capital as developed in Putnam (2000).

Table 9. Corruption in U.S. States: Number of Convictions of Public Officials per 100 Officials, 1977–95

Independent variables	Average 1977–95	Panel data
Constant	−5.23	−6.60
	(15.92)	(7.09)
Circulation of newspapers[a]	−13.00**	−13.56***
	(5.37)	(4.07)
Turnout[b]	−0.13**	−0.09***
	(0.05)	(0.03)
Per capita income (log)[c]	1.67	1.59**
	(1.61)	(0.74)
Audit capabilities[d]	0.08*	0.09***
	(0.04)	(0.03)
Social capital index[e]	−0.03	−0.09**
	(0.04)	(0.03)
R^2	0.559	0.486
Adjusted R^2	0.506	
Number of observations	48	96

[a]Newspaper circulation per person. Data for 1983 and 1995.
[b]Level of turnout in presidential elections of 1976, 1980, 1992, and 1996.
[c]Per capita income. Log of per capita GDP in 1995 constant prices.
[d]Computer facilities available to legislature. Source: Meier and Holbrook (1992).
[e]Index of social capital developed in Putnam (2000).
Estimation: Ordinary least squares estimation. For panel, panel corrected standard errors.
Standard errors in parentheses.
***$p < 0.01$; **$p < 0.05$; *$p < 0.10$.

The introduction of the index of social capital, which measures the presence of cooperative practices or arrangements in the population, attempts to gauge the validity of a recent stream of work relating the density of social networks, interpersonal trust, and extent of civic engagement to good government (Putnam, 1993, 2000). The extension of cooperative practices is often bundled together with newspaper readership and turnout. Nonetheless, to make progress on the causes of good governance, that is, to determine whether institutional performance derives from well-oiled accountability mechanisms or, rather, it is a by-product of broader patterns of social cooperation, we have decided to measure both variables separately. As discussed in Boix and Posner (1998), the literature on social capital has shown that efficient and clean governments are correlated with a wide set of measures of cooperative behavior, but has not defined with precision the causal mechanisms through which the latter yields the former.

The daily circulation of newspapers is taken from the *Statistical Abstract of the United States*, which gives the number of newspaper copies published in each state, and is then adjusted, with data directly obtained from the major newspapers, to reflect actual readership in each state.[21]

21. As a result of this adjustment process, the daily newspaper circulation per person drops from 0.35 to 0.26 in New York and from 0.39 to 0.12 in Virginia (where major papers

The newspaper circulation per person varies from 0.17 to 0.36 in 1983 (with a mean of 0.26 and a standard deviation of 0.05). In line with a decrease in political participation and associational life (Putnam, 2000), it decreased to 0.12–0.30 (with a mean of 0.21) in 1995. The level of turnout and per capita income are also taken from the *Statistical Abstract of the United States*. Data on audit capabilities are given by Meier and Holbrook (1992). The index of social capital is a summary measure built through factorial techniques using data on interpersonal trust, associational life, and political participation (Putnam, 2000). Table 10 displays the mean, standard deviation, minimum, and maximum for all the American variables.

Explained variation in the models in Table 9 is high and the coefficients are very stable. The results show that the number of convictions declines by 3.5 (about 1.5 standard deviations in the panel data) if we move from the lowest to highest levels of newspaper circulation.[22] The level of electoral participation has a strong impact on corruption. Turnout in presidential elections ranges from approximately 40% to 70% (the mean is around 55%). Accordingly, increasing participation to the highest rate in the sample reduces the number of convictions by 3.7. The impact of per capita income is small. The number of computer facilities per legislature has a small, but positive (rather than negative as we might have expected) impact on corruption. The impact of social capital, that is, the existence of institutionalized structures of cooperation, is ambiguous. It is only significant in the panel analysis.[23]

The models we report in Table 9 have been subjected to a long battery of controls—the results are not included since coefficients for those variables are not statistically significant. Controls include resources in the hands of the federal government (measured through federal attorneys per 100 population, federal judges per 100 population, and backlogged federal cases); social characteristics of the state population (percent of urban population, college graduates, and percent with a high school degree

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are printed), while increasing slightly in many other states. The data for New York are only partially adjusted since data on sales by state were not made available to us by the *New York Times*—this leads to an overestimation of the number of newspapers read in New York. Results do not change, however, even when we exclude this observation.

22. We have added the number of newspapers published in each state and substituted this variable for per person newspaper circulation to check whether a multiplicity of views (or higher levels of competition) explains corruption. When both the number of newspapers and circulation are regressed together, they are significant with a 10% confidence interval. When only the number of newspapers is regressed, this variable is significant and reduces corruption. Newspaper circulation and the number of newspapers are correlated with a coefficient of 0.25.

23. An analysis of the separate impact of each of the components of the index of social capital shows that purely associational measures (such as number of organizations per capita, attendance to club meetings, etc.) do not explain levels of corruption. Corruption declines with both higher levels of interpersonal trust and participation in politics. In the former variable, the causal direction probably flows from corruption to trust. The latter type of variable, measured through the number of people attending local meetings and the number serving as officers in organizations, is tapping the political accountability mechanisms we have already uncovered in the course of the article.

Table 10. Summary of American Statistics (Panel Data 1977–96)

	Observations	Mean	Std. Dev.	Minimum	Maximum
Federal convictions of public officials	98	1.83	1.95	0.03	10.38
Daily newspaper circulation per person	100	0.24	0.05	0.12	0.36
Index of social capital	96	0.02	0.78	−1.43	1.71
Log of per capita income	100	9.89	0.18	9.50	10.37
Average turnout in presidential elections	100	56.27	6.94	40.35	70.75
Audit capabilities	100	12.84	4.84	0.00	19.00
Federal attorneys per 100 population	100	0.88	0.26	0.46	1.54
Federal judges per 100 population	100	0.27	0.10	0.13	0.64
Backlogged federal cases	100	62.17	25.45	18.16	145.27
Percent of urban population	100	65.77	18.85	19.10	99.90
Difference between first and second party	100	5.84	4.49	0.15	21.05
Type of party organization	100	2.10	1.57	1.00	5.00
Appointment powers of governor	100	50.80	9.80	29.00	76.00
Index of liberalism	100	0.15	0.08	−0.05	0.33
Campaign contribution requirements	100	2.88	1.15	1.00	8.00
Percentage of state and local employees	100	33.40	9.34	22.27	76.21
Percentage of special districts	100	19.21	22.96	0.08	73.68
Proportion of electorate that must sign petitions to activate:					
Referendum	100	55.04	47.08	2.00	100.00
Initiative	100	62.96	45.64	2.00	100.00
Recall	100	77.34	35.00	12.00	100.00
Number of public employees per 1000 people	100	616	107	501	1,141
Ratio of budget to employee	100	26,191	4,717	9,259	34,843
Mean salary of public employees	100	19,992	2,752	15,488	30,261

or higher); degree of party competition (measured as the difference between the first and second parties in elections); type of party organization (measured through the index of "traditional party organization" reported by Mayhew [1986] and ranking state party organizations by how well they fit the ideal type of an autonomous, stable, hierarchical, centralized organization capable of controlling nominations and mobilizing sympathizers and voters); institutional characteristics of the states (appointment power of the governor, state centralization measured

by the percentage of state and local employees who are employed by the state government, number of special districts as a percentage of all government units, proportion of the electorate that must sign petitions to activate procedures for recall, referendum, and initiative); ideology of the state (using the liberalism index developed by Wright, Erikson, and McIver and modified by Meier and Holbrook (1992) to include Alaska and Hawaii); campaign reporting requirements (defined as the number of groups or types of individuals required to file campaign finance statements); and size of public budget and state bureaucracy (measured through the number of government employees per 1000 inhabitants, mean salary of state employees, ratio of public budget to employees, and public tax revenue per capita).[24] Newspaper circulation and turnout are especially robust to the introduction of these control variables. Per capita income becomes statistically not significant when measures of the urban share of the population and educational level are introduced in the regression. In turn, once we drop per capita income, the variables measuring education level, urban population, and the proportion of public employees become significant: the first one reduces corruption, the latter two increase it.[25]

5. Concluding Remarks

In this article we have explored the causes that underlie the wide variation in government performance and corruption we still observe today across the globe. Our explanation is relatively straightforward. How well any government functions hinges on how good citizens are at making their politicians accountable for their actions. The types of tasks modern states have to accomplish force citizens to hand over massive resources and discretionary powers to policy makers. However, this process of delegation is likely to jeopardize the welfare of citizens. Politicians may be tempted to exploit the lack of information that voters have about policies and their consequences either to pursue their own agenda or to appropriate part of the public budget. Thus it is only when citizens effectively discipline policy makers to serve them that public goods are delivered in an efficient manner and corruption is curtailed.

The political control of public officials turns out to depend on two key factors. First, free and regular elections allow citizens to discipline politicians—the credible threat of losing office in the next period compels policy makers to respond to the voters' interests. Second, and equally important, the degree of information of citizens curbs the opportunities politicians have to engage in political corruption and mismanagement. Governmental performance improves as citizens have more precise knowledge on both the policies adopted by politicians and the environment in

24. Data were taken from Meier and Holbrook (1992) and from the *Statistical Abstract of the United States*.

25. We have also introduced a time variable in the panel data estimation, which leads to a very small (−0.15) and statistically not significant coefficient.

which they are implemented, provided that competitive elections are in place to punish the incumbent. As shown in this article, the presence of a well-informed electorate in a democratic setting explains between one-half and two-thirds of the variance in the levels of governmental performance and corruption. This result is robust to the type of indicator, the time frame, and the universe we employ. It explains well why corruption is rampant in sub-Saharan Africa and Russia, yet close to nonexistent in Canada, central and northern Europe, and New Zealand. It accounts for the impressive cleanliness of American states in the Plains as well as for the much higher level of federal indictments of public officials in the South.

A well-informed and politically mobilized electorate matters more than the level of economic development to ensure good government. Per capita income is correlated, although only mildly, with better performance for two reasons. First, the impact of per capita income partly reflects the fact that richer nations have more resources. Second, it proxies for the ways in which the structure of the economy, both in terms of the mobility of factors and the diversity of economic sectors, may constrain politicians.

Controlling for the proper mechanisms to enforce political accountability reduces the weight of most of the remaining potential variables that have been entertained to date by the current literature. The structure of the legal system does not appear to affect the performance of government. Ethnic conflict has no direct effect on institutional performance—although it may indirectly since it fosters political instability, which in turn depresses the quality of government. The religious composition of the population alters the behavior of politicians only to a modest extent and, in fact, its effects (for Catholicism) seem to disappear once we introduce a continental control for Latin America. Constitutional arrangements are irrelevant, except for federalism, which reduces corruption. The size of the government and economic diversification improve governance, but only in the panel data analysis.

In the last decade, civil society has been resurrected as a main variable to explain the political and economic vibrancy of nations. Yet civil society is too broad a concept to have real analytical leverage. On the one hand, as stressed in the literature, newspaper readership and electoral competitiveness are part and parcel of any "strong" society, that is, a society with high levels of social capital and citizens heavily engaged in civic matters. Thus having a lot of social capital may simply mean that citizens are informed enough and active enough to hold politicians accountable to their actions—social capital is but a different way of referring to political accountability. On the other hand, a strong civil society may be generating good government through other means: it may be that, endowed with high levels of interpersonal trust and embedded in dense networks of social interaction, bureaucrats and policy makers working in social-capital-rich societies can both easily cooperate with each other and monitor their work; it may be also that social capital fosters civic virtue among the citizenry, which then leads to good government within a rule-abiding community. One of the goals of

article was to discriminate and adjudicate between the different causal mechanisms that "hide" behind the concept of civic society. This has been done through the analysis of U.S. evidence, which has enough data to dwell on the different facets of civil society. Our results show that strong cooperative patterns may matter, but overall they tend to confirm that having reliable and efficient politicians derives from the presence of politically active, well-informed, sophisticated electorates.

To sum up, governmental performance hinges more on the way in which the linkage between voters and politicians is structured or institutionalized than on the constitutional framework in place. As of now, however, we do not have the right type of cross-national indicators to measure the extent to which politicians and voters are linked by clientelistic or any other kind of relationships. This points out the lines of research we should work on in the future. We need to explore what types of linkages connect politicians and voters in different countries and party systems as well as the ways in which they impair or increase government's accountability. Similarly we should paid more attention to the conditions that generate the kind of mobilized democracies that lead to good government.

Appendix A

Extending Persson and Tabellini's (2000) setup, consider a model in which the incumbent politician's single-period payoff is

$$U^P = \gamma r + P, \tag{1}$$

where r is the rents she is able to extract in the period, reduced by the transaction costs of appropriating them ($0 < \gamma < 1$), and P is the perks she gets from being in government, such as recognition, nice cars, good restaurants, and so on.

Income does not vary among individuals and government spending cannot be targeted to any specific group. As a result, there are N citizens with identical preferences given by

$$U^V = c + H(g) = y - \tau + H(g), \tag{2}$$

where c denotes consumption, y income, τ taxes, g a public good, and $H(\cdot)$ is a concave and increasing function.

The government budget constraint is given by

$$\theta g = N\tau - r, \tag{3}$$

where $\theta \in [\theta_L, \theta_H]$ is a random variable, with well-defined density $s(\cdot)$ and distribution $S(\cdot)$ functions, that denotes the cost of producing public goods.

In the absence of information and moral hazard problems, rents should be zero and the public goods provision by a benevolent dictator should follow the Samuelson criteria. Alternatively, consider a more realistic world in which, when the state of the economy θ is realized, only the policy

maker fully observes it. Without information about the cost of public goods, citizens can only use the unconditional distribution of θ, that is, $S(\cdot)$, to decide whether to support the incumbent. More plausibly, over time citizens obtain some information about the realization of θ, which they use to generate a conditional density function $\hat{s}(\cdot)$ of the realization of θ in that period that has a smaller support than $s(\cdot)$. With the available information about the period's realization, citizens set their reservation utility level $\hat{U}^V$, which implies a minimal performance standard and a threshold value θ^*, to evaluate the incumbent. Only if the standard is met, citizens support the incumbent—independent of the real effort made by the policy maker. Notice that the reservation utility level is likely to vary with the type of political regime. The higher cost of overthrowing a dictatorship (compared with kicking out the incumbent through elections) probably reduces the bundle of goods the regime needs to deliver to avoid a revolution. In other words, in an authoritarian regime, citizens may be willing to accept a lower utility cutoff point than in a democracy because they discount the costs they would have to incur to otherwise overthrow the regime.[26]

Knowing the state of the world, the information citizens have, and the retrospective rule they have chosen, the incumbent just satisfies $\hat{U}^V$ to secure her continuity in power if $\theta \leq \theta^*$. Alternatively, she maximizes short-term rents, setting $\tau = \delta y$, where δ captures the difficulty with which politicians may appropriate citizens' income. Two main factors can make the appropriation (or confiscation) of the national income harder. On the one hand, the latter is made more costly by the use of democratic procedures to elect officials. As a result, mismanagement and corruption should be higher under authoritarian regimes than democracies, other things being equal.[27] On the other hand, an economic structure with more diversified resources and/or low specificity of the assets (that generate y) should reduce rent appropriation.

Citizens probably always have to cope with a minimum amount of rents r^*, depending on the parameters of the model. Minimum rents are determined by comparing the discounted stream of gains from being reelected to those that result from losing power,

$$\gamma r^* + P + \beta\Omega^I \geq \gamma\delta N y + P + \beta\Omega^O, \tag{4}$$

where β is the discounting factor and Ω^I and Ω^O the present discounted utility of being in office and out of office in the next period.[28] Defining

26. For an exploration of how *stable* authoritarian regimes may reduce rents (to maximize income) over the long run but do less than democracies, see Olson (1993, 2000).

27. The ability to confiscate in a democracy may be bounded by the amount of tax revenue that citizens consider ex ante reasonable for any potential realization of the state of nature, given their information. Alternatively democracies may have constitutional structures that increase the costs of appropriating income.

28. In a complete intertemporal model, Ω^I and Ω^O would be determined by the model (see Persson, Roland, and Tabellini, 1997). For simplicity of the exposition here, we consider them as given.

$\Omega = \beta(\Omega^I - \Omega^O)$, the policy-maker's minimal rents are given by

$$r^* = \max\left(0, \delta N y - \frac{\Omega}{\gamma}\right). \tag{5}$$

As the public recognition of the job P and Ω go up or as δ declines, due to more democratic mechanisms, more mobile assets or a more diversified economy, minimum rents decline. Thus if $\theta \leq \theta^*$, the politician sets g equal to $G(\theta^*)$ and collects the minimum rent r^* plus an additional rent, $r_X = G(\theta^*)(\theta^* - \theta)$, due to the cost difference of providing the public good under the realized state and under θ^*.[29] Using the government constraint [Equation (3)] to substitute for τ, Equation (6) to substitute for y, and the fact that $r = r^* + r_X$, we can rewrite the citizen's utility level as follows:

$$U^V(\theta^*) = (1 - \delta)y + \frac{\Omega}{\gamma N} - \frac{\theta^* G(\theta^*)}{N} + H(G(\theta^*)). \tag{6}$$

Citizens choose the best reservation utility $\hat{U}^V$ given their information about the distribution of the state of nature $\hat{S}(\cdot)$. They maximize their expected utility given by

$$E(U^V) = U^V(\theta^*)\hat{S}(\theta^*) + (1 - \delta)y(1 - \hat{S}(\theta^*)) \tag{7}$$

to obtain the optimal threshold value given by

$$\frac{U^V_{\theta^*}(\theta^*)}{U^V(\theta^*) - (1 - \delta)y} = \frac{\hat{s}(\theta^*)}{\hat{S}(\theta^*)}. \tag{8}$$

In each period the expected rent to be seized by the politician is

$$E(r) = \delta N y + \hat{S}(\theta^*)\left[G(\theta^*)(\theta^* - \theta_\mu) - \frac{\Omega}{\gamma}\right], \tag{9}$$

where $\theta_\mu = \int_{\underline{\theta}}^{\theta^*} \theta \hat{s}(\theta) d\theta$ and $\underline{\theta} \geq \theta_L$ is the lower-bound of function $\hat{S}(\theta^*)$.

It is then apparent that the expected rent declines toward the minimum r^* as citizens gather better information and $(\theta^* - \theta_\mu) \to 0$.[30] With more information, the probability that citizens highly undervalue the costs of generating public goods declines and room for rent extraction shrinks. Citizens with perfect information set $\hat{U}^V$ at the optimal level implied by the period's particular realization, once minimum rents for politicians are taken into account. Whenever $\delta = 0$, either because certain very transparent democratic mechanisms are imposed or because assets are completely mobile, no rents will be appropriated—as in the case of a benevolent dictator.

29. We assume that after giving up r^*, there is still enough revenue in every state, that is, $\theta G(\theta) \preceq (1 - \delta)y + \Omega/\gamma$.

30. Notice that even if expected rents shrink smoothly as more information becomes available, the range for the actual size of the rents still supports the state of partial or complete confiscation with $\tau = \delta y$.

Appendix B

B1. Correlation Matrix for International Country Risk data (Tables 1 and 2)

	Corruption	Quality of bureaucracy	Rule of law	Decline in expropriatory Risk	Level of democracy	Free circulation of newspapers	Per capita income	Protestants	Catholics	Muslims	Relig. Fractionaliz.
Lack of corruption	1.00										
Quality of bureaucracy	0.81	1.00									
Rule of law	0.78	0.83	1.00								
Decline in expropriatory risk	0.66	0.74	0.82	1.00							
Level of democracy	0.58	0.59	0.56	0.57	1.00						
Free circulation of newspapers	0.70	0.71	0.68	0.57	0.66	1.00					
Per capita income	0.68	0.75	0.72	0.59	0.52	0.82	1.00				
Proportion of protestants	0.45	0.46	0.38	0.27	0.33	0.61	0.48	1.00			
Proportion of catholics	−0.03	−0.10	−0.02	0.01	0.25	−0.08	−0.05	−0.22	1.00		
Proportion of muslims	−0.32	−0.30	−0.24	−0.25	−0.48	−0.38	−0.24	−0.33	−0.56	1.00	
Religious fractionalization	0.00	−0.06	0.00	0.02	0.10	0.04	0.06	−0.25	0.13	0.28	1.00
English legal code	0.01	0.14	0.01	0.06	0.02	−0.09	−0.03	0.05	−0.36	0.06	−0.35
Socialist legal code	0.11	0.03	0.13	0.12	−0.02	0.00	−0.08	−0.04	0.01	−0.11	−0.03
French legal code	−0.33	−0.44	−0.33	−0.32	−0.23	−0.39	−0.35	−0.42	0.44	0.12	0.26
German legal code	0.21	0.29	0.25	0.23	0.21	0.42	0.46	0.04	0.00	−0.14	0.03
Scandinavian legal code	0.41	0.37	0.37	0.25	0.27	0.63	0.46	0.80	−0.23	−0.15	0.15
Federalism	0.17	0.25	0.23	0.20	0.20	0.16	0.21	0.04	0.15	−0.15	−0.21
Presidentialism	0.48	0.58	0.52	0.47	0.51	0.54	0.53	0.36	−0.16	−0.25	−0.07
Proportional representation	0.43	0.32	0.37	0.37	0.68	0.48	0.39	0.22	0.40	−0.38	0.34
Trade openness	0.12	0.15	0.17	0.17	−0.07	−0.02	0.14	0.01	−0.15	0.10	−0.05
Public consumption as % of GDP	0.40	0.36	0.30	0.21	0.14	0.28	0.34	0.29	−0.16	0.05	0.01
Fuel exports as % of total exports	−0.27	−0.18	−0.16	−0.20	−0.33	−0.18	−0.09	−0.09	−0.14	0.36	0.09

Continued

B1. *Continued*

	English Code	Socialist code	French code	German code	Scandinavian code	Federalism	Presidentialism	Proportional representation	Trade	Public consumption	Fuel exports
English legal code	1.00										
Socialist legal code	−0.13	1.00									
French legal code	−0.75	−0.20	1.00								
German legal code	−0.16	−0.04	−0.25	1.00							
Scandinavian legal code	−0.17	−0.04	−0.26	−0.06	1.00						
Federalism	0.11	−0.07	−0.14	0.25	−0.10	1.00					
Presidentialism	0.22	0.10	−0.45	0.16	0.29	0.06	1.00				
Proportional representation	−0.36	0.06	0.11	0.10	0.37	0.01	0.24	1.00			
Trade openness	0.24	−0.05	−0.19	−0.05	0.00	−0.15	0.14	−0.04	1.00		
Public consumption as % of GDP	0.09	−0.05	−0.16	−0.07	0.27	−0.08	0.21	0.13	0.19	1.00	
Fuel exports as % of total exports	−0.02	−0.06	0.12	−0.14	−0.05	0.09	−0.27	−0.22	0.13	0.09	1.00
Number of observations: 345											

B2. Correlation Matrix for data from Kaufmann, Kraay and Zoido-Lobaton (Tables 3 and 4)

	Graft	Government effective-ness	Rule of law	Democracy	Free circulation of newspapers	Per capita income	Political stability	Protestants	Catholics	Muslims
Kaufmann et al. Index of graft	1.00									
Kaufmann et al. Index of government effectiveness	0.93	1.00								
Kaufmann et al. Index of rule of law	0.91	0.90	1.00							
Level of democracy	0.59	0.60	0.57	1.00						
Free circulation of newspapers	0.74	0.71	0.74	0.52	1.00					
Per capita income	0.79	0.76	0.80	0.59	0.82	1.00				
Kaufmann et al. Index of political stability	0.79	0.83	0.88	0.60	0.68	0.71	1.00			
Proportion of protestants	0.46	0.34	0.36	0.25	0.50	0.37	0.32	1.00		
Proportion of catholics	−0.08	0.01	−0.08	0.27	−0.06	0.07	0.07	−0.27	1.00	
Proportion of muslims	−0.32	−0.29	−0.23	−0.43	−0.31	−0.30	−0.26	−0.33	−0.54	1.00
English legal code	0.18	0.04	0.12	0.00	−0.10	−0.05	−0.01	0.13	−0.35	−0.05
Socialist legal code	0.00	0.01	0.04	0.07	0.11	0.00	0.13	−0.04	0.04	−0.11
French legal code	−0.45	−0.30	−0.40	−0.20	−0.36	−0.24	−0.28	−0.46	0.41	0.18
Scandinavian legal code	0.43	0.37	0.37	0.24	0.56	0.38	0.34	0.77	−0.24	−0.14
Federalism	0.13	0.16	0.14	0.18	0.20	0.27	0.16	0.07	0.19	−0.16
Proportional representation	0.07	0.11	0.01	0.40	0.19	0.15	0.03	0.08	0.36	−0.30
Presidentialism	0.64	0.56	0.60	0.49	0.54	0.57	0.54	0.33	−0.17	−0.23
Public consumption	−0.31	−0.39	−0.37	−0.38	−0.41	−0.53	−0.37	0.05	−0.28	0.25
Trade openness	0.31	0.27	0.32	0.01	0.17	0.18	0.25	0.06	−0.11	−0.06
Index of financial liberalization	0.45	0.49	0.44	0.31	0.46	0.49	0.44	0.08	0.05	−0.14

Continued

B2. *Continued*

	English code	Socialist code	French code	Scandinavian code	Federalism	Proportional representation	Presidentialism	Public consumption	Trade	Financial liberaliz.
English legal code	1.00									
Socialist legal code	−0.12	1.00								
French legal code	−0.78	−0.21	1.00							
Scandinavian legal code	−0.16	−0.04	−0.28	1.00						
Federalism	0.02	−0.07	−0.06	−0.09	1.00					
Proportional representation	−0.43	0.16	0.24	0.21	−0.05	1.00				
Presidentialism	0.26	0.09	−0.48	0.29	0.00	−0.03	1.00			
Public consumption	0.22	−0.24	−0.03	−0.01	−0.28	−0.13	−0.24	1.00		
Trade openness	0.28	−0.06	−0.21	−0.02	−0.15	−0.11	0.28	0.07	1.00	
Index of financial liberalization	0.09	−0.11	−0.13	0.04	0.21	−0.04	0.29	−0.31	0.15	1.00
Number of observations: 94										

B3. Correlation of Variables in American Data Set

	Convictions	Newspapers circulation	Social capital	Per capita Income	Turnout	Audit capabilities	Federal attorneys	Federal judges	Backlogged cases	Urban population	Party differ.
Convictions	1.00										
Newspaper circulation	−0.44	1.00									
Social capital	−0.55	0.35	1.00								
Log of Per Capita Income	0.17	−0.01	0.02	1.00							
Turnout	−0.52	0.22	0.78	0.12	1.00						
Audit capabilities	0.13	0.15	0.15	0.28	0.13	1.00					
Federal attorneys	0.15	0.06	−0.08	−0.06	−0.24	−0.13	1.00				
Federal judges	0.05	−0.10	−0.10	−0.14	−0.13	−0.22	0.57	1.00			
Backlogged cases	0.16	0.14	−0.13	0.17	−0.09	0.13	0.32	0.07	1.00		
Urban population	0.27	0.18	−0.25	0.57	−0.22	0.45	0.00	−0.18	0.34	1.00	
Party difference	−0.17	−0.13	0.24	0.02	0.23	0.00	−0.02	0.03	−0.18	−0.11	1.00
Governor powers	−0.01	0.17	−0.05	0.22	0.01	−0.07	−0.07	0.03	0.26	0.18	−0.14
Liberalism index	0.03	−0.38	0.06	−0.50	0.04	−0.04	−0.08	0.01	−0.29	−0.42	0.45
Campaign requirements	0.03	0.02	0.11	−0.02	0.20	0.20	−0.05	−0.21	0.07	−0.03	0.16
% State & local employees	−0.06	−0.12	0.16	−0.21	0.15	−0.30	0.13	0.54	−0.22	−0.35	0.06
Special districts	−0.09	0.37	−0.09	−0.50	−0.23	−0.04	0.03	0.07	−0.03	0.01	−0.22
Initiative	0.22	−0.05	−0.33	0.14	−0.25	−0.16	−0.16	−0.01	0.13	0.08	−0.33
Referendum	0.26	−0.13	−0.29	0.13	−0.21	−0.09	−0.21	0.03	0.12	0.04	−0.28
Recall	0.13	−0.03	−0.11	0.04	−0.11	−0.15	−0.17	−0.01	−0.08	−0.06	−0.10
Public employees	0.27	−0.30	0.09	−0.06	−0.10	−0.04	0.17	0.24	−0.22	−0.04	0.28
Budget ratio	0.19	−0.28	−0.34	−0.36	−0.30	−0.33	−0.11	−0.08	−0.42	−0.41	0.13
Mean salary	−0.08	0.27	0.18	0.41	0.10	0.33	0.04	−0.18	0.29	0.53	−0.12
Type party organization	0.17	0.16	−0.28	0.30	−0.14	0.14	−0.03	0.07	0.14	0.36	−0.35

Continued

B3. *Continued*

	Governor powers	Liberalism	Campaign requirements	% State, local empl.	Special districts	Initiative	Referendum	Recall	Proportion public employees	Budget ratio	Mean salary	Party organization
Governor powers	1.00											
Liberalism	−0.37	1.00										
Campaign requirements	−0.15	−0.01	1.00									
% state & local employees	−0.09	0.17	0.03	1.00								
Special districts	0.01	−0.09	−0.03	0.05	1.00							
Initiative	0.18	−0.14	−0.15	0.03	−0.05	1.00						
Referendum	0.09	−0.04	−0.14	−0.02	−0.08	0.84	1.00					
Recall	0.19	0.08	−0.20	0.15	−0.05	0.35	0.33	1.00				
Public employees	−0.05	0.19	−0.16	0.22	0.08	−0.22	−0.26	−0.02	1.00			
Budget ratio	−0.29	0.51	−0.16	0.05	−0.02	0.11	0.14	0.29	0.03	1.00		
Mean salary	0.23	−0.45	0.08	−0.38	0.07	−0.05	−0.05	−0.37	−0.12	−0.73	1.00	
Type of Party organization	0.38	−0.39	−0.16	0.03	0.04	0.29	0.31	0.37	−0.17	−0.12	0.01	1.00

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