

## Federalism and Incentives for Success of Democracy

Roger B. Myerson

*Department of Economics, University of Chicago, 1126 East 59th Street, Chicago, IL 60637. E-mail: myerson@uchicago.edu*

---

### ABSTRACT

Success and failure of democracy are interpreted as different equilibria of a dynamic political game with cost of changing leadership and incomplete information about politicians' virtue. Unitary democracy can be frustrated when voters do not replace corrupt leaders, because any new leader would probably also govern corruptly. However, federal democracy cannot be consistently frustrated at both national and provincial levels, because provincial leaders who govern responsibly could build reputations to become contenders for higher national office. Similarly, democracy cannot be consistently frustrated in a democratization process that begins with decentralized provincial democracy and only later introduces nationally elected leadership.

---

*Countries in transition that have aimed for national elections as a first step (Bosnia for example) have bogged down and generally handed power over to avatars of the old regime. By contrast, Kosovo and East Timor began with local elections, with a far better result of bringing forward new talents and capabilities, and giving people a sense of empowerment.*

Final Report on the Transition to Democracy in Iraq (2002, p. 24).

This paper is a theoretical study of the problems of democratization. Our basic question is how the chances of success for a new democracy may depend on the division of powers in its constitution. A democratic constitution defines the rules of the game that politicians must play to win power and to use it. With game-theoretic analysis, we can study the ways in which a change of constitutional structure could affect the rational competitive behavior of politicians. In this article, I analyze differences in the sets of equilibria that are generated by some simple game models of unitary and federal democracy. Our main

---

*MS submitted 7 February 2005; final version received 28 August 2005*

ISSN 1554-0626; DOI 10.1561/100.00000002

© 2006 now Publishers.

results show how the division of powers in a federal system can make a new democracy more likely to succeed.

A model to analyze the determinants of successful democracy must be based on a theory of democratic failure. In particular, we need to understand why democracy may be particularly vulnerable when it is new, in a nation that is just emerging from an extended period of authoritarian rule. We understand that a new democracy cannot guarantee its success simply by copying a constitutional structure that performs well in an established democracy. So a model of democratic success must admit multiple equilibria. When games have multiple equilibria, the players' shared culture becomes the system that identifies which equilibrium they will actually expect to play, according to Schelling's (1960) focal-point effect. So the analysis must take account of some way in which the local culture in any new democracy may be expected to differ from the cultures of established democracies.

A critical aspect of culture that may systematically differ between new and established democracies can be found in the kinds of reputations that people attribute to their political leaders. Game-theoretically, questions of reputation always involve multiple equilibria in a dynamic game. In a reputational equilibrium, the initial assignment of reputations to individuals is always just one of many possible equilibria. An individual who has a good reputation expects to be well treated by others as long as they see him conforming to some given pattern of behavior, but if he is seen to deviate from this pattern then they may change their behavior to some other equilibrium in which he loses his reputation and its benefits. Such reputational equilibria are fundamental to the performance of any social or political institution.

In a nation in which democracy has a long continuous history, there are typically many political leaders who have established reputations for using political power within constitutional limits to serve the voting public. But in a nation that is emerging from one or more generations of authoritarian rule, such good democratic reputations are typically lacking. To win high office in the old authoritarian regime, ambitious officials needed to cultivate reputations for using power to serve their superiors and to reward their supporters in the political hierarchy. Given politicians with such authoritarian reputations for serving others within the political elite, voters in a new democracy would naturally expect that the winner of the first election for control of the national government will use power only for personal benefit and to benefit the inner circle of active supporters. Thereafter, the voters may also naturally believe that any other politician would behave the same way, if that politician could take the place of the incumbent leader. With such low expectations, voters are unlikely to support democratic challengers to the ruling party, and they might see little reason to protest if the government suppressed its political opposition. This unfortunate equilibrium of low expectations is the central concern of this paper.

From this perspective, the central problem for a new democracy may be to create good democratic reputations where they have not previously existed. Intuitively, a successful solution to this problem becomes more likely when more politicians are given independent opportunities to begin cultivating such reputations. The extent of such opportunities may depend critically on the constitutional division or separation of powers in a new democracy.

So I begin in the next section by developing a basic model of simple unitary democracy, where control of the government is delegated to one elected leader. In this model, success and failure of democracy correspond to alternative equilibria of a dynamic game played by voters and politicians. Success of democracy can be sustained as a dynamic equilibrium when many politicians have reputations for good government, so that voters would reject an incumbent who lost a good reputation. But I show that this game also has other equilibria where democracy is frustrated and fails, when politicians do not have such good democratic reputations.

In the third section I extend this basic model to a federal democracy, where voters elect both a national leader and local leaders for the various provinces. Although this game also has multiple equilibria, I show that consistent frustration of democracy cannot occur in any equilibrium of a federal system. The federal division of powers creates a layer of independent provincial leaders who have both motive and opportunity to begin cultivating reputations for good democratic government. The key is that provincial leaders exercise real governmental power, and their hopes of rising to national leadership can increase their incentive to use this power responsibly. Thus, in a federal system, the forces of democratic competition may be sharpened by the national ambitions of local leaders.

In the fourth section I consider a kind of sequential federalism in a transition to democracy, where elected provincial leaders hold all power initially in an interim provisional government, but later a unitary national democracy will be established. We show that the decentralized democratic structure during this interim phase can also strongly motivate provincial leaders to begin cultivating reputations for good government, so that they can be contenders for national power when direct national democracy is established. It is worth noting that the American transition to democracy had just such a decentralized interim phase in 1777–1788 under the Articles of Confederation. Such a decentralized interim structure was also recommended for introducing democracy in American-occupied Iraq (Democratic Principles Work Group, 2002), but it was not implemented there.

I consider some variations on our basic model in the fifth section, to give a broader view of its interpretation and significance. Conclusions are then summarized.

In my definition of success for democracy, I apply Riker's (1982) liberal criterion, that the performance of democracy should be evaluated by its effectiveness in deterring political leaders from corrupt abuse of power. To achieve this goal, leaders must expect to be held accountable by voters when they run for re-election. Other dynamic models of democratic accountability have been studied by Barro (1973), Ferejohn (1986), Seabright (1996), Banks and Sundaram (1993), and Fearon (1999). Seabright has a similar concern with the possible advantages of decentralizing power and accountability in a federal system, but (like Barro and Ferejohn) his analysis is based on an assumption that voters can commit themselves to an *ex ante* optimal re-election strategy. But such retrospective voting strategies may not be sequentially rational for the voters. As Banks and Sundaram, and Fearon, have recognized, a dynamic voting game can have many sequential equilibria, including some where rational voting behavior fails to provide an effective standard of accountability for incumbent leaders.

Our concept of democratic failure is formalized by these bad equilibria of dynamic voting games. The key technical assumption here is that voters perceive some costs or risks of changing the leaders of government. So if voters expected that any future leader would govern corruptly, then voters would rationally re-elect corrupt leaders, thus giving leaders no incentive to eschew corruption. Thus, as Weingast (1995, 1997) has emphasized in other game models, the difference between success or failure of democracy may depend only on the beliefs that voters and politicians have about each others' future behavior. The multiplicity of equilibria that we find is typical of reputational equilibria in games (see Tirole 1996, for example).

In a different model, Myerson (1993) showed that the effectiveness of democratic competition against corruption may depend on the details of the electoral system when voters differ merely in their preferences regarding a simple public decision among two alternatives. So to keep a focus on the effects of constitutional division of powers and avoid complicated questions concerning electoral systems, we consider here a simple model of political accountability where (as in the models of Barro (1973), Ferejohn (1986), and Fearon (1999)) voters have no disagreements regarding public policy decisions. All voters here simply prefer good responsible government rather than corrupt government. The fundamental problem is that political leaders would generally prefer to govern corruptly. (We are decidedly avoiding the assumption of Blanchard and Shleifer (2001) that leaders of the central government have more benign motivations.)

There is a long literature on the effects of federalism (see Riker 1964, and Oates 1999, for example). But much of this literature assumes that the principal consequence of federalism is that it allows different regions to make different decisions regarding some aspects of public policy. In our analysis, we focus instead on the fact that federal democracy opens a different kind of career path for ambitious politicians, who can hope to become strong candidates for national leadership by developing reputations for good government in the provinces. Thus, even when voters have no significant differences in policy preferences, federal division of powers may fundamentally change the nature of competition among politicians. (For other models of career incentives and accountability in a hierarchy of political offices, see also Harrington 2000, and Persson and Tabellini 2000, chapter 9.)

Our concept of democratic failure is different from other papers that consider questions concerning when political factions might decide to use violent force against their rivals (Ellman and Wantchekon 2000, Acemoglu and Robinson 2000, Boix 2003). Here we are considering failures that occur within the rules of the democratic system itself. If everyone expects an equilibrium where voters get no benefit from democracy, then democratic formalities might be easily terminated by a coup d'état that meets little resistance. But in such a situation, we could appropriately say that the real failure occurred when the democratic system failed to deter politicians' corrupt abuse of power.

Theoretical analysis should complement empirical work on the effects of constitutional structures. But the great complexity of constitutional parameters and the geographical clustering of nations with similar constitutional types makes it difficult to do statistical inference from multi-national historical comparisons. Persson and Tabellini (2003) empirically analyzed effects of many constitutional parameters, but they did not focus

on federalism or on questions concerning survival rates for new democracies. Stepan and Skach (1993) report evidence that chances for survival of democracy may be better with parliamentary institutions than presidential (see also Linz and Valenzuela 1994). Boix (2003, p. 146) finds evidence that parliamentary systems with proportional representation may have a particular advantage for promoting survival of democracy. But Boix (2003, pp. 155–169) actually finds stronger evidence for federalism improving the chances for democratic survival, as our theoretical results suggest. The advantage of multiparty parliamentary democracy is not directly covered by our model, but it may follow from an extended interpretation of our results, as discussed in the final section.

On the other hand, Treisman (2000) finds evidence of greater corruption in federal systems compared to unitary systems (see also Bardhan 2002). We will argue in the final section that such results do not necessarily contradict our analysis. Our game model of federal democracy has some equilibria where provincial governments are more corrupt than the national government. The advantage that we find in federalism is not that it reduces aggregate corruption, but that it eliminates the worst equilibria where voters find no benefits from democracy at any level of government. Even when most provinces are badly governed, the possibility that some provincial leader who has governed well may become a rival in a future national election can provide an incentive for a national leader to govern better than without such competition.

## A MODEL OF SUCCESS AND FAILURE OF A UNITARY DEMOCRACY

Let us begin our analysis by considering a simple unitary democracy with an elected leader who serves a fixed term of one period and then must run for re-election again in each period until rejected by the voters. In each period, the leader must choose whether to serve *responsibly* or *corruptly*. Let  $b$  denote the leader's payoff each period when serving responsibly. Let  $b + c$  denote the leader's payoff each period when serving corruptly, so that  $c$  is the leader's additional benefit from being corrupt instead of responsible in each period. A politician out of office gets payoff 0. Each politician wants to maximize the expected total discounted value of payoffs, where payoffs in future periods are discounted by some discount factor  $\rho$  per period. In our game model, each "politician" could also be interpreted as a political faction that acts in unity as a team.

In any period, each voter gets welfare  $w$  from the government if its leader acts responsibly, but each voter gets 0 if the leader acts corruptly, and the voters pay a transition cost  $x$  whenever they elect a new leader to replace a previous incumbent. That is, in any period when there is a change of leadership, each voter's payoff is either  $w - x$  or  $0 - x$ , depending on whether the new leader acts responsibly or corruptly. This transition cost  $x$  may be due to the inefficiency of a new leader who is learning on the job, or to thefts by the outgoing leader and staff, or to the costs of supporting a successful campaign to oust an incumbent leader. (See the variations section below for more discussion of how we may interpret this transition cost  $x$ .) Voters also discount their future payoffs by the same factor  $\rho$  per period. Since voters all get the same payoffs, we assume that elections are determined by the preferred choice of any voter.

These parameters  $(b, c, w, x, \rho)$  are assumed to all be positive numbers with  $\rho < 1$ . We analyze sequential equilibria of this game.

In an equilibrium of this game, we say that democracy *succeeds* when the voters expect that their leaders will always serve responsibly, with probability one. So success of democracy implies that the equilibrium is optimal for the voters. It is straightforward to construct an equilibrium in which democracy succeeds. In this scenario, voters are expected to re-elect a leader who has always been responsible but to replace a leader who has ever been corrupt, and so any new leader should govern responsibly, but if that leader ever deviated to corruption then he or she would be expected always to continue corruptly until replaced. When the leader is expected to always serve responsibly, the voters' expected discounted value of future payoffs is

$$w(1 + \rho + \rho^2 + \dots) = w/(1 - \rho),$$

and the leader's expected discounted value of future payoffs is  $b/(1 - \rho)$ . Thus, for such success of democracy to be an equilibrium, we only require

$$w/(1 - \rho) \geq x \quad \text{and} \quad b/(1 - \rho) \geq b + c,$$

so that voters want to replace corrupt leaders, and leaders prefer a long responsible career over a short corrupt career.

In an equilibrium, we say that democracy is *frustrated* when the leader expects to be always re-elected by the voters, with probability one, regardless of whether acting responsibly or corruptly. So frustration of democracy implies that the equilibrium is optimal for the leader. We may also say that democracy *fails* when the voters expect that their leaders will always act corruptly. It is straightforward to construct a bad equilibrium where democracy is frustrated and fails. Because of the positive transition cost  $x$ , voters do not want to reject a corrupt incumbent if the replacement would be equally corrupt, and no leader has any incentive to forfeit the positive benefits of corruption  $c$  if re-elected in any case.

Notice that this bad equilibrium involves mutually reinforcing expectations both about the politicians' behavior and about the voters' behavior, and we are defining separate terms to describe each side of this bad equilibrium. In our terminology, failure of democracy refers to the corrupt behavior of politicians, while frustration of democracy refers to the voters' passive responses to corruption. These expectations imply each other in equilibria of this simple unitary model, but this equivalence does not extend to the federal model that we will consider later.

But now let us perturb and extend our model by allowing that there is a small probability  $\varepsilon > 0$  that any randomly sampled politician may be intrinsically *virtuous*, and thus can only serve responsibly. (This possibility of virtue might be attributed to an ideological education which teaches young politicians that they should serve the people responsibly. In the tradition of economics, we are not accepting Plato's assumption that education can reliably give leaders ideal social preferences, but we are allowing that such ideological education may affect a politician's preferences with some very small probability.) A politician who is not intrinsically virtuous may be called *normal*. That is, normal

politicians maximize their expected payoff as described above, and voters understand that any politician has probability  $1 - \varepsilon$  of being normal.

With this perturbation, our definition of failure of democracy must be modified. We say democracy *fails* when the voters expect that any leader they elect will always act corruptly if he or she is normal. That is, democracy fails if the only type of leader who would serve responsibly is the rare virtuous type, who would have been just as benevolent if he or she were an authoritarian monarch facing no threat of democratic competition.

The  $\varepsilon$  probability of virtue does not affect the existence of a good equilibrium where democracy succeeds. A bad equilibrium where democracy is frustrated and fails also exists if

$$\varepsilon \leq x(1 - \rho)/w,$$

because then the voters' cost  $x$  of rejecting an incumbent is greater than their expected gain  $\varepsilon w/(1 - \rho)$  from better government in the unlikely  $\varepsilon$ -probability event of getting a new leader who is virtuous. So the possibility of democratic failure still exists if the probability of intrinsic virtue is small enough.

At any point in the game, if democracy were suddenly abolished and the current leader were guaranteed office forever, then the voters would get payoffs  $w$  forever if the current leader is virtuous, but they would get 0 forever if that leader is normal. So in any given sequential equilibrium of the democratic game, we may define the voters' *expected net benefit from democracy* to be the voters' expected discounted value of their future payoffs in the given equilibrium minus their expected discounted value of the payoffs that they would get from their current leader if he or she were undemocratically guaranteed office forever. That is, when the voters have elected (or re-elected) a leader whom they believe to have some probability  $\pi$  of being virtuous, their expected net benefit from democracy differs from their expected discounted value in the equilibrium by subtracting  $\pi w/(1 - \rho)$ . In the good equilibrium where democracy succeeds, the voters' expected net benefit from democracy is always  $(1 - \varepsilon)w/(1 - \rho)$  (because when any leader would be expected to act responsibly, the voters never update the  $\pi = \varepsilon$  prior probability of their leader being intrinsically virtuous). But in the bad equilibrium where democracy is frustrated and fails, the voters' expected net benefit from democracy is always 0 (because, in the  $\varepsilon$ -probability event of the leader serving responsibly, the voters would update the probability of the leader being virtuous to  $\pi = 1$ ). Thus, we may summarize our results for the unitary government as follows.

**Theorem 1** *Suppose  $\varepsilon < x(1 - \rho)/w < 1$  and  $b + c < b/(1 - \rho)$ . An equilibrium then exists where unitary democracy succeeds and the voters' expected net benefit from democracy is strictly positive. But there also exists an equilibrium where unitary democracy is frustrated and fails and the voters' expected net benefit from democracy is zero.*

The first inequality in Theorem 1 says the probability  $\varepsilon$  of virtuous types is too small for voters to want to replace a corrupt leader if only intrinsically virtuous types would serve

responsibly. The second inequality says that voters would want to replace a corrupt leader if any new leader would be sure to serve responsibly forever. The quantity  $x(1 - \rho)/w$  here is the lowest probability of a new leader serving responsibly such that national voters would be willing to replace a corrupt leader, in a scenario where all leaders are expected to be either always-responsible or always-corrupt. The third inequality in Theorem 1 says that a politician would prefer an unbounded term of responsible service over one period of corrupt service.

Under the conditions of Theorem 1, there can also exist other equilibria between the extremes of complete failure and success. For example, there can be a randomized equilibrium where any new leader is randomly responsible with probability  $\sigma = x(1 - \rho)/w$ , and then is always expected to repeat his or her previous choice. In this equilibrium, the voters always re-elect a leader who has always been responsible, but a leader who has been corrupt is rejected with probability  $\tau = (1 - \rho)c/(b\rho)$ . The rejection probability  $\tau$  satisfies the equation

$$\begin{aligned} b/(1 - \rho) &= (b + c)/(1 - (1 - \tau)\rho) \\ &= (b + c)(1 + (1 - \tau)\rho + ((1 - \tau)\rho)^2 + \dots), \end{aligned}$$

so that a new leader is willing to randomize between responsibility and corruption. The probability  $\sigma$  of responsible behavior by a new leader satisfies the equation  $\sigma w/(1 - \rho) - x = 0$ , so that voters are willing to randomize between rejecting and re-electing a corrupt incumbent. (To make  $\sigma$  the overall probability of responsible leadership, a normal leader must be responsible with probability  $\hat{\sigma} = (\sigma - \varepsilon)/(1 - \varepsilon)$ , so that  $\sigma = (1 - \varepsilon)\hat{\sigma} + \varepsilon$ . The conditions in Theorem 1 imply that  $\hat{\sigma}$  and  $\tau$  are between 0 and 1.) In this randomized equilibrium, the voters' expected net benefit from democracy is strictly positive whenever the incumbent leader has not acted corruptly.

This randomized equilibrium and the previously discussed pure-strategy equilibria have the property that there is a constant probability of voters rejecting a leader immediately after any period in which he or she has acted corruptly. (Other equilibria can be constructed with and without this property.) With this property of stationary reactions to corruption, if democracy is not frustrated then, with probability one, the voters will eventually get a leader who always serves responsibly. (See the proof of Theorem 3.)

The dynamic problems of building trust between politicians and voters are central to the analysis here. Unlike the dynamic accountability models of Barro (1973) and Ferejohn (1986), we are not assuming any ability by the voters to commit themselves to a long-term strategy for voting in future periods. In each decision about whether to change leaders, the voters are concerned about future leadership behavior to which even the incumbent cannot be committed (unlike the dynamic matching model of Diamond 1971, for example).

So unitary democracy, as a dynamic political game, can have multiple equilibria. In this sense, the difference between success or failure of democracy may depend on the beliefs that voters and politicians have about each others' future behavior.

## FEDERAL DEMOCRACY WITH NATIONAL AND PROVINCIAL GOVERNMENTS

Now let us consider a federal democracy where each of  $N$  provinces has an elected leader called a *governor*, and there is also an elected leader of the nation called the *president*. (No distinction between presidential or parliamentary system is intended here, and we could have equally well called the national leader a prime minister, provided that this leadership selection is understood as the primary function of parliamentary elections.) The sequence of decisions in each period is as follows. At the beginning of each period, voters in the nation first choose a president, and then voters in each province choose a governor of their province. Then each leader chooses whether to serve responsibly or corruptly, unless intrinsically virtuous, in which case he or she must serve responsibly.

As before, each politician has probability  $\varepsilon$  of being the virtuous type, and otherwise normal. A normal president gets payoff  $b_1$  or  $b_1 + c_1$  each period, depending on whether responsible or corrupt. Voters get a payoff  $w_1$  from the national government when the president serves responsibly, but they get 0 from corruption, and they pay a transition cost  $x_1$  whenever they elect a new president to replace the previous incumbent. Similarly, a governor gets payoff  $b_0$  or  $b_0 + c_0$  each period, depending on whether responsible or corrupt. Provincial voters get a payoff  $w_0$  from their provincial government when the governor serves responsibly, but they get 0 from corruption, and they pay a transition cost  $x_0$  whenever they change to a new governor. Voters and politicians discount their future payoffs by the discount factor  $\rho$  per period.

For simplicity, let us assume that elections at each level are determined by voters' expected payoffs from this level of government alone, ignoring any effects from the other level of government. That is, national elections are not influenced by the local effects on the voters in one province when its incumbent governor leaves to become president; and voters in provincial elections are not influenced by the national benefits of searching for better presidential candidates. (The latter effect could add a small incentive for replacing a corrupt governor, and so would not affect our positive results below.) With this assumption, all voters in each election have the same effective preferences. Thus we can assume that the winner of each election is chosen according to the preferences of any voter.

In describing a federal equilibrium, we may say that democracy at either level (national or provincial) *succeeds* when the voters expect that leaders at this level will always serve responsibly, with probability one. We may say that democracy at this level is *frustrated* when the leader at this level expects always to be re-elected by the voters with probability one, even if acting corruptly. We may say that democracy at this level *fails* when the voters expect that any leaders that they elect at this level will always serve corruptly if they are normal. The voters' *expected net benefit from democracy* at this level may be defined as the voters' expected discounted value of their future payoffs at this level in the given equilibrium minus their expected discounted value of the payoffs that they would get from their current leader at this level if he or she were undemocratically guaranteed to remain in office forever.

To make the analysis interesting, let us maintain a basic assumption that the parameters at each level are such that, if this level were a unitary democracy, then it would have multiple strict equilibria where democracy can succeed or fail. That is,

**Assumption 1**

$$\varepsilon < x_0(1 - \rho)/w_0 < 1, b_0 + c_0 < b_0/(1 - \rho), \varepsilon < x_1(1 - \rho)/w_1 < 1, \\ b_1 + c_1 < b_1/(1 - \rho).$$

Also, we assume that a politician would always prefer being president over being governor, no matter how he or she would serve in either role:

**Assumption 2**

$$b_1 > b_0 + c_0.$$

Any federal democracy that satisfies these basic assumptions will have multiple equilibria.

An equilibrium exists where provincial democracy succeeds but national democracy is frustrated and fails. In this equilibrium, corrupt governors would not be re-elected, and so all governors act responsibly. But national voters understand that any governor (or any other politician) would become corrupt with probability  $1 - \varepsilon$  after election to the presidency, and so a corrupt president is re-elected. Notice that this equilibrium involves a kind of inconsistency between voters' expectations regarding national and provincial politics.

An equilibrium also exists where provincial democracy is frustrated and fails but national democracy succeeds. In this equilibrium, a corrupt president would not be re-elected, and so any president would serve responsibly. But all governors always expect re-election in this equilibrium. So a rare governor who serves responsibly in this equilibrium can be identified as intrinsically virtuous, but that does not make that person more attractive to national voters, because they are confident that any new president would serve responsibly. Thus, a good reputation does not increase a governor's probability of winning higher national office, and so governors have no incentive to serve responsibly in this equilibrium. If the number of provinces is large, then there are likely to be some provinces that by luck get a virtuous governor and so enjoy good responsible government. But even in these lucky provinces, the voters' expected net benefit from provincial democracy will still be 0 in this equilibrium, because they will understand that their virtuous governor would have acted just as responsibly if facing no threat of democratic competition. On the other hand, the voters' expected net benefit from national democracy is always strictly positive  $((1 - \varepsilon)w_1/(1 - \rho))$  in this equilibrium. So this equilibrium also involves an inconsistency between voters' expectations concerning national and provincial politics.

There may be something unreasonable about such equilibria that require voters to have inconsistent expectations about the functioning of democracy at different levels. Success (or failure) of democracy at one level could naturally lead the voters to focus on the possibility of getting similar performance from government at the other level also.

So the inconsistency across levels in the above two equilibria may make them less likely to be the focal equilibrium that people expect in such a federal democracy.

An equilibrium exists where democracy consistently succeeds at both the provincial and national levels. In this equilibrium, the president and the governors always act responsibly, because they would not be re-elected otherwise. However, democracy cannot consistently be frustrated at both levels in a federal system. This is our main result.

**Theorem 2** *In any sequential equilibrium of federal democracy, as long as there is some provincial governor who has not yet acted corruptly, democracy cannot be frustrated at both the national and provincial levels. When national democracy is frustrated, in any province where the voters have just (re)elected a governor with no prior record of corruption, the voters' expected net benefit from democracy must be strictly positive.*

*Proof of Theorem 2* Suppose that democracy is frustrated at the national level. Then the current president can obtain an optimal outcome by always serving corruptly, given that the frustrated voters will never replace him or her. Thus, frustration of national democracy implies its failure. If the president has ever acted corruptly then he or she is normal, and so should be expected to always act corruptly thereafter.

Consider a province where, after some history in the game, the voters have just (re)elected a governor who, going on past record (if any), is understood by the voters to have some probability  $\pi$  of being virtuous. In the first term, the governor would have  $\pi = \varepsilon$ . Then as long as the governor has never acted corruptly, we must have  $\pi \geq \varepsilon > 0$ . Let  $Q$  denote the probability that this governor will serve responsibly in the current period, immediately after this election. If this governor serves responsibly then, by Bayes's rule, he or she will be perceived next period to have probability  $\pi/Q$  of being virtuous. But then  $(\pi/Q)w_1/(1-\rho)$  cannot be greater than  $x_1$ , because otherwise the national voters would prefer to replace a corrupt president by this governor, which would contradict the assumption that national democracy is frustrated. Thus, we must have  $Q \geq \pi w_1/((1-\rho)x_1) > \pi$ , by Assumption 1. Furthermore, in this province, the voters' expected discounted value of payoffs from all periods after this current period cannot be less than  $\pi \rho w_0/(1-\rho)$ , because the provincial voters could always choose to re-elect this governor, who would always serve responsibly at least in the  $\pi$ -probability event of being virtuous. (Here we also use the fact that, with frustration of national democracy, this governor will never be promoted out of this province by the national voters.) So the voters' expected discounted value of payoffs from provincial democracy is at least  $Qw_0 + \pi \rho w_0/(1-\rho)$ , which is strictly greater than  $\pi w_0 + \pi \rho w_0/(1-\rho) = \pi w_0/(1-\rho)$ , which would be the voters' expected discounted value of payoffs in this province if its current governor held power without any further threat of democratic competition.

Now suppose (contrary to the theorem) that democracy is also frustrated at the provincial level. Frustration of provincial democracy does not generally imply its failure, because a normal provincial governor might still want to act responsibly if a record of good provincial service could mean being elected president. But with frustration of national democracy, the independent governors cannot have any hope of being promoted

to president, because the voters will never reject the current national leadership. So frustration of democracy at both levels implies that a normal governor has no incentive to serve responsibly. Thus, when any governor continues serving responsibly, the voters must infer that he or she is virtuous with probability 1, but then the national voters would prefer to replace a corrupt president by promoting this governor to the presidency, which contradicts the assumption that national democracy is frustrated. ■

The hypothesis of Theorem 2, that some province has a governor who has never been corrupt, is trivially satisfied at the first period of the game, if we assume that first-period governors are drawn from the population with no prior records of corrupt behavior. Given  $N$  governors each of whom has an independent  $\varepsilon$  probability of being virtuous, the probability that at least one governor is virtuous is

$$P(\text{at least one virtuous governor}) = 1 - (1 - \varepsilon)^N \geq 1 - e^{-\varepsilon N}.$$

Notice that this probability goes to 1 as  $N$  becomes large, given any  $\varepsilon > 0$ . So no matter how the normal governors behave, if  $N$  is large and provincial voters always re-elect governors with good records, then the probability is high that the hypothesis of Theorem 2 will always be satisfied.

When national democracy is frustrated, governors see no chance of being elected president, and so they anticipate careers entirely contained within their current province. With such isolation of provincial politics, it may be reasonable for provincial voters to satisfy the property of *stationary reactions to corruption*: that there is a constant probability of provincial voters rejecting a governor in the next election after any period in which he or she has acted corruptly. This property enables us to strengthen the conclusions of Theorem 2 as follows.

**Theorem 3** *In any federal equilibrium, if national democracy is frustrated and provincial voters have stationary reactions to corruption then, with probability 1, each province will eventually get a governor who always serves responsibly.*

*Proof of Theorem 3* By Theorem 2, frustration of national democracy implies that, whenever a new governor has been elected (so that he or she at least satisfies the assumption of not yet having acted corruptly), provincial democracy is not frustrated. So in some parts of the game tree, provincial voters must have a positive probability of rejecting a corrupt governor. With stationary reactions to corruption, this positive probability of changing governors must be the same after each period of corrupt government in the province.

If Theorem 3 were false then, in some positive-probability event, there would be an infinite number of periods in which a governor serves corruptly, and after each of these periods there would be a constant positive probability of the incumbent being replaced by a new governor, and each replacement would have a positive  $\varepsilon$ -probability of being the virtuous type. But then the probability of eventually getting a virtuous governor who always serves responsibly would be 1. ■

## DECENTRALIZED PROVISIONAL GOVERNMENT IN A PROCESS OF TRANSITION TO UNITARY DEMOCRACY

The preceding sections have considered the effects of federal decentralization in a democracy that has a fixed permanent constitutional structure. But it may be a mistake to assume that a new democracy must begin with the adoption of a permanent constitution. Given the fragile vulnerability of new democracies, the optimal constitutional structure for the first difficult years of democratic politics may be quite different from the optimal constitutional structure for governing the nation in the long run. Even in a nation where a unitary democratic structure is considered preferable for the long run, there may be advantages of adopting a more decentralized constitutional structure during an interim phase of transition to democracy.

So let us now consider a process of transition to democracy in which there is an initial phase of  $T$  periods when there will be only local democracy in the  $N$  provinces. (The central government could be kept weak in this transitional period by constituting national authority only by a council of representatives from the provincial governments, with each representative subject to recall at any time by the provincial government, as in the American Articles of Confederation). But suppose then that a unitary national democracy will be established and the first president will be elected in period  $T + 1$ . All parameters from the previous model ( $N, b_0, c_0, x_0, w_0, b_1, c_1, x_1, w_1, \rho, \varepsilon$ ) have the same interpretations as before, except that now the provincial parameters (with 0-subscripts) apply only in the first  $T$  periods, and the national parameters (with 1-subscripts) apply after period  $T$ . Each politician initially has a small probability  $\varepsilon$  of being the virtuous type. The basic parametric Assumptions 1 and 2 are still applied here.

**Theorem 4** *Suppose  $\rho^T(b_0 + c_0) > (1 - \rho^T)c_0$ ,  $b_1 + c_1 \geq N(b_0 + c_0)$ , and  $w_0 > x_0$ . In any equilibrium where national democracy is expected to be frustrated after period  $T$ , decentralized democracy must succeed until period  $T$ , and any corrupt governor would be replaced by the provincial voters. So there cannot be consistent frustration of democracy in any equilibrium of this transitional process. But there is an equilibrium in which democracy consistently succeeds at all periods.*

The first inequality in Theorem 4 holds if  $\rho^T \geq 0.5$ , which allows a transition period of up to 13 years when the annual discount factor is 0.95. The second inequality says that the president of the unitary national government after time  $T$  will get all the opportunities for corruption that are available to the governors of the  $N$  provinces in the initial phase. The third inequality says that the welfare gain that provincial voters get from responsible government in one period exceeds their cost of changing leadership.

*Proof of Theorem 4* Let us begin with the pessimistic assumption that national democracy will be frustrated after period  $T$ . Then the president will serve responsibly only if virtuous, because a normal president could always expect re-election even when taking the benefits of corruption. So the national voters at period  $T + 1$  will want to elect a president who has the highest probability of being virtuous, given his or her record.

A governor who has served corruptly will not be elected president, having probability 0 of being virtuous (which is less than any untested politician, who has probability  $\varepsilon$  of being virtuous). If some governors had any positive probability of acting corruptly, then by acting responsibly they could make voters believe that their probability of being virtuous was more than  $\varepsilon$ , and so one of them would be elected president. There can be at most  $N$  such governors with good reputations at period  $T + 1$ , and so some of them must expect at least  $1/N$  probability of being elected president. A governor's expected cost of governing responsibly for  $T$  periods is

$$c_0(1 + \rho + \cdots + \rho^{T-1}) = c_0(1 - \rho^T)/(1 - \rho),$$

but the expected gain from being a candidate for president after  $T$  periods is at least  $\rho^T(1/N)(b_1 + c_1)/(1 - \rho)$ . The inequalities in the theorem imply that

$$\rho^T(1/N)(b_1 + c_1)/(1 - \rho) \geq \rho^T(b_0 + c_0)/(1 - \rho) > c_0(1 - \rho^T)/(1 - \rho),$$

So the expected gain from governing responsibly is strictly greater than the cost, and so no governor would choose to act corruptly in the first  $T$  periods.

A governor who already had a corrupt record would have no incentive to be responsible at  $T$ , and so (with  $w_0 > x_0$ ) provincial voters would replace that governor at  $T$ . By backwards induction, we can extend this argument to show that any governor with a corrupt record would be rejected by the voters during the decentralized initial phase of  $T$  periods.

Now we show that there is an equilibrium where democracy consistently succeeds. In this scenario, provincial voters at periods 2,  $\dots$ ,  $T$  and national voters after period  $T + 1$  would reject any incumbent who has acted corruptly, and national voters at period  $T + 1$  will select a president at random from among the governors who served responsibly up to period  $T$ . Governors are motivated to behave responsibly at any period  $t$  before  $T + 1$ , because the basic parametric Assumptions 1 and the inequalities in the theorem together imply that

$$\begin{aligned} & b_0(1 + \rho + \cdots + \rho^{T-t}) + (1/N)\rho^{T+1-t}b_1/(1 - \rho) \\ &= b_0(1 - \rho^{T+1-t})/(1 - \rho) + (1/N)\rho^{T+1-t}b_1/(1 - \rho) \\ &\geq (1 - \rho^{T+1-t})(b_0 + c_0) + \rho^{T+1-t}(b_1 + c_1)/N \geq b_0 + c_0. \quad \blacksquare \end{aligned}$$

## VARIATIONS ON THE BASIC MODEL

The transition cost  $x$  plays a crucial role in our analysis. To clarify and extend its possible interpretations, it may be helpful for us to consider here three different variations on our basic model. For simplicity, we formulate each variation only for the case of unitary democracy, with a few additional remarks concerning extensions to the case of federal democracy.

**Variation A** Our basic model allowed a rare type of politician who always has good behavior, but we did not consider any bad behavioral type. To add such a bad type, suppose now that any new politician also has a small probability  $\delta$  of being a bad type whose incompetent (or malevolent) administration would always yield a very negative payoff  $-z$  for the voters. So the voters would even prefer a corrupt government (where they get 0) over the anarchy that would result from such an incompetent leader who cannot control the agents of government. The possibility of this bad type creates an expected cost  $\delta z$  for the voters whenever they elect a new untested leader. Thus, if we drop the transition cost  $x$  from our basic unitary model but we add a small probability  $\delta$  of this bad type that gives the payoff  $-z = -x/\delta$  to the voters, then our new model with  $\delta z = x$  is almost equivalent to the basic model of Theorem 1 of this paper. (The equivalence becomes exact in the limit as  $\delta \rightarrow 0$ .) In this sense, the transition cost  $x$  in our basic model may be interpreted as the expected cost of a rare but dangerously incompetent type of politician.

But now consider how our model of federal democracy would change if transition costs were attributed to such risk of administrative incompetence. Any politician who has governed a province competently (whether responsibly or corruptly) will have proven to the voters that he or she is not the bad type in this sense. If this bad-type risk is the only source of transition costs, then national voters would have no cost of promoting such a former governor to the presidency. So positive results concerning federal democracy actually become easier to prove. Thus, another advantage of federalism is that it may lower barriers to entry into national politics for politicians who have proven their administrative qualifications in provincial government.

**Variation B** In our basic model, frustration and failure of democracy occur purely within the democratic system itself. But concerns about failure of democracy are usually more focused on the possibility that those in power may go beyond the rules of democracy to suppress political opposition. To consider such political oppression in a game model, we must admit oppression as a strategic option for political leaders.

So let us suppose now that the voters' cost  $x$  of getting new leaders is derived from a government policy of persecuting supporters of opposition parties. That is, in any period, the voters' cost  $x$  of changing leaders is chosen by the incumbent political leader from the previous period, within some given bounds

$$0 \leq x \leq X.$$

The parameter  $X$  here represents the highest level of political oppression that an incumbent could achieve. For simplicity, suppose that a normal incumbent leader has no cost of choosing any oppression  $x$ , but the rare virtuous type of leader would always choose  $x = 0$  (no oppression) as he or she serves responsibly. The other payoff parameters ( $b, c, w, \rho$ ) remain as in our basic model.

In this variation, the good and bad equilibria of Theorem 1 can still be found if we replace the transition cost  $x$  by its upper bound  $X$  in the assumed inequalities of the theorem:

$$\varepsilon < X(1 - \rho)/w < 1 \text{ and } b + c < b/(1 - \rho).$$

In the bad equilibrium, any normal leader is expected to be corrupt, and so the first leader can hold power forever by choosing any oppression level  $x$  such that  $\varepsilon w/(1 - \rho) < x \leq X$ . In the good equilibrium, any new leader is expected to serve responsibly and choose  $x = 0$  always; but if an incumbent ever deviated to corruption or oppression then he or she would be expected to act corruptly always thereafter, and so the voters would choose to replace that person at any cost  $x \leq X < w/(1 - \rho)$ .

Theorems 2 through 4 can be similarly extended to this variation in models with federalism.

**Variation C** Our basic model assumed that voters can perfectly observe any corruption in government. Relaxing this assumption takes us towards the political agency model of Banks and Sundaram (1993).

So let us suppose now that voters cannot directly observe their leader's corrupt or responsible behavior, but they observe their welfare which depends probabilistically on the leader's behavior. Suppose that, in any period, the voters' welfare is a random variable drawn from a uniform distribution over an interval  $[w - \Delta, w + \Delta]$  when the leader serves responsibly, but their welfare is drawn from a uniform distribution over  $[0 - \Delta, 0 + \Delta]$  when the leader acts corruptly. To make things interesting, let us suppose  $0 + \Delta > w - \Delta$ , so that the voters may be uncertain about their leaders' behavior. The other parameters ( $b, c, \rho, \varepsilon$ ) are as in the basic model.

The voters' inability to observe some corruption in this variation makes it easier to construct bad equilibria where democracy is frustrated. To have an equilibrium where democracy succeeds, the condition  $b + c < b/(1 - \rho)$  in Theorem 1 must be changed to

$$(b + c)/(1 - \rho(1 - 0.5w/\Delta)) < b/(1 - \rho).$$

Then success can be supported by voters re-electing an incumbent if and only if that person has always generated welfare above the cutoff  $w - \Delta$ . That is, in this equilibrium the voters re-elect the incumbent unless they get strong evidence of corruption. But higher or lower standards may be incompatible with success of democracy in equilibrium.

For example, consider the parametric values  $b = 1, c = 4, \rho = 0.9, w = \Delta = 1$ , so that responsible service gives voters' welfare in  $[0, 2]$ , but corruption yields welfare in  $[-1, 1]$ . In the good equilibrium that we described above, the voters' welfare cutoff for re-electing an incumbent is  $w - \Delta = 0$ . So in this equilibrium, a leader who serves responsibly would always expect re-election, but a leader who serves corruptly would have probability 0.5 of losing office each period. So the leader's expected utility from responsible service is

$$b/(1 - \rho) = 1/(1 - 0.9) = 10,$$

which is greater than the expected utility from corruption

$$(b + c)/(1 - 0.5\rho) = (1 + 4)/(1 - 0.5 \times 0.9) = 9.091.$$

But now compare a scenario where the voters' cutoff for re-electing an incumbent is  $1 = 0 + \Delta$ , so that they re-elect the incumbent only when they get strong evidence of responsible service. In this scenario, a corrupt leader would never be re-elected, but a responsible leader would also have a probability 0.5 of losing office each period. So the leader's utility from corruption is

$$(b + c) = (1 + 4) = 5,$$

which is greater than the expected utility from responsible service

$$b/(1 - 0.5\rho) = 1/(1 - 0.5 \times 0.9) = 1.818.$$

The leader would also have no incentive to serve responsibly if the voters' welfare cutoff for re-election were  $-1$ , which is always achieved. Thus, democracy may fail when voters hold re-election standards that are too high or too low, as Banks and Sundaram (1993) have noted.

## DISCUSSION

By comparing the sets of equilibria in three simple models of democratic competition, we have tried to show how federal division of powers or a decentralized provisional government can improve the incentives for politicians to make democracy succeed.

We argued first that, under a unitary political system, the success or failure of democracy may depend on the equilibrium beliefs of voters and politicians. Confronted with such a multiple equilibrium problem in an abstract game-theoretic model, it is tempting to argue that voters simply need to be focused on one of the good equilibria, where successful politicians expect to hold power only as long as they maintain reputations for responsibly serving the voters. But in a nation where democracy has not previously existed, such a good equilibrium requires that good democratic reputations be attributed to political leaders who actually have no prior history of using power responsibly for voters' benefit. Under the previous nondemocratic political system, successful political officials would have had to cultivate very different kinds of reputations: for loyally serving the authoritarian leader and for reliably rewarding their active supporters. So in a new democracy, we may generally expect to find mid-career politicians who have invested years in cultivating reputations for using public funds principally to benefit others in the power elite. If such a leader suddenly begins allocating more resources to serve the voting public, then he or she may risk losing the trust of others in the power elite, with no personal political gain when the voters are not confident of that person giving such good service in the future. Thus, voters and politicians in a new democracy may be naturally focused on the bad equilibrium where voters expect no benefits from democracy, so that voters would see no reason to resist a suppression of democratic opposition (as we formalized in Variation B).

We then argued that, in a federal political system, an anticipated frustration of democracy at the national level would generate strong incentives for local politicians to serve

responsibly in provincial governments. So by creating more opportunities for politicians to build reputations as responsible democratic leaders, a federal system can effectively offer an insurance policy against general failure of democracy. In any equilibrium under federal democracy, voters must find benefits of active democracy at some level of government. Thus, although federal democracy still admits multiple equilibria, it eliminates the worst equilibria of general democratic failure where the survival of democracy would be most at risk.

In claiming that federalism must sharpen the incentives for responsible government at one level or the other, we have not claimed that provincial government should be less corrupt than national government. Indeed, if the long-run survival of democracy depended mainly on its success at the national level, then survival selection could generate a population of democracies where federal democracies have statistically more corruption than unitary, because all surviving democracies would have responsible national governments but some federal democracies could have corrupt provincial governments. Thus, our model is compatible with Treisman's (2000) findings of greater corruption in federal systems. But if there is any positive probability of provincial democratic success teaching voters to expect national democratic success, then federalism should also yield higher rates of democratic survival, as Boix (2003) observes.

Our theoretical argument could be undermined by strong regional identities, if the ideology that molds the  $\varepsilon$  behavioral types involves a strong local identity. That is, if the most likely behavioral type that would abstain from corruption in a provincial government was not generally virtuous but only locally chauvinistic, then responsible local service would not be so effective for building a reputation that could appeal to national voters. (On the other hand, if voters believed in the existence of another small-probability type that always lives ascetically and would lead responsibly, then ascetics could become strong candidates for national leadership. To avoid such competition, incumbent leaders might subsidize monastic institutions where such ascetic types could be hidden among more normally motivated individuals.)

To probe the effects of democratic constitutional structures, we have assumed here that the voters' constitutional power to replace incumbent leaders is not in question. Classic Madisonian arguments (see *Federalist Papers* 47–51) assert that any constitutional constraint on an incumbent leader can be effective only if it is enforceable by other leaders with appropriate power and motivation. The results in this paper may be viewed as an extension or modification of this Madisonian argument for how federal division of powers can support democratic survival. In our model of federalism, however, provincial leaders do not force the national leader to hold a free national election, but by offering themselves as potential candidates they guarantee that the voters will have a good reason to continue demanding free national elections.

Under any system of division or separation of powers, agency problems can increase political corruption at the boundaries where mixed effects of different branches of government make responsibility unclear (Treisman 1999). But the regional division of powers in federalism may yield clearer boundaries between different leaders' domains of control than other functional ways to separate powers. Otherwise, the role of governors in our analysis, as elected officials with some independent power but with aspirations

to higher office, could be taken just as well by independently elected cabinet ministers of lower ranks. This remark suggests that, as Boix (2003, p. 146) has found, parliamentary systems with proportional representation may also have an advantage for promoting success of democracy, when they yield multi-party coalition governments that include ministers from several independent parties.

The role of provincial governors in our model is characterized by three essential attributes: they are elected independently of the national leadership, they would prefer a promotion to national leadership, and they exercise independent political powers which can be used to demonstrate their qualifications for national leadership. As such, the role of provincial governors in our model could also be played by municipal mayors or other local office-holders, as long as they hold independent powers that are recognized as qualitatively comparable to national leadership. In essence, our model is really meant to show the vital importance in a democratic political system of such independently elected offices which can be used by opposition politicians to prove their qualifications for national leadership.

The competitive analysis here can be understood with parallels to oligopoly theory, where profit-taking in equilibrium is reduced by higher elasticity of demand and lower barriers to entry. Political corruption may be seen as an analogue of oligopolistic profit. In our argument, federalism lowers entry-barriers into national politics when it gives independent provincial leaders an opportunity to demonstrate their leadership qualities. The possibility of advancement to greater national office gives provincial leaders a higher elasticity of demand for their political leadership with respect to their corruption-price. A similar political elasticity may also be created in a federal system by Tiebout (1956) effects, when the national mobility of people and resources implies that local corruption would erode its own tax base.

The observation that federalism sharpens political competition can offer insights into the tensions of the federal bargain between national and provincial leaders (Riker 1964). The national leader's incentive to try to control provincial governments is increased by the possibility of independent provincial governors becoming rivals for national leadership. When the national leader can influence the selection of provincial governors, he or she may systematically favor candidates who have already been corrupt in some way, so that they could not cultivate virtuous reputations. National criminal sanctions against provincial corruption may also be introduced to prevent responsible governors from building virtuous reputations, without habituating voters to democratic rejection of corrupt incumbents. The president may want voters to expect good service from lower officials whom he or she has endorsed, but does not want voters to attribute such good service to any intrinsic virtue in these officials, which could make them dangerous rivals for the presidency. It is much better for the president if good service by other government officials is perceived to be a result of the president's influence and control over these officials.

From the provincial perspective, the appeal of secession for governors (especially for governors who have been corrupt) is increased when local rivals' national ambitions make local politics more competitive. Bi-level political parties may serve politicians by moderating this competitive tension.

But as Gibson (2004) has noted from recent political changes in Mexico and other Latin American countries, federal division of powers can also help to make a party system more competitive when it allows opposition political parties to prove their quality by winning control of provincial governments. This effect is exactly what our theoretical model predicts. Indeed, one might describe the decades of political dominance by the PRI in Mexico as a long experience with frustration of democracy at the center. The PRI did not have to worry about losing national elections until the opposition parties began to win state elections and build reputations for responsible government at this lower level.

Our analysis has implications for current efforts to build new democracies. In American-occupied Iraq, the defeat of Ba'athist rule left a political vacuum. With a centralized process of democratization, the first leader to get effective control of the government could build a patronage network far stronger than any opposition group. Given the previous history, it would not be surprising if this leader then suppressed political opposition and abused power for the benefit of himself and his supporters. Indeed, citizens might reasonably expect that any further political change would just install another leader who would behave the same way, as in the bad equilibria that we found in Theorem 1 of this paper. But if local elections were held first in a decentralized provisional government, then local leaders with national ambitions would have had a positive incentive to begin cultivating a reputation for responsible democratic leadership, as we saw in Theorem 4. Although the Democratic Principles Work Group (2002) suggested just such a plan, the most influential leaders in the occupation period had no incentive to recommend a decentralized political system that would decrease the entry barriers against new political rivals.

This last point deserves more general emphasis. Voters should hope that democratic competition will successfully compel their leaders to deliver good responsible government, but the political leaders themselves would prefer to govern without such competitive pressures. What we have called frustration of democracy is actually desirable for the politicians who enjoy the benefits of corruption. So the effects of successful democracy, which should make voters want to defend a democratic system, could also make politicians want to undermine it. If some constitutional structure has equilibria where democratic competition is frustrated and fails to deter corruption, then the possibility of such democratic failure could actually be a reason for political leaders to prefer such a constitutional structure. If the voters do not understand how different constitutional structures would affect the quality of political competition, then political leaders are likely to get the less competitive constitution that they prefer. This need for better public understanding of constitutional structures is a fundamental motivation for this research.

Democracy is worth cultivating because the structure of political institutions makes a difference to the performance of government. But new democracies are vulnerable to failure and breakdown, and a democratization process needs every advantage that can be derived from careful analysis of different democratic institutions. At a time when great armies have been sent across the world with an announced goal of building new democracies, the finer points of comparative institutional analysis may have a practical importance that should not be overlooked.

## REFERENCES

- Acemoglu, Daron, and James A. Robinson. 2000. "Why did the West extend the franchise? democracy, inequality and growth in historical perspective." *Quarterly Journal of Economics* 115:1167–99.
- Banks, Jeffrey S., and Rangarajan K. Sundaram. 1998. "Optimal retention in agency problems." *Journal of Economic Theory* 82:293–323.
- Bardhan, Pranab. 2002. "Decentralization of governance and development." *Journal of Economic Perspectives* 16(4):185–206.
- Barro, Robert. 1973. "The control of politicians: an economic model." *Public Choice* 14:19–42.
- Blanchard, Olivier, and Andrei Shleifer. 2001. "Federalism with and without political centralization: China versus Russia." *IMF Staff Papers* 48:171–9.
- Boix, Carles. 2003. *Democracy and Redistribution*. Cambridge: Cambridge University Press.
- Democratic Principles Work Group (Ghassan Atiyyah and Kanan Makiya, coordinators). 2002 (November). *Final Report on the Transition to Democracy in Iraq*. [http://www.journalofdemocracy.org/Articles%5CIraq\\_Report.pdf](http://www.journalofdemocracy.org/Articles%5CIraq_Report.pdf).
- Diamond, Peter. 1971. "A model of price adjustment." *Journal of Economic Theory* 3:156–168.
- Ellman, Matthew, and Leonard Wantchekon. 2000. "Electoral competition under the threat of political unrest." *Quarterly Journal of Economics* 115:499–531.
- Fearon, James D. 1999. "Electoral accountability and the control of politicians: selecting good types versus sanctioning poor performance." In *Democracy, Accountability and Representation*, edited by Adam Przeworski, Susan C. Stokes, and Bernard Manin, pages 55–97. Cambridge: Cambridge University Press.
- Ferejohn, John. 1986. "Incumbent performance and electoral control." *Public Choice* 50:5–26.
- Harrington, Joseph E. 2000. "Progressive ambition, electoral selection, and the creation of ideologies." *Economics of Governance* 1:13–24.
- Gibson, Edward L. 2004. "Federalism and democracy: theoretical connections and cautionary insights." In *Federalism and Democracy in Latin America*, edited by Edward L. Gibson, Johns Hopkins University Press.
- Linz, Juan J., and Arturo Valenzuela, editors. 1994. *The Failure of Presidential Democracy: Comparative Perspectives*. Johns Hopkins University Press.
- Myerson, Roger B. 1993. "Effectiveness of electoral systems for reducing government corruption." *Games and Economic Behavior* 5:118–32.
- Oates, Wallace E. 1999. "An essay on fiscal federalism." *Journal of Economic Literature* 37:1120–49.
- Persson, Torsten, and Guido Tabellini. 2000. *Political Economics*. Cambridge, MA: MIT Press.
- Persson, Torsten, and Guido Tabellini. 2003. *The Economic Effects of Constitutions*. Cambridge, MA: MIT Press.
- Riker, William H. 1964. *Federalism: Origin, Operation, Significance*. Boston, MA: Little Brown.
- Riker, William H. 1982. *Liberalism Against Populism*. San Francisco, CA: Freeman.
- Seabright, Paul 1996. "Accountability and decentralisation in government: an incomplete contracts model." *European Economic Review* 40:61–89.
- Schelling, Thomas C. 1960. *The Strategy of Conflict*. Cambridge, MA: Harvard University Press.
- Stepan, Alfred, and Cindy Skach. 1993. "Constitutional frameworks and democratic consolidation: parliamentarism versus presidentialism." *World Politics* 46:1–22.
- Tiebout, Charles. 1956. "A pure theory of local expenditures." *Journal of Political Economy* 64:416–24.
- Tirole, Jean. 1996. "A theory of collective reputations (with applications to the persistence of corruption and firm quality)." *Review of Economic Studies* 63:1–22.
- Treisman, Daniel. 1999. "Political decentralization and economic reform: a game-theoretic analysis." *American Journal of Political Science* 43:488–517.
- Treisman, Daniel. 2000. "Decentralization and the quality of government," UCLA working paper.
- Weingast, Barry. 1995. "The economic role of political institutions: market-preserving federalism and economic growth." *Journal of Law, Economics, and Organization* 11:1–31.
- Weingast, Barry. 1997. "The political foundations of democracy and the rule of law." *American Political Science Review* 91:245–63.

