Constructing Self-Enforcing Federalism in the Early United States and Modern Russia

Rui J. P. de Figueiredo Jr.,* Michael McFaul,† and Barry R. Weingast‡

All federal systems face the *two fundamental dilemmas of federalism*: too strong a center risks overawing the subnational units; and too weak a center risks free-riding that makes the system fall apart. Resolving the two dilemmas is problematic because mitigating one dilemma exacerbates the other. We develop a model of federal institutions that shows the circumstances under which both dilemmas can be solved so that federal institutions are self-enforcing. We apply our approach to modern Russia where we suggest that when the center is too strong, its ability to extract rents increases and the benefits for maintaining participation in the federal bargain disappears. We also suggest strong parallels between Russia and those of the early United States under the Articles of Confederation.

Introduction

As Riker (1964) emphasized, all federal systems face the two fundamental dilemmas of federalism:

> *Dilemma 1:* What prevents the national government from destroying federalism by over-awing its constituent units?
>
> *Dilemma 2:* What prevents the constituent units from undermining federalism by free-riding and other forms of failure to cooperate?

These two dilemmas establish a benchmark against which all federal systems can be judged.[1] Sustaining a federal system requires full cooperation by both the central or national government and by the state or regional governments. To survive, therefore, a federal system must resolve both dilemmas. This requires that the rules defining federalism be self-enforcing for political officials at all levels of government, meaning that all officials have an incentive to abide by the rules. A theory of the emergence and survival of federalism must therefore analyze the incentives of

*Associate Professor, Haas School of Business and Department of Political Science, University of California, Berkeley
†Senior Fellow, Hoover Institution
‡Professor, Department of Political Science, Stanford University; and Senior Fellow, Hoover Institution, and Ward C. Krebs Family Professor Department of Political Science, Stanford University

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political officials to abide by the rules. To be a self-enforcing equilibrium, federalism requires crafting a delicate balance between these two dilemmas.

Resolving the two dilemmas is difficult because they imply a fundamental tradeoff: solving one dilemma exacerbates the other. Too weak a national government will exhibit free-riding and insulated, "dukedom" economies. Or worse, the national government will lose control altogether and the country will disintegrate. With a national government too strong, federalism typically fails because the national government infringes upon state independence, extracting rents from the regions and hindering interstate competition that underpins the positive economic effects of federalism. Reflecting this tradeoff, several theorists emphasize federalism's instability (Riker 1964; Bednar 1997).

In this paper, we develop a model of governmentally provided goods under a given set of federal institutions. The analysis illustrates that the two dilemmas operate in opposite directions. The center has to be strong enough to police the regional governments against the common pool incentives emphasized in the literature. If the center is too weak to do so, a federal system will fail as the common pool problems will overwhelm the federation. If a federal system centralizes too much, the result will be aggrandizement by the center. The states will either exit or simply abandon their responsibilities. Too strong a center risks the creation of an extractive national government with minimal provision of central goods. As our model draws out, unless these two problems are solved simultaneously through the careful design of institutional power, a federation cannot be sustained. If federal systems are designed to operate with such a balance, however, they pose an additional problem for the analyst. In particular, such systems exhibit a range of possible equilibria, some with a high degree of productivity, but others with very little.

We apply our analysis to evaluate the success and failure of federalism in Russia with a comparison of federalism in the early United States under the Articles of Confederation. The central observation about the Russian system is the absence of cooperation between center and regions. The big question is, why? Blanchard and Shleifer (2000) answer that the Russian central government is too weak. They develop a stylized model that focuses on three features of federations: the share of benefits, and thus strength of the incentives, which regional governments enjoy from economic growth; the degree to which the benefits of office can be diverted by regional officeholders; and the extent to which the center can control the political fates of regional officeholders. In their empirical analysis, they find that the more successful Chinese transition and the less successful Russian transition differ primarily on only one of these three dimensions: the degree of political centralization. Blanchard and Shleifer conclude that the Russian system fails because it provides the center with insufficient power to affect the fate of regional officials. They therefore recommend that the center be given more political and institutional power relative to the regions.

Our approach suggests that this account is plausible, but that the lack of cooperation between center and regions may also reflect an additional problem; namely that the failure of Russian federalism is also in part due to the absence of appropriately defined limits on the central government. This argument reveals a serious flaw in the inference made by Blanchard and Shleifer. In examining the data, Blanchard and Shleifer conclude that shirking by regional governments mean the moral hazard and common pool problems overwhelm Russian politics and that therefore the center should be granted greater powers to intervene. Our model suggests that the Blanchard and Shleifer approach is incomplete. Per the twin dilemmas of federalism, they have characterized half the problem: that associated with the second dilemma. We emphasize in addition that successful federations must address the first dilemma, which Blanchard and Shleifer do not discuss: when the center is too strong, its ability to extract rents increases and the benefits from participation in the federal bargain diminish.

This perspective suggests two additional points to be added to Blanchard and Shleifer. First, regional noncooperation in part reflects attempts to resist a potentially predatory center; and second, solving the problem of federal cooperation requires not only granting the center the power to police shirking by the regions, but that power is ceded to the center in a way that simultaneously defines a set of credible and self-enforcing limits on federal authority to prevent predation. One of the key lessons from our paper is to develop a point made elsewhere, that we cannot assume that a central government, just as with regional governments, acts as a welfare maximizer. Once imbued with power, the center has incentives to deviate from its intended purpose (see, e.g. Brennan and Buchanan 1980; Litwack 2000; North 1990, Shleifer and Vishny 1999).

We provide two types of evidence in favor of our position. First, Blanchard and Shleifer's view suggests that the problems lie principally with the regions and that the center has had the right goals but insufficient power to achieve them. This implies that regional governments are the principal cause of noncooperation. In contrast, our view suggests that we should observe noncooperation from both sides. The lack of credible, self-enforcing constraints on the center allows it to undertake some extraction or rent-seeking against the regions.

The evolution of Russian federalism since the collapse of the Soviet Union in 1991 supports our view over Blanchard and Shleifer's. For example, the center has forced a wide range of expenditures on the regions, largely for reasons of financial expediency and without any regard to standard economic principles of the assignment of policy authority. Second, the center's budget policy, again in part for financial expediency, taxes success. Third, the center has often used draconian methods to force regions to comply with its wishes.

The second type of evidence in support of our position is comparison of Russian federalism with the United States in the immediate post-Revolutionary period.

Remarkable parallels exist between the problems in modern Russia and those in the United States under the Articles of Confederation (1781–1787) prior to the adoption of the U.S. Constitution. In parallel with modern Russia, the United States exhibited a series of common pool problems, notably, inadequate national defense, state encroachment on the common market, and the absence of a stable currency. Given these problems, the Federalists proposed three times—consistent with recommendations suggested by Blanchard and Shleifer—that the center be given more power to provide national defense and police common pool problems by the states. Each time the Anti-Federalists defeated the Federalists, arguing that granting the center power risks abuses by the center. The Federalists finally succeeded in their fourth attempt by proposing a new Constitution that addressed both dilemmas simultaneously: granting more power to the center, but also placing strong and self-enforcing limits on the center's ability to abuse its power.

The paper proceeds as follows. In the section 'A Theory of Self-Enforcing Federalism' we sketch a repeated compliance model that captures some of these central observations about the nature of federal institutions. The model develops insights into different equilibria that might occur as a function of both exogenous characteristics of the national and state units, and of endogenous institutional characteristics. In the section 'The Early United States under the Articles of Confederation' we apply the intuitions provided by the model to early federalism under the Articles of Confederation in the United States. The discussion then turns to problems of federalism in Russia in the section 'Federalism, Russian Style'. In the section 'Reform of Russian Federalism', we use the analysis to offer preliminary prescriptions for reforming the Russian federal system. Our conclusions follow.

A Theory of Self-Enforcing Federalism

In this section, we sketch a model of self-enforcing federalism based on de Figueiredo and Weingast (2005), drawing out new results relevant to our comparisons of Russia and the early United States. The model characterizes the conditions under which a set of federal institutions successfully resists both peripheralization and centralization. To explain the model, we start by laying out the fundamental characteristics of such a federal system; we then turn to an analysis of these characteristics and their implications for federal sustainability.

The Features of Federations: Model Characteristics

Sustaining federalism requires that governments at all levels honor the rules. We therefore model the federal system as a game of *compliance* among a number of states with some autonomy and a central government that provides a public good. Following Riker's (1964) definition, a self-enforcing federal system must have the features of *hierarchy*, *autonomy*, and *common geographies* and *citizenries*.

The first simply implies that the federal system has different levels, or a division of authority defined by geography. The second means that each unit of government must have independent jurisdiction over some subset of possible policies. This definition distinguishes federations from other forms of governance in which hierarchy implies vertical control relationships, such as those explored in organizational economics (see, e.g., Williamson 1985, 1996). For example, the Soviet political system had a hierarchical structure but does not qualify as a federal system by this definition, since it allowed only limited policy authority to lower levels of government. Finally, the citizens of each of the subunits have to be citizens of the federal government as well. Note that many classically defined national federations meet this definition including the United States, Australia, and Canada, but also other forms of governance structures including international governments or organizations, such as the European Union and modern China.

An additional feature of federal systems is that, unlike contracts written between private parties in the presence of robust contract law and courts, federal institutions are inherently enforced in an environment of *anarchy*: no higher authorities police the federal bargain. Thus, cooperative outcomes among different units must be *self-enforcing*.

Federations provide a range of potential outputs; most notably, public goods, such as national defense. One of the primary rationales for setting up the federal government of the United States was to provide for a national defense for the 13 states following the American Revolution. Riker (1964) asserted self-defense was a necessary condition for sustaining federalism. Harmonization of regulations to facilitate trade among the states, and in the European Union, represents another public good that can be provided by a central government. The range of goods potentially provided by the central government is not limited to classically nonrival, nonexcludable public goods, however. Many goods provided by the central government can be private or semiprivate goods that are more efficiently provided by a central unit due to *scale* and *scope economies* or due to externalities across state boundaries. Similarly, other types of goods, as have been remarked on by many students of fiscal federalism, can most appropriately be provided by the states or provinces, in which case *heterogeneity* in preferences can create the opportunity for gains from specialization and adapting public goods to local tastes and circumstances (Tiebout 1956; Oates 1972; Inman and Rubinfeld 1997; Alesina, Spolaore, and Wacziarg 2000; Bolton and Roland 1996).

An additional feature of any system of federation is that actors in all governments are *strategic*. In the context of the institutional design of federal systems, this means that not only do the unit(s) within or creating the federation act strategically, but also that *once the federation is created, all governmental units pursue self-interested goals*. In the context of bottom-up federalism, therefore, this means that if a set of states bands together to capture some gains from cooperation or centralization, and thus enjoins to create a national government, then that national government will have interests of its own, defined by the incentives created within the institutional framework. Similarly, in a top-down federation, in which, because of some exigency or potential gains from decentralization or specialization, a national government sets up autonomous sub-units, those sub-units will also act strategically to maximize their expected utility.[2]

An important question is: what are the incentives created in either of these cases? Here we assume fairly broadly that it is rent maximization. We are specifically vague since we want to capture a number of different types of rent-seeking behavior. First consider a federation's constituent units. Although individual units in the federation capture significant benefits from the central provision of both public and private goods, each would prefer that the other units carry the burden of paying the costs of its provision. Next, consider the central government. This government also has incentives to divert resources to its own, potentially socially suboptimal purposes. This diversion could be for the private benefit of those in public authority, including corruption, patronage, and electoral gains. But it could also encompass resource diversion to a subset of the states in the federation, as might occur in a democratic federation where a subset of states capture national power. In either case, the center has incentives to act as a rent-seeker rather than a welfare-maximizer.

In addition to acting strategically, the center's ability to provide central goods, including monitoring of the states, is *correlated with its ability to extract rents*. Consider national defense: a central government with both resources and authority to provide national defense does three things. First, the resources create the national government's capacity to provide the good; second, the resources combine with military capacity to grant the central government the ability to impose credible threats on the states for shirking and noncompliance with central policies; and third, they allow the central government the power to divert rents to the center. Nothing about granting the center more resources restricts the center to the first two productive activities. Similarly, in regulatory domains, granting the central government the authority to make and enforce regulations not only creates the possibility for harmonization and reduction of trade barriers, but also the potential for discriminatory treatment and rent-creation and extraction by the center.

The notion of central government rents is worth considering for a moment. These are of several sorts. The first and most obvious is corruption: personal enrichment by national political officials. A second source of rents is that the federal government may establish patronage systems and service to interest groups in return for political support that can be used against the regions. Third, the center might collude with (or be captured by) some group of states to extract rents and redistribute income from another group of states.

A Model of Federalism

We capture these assumptions in a simple game theoretic model (de Figueiredo and Weingast 2005). The model is the infinite repetition of a stage game between a number of subnational governments (SNG) or states and a central government. The federation is characterized by a number of parameters including the degree to which the center has institutional power. Using this model, we evaluate to what extent can the various governments have incentives to stick to the federation's rules in equilibrium.

To represent these characteristics, we let z be the degree of power the center has and x_i be the amount of the central good provided by the center to a state i, $i = 1, \ldots, N$. We assume that this good can be provided more efficiently by the center, and represent the efficiency gain by a productivity parameter $\theta(n, z) > 1$. To capture the benefits of scale and power, we assume that the relative productivity of the center is increasing in both n, the size of the federation, and z, the institutional power of the center.

Finally, we assume that the states are obliged to contribute to the provision of the central good, representing national government taxation. For simplicity, we index these contributions, k_i, to unity; i.e., $k_i = 1$. Each state must decide each period whether to make this contribution. To capture the fact that there is the potential for moral hazard by each state, we further assume that the states are only observed imperfectly in their contributions so that they are revealed to be shirking with some probability q. Finally, we include two functions to represent, respectively, the center's ability to impose fines, $f(z)$, and exit costs, $c_i(z)$, on the states if they choose to do so. Both of these functions are increasing functions of the power of the center, meaning that the more authority granted to the center (z), the more it can impose costs on the subnational governments.

Thus, we express the preferences of the states and the center in each period. If a state does not exit in the current period, a state obtains, for that period, a benefit equal to the amount devoted to the central good by the center multiplied by the center's productivity, or $\theta(n, z)x_i$. At the same time, a state's utility may be decreased in a given period in two ways. The first potential cost to the state is the amount of its contribution to the center k_i. Second, if the center fines a state, indicated by $m_i = 1$, then the state incurs a cost $f(z)$. If a state exits in the current period, it must incur an exit cost, $c_i(z)$, in that period and then receives a zero payoff for the remainder of the game. Putting these characteristics together, we can now fully characterize the payoff for a typical state i in period t (we suppress the subscript t):

$$\begin{aligned} u_i &= \left[\theta(n, z)x_i - f(z)m_i\right] - k_i && \text{if } i \text{ remains in the federation} \\ u_i &= -c_i(z) && \text{if } i \text{ exits the federation.} \end{aligned}$$

The first expression says that, assuming it remains in the federation, state i's utility (in period t) is a function of the value of the public good provided by the center

$\theta(n, z)x_i$ minus any fines imposed on it by the center, $f(z)m_i$, and minus the state's contribution to the center, k_i. The second expression says that the state must pay the exit costs, $c_i(z)$, if it chooses to exit in that period.

Next, consider the center's utility obtained from the set of remaining states at the beginning of a given period. For each state that chooses to stay in the federation, the center collects each state's choice of contribution k_i and any fines imposed, or $f(z)m_i$. In addition, the center pays a cost for all of the resources it devotes to the centrally provided good. For each state, this cost to the center is denoted x_i. For all states exiting in the current period, the center extracts some benefit, $c_i(z)$. Putting these assumptions together we can write down the center's payoff in period t as the sum of each of these amounts over all states that remain in the federation:

$$u_C = \sum_i \left[k_i - x_i + f(z)m_i\right] + \sum_j c_j(z),$$

where the first summation is over all states i that remain in the federation; and the second over all states j that exit the federation in that period.

Finally, the repeated payoffs for all players are simply the sum of the stage payoffs where each stage is progressively discounted by a *discount factor* $\delta \in (0, 1)$.

Model Implications

Using this setup, we investigate the conditions under which a cooperative equilibrium can be sustained given the characteristics of the players. The specific concept we use to solve this game is *subgame perfection* with *Nash-reversion* strategies. Specifically, we analyze the case in which players play a *grim trigger* strategy—in other words, each player cooperates in periods when all others have cooperated and otherwise they all play the one-shot, noncooperative Nash strategy. Although extreme, grim trigger strategies allow us to consider the circumstances under which it is most likely the federation can be sustained as an equilibrium.

Using this approach, we address these questions: given that a set of federal institutions have been adopted, when can an equilibrium be sustained in which the states do not shirk, the center does not extract rents beyond those defined by the institutions, and the states do not exit? And concomitantly, how does any set of equilibria behave with respect to the parameters of the model?

We now state our primary result that allows us to address these two questions. It is abstract, and its importance derives from its implications, which we discuss after the proposition; these implications are more straightforward than the proposition.

Result. *Given the parameters* δ, n, z, *if* $f(z)q > 1$ *and* $\theta(n, z) > 1$, *then the following conditions characterize a grim trigger equilibrium*:

(i)

$$x_i^* \geq \frac{1 - c_i(z)(1 - \delta)}{\theta(n, z)} \equiv x_i^{L*} \quad \forall i;$$

(ii)

$$1/n \sum_i x_i \leq \delta - (f(z) + \delta\bar{c}(z))(1 - \delta) \equiv x_i^{U*} \quad \textit{where } \bar{c}(z) = \frac{1}{n}\sum_i c_i(z);$$

(iii) *states contribute in every period*;
(iv) *and center fines only shirkers.*

Proof. See de Figueiredo and Weingast (2005), Proposition 1.

Although the proposition, in formal terms, is abstract, its intuition follows directly from the tradeoffs faced by any federal system that we outlined previously. Intuitively, the proposition states that if both punishments (f) and benefits of federation (θ) are sufficiently high, then a federal system will be sustainable when incentives are aligned. This means that each subnational government must obtain more by staying in the federation than by exiting [condition (*i*)]; and that the center has an incentive to continue to provide sufficient benefits to the states (and less to itself) rather than simply destroying the federation by appropriating all the benefits of subnational government participation [condition (*ii*)].

The importance of this abstract proposition is that it generates a number of results concerning the sustainability of a federal system. One general implication of the proposition is that it highlights the nature of the solution to the twin dilemmas. Fundamentally, the model shows that the federal problem is one of *coordination*. Conditions (*i*) and (*ii*) show that the only thing that keeps the federation together is reciprocal threats by each state and the center to leave the federal bargain. In order for these threats to be credible, the players must coordinate on a shared understanding of what defines cooperation under the federal bargain—or, alternatively, what defines a violation of the rules by any of the players. The proposition provides, therefore, a deeper understanding of how a constitution can be enforceable in an anarchic state. In particular, the conditions for cooperation provide "bright line" rules under which trigger strategies will be implemented; if the lines are crossed, the federation will dissolve, and since the benefits of continued federation outweigh the incentives to defect, the federation can be sustained.

A second implication is that for subnational units to contribute to the center, the expected fines from shirking $f(z)q$ must exceed the cost of contributing, that is $f(z)q > 1$. Otherwise a subnational unit is better off shirking. Given how likely shirking is to be uncovered (represented by q), a necessary condition for a stable federalism is that *the center must be strong enough to punish potential shirkers*. The condition also implies that as detecting shirkers becomes less likely, the center's punishments, and therefore, its institutional power, must increase for an equilibrium to exist.

This implies that in policy areas that are extremely difficult to monitor, the center must be more powerful in order for the center to police common pool problems. But this in turn makes the federal system *harder* to maintain because increasing the institutional power of the center also increases the center's ability to extract rents. Thus, in areas in which the center's moral hazard problem is severe, the dual incentives operate in an opposite way. In technical terms, a lower detection probability makes the set of equilibrium federations shrink. This implication yields another prediction of the model: *grants of authority to the center are more likely to be sustained in areas in which monitoring is relatively easy*.

An additional result is that for a federation to be sustainable *there must be sufficient gains from exchange to motivate a stable federalism*. The logic, however, is different from models of decentralized cooperation in which the benefit stream alone must prevent individual states from shirking. In this case, the benefits have to be sufficiently large in order to gain a surplus that prevents the center from a one-time appropriation of all contributions.

Perhaps most importantly, the model allows us to better understand the incentives of each of the $N+1$ players in maintaining a federal bargain. In particular, each player individually faces a choice of behaving "cooperatively" or "noncooperatively." One way for the center to behave noncooperatively is to "take the money and run." In this degenerate case, the center extracts what it can in the first period, provides no central goods, and allows the federal bargain to fail. The center will take the money and run only when this one-time benefit exceeds the ongoing expected rents it would achieve by cooperating. This in turn implies that the center must receive a minimum amount from keeping federation together that is at least as large as it could extract by forcing degeneration. This value when averaged over the states we call x^{U*}.

Similarly, the states must also have an incentive to stick to the cooperative outcome. States can deviate from the assigned federal institutions in two ways. First, they can defect from the federal bargain by shirking in at one or more periods. Second, they can exit from the federation. In either case, the original terms of the federation have failed. A successful federation must solve both problems. A sufficiently strong center (as expressed in z) prevents those states remaining in the federation from shirking. With respect to the second possible deviation, a state prefers to stay in the federation rather than exit if both the amount it must contribute is weakly less than the amount it receives in return for staying in the federation and exit costs exceed their ongoing payoff.

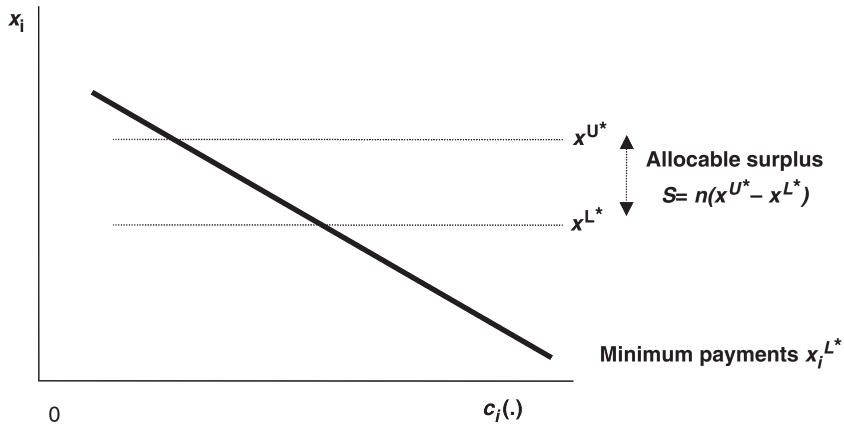

Figure 1 Cooperative Equilibria.

Putting these two sets of incentives together—those of the center and those of the subnational units—tells us when the federation can be sustained in equilibrium. This happens only when both sets of incentives just discussed can be simultaneously met. Figure 1 illustrates the nature of these constraints. In the figure, the states are ordered by exit costs from lowest to highest. The dark heavy line indicates the minimum amount required to keep a state in. The line slants down because, as exit costs rise, the minimum amount required to keep a state in declines.

If the states are uniformly distributed along this interval, then the average amount that the center must spend on public goods is an amount we call x^{L*}; we represent this quantity in the figure by the lower dashed line. The higher dashed line is x^{U*}, the maximum average amount that the center can return to the states in benefits. If the center is required to return more than this amount in a cooperative equilibrium, then value of its ongoing rents is too low, and the center would prefer to take the money and run by extracting all the contributions in a single period. Taking all this together, we have that the federal *surplus* (or *deficit*) is defined as the differences between the minimum amount of rent applied to production of the central good required to keep states in and the maximum allowable that still provides the center with enough rent for itself (formally, this is $x^{U*} - x^{L*}$).

Given these incentives, there are a number of possibilities for the set of equilibrium federations given the parameters of the central good being provided and the nature of costs of exit. If a surplus strictly exists, there are sufficient benefits to be divided among the players. In this case, a cooperative equilibrium can be maintained. In this case, there are multiple equilibria; that is, a range of ways in which the federal surplus can be divided. Indeed, when there is a surplus,

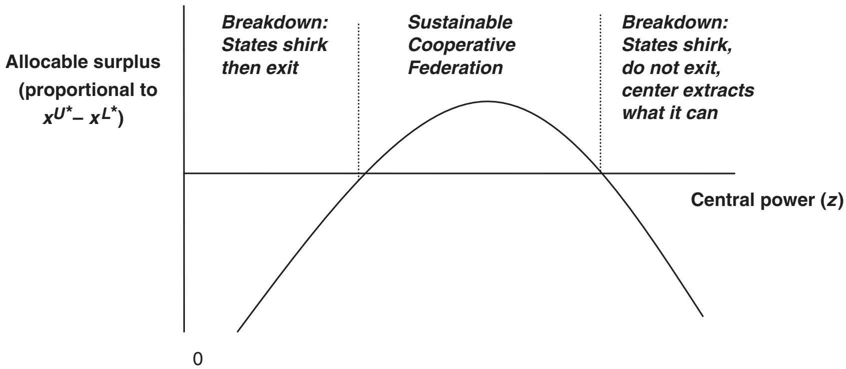

Figure 2 Equilibria as a function of C's power.

then any allocation of the surplus that satisfies the condition that each state must be unwilling to exit is an equilibrium. In the second or knife-edge case, the surplus is zero; i.e., $x^{U*} = x^{L*}$. In this case, exactly one allocation of the benefits to the states (i.e., one profile $\mathbf{x}$) can be sustained as an equilibrium: each subunit gets precisely its minimum amount (x_i^{L*}). Finally, the third case occurs when there is a deficit. In this case, *no sustainable federal equilibrium exists*. In particular, no allocation exists that can at once keep all of the states in and provide the center with sufficient incentive not to deviate, to take the money and run. In this case, federalism is impossible to sustain.

Perhaps most importantly for the Russian case, this analysis allows us to connect federal stability back to the power of the center. The above discussion of incentives implies that we can characterize the set of equilibria as a function of the surplus and the institutional power of the center (z). The model shows noncompliance by the states can occur for one of the two reasons, each exhibiting different "breakdown" features and each requiring markedly different prescriptions to enhance the capability and productivity of federal arrangements.

As figure 2 illustrates, three possible equilibrium outcomes exist, depending on the parameter values. We focus on the center's institutional power, as measured in our model by z. Consider the case in which, given the exogenous parameters of the model, there are some values of z for which a positive surplus exists, as shown by the curve in the figure. In this case, when the center's power is "moderate"—in the interval over which the surplus is positive, the federal system is sustainable. When central power is too low, the federation breaks down, as the center is too weak to limit shirking. Because the center is weak in this case, exit costs will also be low and the break down will take the form of secession and exit by states and the federation will literally disintegrate. When the center is too strong, the federation also breaks down. In this case, however, exit costs will be high; so when the equilibrium breaks down, states with relatively low exit costs will exit, but states with high exit costs will remain in the system. These remaining states, however, will simply not contribute and the center will try to extract as much as it can via its institutional power to punish. In this case, the center is extractive; in other words no public goods are produced. Thus, if the center is given too much power, if limits are not appropriately defined on its use of public authority, the system veers from the cooperative path, punishments are meted out, public goods are not produced and the states contribute nothing. To summarize, state shirking can reflect two different situations: first, the center has too little power to police shirking; but second, because the center is too powerful, forcing the states to resist.

This analysis highlights perhaps one of the most important implications of our model for equilibrium federations: in order for a federation to be sustained in equilibrium—the two federal dilemmas of federalism must be solved simultaneously. Any federal system that successfully solves one will only succeed if it also successfully solves the other. Solving both problems at once can be difficult, because depending on the nature of the constituent units, such a solution may not exist. Indeed, because the two problems interact, federalism can be seen as a balancing act in which striking the appropriate level of institutional power may be difficult, if not impossible.

The Early United States under the Articles of Confederation

To demonstrate the plausibility of our approach and to understand the Russian case, we first apply our approach, we consider the problems with early American federalism under the Articles of Confederation (1781–1787). This case reveals remarkable parallels with those of modern Russia. In the following section, therefore, we apply our approach to federalism, Russian style.

Nearly all the major turning points in American history can be studied from the perspective of federalism. Federalism was a central element to the Revolutionary crisis, the debates over the Constitution, the Civil War, Reconstruction and its end, the New Deal, and the rise of the national regulatory state in the 1960s and 1970s.

Central to our model is the tradeoff between central government power to provide public goods and prevent shirking, on the one hand, and power to encroach on state sovereignty, on the other. If this balance is not struck properly, a federation will fail to exhibit full cooperation. If the center's power is too great, the federation will fail because there will be overextraction by the national government; if the center is too weak, federalism will fail because the center will under provide public goods, states will shirk and create common pool problems, and the federation will break down; finally, if the states fear that the center will abuse its power to provide public goods, they may fail to grant the center sufficient powers or fail to cooperate with the center, again causing the federal system to fail. All three problems apply to the development and evolution of American federalism.

The principal criticism of the Articles of Confederation by Federalist leaders was that the national government had insufficient institutional power to supply critical public goods, primarily defense against British and Continental European security threats, but also the maintenance of public economic structures, such as a common market and a common, stable currency. One of the core debates between the Federalists and Anti-Federalists concerned how to provide these goods. The Federalists believed that the national government should be granted strong taxation powers in order to have resources to achieve these public policy ends. Some Anti-Federalists admitted a concern about the under supply of public goods. Nonetheless, most Anti-Federalists opposed the Federalists' proposals because they felt that the Federalist 'solution'—granting the national government strong taxation and monetary powers—presented too great a risk of predation by the national government.

In terms of our model, this debate concerned different views about how to trade off the center's powers to provide public goods and the risk of encroachment by the national government. Federalists wanted to raise the national government's institutional powers (raise z) so that the national government could prevent shirking and provide higher levels of public goods. Anti-Federalists argued that nothing inherent in the grant of additional power to national government would prevent it from abusing that power [i.e., using $f(z)$ to extract rents rather than punishing states for shirking].

Under the Articles of Confederation, the Anti-Federalists' political power allowed them to maintain the balance in their favor. States used a variety of means to block national action to provide public goods. For example, although Congress passed defense bills, it could not raise money to finance these measures. Instead the national government had to depend on the states to raise taxes to finance national legislation. But as our models highlight, because the center had insufficient enforcement powers [$f(z)$], many states refused to contribute. Put simply, state shirking hindered national defense and threatened the demise of the United States.[3]

Similarly, control of currency was also impossible. Rhode Island, for example, practiced "oversupplying," thus devaluing currency which hindered the center's ability to maintain economic property and asset values elsewhere in the Confederation. Further, some states hindered the development of a common market by establishing internal trade barriers, which had not been characteristic under British colonial rule. All three primary national public goods—security, a sound currency, and the common market—suffered because of state free-riding in the face of the common pool problem: many shirked, thus underproviding national public goods [$\theta(n, z)$].

To resolve the undersupply of public goods, the Federalists consistently proposed to grant the national government taxation authority. The Anti-Federalists successfully opposed these initiatives, however. Consistent with the model, they argued that granting the national government sufficient means to punish shirkers (*f(z)s*) would mean loss of control over the national government and hence a loss of liberty. In other words, they are worried that the national government would abuse its powers to extract rents.

Our model also suggests that the Anti-Federalists were right. One of the main problems with the Articles was that they did not clearly define the limits of federal authority. The Federalists' proposal to grant the national government additional taxation power failed to create limits on how far this power could be taken. Fearing predation, Anti-Federalists blocked Federalist initiatives to increase national power, resulting in an ineffectual and unstable federal system from 1781 to 1789.

The genius of the Federalists in creating the new Constitution was in the way they resolved this dilemma through institutional rules. Consistent with our model, the Constitution first granted the national government sufficient power to provide the critical national public goods of national defense, common markets, and common currency. Second, it created limits on the national government, thus constraining the national government's powers to prevent moral hazard by the states.

Limits on the national government took several forms. First, the Constitution contained a series of explicit limits on the national government: the Constitution granted the national government solely enumerated powers, with all other policy jurisdictions reserved for the states; the separation of powers system made it hard for extremists to take control of the national apparatus, so that "ambition would check ambition" (*Federalist* 51). The Constitution reinforced this system by creating an institution, the Senate, representing each state directly. The Senate granted federal entities a veto over national policy, so they could protect themselves from encroachment that harmed a majority of states.[4] Similarly, the Supreme Court was established with the authority to enforce these rules.[5]

Second, the debates during the Revolutionary crisis and during the formulation of the American Constitution, including the ratification debates, helped forge a consensus about how to limit the national government.[6] In terms of our model, the Constitution set limits on the national government by creating a coordination device that created a set of credible limits on the central government.[7] Violating these rules risked a reaction in concert by the states, threatening the survival of national officials or of the federation itself.[8]

To illustrate the use of these trigger strategies, consider the controversies raised against Washington's Secretary of the Treasury, Alexander Hamilton, and the second Federalist President, John Adams. These Federalist officials sought to expand the national government powers in controversial ways, notably to use the national government to promote economic development. And yet, in the late years

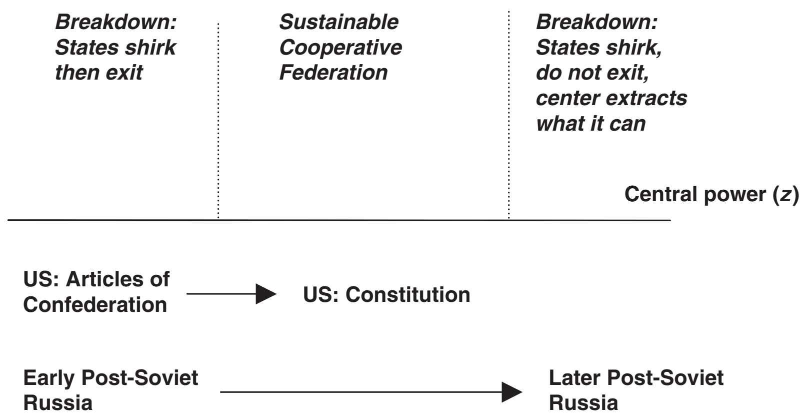

Figure 3 Illustrative positions of the early United States and modern Russian federal systems.

of the 18th century, the Federalist's popularity waned. The Adams administration reacted with, among other things, the Alien and Sedition Acts of 1798. These acts attempted to suppress its political opposition, including the jailing of opposition newspaper editors—behavior we tend to associate more with modern Latin America than the United States.

In combination, these policies and behavior prompted a political backlash. Many Federalist supporters switched sides to support the opposition, allowing Thomas Jefferson to become president in the election of 1800. Indeed, the Federalist's behavior not only helped foster the development of an opposition party, but to spring-board it into power for 20 years (Wood 1991). Lasting another generation, this consensus made the limits on government self-enforcing: politicians avoided violating widely-held precepts, since such violations would risk officials' political futures (Weingast 1997, 2006a).

In sum, the new institutions created by the Constitution moved the United States from a situation of unsustainable, noncooperative federalism under the Articles to a sustainable cooperative federalism under the Constitution. This institutional transformation is illustrated in figure 3. The difference was not about the motives of the state officials, since these remained relatively unchanged across the two periods. What changed were the institutions and hence the incentives facing state officials. Incentives led to series of noncooperative behaviors under the Articles, but cooperation under the new Constitution.

Federalism, Russian Style

We develop our approach to understanding federalism, Russian style, in a series of steps. Our first model begins with the Blanchard and Shleifer (2000) emphasis on the common pool problems. We then provide the second model, which focuses on the simultaneous and joint problems of an unconstrained but weak center along with common pool problems by the regions.

Model 1: Regions create common pool problems

In the immediate aftermath of the Soviet collapse, the newly independent state of the Russian Federation had a weak center. In seeking to weaken the Soviet central government in the last year of the Union of Soviet Socialist Republics (USSR), Russian Republic President, Boris Yeltsin encouraged Russian regional elites to take as much sovereignty as they could handle.[9] The strategy succeeded in undermining Soviet central power, but also succeeded in undermining Russian central power after independence. Furthermore, because Russia's first post-Soviet government sought to initiate market reforms in the economy, they deliberately made the center even weaker by dismantling the planning apparatus and its wide range of polices designed to monitor and control the economy (McFaul 2001, Chapter 4).

These political reforms implied a reduction of both the ability to identify state shirking (q) and the central government's powers (z). This reduction in turn reduced the ability to punish regions [$f(z)$] and the ability to provide national public goods [$\theta(n, z)$]. In addition, the financial crisis at the end of the Soviet Union, continuing for several years under the new Russian Federation until the financial collapse in August 1998, created fiscal distress for the center. This distress further eroded the center's power.

Many analysts have characterized this situation in Russia as a state with too weak a center (Blanchard and Shleifer 2000; Shleifer and Treisman 2000; Treisman 2000; see also Solnick 1995). According to this view, the regions have had too much power and have used this power to thwart the center's efforts at economic reform.

A range of regional behaviors, especially in the early years of the Federation, is consistent with this interpretation. The regions were sites of corruption and rent-seeking. Many also actively worked against a number of economic reforms pursued by the center, often subverting the center's policies regarding privatization and structural reform. In the 1990s, demonetization made the regions' policies hard to monitor (Woodruff 1999). These regional policies raised transaction costs and often hid vast sums of local revenue, some of which would otherwise have been shared with the center (OECD 2000, Chapter 2; Shleifer and Treisman 2000, Chapters 5 and 6). Many regions fomented active resistance to the center, extracting beneficial fiscal arrangements (Treisman 1999a, 1999b). Indeed, as Shleifer and Treisman (2000) and Stoner-Weiss (2006) argue, in many cases the regional governments colluded with enterprises to deny the central government's both revenue and policy implementation. Regions have raised various forms of trade barriers, such as granting local firms privileged access to markets or prohibiting exportation of valued products (OECD 2000; Slider 1997,498–499). The Russian fiscal system in the 1990s also had an element of a soft budget constraint, whereby the center often aided regions facing fiscal distress, particularly if the regional government could not meet important policy obligations, such as subsidies to enterprises that would otherwise go bankrupt.[10] Most dramatically in the early 1990s, some regions, including most dramatically Chechnya, declared their independence from Russia, the most compelling evidence that the center was too weak to make federalism work.

As many analysts observe, this regional behavior clearly represented a massive set of common pool problems (Blanchard and Shleifer 2000; Lavrov, Litwack, and Sutherland 2000; OECD 2000; Shleifer and Treisman 2000). Moreover, as these observers note, the center was too weak to effectively police the regions.

In terms of our model, this argument is based on the observation that the center has too little institutional power, z. This implies that its ability to prevent common pool problems was low. That is, the expected penalty from common pool behavior by regions $f(z)q$, was low relative to the benefits captured by the regions from those behaviors. The problem is both a center that is too weak to punish identified shirking and inventive regions that have been able to hide their behavior from the center.

In this interpretation of Russian politics, the regions are the principal barrier preventing economic reform. The answer to this problem, according to Blanchard and Shleifer, is to increase the institutional power of the center. This increase makes it feasible for the center to police a wider range of errant behavior by the regions.

Model 2: The twin dilemmas of federalism

Our approach suggests that model 1 provides an accurate but incomplete approach to understanding federalism in Russia. Blanchard and Shleifer's proposal is much like the Federalist's initial proposals under the Articles: to counteract too weak a center, the Federalists sought to increase the center's powers. Yet the Federalists' attempts to do so failed. As noted earlier, the reason is that increasing the center's powers also increased the potential for the center's abuse. As a consequence, the states and a majority of Americans resisted.

A similar dynamic of regional resistance can be observed in post-Soviet Russia.

In the initial years of Russian independence, the center faced acute fiscal distress, compelling central authorities to pursue predatory tax policies against Russia's richest regions in a manner that discouraged investment or sound economic growth policies (Zhuravskaya 2004). In reaction to this predatory behavior, regional authorities colluded with local business elites to hide revenues. While claiming to press for radical economic reform, the center's behavior appeared to region governments more like political opportunism and predation than economic reform.

In the face of a center unwilling or unable to create credible restraints on its abuse of its power, the regions had incentives to hide revenues by various strategies as a means to protect local success from the center. Both the center and the regions exhibited noncooperative aspects of behavior, and both contributed to the Pareto-inferior, noncooperative outcome,

This outcome was not sustainable. Especially after the 1998 financial crash and the beginning of economic growth fueled by devaluation and higher oil and gas prices, Russia's modern day Federalists began to succeed in reasserting a powerful central authority. The institutions of a strong center left over from the Soviet era were temporarily weakened during the tumultuous period of change in the 1990s but never dismantled. In the initial first years of Russian independence, the central state barely survived, let alone governed outside of Moscow (Stoner-Weiss 2006). This new balance of power between the center and the regions led some to argue that a new federal arrangement had emerged in Russia in place of the Soviet unitary state (Solnick 1998; Treisman 2000; Petrov 2001). For instance, one of Russia's leading experts on regional politics, Nikolai Petrov, wrote that ''Along with the regular holding of elections, the creation of Russia's federal system was perhaps the greatest achievement of the first decade of post-Soviet Russia,'' (McFaul, Petrov, and Ryabov, 2004:213). However, by the end of the 1990s, when the center acquired greater resources because of rising oil and gas revenues and new leadership, the center quickly and easily reasserted its control over regional governments. In fact, the center has become so powerful once again that it is questionable whether Russia should even be labeled a federal system. The challenge to Russian federalism today is not a weak center, but an unconstrained one.

As with the early American Federalists under the Articles of Confederation, Blanchard and Shleifer focus solely on the second dilemma of federalism—common pool problems caused by subnational governments. This focus remains incomplete because it ignores the second half of the problem recognized as the first dilemma of federalism—the danger of a too powerful center.

Our model suggests a fundamental identification problem concerning the causes of Russia's massive common pool problems. This behavior could arise because the regions are simply bad and face no external check—in other words an insufficiently strong central government (McFaul 2000). But these problems can also arise because the regions fear abuse of power by the center. The observation of state shirking and the breakdown of a federal system in which some units secede and others shirk is also consistent with the third type of equilibrium illustrated in figure 2. Such a breakdown will occur not only when a central government is too weak, but also when a center is *too strong* and *unlimited* in its ability to aggrandize.

The center's behavior toward the regions, especially after the beginning of economic recovery following the 1998 default and the coming to power of President Vladimir Putin, suggests that it is far from a benign presence. Indeed, what has been most striking during Putin's campaign to strengthen central power is the weakness of institutions or alternative loci of power capable of constraining the actions of the center. In the first years of Russian independence, Russian elites failed to strike bargains between the center and the regions to lock into place self-enforcing institutions of federalism. As a result, Putin has been able to resurrect unilaterally a powerful and predatory center faster than anyone predicted.

To weaken the power of the regions, Putin in the spring of 2000 created several superregions ("federal districts"), accountable only to Moscow, to oversee the activities of Russia's 89 regions. Each was to be headed by a plenipotentiary who would be appointed by the president personally and would sit on his Security Council. Five of the seven envoys named in 2000 were from the FSB (the domestic successor organization to the KGB), the army, or the police, as were many of the federal inspectors reporting to them from the administrative regions.[11] They have writ over all federal agencies in the regions other than the military and thus have access to officials in the most politically sensitive and influential positions, such as those in the treasury, tax inspectorate, the FSB, and regular police. Their mission is to oversee the activities of the bureaucracy and to report to the president's office on any regional noncompliance with the constitution or laws of Russia.

Soon after creating these seven superregions, Putin and his loyal parliament passed in July 2000 a law that authorized the president to suspend elected governors accused of wrongdoing by the procurator-general's office. In as much as criminal proceedings could drag out indefinitely, the law is tantamount to a presidential right to fire governors. Putin has used this power only once, but the mere threat has had a chilling effect on gubernatorial initiative. Putin also can dismiss any regional legislature that passes laws contravening federal laws or the constitution.

In addition, Moscow has pushed through a more centralized allotment of tax receipts. As of 1999, roughly 45 percent of the revenues collected in the regions were supposed to be transferred to the central government, although the amount that reached it was often less. Under a law signed by Putin in 2000, roughly 55 percent of all tax receipts collected in the regions must go to Moscow and 45 percent to the regions. Regions like the Republic of Bashkortostan that for years paid almost no federal taxes during the 1990s by virtue of bilateral agreements signed between a weak Moscow and assertive regions are once again contributing to the federal budget thus increasing the central government's power over them.

The Kremlin under Putin also played a very aggressive role during regional elections to oust or tame independent governors. Tactics include intimidation of independent minded governors not to seek reelection, removal of candidates from the ballot on technicalities, and the deployment of massive resources, including money, access to federal television (now controlled almost completely by the Kremlin), and expertize to help loyal regional candidates win election. As a final blow to regional autonomy, Putin did away with direct elections of governors altogether in the fall of 2004.

Putin also has weakened those federal institutions that formerly helped regional elites check federal executive power. Putin emasculated the Federation Council, the upper house of Russia's parliament, by removing governors and heads of regional legislatures from this chamber and replacing them with appointed representatives from the regional executive and legislative branches of government.[12] When governors sat in the chamber, the Federation Council served a critical focal point for coordinating collective action against the center. After Putin's reform, the Council essentially has become a rubber stamp. Many members, in fact, are Muscovites with patronage ties to Putin who acquired their seats with his administration's backing and have put the Kremlin's interests ahead of their constituents.[13] As the Duma deputy Vladimir Lysenko stated in 2001, "The president had managed to get rid of one of the strongest and most authoritative state bodies in the country. It provided the function of check and balance on the other branches of power, especially the executive, which is fast evolving into an authoritarian regime."[14] In the Duma, lower house of parliament, the Kremlin used its monopoly of federal television, money from loyal oligarchs, and "administrative resources" of loyal regional governments to produce a landslide victory for pro-Kremlin parties in 2003 (Colton and McFaul 2003). Already weak constitutionally, parliament soon disappeared after this election as a check on executive power. In preparation for the 2007 parliamentary election, Putin and his legislative allies eliminated all single-mandate electoral districts, formerly half of all the seats in the Russian parliament, so that now all members will be chosen on national party lists. Previously, members of parliament elected in these districts had to have very close ties to local governors to win election. Under the new election system, regional executives will exercise much less influence over the composition of the Duma. The new electoral law also raised the threshold to 7 percent for a party to acquire proportional representation in the parliament and essentially banned regional parties, reforms that further weaken the ability of regional leaders to influence the composition of this legislative body.

A consequence of these changes is that regional governors quickly realized that the only way to stay in power under Putin's new rules of the game was to join his party, United Russia. Former enemies of this party, including the mayor of Moscow and the presidents of Russia's most powerful republics, eventually joined United Russia after the 1999 parliamentary elections (Colton and McFaul 2003). Some speculate that United Russia eventually will play the same governing role that the Communist Party played in the Soviet Union.

At the same time that formal institutions like the Duma, the Federation Council, and regional executives have lost power, informal networks accountable only to the

Kremlin have gained influence in ruling Russia. In particular, nonelected officials from the FSB have assumed an increasingly large role in governing Russia since Putin became president.[15]

In retrospect, the discovery of federalism in the Russian Federation when this state first formed may have been a "false positive." When the USSR collapsed, the old hierarchical institutions that had governed the Soviet unitary state did not disappear, but rather experienced a temporary blow to their power and authority. During this window of opportunity, regional governments scrambled not only to shirk on responsibilities and creating common pool problems, but also to protect themselves from a predatory center.

During this period of weakened central power, regional economic elites collaborated with local government authorities to capture local rents (Stoner-Weiss 2006). This strategy, however, was very short-sided. When the center was weak, regional leaders failed to create with Moscow a set of new federal arrangements that could have reduced regional shirking in return for constraints on central power. The time for such a bargain was precisely when the center was weakest, immediately after the Soviet collapse. Instead, each region tried to cut bilateral arrangements with the center, a strategy that, at least for a time, worked especially well for larger regions that could exact real costs on the center if they defected (Solnick 1998). But this system was not self-sustaining. We illustrate this transformation in figure 3, which shows the transformation from noncooperative and unsustainable federalism to a very centralized federal system.

Reform of Russian Federalism

Given its size and diversity, federalism seems especially appropriate for Russia, if not even necessary for effective governance. A unitary state faces great difficulties governing effectively or democratically a country spanning 11 times zones. With Moscow thousands of kilometers away, citizens of Khamchatka in Siberia must have some direct relationship to their local authorities to have any relationship at all to government policymaking. Given Russia's tragic history with autocratic rule especially in the 20th century but also for last several hundred years, Russia needs divided government to check abusive, predatory power rising again from Moscow. Russia's newly created market economy also needs competition between regions to punish bad local governments and reward good governments competing to attract scarce investment resources. Surveys of Russian firm managers consistently confirm that corrupt regional governments remain a central impediment to private enterprise growth (Frye 2004). A genuine federal system would move investment away from the most corrupt and ineffective regional governments and towards more market-friendly regions.

How might Russia create a more successful organization of federalism? Our approach suggests that a more successful organization of federalism must address both fundamental dilemmas of federalism. Russia is more likely to solve its problems if, at the same time it increases the center's powers, it also builds institutional constraints on the center's ability to abuse its newly resurrected powers of control. Putin has strengthened the center so that it can police common pool problems by the regions. But the center has failed to create a series of institutional bounds on its behavior that restrict its opportunism, its attempts to control too wide a range of regional behavior. These changes should occur both by the design of *ex ante* protections—which limit the *ability* of the center to abuse power for extractive purposes—and *ex post* protections—which make it easier for the subnational governments to *credibly punish* central aggrandizement. For example, the center and regions should negotiate institutional protections against the tax predation that penalizes economic success. At the same time, they should create institutions that provide protection against soft budget constraint for regions that reward fiscal imprudence and bad economic policymaking. Reinstituting direct elections for regional executives also seems to be an institutional necessity for creating accountable government at the local level and needed check on central authority throughout the "Federation." In this way, Russia can develop a cooperative, self-enforcing set of federal institutions.

Addressing both of the dual dilemmas simultaneously is more likely to gain regional support to solve Russia's problems than addressing only the problem of the weak center. Of course, once the system is in place, regional politicians will adjust. The adjustment includes selection effects that foster the rise of leaders geared toward this environment. In contrast, many of today's regional leaders may not have an interest in solving Russia's problems because they are not as likely to survive in the new environment. This selection effect implies that it is more costly to solve Russia's problems now than a few years ago.

Our approach also shows that cooperation by the regions is far more likely if the center pursues more sensible policies and creates greater gains from the federation. Russia's structure fosters noncooperation by failing to provide improvements in social welfare associated with standard principles of federal organization. Indeed, Russia violates all of the major principles of fiscal federalism—both classical economic ones associated with Hayek, Musgrave, Oates, and Tiebout—as well as more modern ones, such as those embodied in market-preserving federalism (de Figueiredo and Weingast 2005; Weingast 1995).

In terms of our model, this discussion of reform suggests that the irrational elements of Russian policymaking limit the central government's ability to produce public goods. In this light, the OECD (2000) provides sensible recommendations for fostering long-term institutional stability and concomitant macroeconomic and political stability in Russia.

As described earlier, the American Federalists succeeded in creating a more stable system of federalism when they addressed the twin dilemma simultaneously; that is, by simultaneously increasing the central government's power and inventing a series of institutional constraints on the center's exercise of its powers. By limiting the center's ability to abuse $f(z)$, the Federalists convinced pivotal Anti-Federalist citizens to support the new Constitution.

Moreover, the American case shows that behavior by subnational governments in part reflects their institutional environment. The American Articles of Confederation created several serious common pool problems, which disappeared under the new Constitution. A new constitution in Russia may do the same.

Consider the contrasts with Chinese federalism. China has provided the provinces with a sensible range of policy authority and autonomy in accord with both standard economic principles of federalism and those of market-preserving federalism (de Figueiredo and Weingast 2005; Montinola, Qian and Weingast 1995). Although the Chinese center has undergone far less change than Russia—nothing in China parallels Russian elections—the center has devolved power in a way that makes it less threatening to the provinces. Moreover, as many of the provinces' economic reforms have succeeded, the accompanying fiscal resources have granted them considerable countervailing power over the center that prevents the center's opportunism.

Theoretically, national governments devolve power for two different reasons. One is to capture the economic benefits, particularly for a potentially failing state. The other is to hold together a country (Stepan 2004). Early reform China illustrates the first, and Spain in the post-Franco era the second. Neither reason seems to fit Russia.

Conclusions

This paper focuses on the two fundamental dilemmas of federalism: too strong a center threatens to overwhelm the authority and independence of the subnational governments, potentially leading to a unitary state; and too weak a center potentially allows the emergence of common pool problems among the subnational governments, potentially leading to political disintegration. Moreover, these twin dilemmas imply a tradeoff: measures designed to mitigate one dilemma typically exacerbate the other.

Maintaining a stable federal system, therefore, requires creating a balance between these two problems. To be stable, a federation must create incentives for political actors at all levels to abide by the rules rather than encroach on the powers of other levels or pursue actions contributing to common pool problems.

We model these problems here using a simple game theoretic approach (de Figueiredo and Weingast 2005). States must decide whether to contribute to the center, shirk, or exit. The center's decisions are more complex. It must decide whether to use its revenue to provide efficiency enhancing central goods or to capture rents; whether to use its enforcement powers exclusively to police shirkers and common pool problems or to extract rents from subnational governments. The game has many equilibrium patterns of behavior, depending in part on various parameters.

A critical variable in the model is the center's degree of institutional power, z. Increasing z improves the center's ability to provide central goods and police shirking. But it also improves the center's ability to extract rents. This variable thus embodies the fundamental tradeoff in federalism.

Our approach also suggests the importance of constitutions and pacts as coordination devices for the subnational governments against the center's potential abuse of its policing authority to extract rents (Weingast 1997). By creating common expectations about how the center uses its powers, constitutions, pacts, and other coordination mechanisms can help subnational governments react in common against potential violations of the rules by the central government. This form of coordination was central to the construction of the U.S. republic and has been important in modern China (Weingast 1997).

To facilitate our understanding of the Russian Federation, we also apply our approach to the early American Republic. The struggle of both federations with the twin dilemmas of federalism is central to the degree of their success in creating cooperation among the federal entities and in promoting economic growth. In brief, the early United States succeeded in providing an institutional environment that promotes cooperation and growth, while Russia has not.

The national government in the early United States under the Articles of Confederation was unable to provide critical public goods, such as security and a stable monetary system, and by common pool problems among the states, such as internal trade barriers. Prior to the Constitution, the Federalists sought to rectify these problems by increasing the national government's powers in order to provide these goods. Each time, their opponents—the Anti-Federalists—defeated them using the argument that increasing the power of the national government threatened their liberty. In addition to increasing the ability to provide public goods, increasing the national government's power would also allow it to extract more from the states. In short, Federalists focused on the second fundamental dilemma, while their opponents emphasized the first.

The Federalists finally succeeded with the new Constitution in 1787–1789 in which they addressed both dilemmas simultaneously. The Constitution not only increased the powers of the national government, but placed a range of constraints on the national government. These included institutional constraints, such as the separation of powers system; and also coordination devices, such as the Bill of Rights and that the federal government had only enumerated powers, reserving all other powers for the states. The assignment of powers and authority to different levels of government under the Constitution reflects closely the principal lessons of fiscal federalism in economics as well as those associated with market-preserving federalism (Weingast 2006b). In particular, the Constitution strikingly limited the powers of the national government restricted to truly national issues, such as security, a stable monetary regime, and policing the common market.

In contrast, Russians have failed to resolve the twin dilemmas of federalism, and both remain significant problems. A major feature of federalism, Russian style, is the lack of cooperation between the center and the regional governments. Regions and republics exhibit a range of common pool problems, including: explicit attempts by the regions to ignore the center's policies, hide their activities from the center, and raise internal trade barriers. The center also has contributed to noncooperation. It has forced a wide range of policies on the regions, for fiscal and political reasons, without attention to principles of policy assignment that underpin good policymaking (OECD 2000, Chapter 2). The center also exhibits a degree of opportunism with respect to the regions, penalizing economic success and political autonomy.

The result is that the twin dilemmas of federalism underpin a substantial degree of noncooperation in Russia. In the 1990s, the center was too weak to police the common pool problems by the regions, and the regions distrust the center. Paralleling the Anti-Federalists' concerns prior to the U.S. Constitution, increasing the Russian center's power would at once increase its ability to police common pool problems, but also its ability to extract rents and control the regions. As Russia's center has grown in power in recent years, this dynamics is clearly on display.

Resolving Russia's federal problems requires addressing both dilemmas simultaneously. Solving common pool problems by the regions requires granting the center greater power. But preventing further encroachment and opportunism by the center requires the creation of credible constraints on the use of the center's powers.

The answer, we believe, lies with two simultaneous strategies. The first is the creation of a more rational basis for allocating powers among the different levels of government, as suggested by the OECD (2000). The second is to embed this new allocation in an institutional framework that provides some assurances that this political officials at all levels have incentives to abide by the rules.

Notes

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1. This perspective on self-enforcing federalism draws on de Figueiredo and Weingast (2005).

2. As Stepan (2004) emphasizes, Riker (1964) tended to study and make inferences from bottom up federations (as in the United States and the European Union), whereas much of the decentralization in the late 20th century has been top-down (as in Belgium and Spain).
3. It is worth recalling that the Federalists opened their famous debates with an extended discussion of the problems of national defense under the Articles (Nos. 2–5). Although these are not nearly as widely cited as those focusing on institutions, it is no accident that the Federalists opened with this topic (see Riker 1987).
4. Riker (1964) and Ordeshook (1996) emphasize the importance of this type of institution for limiting the center's aggrandizement.
5. As Bednar, Eskridge, and Ferejohn (2001) show, the Court was better at policing the states than the national government.
6. Rakove, Rutten, and Weingast (2000) make this point; see also Rakove (1996) and Wood (1969).
7. The idea of a constitution as coordination device is pursued by de Figueiredo and Weingast (2005), Hardin (1989), Ordeshook (1992) and Weingast (1997).
8. As Arthur Schlesinger, States' rights. (1922) showed, citizens in every state discussed secession at one point prior to the Civil War.
9. Before the Soviet breakup in December 1991, the Russian Federation was one of 15 republics that comprised the Soviet Union. In June 1991, Boris Yeltsin was elected president of the Russian republic. After the collapse of the Soviet Union and Russia's independence, Yeltsin became the head of state of this newly independent state.
10. Both Shleifer and Treisman (2000) and Zhuravskaya (2004) document the degree to which lower levels of government are helped by increasing transfers in response to increasing deficits.
11. Natal' ya Zubarevich, Nikolai Petrov, and Aleksei Titkov. 2001. Federal' nyye okruga-2000. In Petrov 190.
12. The Russian constitution states that each region of the federation sends two deputies to the Federation Council: one representing the province's legislative assembly and one representing its chief executive. The constitution does not specify how these representatives were to be selected.
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14. Vladimir Lysenko, The Federation Council Fails to Become a House of Lords. In *Russia on Russia: Administrative and State Reform in Russia.* eds. Yuri Senokosov and John Lloyd, no. 5 Moscow School of Political Studies, June 2002, 20.
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