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CHAPTER 40

ELECTORAL  
SYSTEMS AND  
ECONOMIC POLICY

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WHAT is the effect of the constitution on economic policy choices? This issue is often at the heart of debates on constitutional reform. Recently, Italy replaced its system of proportional representation, where legislators were elected according to the proportions of the popular national vote received by their parties, with one that includes ingredients of plurality rule, where legislators are elected in each district according to who receives the highest number of votes. Italian political leaders are now considering proposals to replace the current parliamentary regime with elements of presidentialism, where the head of government is elected by direct popular vote. An important motivation for these reforms was the idea that they would reduce political corruption and the propensity of Italian governments to run budget deficits.

In recent years, a number of other countries have implemented related reforms. For instance, New Zealand altered its system of plurality rule in single-member districts to a system mixing elements of proportional representation. Japan moved to a system that mixes elements of proportional and plurality representation from its special form of plurality rule (the so-called single non-transferable vote). The UK has debated similar proposals. What are the effects of these reforms on economic policy outcomes and economic performance?

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It is only recently that this question has been addressed by social scientists. Political scientists specializing in comparative politics have described the fundamental features of constitutions and their political effects. Yet they have mainly focused on political phenomena, failing to study how constitutional rules shape economic policies. Although economists in the field of political economics have studied the determinants of policy choices, they rarely study constitutional details and their implications for policy choice and economic performance.

This chapter discusses recent theoretical and empirical research on one feature of modern democracies: the electoral rule. Our central conclusion is that the electoral rule systematically shapes economic policy. We show that to understand the extent of political corruption, the devil is in the details of electoral systems, such as the ballot structure or district magnitude. In the case of the size of government and fiscal policy outcomes, the effects are associated with the broad distinction between proportional and majoritarian systems. The effects are often large enough to be of genuine economic interest.

A closely related question concerns the effects on economic policy of the constitutional rules that define the form of government, especially the crucial distinction between parliamentary and presidential systems. We do not address this topic here and refer the interested reader to Persson and Tabellini (2003, 2004a).

We develop our arguments as follows. Section 1 outlines some key objectives of electoral rules and notes the stability and systematic selection that characterize real-world constitutions. Section 2 introduces the main concepts that categorize different electoral rules. Section 3 explains how these elements shape the accountability of government and the size of political rents and corruption. Section 4 deals with representation in government and a variety of fiscal policy choices. Section 5 offers our conclusions and brief comments on emerging research.

## 1 ELECTORAL SYSTEMS: MOTIVES, STABILITY, AND SELECTION

In a representative democracy, elected officials determine policy. Electoral systems decide how well voters can hold politicians accountable and which groups in society are more likely to see their interests represented.

Economists in the field of corporate finance show that alternative rules of corporate governance entail a trade-off between agency problems and representation of minority interests. Rules that concentrate powers in the hands of a dominant shareholder reduce managerial discretion and limit the scope of the agency problem, but this control is likely to come at the expense of minority shareholders (cf. for instance Becht, Bolton, and Röell 2003).

A similar trade-off between accountability and representation arises in the design of electoral rules. Indeed, this idea is familiar to political scientists in the field of comparative politics (see e.g. Bingham Powell 2000; Prezeworski, Stokes, and Manin 1999). Compared to proportional representation, plurality rule in single-member districts translates swings in voter sentiment into larger changes in legislative majorities. This leverage effect of plurality rule strengthens the incentives of politicians to please the voters, leading to smaller political rents and less corruption. But since it makes political candidates more responsive to the wishes of pivotal groups of voters, stronger accountability also raises the propensity to target benefits to narrow constituencies. This targeting comes at the expense of broad spending programs that benefit many citizens. Hence the design of electoral rules entails a trade-off between accountability and representation.

Overall features of electoral systems change very seldom. In the sample of sixty democracies studied by Persson and Tabellini (2003), only two enacted important reforms of the electoral system between 1960 and 1990 (Cyprus and France)—though more reforms are observed if one considers marginal changes and transitions from autocracy to democracy. At the same time, the electoral system is strongly correlated with stable country characteristics: former British colonies tend to have UK-style plurality rule in single-member districts, while continental Europe predominantly has proportional representation.

These patterns make it difficult to draw causal inferences from the data. Electoral stability means that reforms are very seldom observed; but cross-country comparisons risk confounding the effects of the constitution with other country characteristics, since the electoral rule itself could be selected on the basis of unobserved variables that also influence policy outcomes.

In our own work, we have exploited econometric techniques developed by labor economists to estimate the causal effects of non-random treatments from cross-sectional comparisons. For us, treatment is the electoral reform. We have relied on three estimation methods. First, we isolate exogenous variation in electoral rules through instrumental variables. If change is very rare, it may be largely determined by historical circumstances (whatever was “fashionable” at the time). The broad period in which the current constitution was adopted can thus be used as an instrument for the electoral system. The 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. Second, we adjust the estimates for possible correlation between the random components of policy outcomes and the selection of electoral systems, as suggested by Heckman and others. Third, we exploit so-called “matching methods” where countries are ranked by the probability of adopting a specific electoral system, called a propensity score. Comparisons of countries with similar propensity scores, but with different actual systems, receive more weight. This third method avoids biased estimates due to heterogeneous treatment effects. Persson and Tabellini (2003) discuss these three estimation methods in context, while Acemoglu (2005) provides a critical review.

## 2 CATEGORIZING ELECTORAL SYSTEMS

Political scientists commonly emphasize three aspects of electoral rules for legislatures.

*Electoral formulas* translate votes into seats. Under plurality rule, only the winner(s) of the highest vote share(s) are elected in a given district. In contrast, proportional representation awards legislative 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.

*District magnitudes* reflect the number of legislators (given the size of the legislature) acquiring a seat in a typical voting district. One polar case is where all districts have a single seat, as in the US House of Representatives; the other polar case is where legislators are all elected in a single, all-encompassing district, such as the Israeli Knesset. See Grofman (this volume) for a more extended discussion.

*Ballot structures* determine how citizens cast their ballot. One possibility is that they choose among individual candidates. Another common possibility is that each voter chooses from a set of closed lists of candidates drawn up by the parties participating in the election. In the latter, 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.<sup>1</sup>

Although these three aspects are theoretically distinct, their use is correlated across countries. Anglo-Saxon countries often implement plurality rule with voting for individual candidates in single-member districts. Others implement proportional representation through a system of closed party lists in large districts, sometimes a single national district. In the wake of this pattern, many observers have classified countries into two archetypical electoral systems, labeled “majoritarian” and “proportional” (or “consensual”). These correlations are nonetheless not perfect, and several countries employ “mixed” electoral systems. German voters, for instance, 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.<sup>2</sup> Blais and Massicotte (1996) and Cox (1997) present overviews of world electoral systems.

## 3 ACCOUNTABILITY

How do electoral rules affect accountability? In this section, we consider only policies evaluated in roughly the same way by all voters (so-called valence issues), leaving

<sup>1</sup> The distinction between open and closed party lists is discussed further below.

<sup>2</sup> To achieve proportionality, the Irish “single transferable 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.

the problem of how elected officials react to disagreement among voters for the next section that focuses on representation. Accountability in this context 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. Accountability also refers to the ability of voters to select the most “able” candidate, where ability can be interpreted as integrity, technical expertise, or other intrinsic features valued by voters at large. As the emphasis of this chapter is on economic policy-making, we focus on how the electoral rule affects corruption, rent-seeking, and electoral budget cycles.

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

### 3.1 Direct Effects

Politicians have stronger direct incentives to please the voters if they are held accountable individually, rather than collectively. Because they disconnect individual efforts and re-election prospects, party lists discourage effort by office-holders. Persson and Tabellini (2000) formalize this idea and predict that political rents will be higher under electoral systems that rely on list voting than in systems where voters directly select individual candidates. The same argument also implies that *open* lists (voters can modify the order of candidates) should be more conducive to good behavior than *closed* lists (non-amendable by voters), as should preferential voting (voters are asked to rank candidates of the same party).

What does the evidence say? If higher political rents are associated with illegal benefits, then we can study whether corruption by public officials in different countries is systematically correlated with 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.

Cross-sectional and panel data suggest some connections. Persson and Tabellini (2003) and Persson, Tabellini, and Trebbi (2003) study about eighty democracies in the 1990s. They measure corruption as perceived through surveys assembled by the World Bank, Transparency International, and private risk services. They also control for country characteristics that earlier studies have found to correlate with corruption, notably 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. The ballot structure is indeed strongly correlated with 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 per cent. This is about twice the estimated effect of being in Latin America. 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 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, although they 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 inter-party and intra-party competition. These scholars argue that competition between parties is desirable, as it leads to legislation that pleases voters at large. In contrast, competition within parties is not desirable, as it leads 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 corruption is more frequent in districts with more intense intra-party competition. They conclude that open-list systems are worse than closed-list systems, and claim that the empirical results by Kunicova and Rose Ackerman (2001) reflect a mis-specified model (see also Golden and Chang 2003).

Summarizing the argument so far, 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, including district magnitude, seems to affect the incentives for politicians also in other ways. Under plurality rule, the mapping from votes to seats becomes steep when 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.<sup>3</sup> 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. Strömberg's (2003) results bear on these arguments. Employing a theoretical and structurally estimated model of the US Electoral College, he studies 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.

<sup>3</sup> 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 (gerrymandering) where protection of incumbents is one of several possible objectives.

### 3.2 Indirect Effects

Electoral rules (and in particular district magnitude) 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.

Myerson (1993) presents a model in which barriers to entry allow dishonest candidates to survive. He assumes that parties (or equivalently, candidates) differ in two dimensions: honesty and ideology. Voters always prefer honest candidates, but disagree on ideology. With proportional representation and multimember districts, honest candidates are 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, 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. These ideas are discussed by Persson, Roland, and Tabellini (2003) and Bingham Powell (2000).

Do the data shed light on these alternative predictions? 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. Other evidence supports 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, which raise barriers to entry for new candidates, are positively associated with perceptions of corruption in US states.

We have thus far emphasized the implications of the electoral rule for political rents and corruption. A strong incentive of political representatives to please the voters can also show up in electoral policy cycles, however. Persson and Tabellini (2003) consider panel data from 1960 covering about 500 elections in over fifty 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 and other regressors. Governments elected under plurality rule tend to cut taxes and government spending during election years, by about 0.5 per cent of GDP.

In proportional representation democracies, tax cuts are less pronounced, and no spending cuts are observed. This finding is consistent with better accountability under plurality rule, 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 Persson and Tabellini 2000 or Besley and Case 1995).

### 3.3 Summing up

What does all of this imply about the consequences of electoral reforms for corruption? Because it would entail changing several features of the electoral rule, a large-scale reform from “proportional” to “majoritarian” elections would have ambiguous effects. 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. The empirical evidence in Persson and Tabellini (2003) and Persson, Tabellini, and Trebbi (2003) supports this nuanced conclusion. After controlling for other variables and taking into account the self-selection of countries into constitutions, they find no robust difference in corruption across a broad classification of majoritarian vs. proportional electoral systems.

## 4 REPRESENTATION

Economic policy generates conflicts of interest. Individuals and groups in society differ in many dimensions: they have different levels and sources of income, work in different sectors and occupations, live in different geographic areas, and possess different ideologies. As a result, people differ in their views about public policies: 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. Electoral rules help aggregate such conflicting interests into public policy decisions, but the weight given to specific groups varies with the system. In this section, we discuss how this influences fiscal policy choices.

### 4.1 Direct Effects on the Composition of Government Spending

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 induce politicians to provide benefits for broad groups of voters. Building on this insight, some recent papers have studied the influence of district magnitude and the electoral formula on the composition of government spending.

Persson and Tabellini (1999; 2000, ch. 8) study electoral competition between two opportunistic and office-seeking parties. 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 (e.g. public pensions or other welfare 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. Both parties thus have a strong incentive to target voters in these swing districts. Strömberg (2003) considers the effect of the Electoral College on the allocation of campaign resources or policy benefits in his aforementioned structural model of the election for US 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, compared to a (counterfactual) system of a national vote.

Moreover, the winner-takes-all property of plurality rule reduces the minimal coalition of voters needed to win the election. Under plurality rule, a party can control the legislature with only 25 per cent of the national vote: half the vote in half the districts. Under full proportional representation, 50 per cent of the national vote is needed, which gives politicians a stronger incentive to provide benefits for many voters. This point has been made in different frameworks. Lizzeri and Persico (2001) study a model with binding electoral promises, where candidates can use tax revenue to provide either (general) public goods or targeted redistribution. Persson and Tabellini (2000, ch. 9) consider a broad or narrow policy choice by an incumbent policy-maker trying to win re-election. Milesi-Ferretti, Perotti, and Rostagno (2002) obtain similar results in a model where policy is set in post-election bargaining among the elected politicians. They also predict that proportional elections lead to a larger 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? Without controlling for other determinants of welfare spending, legislatures elected under proportional electoral systems spend much more on social security and welfare compared to majoritarian elections: on average, the difference is about 8 per cent of GDP. Controlling for other determinants of social security and welfare spending, such as demographics, per capita income, the age and quality of democracy, this magnitude shrinks to 2–3 per cent of GDP and remains statistically significant. This estimate is robust to the sample of countries and to taking into account the non-random nature of electoral systems (cf. Milesi-Ferretti, Perotti, and Rostagno 2002; Persson and Tabellini 2003, 2004*b*).

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.

## 4.2 Indirect Effects on the Overall Size of Government Spending

The papers discussed so far in this section focus on the incentives of individual candidates, in a two-party system. Many studies of comparative politics, however, observe that 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 means more frequent single-party majority governments, and less frequent coalition governments (Taagepera and Shugart 1989; Strom 1990). Evidence presented in Persson, Roland, and Tabellini (2003) suggests that these political effects of the electoral rule may be large. In about fifty 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 post-election bargaining. He assumes that there are fewer parties under plurality rule (two parties) than under proportional representation (three parties). The coalition of two parties spends and taxes more compared to the single party. But here the number and size of parties is not allowed to depend on policy choices, imposing an artificial constraint on political competition.

Persson, Roland, and Tabellini (2003) and Bawn and Rosenbluth (2003) also predict that proportional representation leads to more government spending than plurality rule; but they treat the number of parties as endogenous and stress how the type of government determines the nature of electoral competition. When the government relies on a single-party majority, the main competition for votes is between the incumbent and the opposition; this pushes the incumbent towards efficient policies, or at least towards 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 creates electoral conflict inside the coalition. Under plausible assumptions, inefficiencies in bargaining induce excessive government spending.

These theoretical predictions are supported by the data: without conditioning on other determinants of fiscal policy, legislatures elected under proportional

representation spend about 10 per cent of GDP more than legislatures elected under plurality rule. Careful estimates obtained from cross-country data confirm this result. Persson and Tabellini (2003, 2004*b*) consider a sample of eighty democracies in the 1990s, controlling for a variety of other policy determinants (including the distinction between presidential and parliamentary democracy), and allow for self-selection of countries into electoral systems. Their estimates are very robust, and imply that proportional representation rather than plurality rule raises total expenditures by central government by a whopping 5 per cent of GDP.<sup>4</sup>

Persson, Roland, and Tabellini (2003) focus on fifty parliamentary democracies, 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 by an amount similar to that found by Persson and Tabellini (2003, 2004*b*). But here the effect seems to be entirely due to a higher incidence of coalition governments in proportional electoral systems. This conclusion is reached by testing an over-identifying 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 jointly used as instruments for the type of government. The data cannot reject the restriction that all these measures of electoral systems are valid instruments for the type of government; that is, the electoral rule only influences government spending through the type of government, with no direct effects of the electoral rule on spending. Earlier empirical papers that treated the type of government as exogenous also find evidence that larger parliamentary coalitions spend more (e.g. Kontopoulos and Perotti 1999; Baqir 2002).

As noted above, the selection of countries into electoral systems is certainly not random, and some of the empirical research takes account of this (in particular, Persson and Tabellini 2003, 2004*b*). 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 government ideology? These papers argue that majoritarian elections concentrate power, which tends to favor the wealthy. In such systems, the argument goes, minorities (groups unlikely 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

<sup>4</sup> 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. Various estimation techniques produced similar results.

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.

### 4.3 Indirect Effects on Budget Deficits

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 over-exploitation 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) and von Hagen (this volume) 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.

The experiences of European and Latin American countries suggest a second reason why coalition governments might be prone to run budget deficits. As coalition governments have more players who could potentially veto a change, they may be less able to alter policy in the wake of adverse shocks (Roubini and Sachs 1989; Alesina and Drazen 1991). These ideas are related to those in Tsebelis (1995, 1999, 2002), where a large number of veto players tends to “lock in” economic policy and reduce its ability to respond to 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.

Finally, changes of government or the threat of government crisis are more frequent under proportional elections (due to the greater incidence of minority and coalition governments). And governments facing a vote on their own survival are more likely to behave myopically and run large budget deficits (Grilli, Masciandaro, and Tabellini 1991). A priori, this argument could also go the other way, however. In a coalition government, some parties will remain in government for a long time, despite changes in the coalition. With plurality rule, the party in power this time may be completely out of power next time. So the party in power today will take the money and run. In other words, political instability (i.e. large swings in political majorities), rather than government instability, undermines fiscal prudence (Alesina and Tabellini 1990).

The empirical evidence confirms that proportional electoral systems behave more myopically. In the raw data, budget deficits are larger by about 1 per cent of GDP in legislatures elected under proportional representation, compared to those elected under plurality rule. Persson and Tabellini (2003) show that, when controlling for other determinants of policy, this difference grows to about 2 per cent of GDP and is statistically significant in a large sample of democracies. There is also evidence that the electoral rule is correlated with government reaction 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.

## 5 DISCUSSION

One of the principal conclusions of this chapter is that electoral reforms entail a trade-off between accountability and representation, as political scientists have suggested, and this has sharp implications for economic policy outcomes. This trade-off shows up in the direct effects of the electoral rule on the incentives of political candidates, as well as the indirect effects on party structure and type of government.

Plurality rule strengthens accountability. It does so directly, by reinforcing the incentives of politicians to please the voters, which results in smaller political rents and less corruption. But plurality rule 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. We surveyed a range of evidence suggesting that both effects are quantitatively important.

Electoral rules also have indirect effects on policy outcomes, through the party structure. Small district magnitude combined with plurality rule results in fewer political parties. This makes it more difficult to oust dishonest or incompetent incumbents, because voters often support such incumbents over honest but ideologically opposed challengers. Fewer parties also reduce the incidence of coalition governments (in parliamentary democracies), and this is likely to lead to more efficient policies. As these indirect effects work in opposite directions, the overall impact on accountability is ambiguous. The approach also reveals that the overall size of government and budget deficits is much larger under coalition governments, and the latter are promoted by proportional representation and large district magnitude.

Whether economists or political scientists, at the end of the day we are interested not only in economic policies, but also in their overall effects on economic performance. The interaction between electoral systems, other political institutions, and economic development is one of the most exciting new areas of research at the boundary between economics and political science. As discussed by Helpman (2004), progress in this area will have to combine insights not only from these two disciplines,

but also from sociology, and from many branches of economics, such as macroeconomics, economic development, political economics, and economic history. This line of research will also have to focus on the distinction between democratic and autocratic forms of government, trying to understand which features of democratic institutions make democracy more stable, and how the quality of democracy interacts with specific institutional features. Although it is still premature to review this rapidly evolving line of research, one thing is sure. When such a review is written a few years down the line, the state of our knowledge in economics and political science will be very different from what it is today.

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