The recent onrush of formal models of federalism was prompted by political science’s renewed interest in the operation of federal systems. Formal theory is a microfoundational approach to comparative theoretical research, where political phenomena are explained in terms of strategic agents responding to an incentive environment. When appropriately written, formal (mathematical) structure lays bare the logical flow from assumption to result (and empirical prediction). The construction of a model provides a template for future scholarship, allowing manipulation of the functional form to match specific case parameters. It offers a useful tool to complement our comparative skills as we search for an understanding of how federalism works.

Comparative political study of federalism had its heyday in the 1960’s, at a time when academics considered constitutional design to be a pressing policy interest, and the management of fractured, heterogeneous populations was foremost on their list of prescriptive objectives. Studies by Duchacek, Franck, Friedrich, MacKinnon, MacMahon, McWhinney, Riker, Sawer, and Wheare, among others, searched for common trends across federations, to understand how this constitutional form might perform in the newly-emerging countries of the developing world. Studying the United States, Grodzins (1966) and Elazar (1962) were among the first to recognize that federalism implies a sharing of authority, Grodzins classically likening federalism to a marble cake, and Elazar emphasizing the long history of cooperation between U.S. state and federal governments. But the field never produced generalized theories; for the most part, these works were collections of case studies followed by insights, built inductively. Even Riker, who, concurrent with his work on federalism, was most responsible for introducing the rational choice paradigm to political science, never married his two interests to generate a rigorously-derived theory of federalism’s origin and maintenance. Interest in developing a general theory fizzled as the field---perhaps impatient to convert the insights gleaned from the work of the 1960’s into specific policy recommendations---turned its attention to single-country or single-region studies of federalism, and only scattered contributions to general theory-building (e.g. Elazar, Hicks, Lemco) appeared for the next two decades.

Politics of the early 1990’s promoted a resurgence in federal theory, with public debates about the merits of decentralization and subsidiarity in the United States, Europe, and elsewhere, and global events which alternately made us despondent about and hopeful for the prospect of a federal solution to the governance of diverse populations. Positive political theory offers a new approach to general theory-building that returns us to the origins of federal theory, to Publius,

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1 A bibliography of the works cited in this article is available at: ED: WEBSITE AVAILABLE?. The works selected are meant to be indicative of trends in the field rather than serve as a exhaustive survey.
and an examination of the microfoundations of politics working within a federal structure. Formal analysis focuses our attention on how institutions manipulate political behavior by creating incentive environments that structure interaction between strategic agents. I divide the literature roughly into two categories: (1) federalism and policy evaluation, where federalism is an independent variable—an institutional context—that helps to determine the success of policies chosen, or how they are chosen, and (2) federalism and stability, where federalism becomes the dependent variable as scholars investigate its feasibility and ways to maintain or improve its operation.

Federalism and Policy Evaluation

As recently as five years ago, when I would announce to friends in economics that I study federalism, the reply invariably would be, oh, fiscal federalism? While formal theory may be new to political studies of federalism, at least since the 1950’s economists have been untangling the knotty problems of taxation and redistribution posed by decentralization. Much of the work can be lumped together under the classification of Tiebout models, named for Charles Tiebout, whose seminal 1956 contribution demonstrated how mobile taxpayers might vote with their feet by choosing a jurisdiction that best suits their preferences.²

Naturally, the fiscal federalism literature spawned the earliest formal political analysis of federalism, and its derivatives continue to be the most active area of formal federalism research. The Tiebout literature teaches us about the importance of spillovers and mobility; tying these challenges together with electoral politics and intergovernmental competition include Epple and Zelenitz (1981), Gordon (1983), Caplan (1996a, 1996b), and Dixit & Londregan (1995, 1998). Several theorists have pointed out the advantages of interstate competition to promote economic health; on the other hand, other theorists point out the inefficiency created (rather than stemmed) by intergovernmental (state to state only) competition. Aranson (1995) shows how the number of units in a federation affects policy choice and economic efficiency.

Formal theory is a good choice of theoretical tool when making comparisons of the policy generated in federal versus unitary states. Riker (1975) and Rose-Ackerman (1981) explicitly compare federal and unitary systems; Kollman, Miller and Page (1999) show that if there are negative externalities within the district, then decentralized policy provision is optimal, but if positive externalities exist, it can be beneficial to have a unitary system.³ In other work, the comparison is only implied: for example, Crémer and Palfrey (1999b) show how the federal system can contribute to over-regulation, in light of the preference of the national median voter.

Between-system policy comparisons need not be confined to federal v. unitary states:


³ Their methodology allows for parameter manipulation to weight the relative degree of decentralization, but to simplify, they interpret their results in a federal v. unitary context.
federalism does not prescribe a specific degree of centralization, but may be more or less centralized (or, in the spirit of Grodzins and Elazar, have jurisdictional overlap). Kollman, Miller, and Page (forthcoming) show that as problems get more difficult to solve, the benefits of decentralization initially increase—exploiting states as policy laboratories—and then decrease, due to the center’s greater efficiency at problem-solving. Panizza (1999), probing the effect of heterogeneous regional median voters, models (and tests) conditions, such as lower per capita income and less ethnic factionalization, under which voters would support greater fiscal centralization. Crémer and Palfrey (1999a) show how the expressed preferences of voters on degree of centralization and the voting rule depends upon the size of the subunit, the number of subunits, and the degree of heterogeneity within and between units. Volden (1999) most explicitly ties the problem of optimal level of public good provision to politics by arguing that politicians at different levels game one another, understanding that the public holds them responsible for success or failure.

We can also consider different preference aggregation mechanisms. Kollman, Miller, and Page (1997) compare voting rules to see which encourages more optimal sorting of citizens and therefore more satisfactory locally-provided policy. Persson and Tabellini (1996a, 1996b) evaluate the optimality and efficiency of policy generated under alternative federal constitutional schemes.

Another literature examines the pattern of diffusion and state government adoption of policy innovations in federal systems. See, for example, Walker (1969), Gray (1973), and Case, Rosen, and Hines (1993).

One particularly interesting example of the partnership between economics and political science is federalism as resolution to the economic problem of revenue-generation. Weingast and collaborators have introduced the notion of market-preserving federalism, where the decentralized system serves as a commitment mechanism to help the center keep promises it makes regarding repayment of debt and accountability for action. Montinola, Qian, and Weingast show how federalism (Chinese-style: decentralization) has contributed to the economic success of China; Qian and Roland (1998) expand the study of China to examine the political costs and benefits of bailouts; McKinnon (1994) warns that the European Union must design market-protecting federalist institutions into its design of monetary union; Weingast (1993) investigates how federalism contributed to growth in the antebellum United States; and Dick (1998) demonstrates the same in pre-Confederation Canada.

Federalism and Stability

While the political literature (including my own work) almost always thinks in terms of federal stability, stability is an elusive dependent variable. For example, is Canada stable? What about the antebellum U.S.? The U.S. during reconstruction? Better is to model feasibility, even while writing of stability. Generally, the problem is, given a set of rules (a constitutional bargain), how do you get the member governments to behave?

We begin with the puzzle of federalism’s vulnerability. While it is easy to recognize the
motivation to burden-shift and shirk, given the sacrifices demanded by all federal unions, such behavior is destructive to the union; therefore, the question becomes: if a participating government (regional or central) could profit by the union, why would it ever jeopardize the union by cheating? In general, opportunistic behavior requires some information deficiency; for example, Bednar (1998a) motivates central government encroachment on regional jurisdictions by highlighting the problem of credit assignment in multi-layered governments. De Figueiredo and Weingast (1998) and Gibbons and Rutten (1997) model self-enforcing federalism, where the center can resolve burden-shifting tendencies between regions, and its own tendencies to encroach are kept in line by the collective effort of the regional governments; Solnick (1998) probes regional collective action more deeply, discussing the conditions that support coordination versus self-interested behavior and collusion with the center to produce asymmetric treatment of regions. Bednar (1999) shows that full-compliance equilibria exist only under highly stylized situations; generally, all federations will exhibit moderate tension, creating pressure for institutions to redefine their roles to be managers of inherent tension, rather than trying to eliminate opportunism altogether.

As we identify the source of federal instability, our attention turns naturally to an investigation of the types of institutions that might effectively manage the problems that all federations face. Cain and Dougherty (1997) and Dougherty (forthcoming) use a collective action model to show how the faults of the Articles of Confederation meant that cooperation could not be sustained. Tsebelis (1995) and Persson, Roland, and Tabellini (1997) model the importance of separation of powers and other veto mechanisms to introduce stability through stagnation; Bednar, Eskridge, and Ferejohn (1995) discuss two necessary conditions for the maintenance of federalism: fragmentation and adjudication. Inman and Rubinfeld (1997) compare two alternative constitutional objectives, showing a trade-off between economic efficiency and democratic values. Likewise Dougherty (1999) compares several constitutional options available to the American founders and shows that the U.S. Constitution was not optimal in terms of economic efficiency or protection of state sovereignty, suggesting that the Constitution was adopted with other, perhaps strategic, goals in mind. Bednar (1998b) considers the effectiveness of imperfect institutions at constraining intergovernmental opportunism. Ordeshook and Shvetsova (1995) and Ordeshook (1996) argue that a strong, decentralized party system is critical for establishing incentives for central and regional governments to cooperate with one another; they find that the party system in Russia lacks the necessary ingredients to support federal stability.

Some theorists have translated the mobile citizen of the Tiebout models to the question of federal stability. If citizens can sort themselves and exit, then so can jurisdictions. A natural combination of the policy and stability literatures considers the motivation for secession. Buchanan and Faith (1987) model the political-structural consequences of taxation policy that might cause some units to secede. Alesina and Spolaore (1997) find equilibrium size and number of units in a union, arguing that the equilibrium number of units increases in the degree of economic integration; Piketty (1996) and Bolton and Roland (1997) model the trade-off between the efficiency gain of unification and the loss of autonomy. Chen and Ordeshook (1994) show that secession clauses are more than a parchment barrier and can influence behavior.
True to the spirit of Hirschman, if federal units can leave, then they have power. Treisman (1999a) models the bargaining power of recalcitrant regions in demanding asymmetric (and favorable) arrangements with the center; Treisman (1999b) pairs regional bargaining and tax-evasion with the classic Tiebout analysis of the power of mobile interests. Fearon and Van Houten (1998) model the electoral connection to regional autonomy movements, and Van Houten (1998) searches for the causes of regional ambivalence toward fiscal autonomy. As the theory of regional autonomy movements develops, we should look for research that expands the traditional two-level conception of federalism to three levels. We generally assume that it is sufficient to model two levels of interaction; however, our assumption is challenged by the dynamics of the European Union, where centralization and decentralization evolve concurrently, as subnational units are empowered by developmental fiscal transfers and the principle of subsidiarity.

Both policy-related studies and stability studies contribute to questions of constitutional design. What is efficient—or even optimal—from an economic viewpoint might not always be sustainable politically. I believe one of the greatest challenges ahead of us as formal scholars of federalism is to synthesize the two branches of the literature, to consider how policy efficiency and political feasibility are related. Works that include an examination of an exit option come closest to the synthesis; I encourage their pursuit. Questions of when to decentralize, how, and to whom—questions regularly raised by the policy literature—might not be best answered by examining policy efficiency, but instead ought to be informed by work on political feasibility. In the future, I look forward to more work that bridges the two trends in this growing literature.