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Constitutions and Economic Policy

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At the rare moments in history when a nation debates constitutional reform, the key issues often concern how the reforms might affect economic policy and economic performance. For example, Italy abandoned a system of pure proportional representation, where legislators were elected according to the proportions of the popular national vote received by their parties, and moved toward including ingredients of plurality rule, where legislators are elected in each district according to who receives the highest number of votes. Key Italian political leaders are now considering proposals to introduce elements of presidentialism, where the head of government is elected by direct popular vote, rather than the current parliamentary regime. A common argument in Italy was that the electoral reform would help stifle political corruption and reduce the propensity of Italian governments to run budget deficits.

In the 1990s, constitutional reforms have been debated and implemented in a number of other countries, too. For instance, New Zealand moved away from a pure system of plurality rule in single-member districts to a system mixing elements of proportional representation. Japan also renounced its special form of plurality rule (the so-called single nontransferable vote) in favor of a system that mixes elements of proportional and plurality representation. Similar proposals have been debated in the United Kingdom. In Latin America, questions have been raised as to whether the poor and volatile economic performance of many countries can be traced to their presidential form of government.

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Until very recently, social scientists have not directly addressed the question of how the constitution affects economic performance and other economic policy outcomes. Political scientists in the field of comparative politics have spent decades working on the fundamental features of constitutions and their political effects, of course. But they have mainly focused on political phenomena and not systematically asked how constitutional rules shape economic policies. Economists in the field of political economics have studied the determinants of policy choices, but they have not paid much attention to institutional detail.

This paper discusses theoretical and empirical research on how two constitutional features, electoral rules and forms of government, affect economic policymaking. We begin by outlining some key objectives of democratic political constitutions and by pointing out the inertia and systematic selection that characterize real-world constitutions. We then introduce the main concepts used to categorize work on constitutions: different kinds of electoral rules and forms of government. We then discuss how these elements of constitutions affect the accountability of government and the size of political rents and corruption, as well as the representativeness of government and a variety of fiscal policy choices.

Our overall message is loud and clear: constitutional rules systematically shape economic policy. When it comes to the extent of political corruption, the devil is in the details, especially the details of electoral systems. When it comes to fiscal policy, in particular the size of government, the effects are associated with broad constitutional categories. The constitutional effects are often large enough to be of genuine economic interest.

Constitutional Objectives

Democratic constitutions have many objectives, including the desire to formulate and protect some fundamental rights of citizens. Here, we ignore many of these objectives and focus instead on the rules that are more directly relevant for policy formation. In a representative democracy, elected officials determine policy. The constitution spells out which offices have decision-making rights over policies, how access is gained to those offices through elections or political appointments and what are the procedures for setting policies. In turn, these rules determine how well voters can hold politicians accountable and which groups in society are more likely to see their interests adequately represented.

A common theme in this paper and in the related literature is that constitution design entails a tradeoff between accountability and representation (see also Bingham Powell, 2000; Prezworski, Stokes and Manin, 1999). Constitutional features that clarify policy responsibilities and make it easy to replace an incumbent government strengthen accountability, but at the same time increase the political influence of the groups to whom policymakers are accountable. This insight is most evident in the analysis of electoral rules. Elections using plurality rule, in which legislators are often elected in many individual districts each using majority rule, translate swings in voter sentiment into larger changes in legislative majorities than elections using proportional representation, where legislators are often elected by the share of a national vote received. This effect strengthens the incentives of politicians to please the voters and could result in smaller political rents and less corruption. But since the stronger accountability is achieved by making political candidates more responsive to the wishes of pivotal groups of voters, this greater accountability also raises the propensity to target benefits to narrow constituencies, at the expense of broad spending programs. As we shall see, a similar tradeoff between accountability and representation also arises in the choice between presidential and parliamentary forms of government.

Constitutional Inertia and Systematic Selection

Despite the flurry of actual or debated constitutional reforms in the 1990s, the broad features of constitutions have changed very seldom in the post–World War II period within the group of democracies. In the sample of 60 democracies considered by Persson and Tabellini (2003), no democratic country changed its form of government between 1960 and 1998, and only two enacted important reforms of their electoral system before 1990 (Cyprus and France)—although more time variation is observed if one considers marginal constitutional reforms and transitions from nondemocracy to different forms of democracy.

The observed cross-country variation in constitutions is strongly correlated with stable country characteristics: for example, presidential regimes are concentrated in Latin America, former British colonies tend to have U.K.-style electoral rules (plurality rule in single-member constituencies), and continental Europe is predominantly ruled by parliamentary systems with proportional representation elections. These constitutional patterns make it difficult to draw causal inferences from the data. Constitutional inertia means that experiments with constitutional reforms are very seldom observed, and cross-country estimates risk confounding constitutional effects with other country characteristics. Self-selection of countries into constitutions is clearly nonrandom and most likely correlated with other unobserved variables that also influence a country's policy outcomes.

These difficulties are similar to those encountered by labor economists who evaluate the effects of job-training programs. People who enter a job-training program may have a greater level of motivation and initiative than observationally equivalent people who do not enter such a program, and a careful evaluation of the program must take these unobserved differences into account. Moreover, if the job-training program has heterogeneous effects across individuals, treatment and control groups must be chosen to have similar observable characteristics, so as not to bias the estimated effects.

In our work, we have exploited the econometric methodology developed by labor economists, adapting it to our inference problem: namely, how to estimate causal effects of the constitution on policy outcomes from cross-country comparisons, when countries self-select into constitutions (for example, Persson and Tabellini, 2003). Thus, we rely on instrumental variables to try to isolate exogenous variation in electoral rules and forms of government. If constitutions change very seldom, they are largely determined by historical circumstances. We have used the broad period in which the constitution was adopted as an instrument for the constitutional feature of interest. Since there are "fashions" in constitution design, the period of birth of the current constitution is related to its broad features; our identifying assumption is that, controlling for other determinants of policy (including the age of democracy), the birth period of the constitution is not directly related to current policy outcomes. We also use techniques suggested by James Heckman and others to adjust the estimates for possible correlation between the random components of policy outcomes and constitution selection. We also exploit so-called "matching methods" in which countries are ranked in terms of their probability of adopting a specific constitutional feature, called a "propensity score." Comparisons of countries with similar propensity scores, but with different constitutions, receive more weight. This method avoids biased estimates due to heterogeneous treatment effects and nonlinearities. In Persson and Tabellini (2003), these estimation methods that adjust for self-selection of countries into constitution or account for nonlinearities are used whenever the constitution is measured by a binary variable, such as presidential versus parliamentary forms of government or majoritarian versus proportional elections. If instead the constitution is measured by a continuous variable, such as the detailed features of electoral rules described below, then our inferences described below are based on ordinary least square estimates.

Categorizing Political Institutions

Arguably the most fundamental aspects of any modern constitution, and certainly the two aspects most studied in comparative politics, are its electoral rules and its form of government. Our exposition focuses on these two dimensions. However, it should be noted that this focus leaves out many potentially important constitutional features, including judicial arrangements, subnational institutions, vertical arrangements in federations, budgetary procedures, delegation to independent agencies and referenda. We refer the reader to Besley and Case (2003), Poterba and Von Hagen (1999) and Djankov, Glaeser, La Porta, Lopez-de-Silanes and Shleifer (2003) for further references on these issues.

Electoral Rules

The political science literature commonly emphasizes three dimensions in which electoral rules for legislatures differ. *District magnitudes* determine the number of legislators (given the size of the legislature) acquiring a seat in a typical voting district. One polar case is when all legislators are elected in districts with a single seat, as in the U.S. House of Representatives, the other when all legislators are elected in a single, all-encompassing district, such as the Israeli Knesset. *Electoral formulas* translate votes into seats. Under plurality rule, only the winner(s) of the highest vote share(s) get represented in a given district. In contrast, proportional representation awards seats in proportion to votes in each district. To ensure closeness between overall vote shares and seat shares, a district system of plurality rule is often amended by a system of "adjustment seats" at the national level. *Ballot structures,* finally, determine how citizens cast their ballot. One possibility is that they get to choose among individual candidates. Another common possibility is that each voter chooses among lists of candidates drawn up by the parties participating in the election. If an electoral district has ten seats and Party A wins, say, four of these seats, the first four candidates on the list of Party A get elected.[1]

While these three aspects are theoretically distinct, they are correlated across countries. Anglo-Saxon countries often implement plurality rule with voting for individual candidates in single-member districts. On the other hand, proportional representation is often implemented through a system of party lists in large districts, sometimes a single national district. This pattern has lead many observers to adopt a classification into two archetypical electoral systems, labelled "majoritarian" and "proportional" (or "consensual"). But the correlations are certainly not perfect and a number of "mixed" electoral systems occur. In Germany, for example, voters cast two ballots, electing half the Bundestag by plurality in single-member districts, and the other half by proportional representation at a national level, to achieve proportionality between national vote and seat shares. Furthermore, some proportional representation systems, such as the Irish, do not rely on party lists.[2] Blais and Massicotte (1996) and Cox (1997) present overviews of world electoral systems.

Forms of Government

Researchers in comparative politics emphasize the distinction between two main forms of government: presidential and parliamentary regimes. In a presidential regime, the citizens directly elect the (top) executive; in a parliamentary regime, instead, an elected parliament appoints the executive—the "government."

One distinction between presidential and parliamentary government has to do with the allocation of executive and proposal power to individuals or offices. In a parliamentary democracy, where the legislature appoints the executive, the government has executive powers and acts as the agenda setter, initiating all major legislation and drafting the budget. In a presidential democracy with separation of powers like the United States, the president has full executive powers, but smaller agenda-setting powers. For domestic policy, the president has a veto, but the power

[1] This description presupposes a system of *closed* party lists. When lists are *open,* voters can also express preferences across candidates, which may modify the results. This distinction between open and closed party lists is discussed further below.

[2] To achieve proportionality, the Irish "single transferrable vote" system (also used in Malta) relies on votes over individuals in multimember districts where each voter can only vote for a single candidate and a complicated procedure where seats are awarded sequentially and votes for losing candidates are transferred from one seat to the next.

to propose and amend typically rests with the legislature. A second key distinction has to do with how executive and agenda-setting powers are preserved over time. In parliamentary democracies, the government remains in office only as long as it enjoys the support of a majority in the legislative assembly. In presidential democracies, by contrast, the holders of these powers are separately elected and hold on to them throughout an entire election period.

Many real-world constitutions can easily be classified as presidential or parliamentary, based on these two criteria. In most countries with an elected president, the executive can hold onto its powers without the support of a legislative majority. Likewise, in many real-world parliamentary regimes, government formation must be approved by parliament, parliament can dismiss the government by a vote of nonconfidence, and legislative proposals by the government get preferential treatment in the legislative agenda. Nevertheless, even more than with electoral rules, several mixed systems are observed, depending on exactly how prerogatives are divided between the executive and the legislature and on the detailed rules for forming and dissolving governments. Shugart and Carey (1992) and Strom (1990) extensively discuss these other constitutional features. In this paper, we consider the simple distinction based on two factors: 1) whether the powers to propose and veto legislative proposals are dispersed among various political offices (like congressional committees), as in most presidential systems, or whether the government proposes legislation, as in most parliamentary systems; and 2) whether the executive can be dismissed by the legislature through a vote of no confidence, as in parliamentary systems, or whether the executive serves a fixed term regardless of legislative support, as in presidential systems.

Political Accountability

How do electoral rules and forms of government affect accountability? In this section, we only consider policies evaluated in roughly the same way by all voters, leaving the problem of how elected officials react to disagreement among voters for the next section that focuses on representation. In this context, accountability refers to two things. It gives voters some control over politicians who abuse their power: voters can punish or reward politicians through re-election or other career concerns, and this creates incentives for good behavior.[3] Accountability also refers to the ability of voters to select the most "able" candidate, where ability can refer to some mix of integrity, technical expertise or other intrinsic features valued by voters at large. As the emphasis of this paper is on economic policymaking, we focus

[3] Besley and Case (1995) provide direct evidence that the desire to be reappointed creates incentives to please the voters. Term limits in gubernatorial elections in U.S. states are associated with higher taxes and higher government spending, compared with states without such limits (or periods in office when the limits are not binding), a finding consistent with the authors' political agency model where unchecked governors tax and spend too much.

on how the constitution affects corruption, rent seeking and electoral budget cycles.

Political Accountability and Electoral Rules

The details of electoral rules have *direct* effects on the incentives of politicians. They also have *indirect* effects through the party structure and, more generally, by determining who holds office. In this section, we discuss direct and indirect effects of the three aspects of electoral rules mentioned above: ballot structure, district magnitude and the electoral formula.

Politicians may have stronger direct incentives to please the voters if they are held accountable individually, rather than collectively. Thus, party lists discourage effort by officeholders, essentially because they disconnect individual efforts and re-election prospects. Persson and Tabellini (2000) write down a model that formalizes this idea and predict political rents will be higher under electoral systems that rely on list voting, compared to elections where voters directly select individual candidates. The same argument also implies that *open* lists (where voters can modify the order of candidates) should be more conducive to good behavior than *closed* lists (that cannot be amended by voters), as should preferential voting (where voters are asked to rank candidates of the same party).

What does the evidence say? If higher political rents are associated with illegal benefits, one can ask whether corruption by public officials in different countries is systematically correlated to the electoral rule. Of course, corruption is only an imperfect proxy for political rents. Furthermore, corruption is measured with error and is determined by many other country features. Yet, the cross-sectional and panel data do suggest some connections. Persson and Tabellini (2003) and Persson, Tabellini and Trebbi (2003) study about 80 democracies in the 1990s, measuring perceived corruption by different surveys assembled by the World Bank, Transparency International and private risk services. They control for several country characteristics that earlier studies have found to correlate with corruption, such as per capita income, openness to international trade, the citizens' education and religious beliefs, a country's history as captured by colonial heritage, and geographic location as measured by a set of dummy variables. By their estimates, voting over individuals does indeed correlate with lower corruption: a switch from a system with all legislators elected on party lists to plurality rule, with all legislators individually elected, would reduce perceptions of corruption by as much as 20 percent—about twice the estimated effect of being a country in Latin America. They also find that the decline in corruption is stronger when individual voting is implemented by plurality rule, rather than by using preferential voting or open lists in proportional rule electoral systems. Of course, the result could also reflect effects of the electoral formula (as discussed below), rather than just the ballot structure. Kunicova and Rose-Ackerman (2001) obtain similar empirical results, but single out closed-list, proportional representation systems as the most conducive to corruption.

Some of these conclusions run counter to those in Carey and Shugart (1995) and Golden and Chang (2001), who instead emphasize the distinction between interparty and intraparty competition. Competition between parties is desirable, as it leads to legislation that pleases voters at large. Competition within parties is not always desirable, as it can lead candidates to provide favors to their constituencies through patronage and other illegal activities—the Italian and Japanese electoral systems before the 1990s reforms are deemed to exemplify this problem. Measuring corruption by judicial inquiries against Italian members of parliament, Golden and Chang (2001) show that they are more frequent in districts with more intense intraparty competition. Thus, they deem open-list systems worse than closed-list systems and claim that the empirical results by Kunicova and Rose-Ackerman (2001) reflect a misspecified model (see also Golden and Chang, 2003, mentioned below).

Summarizing, both theory and evidence suggest that individual accountability under plurality rule strengthens the incentives of politicians to please the voters and is conducive to good behavior. But the effects of individual accountability under proportional representation, implemented with open rather than closed lists, are more controversial.

The electoral formula (and district magnitude) may also affect the incentives for politicians along other channels. Under plurality rule, the mapping from votes to seats becomes steep if electoral races are close. This connection ought to create strong incentives for good behavior: a small improvement in the chance of victory would create a large return in terms of seats. The incentives under proportional representation are weaker, as additional effort has a lower expected return on seats (or on the probability of winning). If electoral races have likely winners, however, incentives may instead be weaker under plurality than proportional representation; if seats are next to certain, little effort goes into pleasing the voters of those districts.[4] Aggregating over all districts (and thus over races of different closeness), the relative incentives to extract rents under different electoral formulas become an empirical question. Related to these arguments, Strömberg (2003) uses a structural model of the U.S. Electoral College to study the effects of a (hypothetical) reform to a national vote for president. Given the empirical distribution of voter preferences, he finds that the incentives for rent extraction are basically unaffected by such a reform.

Electoral systems (and in particular district magnitude) can also have indirect effects on accountability, by altering the set of candidates that have a chance to be elected, or more generally by changing the party system. One theoretical model suggests that these indirect effects may encourage political rent seeking; another that it may reduce it.

Myerson (1993) presents a model in which barriers to entry allow dishonest candidates to survive. He assumes that parties (or equivalently, candidates) differ in

[4] Of course, districts can be redesigned at will at some intervals, which makes the closeness of elections an endogenous choice. This possibility opens up the door for strategic manipulation, also known as gerrymandering, where protection of incumbents is one of several possible objectives.

two dimensions: honesty and ideology. Voters always prefer honest candidates, but disagree on ideology. With proportional representation and multimember districts, an honest candidate is always available for all ideological positions, so dishonest candidates have no chance of being elected. But in single-member districts, only one candidate can win the election. Voters may then cast their ballot, strategically, for dishonest but ideologically preferred candidates, if they expect all other voters with the same ideology to do the same: switching to an honest candidate risks giving the victory to a candidate of the opposite ideology. Thus, plurality rule in single-member districts can be associated with dishonest incumbents, whom it is difficult to oust from office.

But electoral systems that make it easy for political parties to be represented in parliament (for example, multimember districts and proportional representation) may actually encourage rent seeking, rather than reducing it, through another channel. If many factions are represented in parliament, the government is more likely to be supported by a coalition of parties, rather than by a single party. Under single-party government, voters know precisely whom to blame or reward for observed performance. Under coalition government, voters may not know whom to blame, and the votes lost for bad performance are shared amongst all coalition partners; this dilutes the incentives of individual parties to please the voters. Persson, Roland and Tabellini (2003) show that proportional representation and multimember districts lead to a higher incidence of coalition governments and thereby higher political rents, compared to plurality rule and small district magnitude. Bingham Powell (2000) reaches a similar conclusion through informal reasoning.

Do the data shed light on these alternative ideas? The hypothesis that coalition governments are associated with more corruption remains untested, as far as we know, though some of the blatant corruption scandals in Europe—Belgium and Italy—have been intimately associated with such governments. The evidence does support the idea that barriers to entry raise corruption, however. Persson and Tabellini (2003) and Persson, Tabellini and Trebbi (2003) find corruption to be higher in countries and years with small district magnitude (that is, few legislators elected in each district), again with large quantitative effects. Alt and Lassen (2002) show that restrictions on primaries in gubernatorial elections, making the barriers to entry for candidates higher, are positively associated with perceptions of corruption in U.S. states.

So far, we have emphasized the implications of the electoral rule for political rents and corruption. But a strong incentive of political representatives to please the voters can also show up in other ways, such as electoral cycles in taxation, government spending, or macroeconomic policies stimulating aggregate demand. Persson and Tabellini (2003) consider panel data from 1960 covering about 500 elections in over 50 democracies. They classify countries in two groups according to the electoral formula and estimate the extent of electoral cycles in different specifications, including fixed country and time effects as well as a number of time-varying regressors. Governments in democracies that use plurality rule cut taxes, as well as government spending, during election years—the magnitude of both cuts is on the order of 0.5 percent of GDP. In proportional representation democracies, tax cuts are somewhat less pronounced, and no spending cuts are observed. This finding may be consistent with better accountability allowing voters to punish governments for high taxes and spending either because they are fiscal conservatives (as in Peltzman, 1992) or because they are subject to a political agency problem (as in Besley and Case, 1995).

Political Accountability and Forms of Government

The accountability effects of alternative forms of government have been studied in less detail than have the effects of electoral rules. Here we summarize the main ideas relating to the crude comparison between presidential and parliamentary regimes, neglecting more detailed constitutional aspects.

From a theoretical perspective, accountability is likely to be stronger in presidential than in parliamentary democracies, for two related reasons (Persson, Roland and Tabellini, 1997, 2000). First, the chain of delegation is simpler and more direct under presidential government, since the executive is directly accountable to the voters. The scope for collusion among political representatives at the voters' expense is accordingly greater under parliamentary government, where the executive is not directly accountable to the voters. Second, many presidential regimes have a strong separation of powers—between the president and congress, but also between congressional committees holding important proposal powers in different spheres of policy. In parliamentary regimes, instead, the government concentrates all the executive prerogatives as well as important powers of initiating legislation. Checks and balances are thus stronger under presidential government. These checks and balances improve accountability and strengthen the politicians' incentives for good behavior, because the voters can exploit conflict between different offices to prevent abuse of power or to reduce information asymmetries between them and the policymakers. These arguments might only apply in well-functioning democracies, however.

Are these predictions consistent with the evidence? Only to a degree, and depending on the quality of democracy (which can be measured by constraints on the executive, political participation and other institutional data produced by standard sources such as Freedom House or the Polity IV project). Among "good" democracies, Persson and Tabellini (2003) do find that presidential regimes have less widespread corruption than do parliamentary regimes, but the result does not hold among regimes classified as bad democracies. "Good" and "bad" are defined in terms of democracy scores in the Freedom House and Polity IV datasets, which measure aspects such as constraints on the executive's use of powers and freedom of political participation across societies and time. Since many presidential regimes fall in the latter group, the negative correlation between corruption and presidentialism in the sample of good democracies is due to relatively few observations and, hence, not very robust. For example, Kunicova and Rose-Ackerman (2001) classify presidential countries in a slightly different way and obtain more negative empirical results: presidentialism seems to be associated with more widespread corruption, rather than less.

Overall Lessons

What does all of this imply about the consequences of constitutional reforms for corruption? When it comes to the form of government, our knowledge is not yet precise enough to give a solid answer. When it comes to electoral rules, the devil is in the details. If we pose the question in terms of a large-scale reform from "proportional" to "majoritarian" elections, the answer is ambiguous, because such a reform would affect several features of the electoral rule. A switch from proportional representation to plurality rule, accompanied by a change in the ballot structure from party lists to voting over individuals, would strengthen political incentives for good behavior, both directly and indirectly through the type of government. But these welfare-improving effects might be offset if the reform diminishes district magnitude, thus erecting barriers to entry to the detriment of honest or talented incumbents. The net effects of electoral reform thus depend on which channel is stronger and on the precise architecture of reform. This nuanced conclusion is also supported by the empirical evidence in Persson and Tabellini (2003) and Persson, Tabellini and Trebbi (2003), who find no robust difference in corruption across a broad classification between majoritarian and proportional electoral systems, after controlling for other variables and taking into account the self-selection of countries into constitutions.

Political Representation

Economic policy generates conflicts of interest. Individuals and groups in society have different levels and sources of income, different sectors and occupations, different geographic homes and different ideologies. As a result, people differ in their views about the appropriate level and structure of taxation, the preferred structure of tariffs, subsidies and regulations; the support for programs aimed at different regions and so on. Political institutions aggregate such conflicting interests into public policy decisions, but the weight given to specific groups varies with the constitution. In this section, we discuss how this happens, focusing on fiscal policy.

Electoral Rules and Incentives for Politicians and Voters

Single member districts and plurality vote both tend to pull in the direction of narrowly targeted programs benefiting small geographic constituencies. Conversely, multimember districts and proportional representation both pull in the direction of programs targeting broad groups. Building on this insight, some recent theoretical and empirical papers have studied the influence of district magnitude and the electoral formula on the composition of government spending.

For example, Persson and Tabellini (1999, 2000, chapter 8) study a model with two opportunistic, office-seeking parties (candidates), where policy is determined in electoral platforms before the election. Multimember districts and proportional representation diffuse electoral competition, giving the parties strong incentives to seek electoral support from broad coalitions in the population through general public goods or universalistic redistributive programs such as public pensions or other welfare state programs. In contrast, single-member districts and plurality rule typically make each party a sure winner in some of the districts, concentrating electoral competition in the other pivotal districts; this creates strong incentives to target voters in these swing districts. This effect is reinforced by the winner-takes-all property of plurality rule, which reduces the minimal coalition of voters needed to win the election. Under plurality rule, a party needs only 25 percent of the national vote to win: that is, if it wins 50 percent of the vote in 50 percent of the districts, it can receive zero percent in the other districts and still control a majority of the legislature. Under full proportional representation, a party needs 50 percent of the national vote to control the legislature, meaning that politicians have stronger incentives to internalize the policy benefits for larger segments of the population.

A number of models revolve around this point in differing analytical frameworks. Lizzeri and Persico (2001) provide a model with binding electoral promises, where candidates can use tax revenue to provide either (general) public goods or targeted redistribution. Persson and Tabellini (2000a, chapter 9) consider a broad or narrow policy choice by an incumbent policymaker trying to earn re-election. Strömberg (2003) considers the effect of the Electoral College on the allocation of campaign resources or policy benefits in a structural model of the election for U.S. president. He shows empirically that this election method implies a much more lopsided distribution across states, where spending is focused on states where a relatively small number of votes might tip the entire state, rather than a (counterfactual) system of a national vote. Milesi-Ferretti, Perotti and Rostagno (2002) obtain similar results in a model where policy is set in postelection bargaining among the elected politicians. They also predict that proportional elections lead to a bigger overall size of spending.

Is the evidence consistent with the prediction that proportional electoral systems lead to more spending in broad redistributive programs, such as public pensions and welfare spending? Table 1 (panel A) suggests that it is. Confining attention to parliamentary democracies, and without controlling for other determinants of welfare spending, legislatures elected under proportional electoral systems spend more in social security and welfare by as much as 8 percent of GDP, compared to legislatures elected under majoritarian elections. Milesi-Ferretti, Perotti and Rostagno (2002) and Persson and Tabellini (2003, 2004) show that a statistically significant (but smaller) effect of the electoral systems remains after controlling for other determinants of social security and welfare spending, such as the percentage of the elderly in the population, per capita income, the age and quality of democracy and so on. They rely on different data sets—based on postwar OECD and IMF data, respectively—that also include presidential democracies. Persson and Tabellini (2003, 2004) use a data set with 70 democracies in the 1990s,

Table 1
Political and Economic Outcomes in Parliamentary Democracies Classified by Electoral Rules

	Majoritarian	*Proportional*
A. Economic policy outcomes		
Government spending	25.94 (9.05)	35.12 (9.30)
Social security & welfare spending	5.37 (4.98)	13.15 (5.40)
Budget deficit	2.92 (3.81)	3.86 (4.17)
B. Political outcomes		
Party fragmentation	0.54 (0.17)	0.70 (0.09)
Coalition governments	0.24 (0.41)	0.55 (0.47)
Single-party governments	0.63 (0.47)	0.17 (0.37)
N. obs.	138	187

Notes: Simple averages; standard deviations in parenthesis. Fiscal policy variables refer to central governments and are measured as percentages of GDP. Observations pooled across countries and legislatures. The number of observations refers to the political outcomes (some observations are missing for the policy outcomes).
Sources: Persson and Tabellini (2003); Persson, Roland and Tabellini (2004).

they allow for a separate effect of presidentialism on policy outcomes and take into account the self-selection of countries into different electoral systems. According to their findings, a reform from plurality rule to proportional representation would boost welfare spending (in a country drawn at random) by about 2 percent of GDP, an economically and statistically significant effect.

If politicians have stronger incentives to vie for electoral support through broad spending programs under proportional representation than under plurality rule, we might expect to observe systematic differences around election time in the two systems. Persson and Tabellini (2003) indeed find a significant electoral cycle in welfare-state spending—expansions of such budget items in election and post-election years—in proportional representation systems, but not in plurality systems.

Electoral Rules, Party Formation and Types of Government

The papers discussed above focus on the incentives of individual politicians, but as many studies of comparative politics point out, electoral rules also shape party structure and types of government. Plurality rule and small district magnitude produce fewer parties and a more skewed distribution of seats than proportional representation and large district magnitude (for example, Duverger, 1954; Lijphart, 1990). Moreover, in parliamentary democracies, few parties mean more frequent single-party majority governments, and less frequent coalition governments, than many parties (Taagepera and Shugart, 1989; Strom, 1990). The evidence displayed in Table 1 (panel B), suggests that these political effects of the electoral rule may be large. In parliamentary democracies, proportional electoral rule is associated with a more fragmented party system, more frequent coalition governments and less frequent governments ruled by a single-party majority.

It would be surprising if such large political effects did not also show up in the economic policies implemented by these different party systems and types of government. Indeed, a few recent papers have argued that the more fractionalized party systems induced by proportional elections lead to a greater overall size of government spending. For example, Austen-Smith (2000) studies a model where redistributive tax policy is set in postelection bargaining. He assumes that there are fewer parties under plurality rule (two parties) than under proportional representation (three parties). A majority coalition of two parties is more likely to have higher taxes and to redistribute than is a single party majority.

Persson, Roland and Tabellini (2003) and Bawn and Rosenbluth (2003) obtain a similar prediction that proportional representation leads to more government spending than plurality rule, but they treat the number of parties as endogenous and emphasize how electoral competition differs under different types of government. When the government relies on a single party majority, the main competition for votes is between the incumbent and the opposition; this dynamic pushes the incumbent toward efficient policies or at least toward policies that benefit the voters represented in office. If instead the government is supported by a coalition of parties, voters can discriminate between the parties in government and this dynamic creates electoral conflict inside the governing coalition. Under plausible assumptions, inefficiencies in bargaining induce excessive government spending.

As shown earlier in Table 1 (panel A), these theoretical predictions are supported by the data: on average, and without conditioning on other determinants of fiscal policy, legislatures elected under proportional representation spend about 10 percent of GDP more than legislatures elected under plurality rule. Careful estimates obtained from cross-country data confirm this result. Persson and Tabellini (2003, 2004) consider a sample of 80 parliamentary and presidential democracies in the 1990s, they control for a variety of other policy determinants (including the distinction between presidential and parliamentary government) and allow for self-selection of countries into electoral systems.[5] Their estimates are very robust and imply that proportional representation rather than plurality rule raises total expenditures by central government by a whopping 5 percent of GDP.

Persson, Roland and Tabellini (2003) focus on 50 parliamentary democracies (the same ones used to produce Table 1 above), identifying the effect of electoral rules on spending either from the cross-sectional variation, or from the time-series variation around electoral reforms. They find spending to be higher under proportional elections, and by an amount similar to that found by Persson and Tabellini (2003, 2004), but the effect seems to be entirely due to a higher incidence of coalition governments in proportional electoral systems. This conclusion is

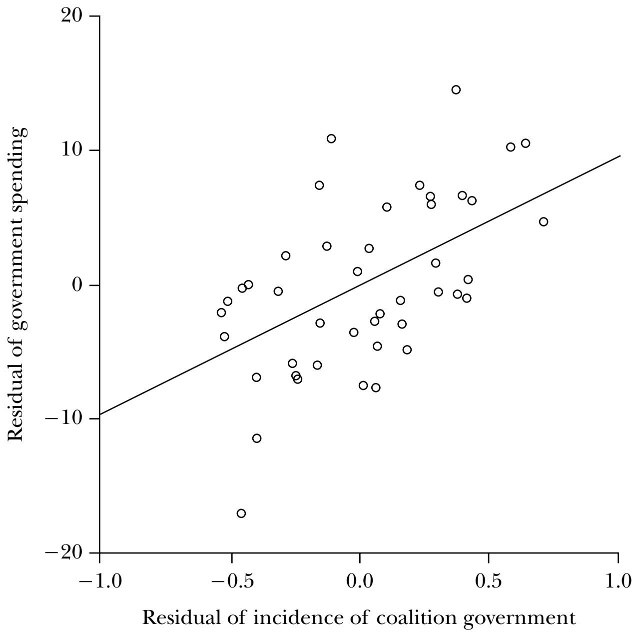
[5] Variables held constant in the underlying regressions include per capita income, the quality and age of democracy, openness of the economy, the size and age composition of the population, plus indicators for federalism, OECD membership, colonial history and continental location. Estimation is by ordinary least squares, instrumental variables, the Heckit method or propensity-score matching, with all estimates yielding similar results.

reached by testing an overidentifying restriction that follows from the underlying theoretical model. Several features of the electoral rule—such as the electoral formula, district magnitude and minimum thresholds for being represented in parliament—are used as instruments for the type of government. The data cannot reject the restriction that electoral formulas and district magnitudes are valid instruments for the type of government; that is, they only influence government spending through the type of government, with no direct effects on spending.

This result reflects a feature of the data illustrated in Figure 1, where each observation corresponds to a country average during the 1990s, in the sample of 50 parliamentary democracies. The horizontal axis measures the *residuals* of total spending by the central government in percentage of GDP. The horizontal axis measures the residuals of the incidence of coalition governments during the 1990s—the incidence varies from 0 (no coalition government) to 1 (coalition governments all the time). By construction, both residual variables have a mean of zero, hence each axis measures the respective variable in deviation from its conditional mean. Thus, a value of −1 in the horizontal axis of Figure 1, for instance, would correspond to a country that was predicted to have coalition governments all the time, but instead turns out to be ruled by single party government throughout the 1990s. The residuals have been obtained by regressing each variable on a set of policy determinants listed in the note to Figure 1, such as per capita income and demographics. Thus, Figure 1 displays the variation in the size of government spending and incidence of coalition variables uncorrelated with these policy determinants. Clearly, more frequent coalition governments are associated with larger government spending. The slope of the solid line in Figure 1 corresponds to the estimated coefficient of an ordinary least squares regression of total government spending on the incidence of coalition government. It depicts the long-run effect of being ruled by a coalition government (as opposed to single party government) on the size of government spending. Instrumental variable estimation (using measures of electoral rules as instruments for the type of government) further increases the estimated effect of coalition governments on total government spending. Earlier empirical papers treating the type of government as exogenous had also found evidence for higher spending by larger coalitions in other data sets (for example, Kontopoulos and Perotti, 1999; Baqir, 2002).

As we noted above, the selection of countries into constitutions is certainly not random, and some of the empirical research takes account of this (in particular, Persson and Tabellini, 2003, 2004). But Ticchi and Vindigni (2003) and Iversen and Soskice (2003) note a particularly subtle problem: at least in the OECD countries, proportional electoral rule is frequently associated with center-left governments, while right-wing governments are more frequent under majoritarian elections. This correlation, rather than the prevalence of coalition governments, could explain why proportional representation systems spend more. But why should the electoral rule be correlated with the ideological government type? These papers argue that majoritarian elections concentrate power, which tends to favor the wealthy. In such systems, the argument goes, minorities (groups unlikely

Figure 1
Total Government Spending and Incidence of Coalition Governments



Notes: The residuals are obtained by regressing total spending by central government (in percentage of GDP) and the incidence of coalition governments, respectively, on the following variables: per-capita income, openness to international trade, the proportion of the elderly in the population, ethno-linguistic fractionalization, U.K. colonial origin, a dummy variable for federal political structures. The sample refers to 50 parliamentary democracies in the 1990s.
Source: Persson, Roland and Tabellini (2003).

to benefit from spending, irrespective of who holds office) would rather see fiscal conservatives than fiscal liberals in office, since this reduces their tax burden. Hence, in winner-takes-all systems, conservative parties have an electoral advantage. If electoral rules are chosen on the basis of the policies they will deliver, this might explain the observed correlation: where the center-left voters dominate, proportional systems have been selected, whereas majoritarian systems have been selected where conservatives dominate. The empirical results by Persson, Roland and Tabellini (2003) cast some doubt on this line of thought, however. If indeed the electoral rule influences policy through the ideology of governments, rather than through the number of parties in government, the electoral rule cannot be a valid instrument for the incidence of coalition governments in a regression on government spending—contrary to the findings discussed above.

Finally, if bargaining inefficiencies inside coalition governments lead to high spending, they may also produce other distortions. Several papers have studied intertemporal fiscal policy, treating the type of government as exogenous, but arguing that coalition governments face more severe "common-pool problems."

The latter concept refers to the tendency for overexploitation when multiple users make independent decisions on how much to exploit a common resource, such as fish; the analogy to this common resource is current and future tax revenue. In reviewing the extensive work on government budget deficits, Alesina and Perotti (1995) draw on the work by Velasco (1999) to argue that coalition governments are more prone to run deficits. Hallerberg and von Hagen (1998, 1999) explicitly link the severity of the common-pool problem to electoral systems and argue that this has implications for the appropriate form of budgetary process. These arguments find some support in the experiences of European and Latin American countries. As coalition governments have more players who could potentially veto a change, they could be subject to some inability to alter policy in the wake of adverse shocks (Roubini and Sachs, 1989; Alesina and Drazen, 1991). Moreover, in the developed democracies, changes of government or threatened changes of government are empirically more frequent under proportional elections (due to the greater incidence of minority and coalition governments). When governments must often face a vote on their own survival, it could lead to greater policy myopia and larger budget deficits (Alesina and Tabellini, 1990; Grilli, Masciandaro and Tabellini, 1991). These ideas are related to those in Tsebelis (1995, 1999, 2002), where a larger number of veto players tends to "lock in"' economic policy and reduce its ability to respond to outside shocks. In Tsebelis's conception, proportional elections often lead to multiple partisan veto players in government and thus to more policy myopia, even though the electoral rule is not the primitive in his analysis.

Evidence based on larger data sets partly confirms these results and ideas. As shown earlier in Table 1, budget deficits are larger by about 1 percent of GDP in legislatures elected under proportional representation, compared to those elected under plurality rule (although this difference is not statistically significant in Table 1). Persson and Tabellini (2003) consider larger data sets from the 1990s as well as from the 1960s and show that, when controlling for other determinants of policy, this difference grows to about 2 percent of GDP and becomes statistically significant. There is also some evidence that the electoral rule is correlated with the reaction of government to economic shocks: in proportional democracies, spending as a share of GDP rises in recessions but does not decline in booms, while cyclical fluctuations tend to have symmetric impacts on fiscal policy under other electoral systems.

Forms of Government and Political Representation

The defining feature of parliamentary democracies is that the executive can be removed from office at any time by a nonconfidence vote by the legislature. In a parliamentary democracy, the government also has strong powers to initiate legislation and set the agenda. The parties represented in government thus hold valuable bargaining powers that they risk losing if a government crisis does indeed take place. Therefore, the confidence requirement together with the agenda-setting prerogatives of governments create strong incentives to maintain discipline inside the governing party or coalition, as noted by Shugart and Carey (1992) and formally modeled by Huber (1996) and Diermeier and Feddersen (1998). To use the jargon of the literature, the confidence requirement creates "legislative cohesion"—a stable majority supporting the cabinet and voting together on policy proposals. When the executive cannot be removed by a nonconfidence vote, as in a presidential system, the result is unstable coalitions and less discipline within the majority.

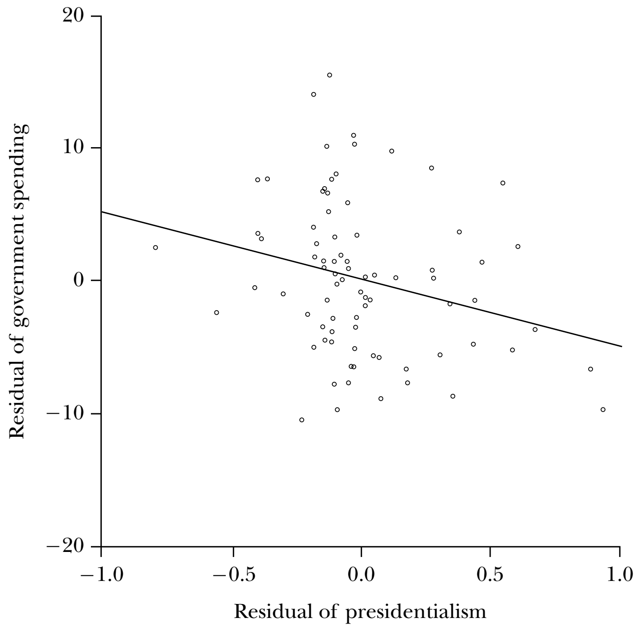
Building on this idea, Persson, Roland and Tabellini (2000) contrast alternative arrangements for legislative bargaining. In parliamentary democracies, a stable majority of legislators pursues the joint interest of its voters. Spending thus optimally becomes directed toward a broad majority of voters, as in the case of broad social transfer programs or general public goods. In presidential democracies, the (relative) lack of such a majority instead pits the interests of different minorities against each other for different issues on the legislative agenda. As a result, programs with broad benefits suffer, and the allocation of spending favors minorities in the constituencies of powerful officeholders, for example, the heads of congressional committees in the United States.

Moreover, in parliamentary regimes, the stable majority of incumbent legislators, as well as the majority of voters backing them, become "residual claimants" on additional revenue; they can keep the benefits of spending within the majority, putting part of the costs on the excluded minority. Both majorities favor high taxes and high spending. In presidential regimes, on the other hand, no such residual claimants on revenue exist, and the majority of taxpayers and legislators therefore resist high spending since the benefits would be directed toward different minorities.

Thus, presidential regimes are predicted to have lower overall spending and taxation than parliamentary regimes, both because presidential regimes never face the risk of a no-confidence vote and also because of the separation of powers argument in the previous section. Presidential regimes should also be associated with more targeted programs at the expenses of broad spending programs.

The evidence is strongly supportive of some of these predictions. Figure 2 plots total government spending in percentage of GDP against a dummy variable for presidentialism in 83 democracies in the 1990s, after taking into account several other possible determinants of fiscal policy (including the electoral system). As for Figure 1, the two axes measure the residuals of the two variables in a regression against the set of policy determinants listed in the note to Figure 2. By construction, the mean of both variables is zero, and Figure 2 displays the remaining variation in each variable, uncorrelated with the policy determinants included as regressors. Thus, a value of 1 on the horizontal axis corresponds to a country that was predicted to be parliamentary, but turns out to be presidential, and vice versa for the value of -1. Presidential countries are defined as those where the executive is not accountable to the legislature. A strong negative relation is apparent: the slope of the regression line, which corresponds to the ordinary least squares coefficient estimate, is about -5. This means that a constitutional reform that switched the form of government from parliamentary to presidential in a country drawn at

Figure 2
Total Government Spending and the Form of Government



Notes: The residuals are obtained by regressing total spending by central government (in percentage of GDP) and a dummy variable for presidential regimes, respectively, on the following variables: per-capita income, openness to international trade, the proportion of the elderly and of the young in the population, ethno-linguistic fractionalization, quality and age of democracy, and dummy variables for plurality-rule elections, federal political structures, OECD countries, continental location and colonial origin. The sample refers to 83 democracies in the 1990s.
Source: Persson and Tabellini (2003).

random from this sample would reduce the total size of government spending by about 5 percent of GDP in the long run—a very large number. Persson and Tabellini (2003, 2004) show that this result is very robust, to the sample of countries, to the specification of the controlling variables, and to the estimation methods (including least squares, instrumental variables, a Heckman-style adjustment, propensity score matching). As in the case of electoral rules, differences observed today largely result from different rates of growth of government in the last four decades, with spending growing much faster in parliamentary than in presidential democracies.

The containing effect of presidentialism on the size of public spending is also a feature of local governments and not just of national governments. Baqir (2002) contrasts public spending in U.S. municipalities differing in their form of government. Some are parliamentary, in the sense that the chief executive is appointed by the municipal council, others are presidential, in the sense that the mayor is directly elected. Baqir finds that presidential governments indeed spend less than those where the mayor is accountable to the municipal legislature.

Finally, the predicted result that presidential regimes have smaller universalistic welfare programs is found only among the "better" democracies on the scale of good and bad democracies discussed earlier, where presidential democracies indeed spend less by about 2 percent of GDP.

Types of Government and Political Representation

No formal theoretical analysis of which we are aware has explicitly tried to contrast the size of the budget deficit or the reaction of policy to economic shocks under presidential versus parliamentary forms of government. In theory, the comparison could go either way. On the one hand, fixed terms of office and greater durability of the executive in presidential regimes could reduce policy myopia, relative to parliamentary regimes, leading to smaller budget deficits and more rapid reactions to adverse events. On the other hand, in a presidential system with divided governments—that is, executives and congressional majorities from different parties—both sides may be stuck in gridlock when trying to respond to adverse shocks that hit the economy. Indeed, some authors such as Alt and Lowry (1994) have tried to explain the occurrence of budget deficits and the adjustment to shocks in the U.S. states as the result of a divided government, where governors and majorities in state congresses are controlled by different parties.[6] A common criticism among political scientists of Latin American presidential regimes, namely, that they are commonly deadlocked and ineffective, can be read in the same way.

Persson and Tabellini (2003) find no robust evidence for government deficits being systematically influenced by the form of government. But they do uncover systematic differences in the adjustment of fiscal policies to economic and political events. In presidential democracies, spending and deficits are procyclical rather than countercyclical. Moreover, a postelection tightening of fiscal policy is observed only in presidential democracies, where spending is cut and deficits improve in the average postelection year by no less than 1 percent of GDP. These results on fiscal policy dynamics are robust to controlling for the overrepresentation of Latin American countries in the set of presidential democracies. How to interpret these institution-dependent patterns in the data is far from clear, however, and probably requires a new round of theoretical work on the dynamics of policymaking under different forms of government.

Concluding Remarks

Constitutional rules appear to shape economic policy. Whether we are economists or political scientists, at the end of the day we are interested not only in

[6] A similar idea in the literature on U.S. state fiscal policy is that other legislative institutions—such as a governor's line-item veto—have more bite on taxes, spending and deficits under divided government, an idea that has received some electoral support. Again, we refer the reader to Besley and Case (2003) for an extensive survey of this literature.

government policies per se, however, but also in their overall effect on economic performance. This is a much more difficult issue, since we still know relatively little about the policy determinants of economic performance, and what we know suggests very complex patterns of interaction.

Nevertheless, it is tempting to explore the data, to see whether they suggest some robust correlations. Persson and Tabellini (2003) uncover some intriguing but preliminary patterns among about 75 democracies in the 1990s. A broad classification of electoral rules into proportional and majoritarian does not seem to be strongly correlated with economic performance. But a parliamentary form of government is associated with better performance and better growth-promoting policies, measured by indexes for broad protection of property rights and of open borders in trade and finance (the same policies as those considered in a well-known study by Hall and Jones, 1999). These policies, in turn, positively affect productivity. It is tempting to interpret these findings as parliamentary democracies generating better provision of public goods, or policies with broadly distributed benefits, because property-rights-protecting regulatory policies and nonprotectionist trade policies can be described in those terms. But the negative effect of presidentialism is only present among the democracies with lowest scores for the quality of democracy; this suggests that perhaps it is not presidential government per se that is detrimental to economic performance, but rather the combination of a strong and directly elected executive in a weak institutional environment where political abuse of power cannot be easily prevented.

Persson (2003) goes further, extending the sample to panel data and to nondemocracies, so as to exploit entry into or exit from different types of democratic constitutions. His preliminary findings are also consistent with a sizable positive effect of parliamentary democracy (relative to presidential democracy as well as nondemocracy) on growth-promoting policies and labor productivity. Moreover, he shows that an imaginative instrument for growth-promoting policy suggested by Acemoglu, Johnson and Robinson (2001) indeed induces better expected performance through a higher likelihood of parliamentary democracy (and better growth-promoting policies).[7] The robustness and the precise interpretation of these patterns in the data is an exciting task for future research. A related interesting line of research studies the effects of becoming a democracy on economic performance (for example, Roll and Talbott, 2002; Prezworski and Limongi, 1993).

What does the literature discussed in this paper imply about the overall consequences of constitutional reforms? It suggests that electoral reforms and

[7] These authors suggested that (i) the influence on institutions from western European colonization is long lived, (ii) whether the colonizers set up productive or extractive institutions depended systematically on living conditions in the colonies, and (iii) the latter are well measured by the (nonmilitary) death rates among the settlers in the early nineteenth century. On these grounds, they suggest that early settler mortality is a good instrument for growth-promoting institutions.

changes to the form of government often entail a tradeoff between accountability and representation, as political scientists have long suggested, and that these tradeoffs extend to economic policy outcomes. In particular, plurality rule strengthens accountability by reinforcing the incentives of politicians to please the voters and results in smaller political rents and less corruption. But it also makes political candidates more responsive to the wishes of pivotal groups of voters, which increases the propensity to target benefits to narrow constituencies at the expense of broad and universalistic programs such as welfare-state spending and general public goods. The evidence suggests that both effects are quantitatively important.

In addition, small district magnitude combined with plurality rule induces a system with fewer political parties. This too has several implications. On the one hand, it becomes more difficult to oust dishonest or incompetent incumbents, because voters will often support such incumbents over honest but ideologically opposed challengers. On the other hand, the incidence of coalition governments is reduced (in parliamentary democracies), and this is likely to lead to more efficient policies. The overall effect on accountability of these changes is ambiguous. But the overall size of government and budget deficits are much larger under coalition governments, and the latter are promoted by proportional representation and large district magnitude.

Another important lesson of this line of research, however, is that any real-world electoral reform should pay attention to the finer details of the electoral system and to specific country characteristics. In some cases, it may be possible to combine the broad categories discussed here. For example, in Chile and Mauritius, voters cast their ballot for individuals, who are elected by plurality in two- or three-member districts. Such an arrangement might be a way of reaping the benefits both of individual accountability and plurality rule. In other cases, the linkages discussed here may not hold. For example, some countries like Italy may find that even though they move toward single-party legislative districts, they still end up with a large number of political parties and coalition governments, because in these countries political preferences reflect geographic location, and this allows small parties to be sure winners in some districts. We expect that future research on constitutions and economic policy will show a greater ability to understand and exploit these subtle interactions between the constitution and specific country characteristics.

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