

**A Theory of Menu Federalism:  
Decentralization by Political Agreement**

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**Abstract**

This paper analyzes agreements between governments that determine the division of policy-making power between central and regional governments. Our analysis demonstrates that initial circumstances and political risks affect the degree of centralization that will be adopted, and that asymmetric forms of federalism are often consequences of ongoing negotiations between regional and central governments over the assignment of policy-making authority. We analyze three settings where gains from "constitutional exchange" may exist: (i) the under-centralized state, (ii) the over-centralized state, and (iii) the constitutional convention. In each case, an asymmetric form of federalism is the predicted outcome, although the degree of asymmetry differs according to starting point. Modern and historical examples are used to illustrate the relevance of our analysis.

Key Words: Menu Federalism, Asymmetric Federalism, Endogenous Decentralization, Constitutional Economics, Political Economy, Public Choice, Trading Power, Federalism, Constitutional Exchange, Constitutional Evolution

JEL Categories: H1, H7, D7

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## I. Introduction

The division of policy-making authority between central governments and regional governments is rarely written down in a nation's formal constitutional documents. Rather, policy-making power within a nation or international organization emerges gradually through time through a process of constitutional or quasi-constitutional negotiation between regional and central governments. This paper explores some implications of voluntary procedures through which governments may reallocate policy-making authority within federal and confederal systems. It demonstrates that the *average* degree of centralization within a country reflects differences in regional demands for goods and services, the economics of producing those services, and the perceived risk of centralized authority. The average degree of decentralization is also affected by pre-existing circumstances, that is to say whether a government was initially “over” or “under” centralized. The analysis also demonstrates that *asymmetries* in the powers of regional governments are likely whenever there are substantial differences in service demands among regional governments or in the political risk of assigning policy-making authority to a central authority.<sup>2</sup>

The manner in which policy-making power is divided among levels of governments has not attracted very much attention in previous public choice research, although it has not been entirely neglected. For example, the politics of central government mandates has been analyzed by Toma and Hoyt (1989) and Blanchart (2000). Panizza (1999) develops a model of the division of policy-making power between central and local governments, although he assumes that the final division of power will be uniform. Qian and Weingast (1997) argue that decentralization can serve as a method of protecting private property rights. However, even research that deal directly with decentralization spends relatively little time analyzing the processes by which political authority may be divided and redivided. Either the division of policy-

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<sup>2</sup> This is not to deny that other methods have generated federal governance, but, in the main, it appears to us that federalism and confederalism reflects social contracts rather than wars of secession or conquest. Moreover, the existence of mutual gains provides a survivorship rationale for the continuation and success of federal states once they are established.

making power is assumed to be uniform and exogenously determined, or unchanging once assigned.

Equal and permanent assignments of policy making power are convenient assumptions in mathematical models and in theories of constitutional design. However, such assignments are unlikely to emerge from the political bargaining implicit in those models. That is to say, by neglecting *ongoing* prospects for constitutional exchange, previous work has caused the possibility of unequal assignments of power to be neglected.<sup>3</sup> Unequal, or asymmetric, assignments of political power to local governments are likely outcomes when it is recognized that negotiations over centralization often deal with one policy area at a time and are always open for re-negotiation. In effect, there is a *menu* of centralization decisions that are negotiated between central and regional authorities, and revised from time to time as economic and political circumstances change.

Our analysis is constitutional and contractarian in spirit insofar as we explain decentralization and asymmetric federalism as consequences of voluntary exchange between regional and central governments (Buchanan, 1987). The analysis uses on the standard tools of rational politics, public finance, and constitutional political economy to explain the fluctuating and asymmetric patterns of centralization that we observe through time.

### **A. Asymmetries in Federal Systems**

A number of asymmetries within federal systems can be studied. First, there are often differences in the physical characteristics of regional and local governments. Regional governments often vary widely in physical size, population, income levels and political power among regional governments. In the United States, California, with 11 percent of the citizens,

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<sup>3</sup> Casella and Frey (1992) and Frey and Eichenberger (1996) analyze the welfare implications of competition among overlapping service jurisdictions. Their analysis demonstrates that competition among overlapping service districts tends to improve the production and delivery of government services. It bears noting that free entry within the institutional arrangement that they analyze tends to generate an asymmetric form of federalism. Consequently, their analysis provides a normative evaluation of one form of asymmetric federalism.

We do not analyze the dynamic or competitive advantages of federalism, but rather the static "gains from trade" that can be realized by reassigning policy-making power within a federal system.

is physically the third largest state, whereas Wyoming, the sixth largest state, includes less than 1 percent of the U. S. population. Such population and area disparities are commonplace around the world. Requejo (1996) notes that New South Wales includes 35 percent of the population of Australia, whereas Tasmania includes less than 3 percent. North Rhine Westfalia includes some 21 percent of the population of Germany, whereas Bremen includes less than 1 percent of the population. Uttar Pradesh includes 16 percent of the population of India, whereas Sikkim includes less than a twentieth of 1 percent.<sup>4</sup>

Second, where local governments have extensive authority to make local fiscal decisions, the extent of local governance often varies among regions because of differences in local political equilibria. Location, population, history, and institutions affect political demands for local government services, and responsive local governments will provide different levels and combinations of services to meet those demands. This variation is perhaps the most studied in regional economics (Oates, 1972).<sup>5</sup>

What is often neglected in mainstream analysis is that variation in the local demand for government services cannot affect local government policies *unless local governments have the au-*

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<sup>4</sup> Insofar as the boundaries of a government's policy-making power is based on geography it may be said that geography largely defines the breadth of governmental policy. For example, within regional governments, independent local governments rule geographic areas that are proper subsets of the geographic areas ruled by regional governments that are proper subsets of the geographic areas ruled by central governments.

Geography also implies that the power to create and enforce public policy must be divided among central, regional, and local governments within nations or international organizations that have independent local and national governments. Every location is simultaneously affected by the policies of several independent governments, and the decisions of all these governments cannot be simultaneously binding.

<sup>5</sup> Tiebout (1956) pioneered this by now well-established line of research. Inman and Rubinfeld (1997) provide a nice survey of issues in this economic approach to fiscal federalism. Qian and Weingast (1997) elaborate the role that federalism can play in solving various commitment and information problems. ( It bears noting that neither of these very thorough surveys includes any reference or comments on asymmetric forms of federalism.) Congleton (1994, 2000) discusses political, as opposed to economic, advantages of competition within federal states. Requejo (1996) analyses some general features of existing asymmetries within modern states.

A broad range of theoretical and empirical work in political science and economics has been based on the implicit assumption that subnational governments within federal systems are more or less equally sized, equally influential, and equally autonomous within the central government.

*thority* to enact and fund programs tailored to local demands. In many countries, local and regional governments face binding legal constraints on their policy-making authority that limit the range of services and regulations that can be adopted locally, and the methods that can be used to finance those services. Those government officials that are legally constrained to provide less (or more) than their citizens demand *will often seek the authority* to provide the locally preferred level services, because local voters or local interest groups demand it of them.

Whenever a subset of local and regional governments successfully obtains new authority to make policy, a third kind of asymmetry, in "constitutional contract," tends to arise. This third possible variation among local governments, asymmetric divisions of policy-making power among regional governments, is an implication of our analysis of constitutional recontracting within federal and confederal systems of governance. That is to say, our analysis implies that the assignment of policy-making authority within federal systems should no more be assumed stable or uniform at the constitutional level of analysis than the provision of local services or population should be assumed uniform in a model of locational choice.

## **B. Evidence of Asymmetric Divisions of Power within Federal Systems**

The historical record clearly indicates that the division of policy-making authority between central and regional governments varies from time to time *and also* from place to place within a given country. For example, the Spanish constitution of 1978 explicitly grants Navarra and the Basque communities tax and expenditure powers beyond those of other "autonomous communities." Galicia and Catalonia have special authority over education, language, and culture. Subsequent negotiations have increased Catalonia's control over traffic police. In Canada, Quebec has gradually obtained special powers to encourage the use of French and protect the French-Canadian culture as with the 1997 amendment to the Canadian constitution. In the United Kingdom, the Scottish Parliament has obtained significantly more policy-making autonomy than the Welsh Parliament. In the United States, the Clean Air Act allows only California to adopt its own emissions standards for automobiles. American Indian reservations have their own specific, but changing, taxing and regulatory authorities, which are exempt from many of the powers of the state governments in which they reside. For exam-

ple, gambling has become increasingly possible on Indian reservations, but not in the states surrounding them.

In many countries, major cities explicitly possess powers of governance that minor cities lack, such as broader control of taxation and regulation. In Germany, three major cities are independent *lander*, whereas the others are subordinate to *lander*. In China, Hong Kong has been granted unique legal and political institutions, as part of a "one country, two systems" policy. The political and fiscal autonomy of such cities as Paris, London, New York, Rome, and Tokyo substantially exceeds that of other lesser cities in the same countries. New York city has its own income and sales taxes.

Asymmetries in local policy-making authority are also commonplace within international organizations. Within the European Union, some member states retain more autonomy than others, inasmuch as they have opted out of or delayed membership in the menu of treaties that define the responsibilities of affiliated countries. The responsibilities of members of the United Nations with respect to military armaments, human rights, and environmental regulations are similarly defined through a series of treaties with quite different signatories. Even international environmental treaties often specify different obligations and prerogatives for different classes of signatories.

To the best of our knowledge, the asymmetric division of policy-making authority among regional governments has not been analyzed—or widely recognized—by economists or political scientists, although symmetric forms of federalism have been analyzed for many years. We demonstrate below that such asymmetries are a predictable outcome of the manner in which policy-making authority over public policy is acquired through time.

### **C. Organization of Paper**

Our paper analyzes "constitutional bargains" between levels of government that determine the average extent of decentralization and the variation in policy-making powers among regional governments. We regard these bargains to be constitutional or quasi-constitutional in nature, although the resulting characterization of policy-making power is only rarely incorporated into a nation's written constitutional documents, as noted above. In most cases, both the initial assignment and subsequent reassignments of policy-making power are

largely determined by durable legislation and long-standing fiscal and regulatory customs. We characterize constitutional bargains that might be reached in three political environments: (i) the over-centralized state, (ii) the under-centralized state, and (iii) at constitutional conventions. We have placed many of our analytical results in footnotes to facilitate reading the paper.

## **II. Constitutional Bargaining and the Emergence of Asymmetric Federalism from an *Overly-Centralized State***

The first setting examined is one in which a regional government petitions a central government for specific privileges or increased autonomy in a policy area of mutual interest. For example, a local, state, or regional government may seek special authority to regulate, produce, tax, or distribute services that are initially within the jurisdiction of a higher level of government, or may petition for new power to regulate or tax some activity that is initially unregulated. Whenever both regional and central governments can benefit from increasing the local autonomy of a subset of regional governments, a federal system can be said to be over-centralized.<sup>6</sup>

### **A. The Underprovision of Local Public Services by Leviathan**

Unrealized mutual advantages from greater decentralization may arise for a variety of reasons. For example, the modern theory of leviathan suggests that gains to trade will often exist between regional and central governments. Brennan and Buchanan (1977, 1980) demon-

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<sup>6</sup> For the purposes of the analysis, "the government" is left somewhat ambiguous in order to focus on potential gains to trade that may emerge among governmental organizations.

In many cases, the governments of federal systems are elected democratically and "the government" can be interpreted as the median voter of the relevant electorate. Historically, federal systems often had autocratic components at either or both the regional or central levels of governance. (This was true for example, of the Swiss and German systems in the nineteenth century.) In that case, "the government" is the king or leader of the relevant level of government. In still other cases, coalitional governance is the norm, as with modern proportional representation systems; in this case, "the government" should be interpreted as the ruling coalition.

In all three cases, "the government's" interest is assumed to be sufficiently stable that mutual gains to trade exist if there are shifts of power that increase the present discounted streams of net benefits for the governments involved (median voter, pivotal member of the coalition, or autocrats).

strate that a revenue-maximizing central government tends to overtax its subjects. The complementary analysis of government expenditures by Olson (1993) and Olson and McGuire (1996) suggests that a net-revenue-maximizing state tends to underprovide government services. Together, the Buchanan and Olson lines of reasoning imply that all regions receive services from the central government, but central government services are provided at levels and tax prices that differ from the Pareto-efficient ones.

Public services that increase taxable income are underprovided, because the central government receives only part of any increase in taxable base generated by the public service.<sup>7</sup> (Marginal and average tax rates are necessarily less than 100 percent in order to provide a return for the private initiative that actually generates the taxable base.) Public services that are valued by local residents, but do not increase taxable income are not provided at all. Consequently, unrealized gains from constitutional exchange can often be realized by transferring policy making authority to regional governments in such polities.

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<sup>7</sup> The essential logic of this argument can be demonstrated mathematically. Consider the mathematics of tax and public service provision for a net revenue-maximizing central government. The tax revenue of such a government may be characterized as the sum of the revenues from each of its territories:

$$T = \sum_j t_j N_j Y_j(t_j, G_j) \quad (i)$$

The taxable income of each territory is its population,  $N_j$ , times its average income,  $Y_j$ , which increases with government service level,  $G_j$ , and falls with the national tax rate,  $t_j$ .  $G_j$  is assumed for purposes of illustration to be a national public good, such as transport infrastructure, law and order, environmental quality, or national defense. The cost of providing public service  $i$  is

$$C = c(G_j). \quad (ii)$$

The public service output and tax rates that maximize net tax receipts can be characterized by differentiating the difference between equation  $i$  and  $ii$  with respect to  $t_j$  and  $G_j$ .

$$\sum t_j N_j Y_j t_j + N_j Y_j(t_j, G_j) = 0 \quad (iii)$$

$$\text{and } \sum t_j N_j Y_j G_j - C_{G_j} = 0. \quad (iv)$$

Note that the government service is underprovided for the nation as a whole as long as  $t_j < 1$  and  $C_{G_j} > 0$ , because maximizing national income requires  $\sum N_j Y_j G_j - C_{G_j} = 0$ .



To realize those gains, a monarch or dictator may draft a special charter or promulgate a narrow law that delegates specific or broad policy-making authority to the regional government seeking it. When ever some, but not all, regions or communities secure expanded policy-making autonomy, and the result is asymmetric federalism.

## **B. Overcentralization in Modern Democratic States**

In a few cases, the leviathan model can be used as a first approximation for the fiscal goals of democratic governments. For example, a decisive majority coalition may be elected to office to carry out a policy agenda that requires very large budgets, as tends to be the case for programs of large-scale egalitarian redistribution in cash or kind (see, for example, Meltzer and Richards 1981). Here we may note that the Social Democrats of Sweden dominated policy formation in Sweden for most of the twentieth century and had policy goals that were eventually constrained by economic constraints that limited government revenues. Regional sorting by policy preferences in such polities would tend to generate unrealized gains to trade analogous to those developed above for leviathan. However, gains from greater decentralization may also arise in modern democratic states in settings where central government programs are not constrained by maximal tax revenues.

Mutual gains from greater decentralization may arise for many reasons. New gains to trade may arise from an initially Pareto efficient division of policy-making authority, if unanticipated technological or political shocks affect local demands for public services. New production technologies or methods of organization may reduce the relative cost advantage of centralized production of public services by lowering the cost of decentralized production.<sup>8</sup> New political circumstances or institutions may change the risks associated with centralized policy-making. The demand for public services may also be affected by changes in tastes, mobility, wealth, weather, or voting rules. A shift in political regime may cause the pivotal voter (or party) for the country as a whole to differ more or less from pivotal voters (and parties) in regional governments.

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<sup>8</sup> Dudley (1991) argues that this has happened repeatedly with respect to both informational and military technologies.

In many cases, local governments will be unable to provide new fiscal packages unless they receive *new local authority* to implement them.<sup>9</sup>

### C. “Purchasing” Local Autonomy

We now characterize the bargains that might be reached in cases where unrealized potential gains to exchange exist between some local communities and the central government.<sup>10</sup> In the over-centralized setting, the central government generally controls what might be called the supply of local autonomy: the extent to which policy-making power will be granted or not and the "price," in cash or kind, that must be paid to obtain that autonomy. As the monopoly provider of local policy-making authority, a net-revenue-maximizing central government can manipulate the political and economic requirements of autonomy to maximize revenues and/or its electoral support. The transfer of new authority to regional groups or governments is simply another source of revenue and/or other valued services for leviathan. Within a democratic regime, the transfer of specific authority to regional or local governments is simply another policy variable that may increase the votes received by national parties and/or candidates for national office.

The central government's marginal cost for granting increased regional autonomy consists largely of the increased administrative, security, and political costs associated with ruling more autonomous and, therefore, more independent regions. Except where unusual security costs exist, the administrative cost of granting local governments new "competancies" is more

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<sup>9</sup> Such Pareto-superior fiscal arrangements do not always exist. For example, if stochastic voting models fully capture national political equilibrium, the national fiscal package would be Pareto efficient. In that case, regional dissatisfaction may still exist, but not unrealized gains from fiscal exchange.

<sup>10</sup> Opportunities for mutually advantageous tax reductions generally do not exist within a pure leviathan model, because the central government is already *maximizing net tax receipts from each jurisdiction*. In order for the central and some regional governments to gain by moving taxing authority from the national to regional government in such models, the local government must be able to use a tax instrument or enforcement method that has a smaller deadweight loss than that available to the central government.

or less the same across communities.<sup>11</sup> This implies that the marginal cost curve faced by the central government is a horizontal line.<sup>12</sup>

The political "price" of increased autonomy can clearly be above central government's marginal cost, because the central government has monopoly power in the "market" for local autonomy, however this is not crucial for our analysis. Within a leviathan model, the "price" of local autonomy can be interpreted as the monopoly price set by the central government. Within a democratic regime, the price can be interpreted as the local cost of supporting projects of particular interest to the national government, but viewed unfavorably by local voters. The specific price of autonomy is not of particular interest for the purposes of our analysis. Of greater interest is the degree of autonomy "purchased" by the various regional governments at the price charged. For purposes of illustration, we assume that the central government does not engage in price discrimination among communities or across service areas.<sup>13</sup>

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<sup>11</sup> In addition to adopting Olson's (1993) model of the provision of public services within an autocracy (under a stationary bandit), this paper also adopts Olson's benign neglect of security issues. We neglect security issues as a method of simplifying the prose and reducing somewhat modeling complexity. Most security consequences of central government policies parallel or reinforce the strictly economic analysis developed above.

In the context of the present analysis, most security concerns can be interpreted as additional costs or benefits from central government. For example, it may be argued that there are security benefits of public services of such local public goods as bread and circuses. Such services may be provided as a means of increasing the probability that Leviathan retains control of the polity. Moreover, grants of regional autonomy often seem to pose security costs. Autonomy makes it easier for opponents to organize and resist control by the central government. In general, security issues can themselves be complex and are left for future research.

<sup>12</sup> In cases in which the central government is unable to make long-term creditable commitments, the regional government might instead "rent" the policy-making power of interest. That is to say, the regional government might agree to make regular payments to the central government in exchange for policy-making power. Those payments could cease the moment that the policy-making authority granted is taken back by the central government. In this manner, continuous dealings may be sufficient to support intranational divisions of policy-making power, especially in cases in which the central government is otherwise unable to secure the region's revenue or political support.

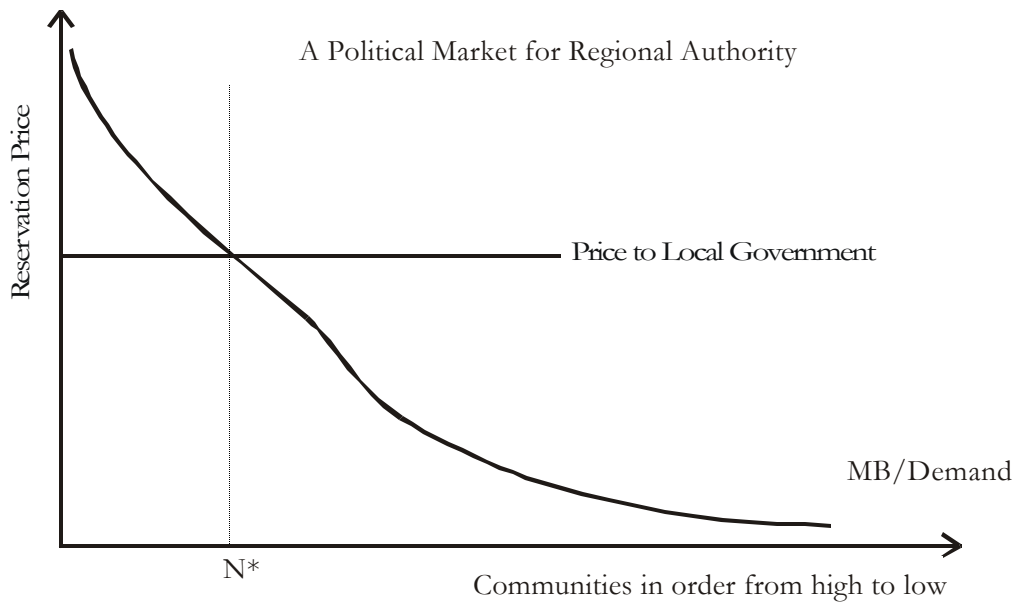
It bears noting that the central government has a *reputational* stake in making creditable commitments to regional governments insofar as contracts between the central government and other regional governments may be of interest, now or in the future, Qian and Weingast (1997).

<sup>13</sup> Differences in organizational costs also appear to have historically played a role in securing local autonomy as well. The existence of political, regional, or ethnic organizations clearly reduces

The demand for autonomy can be derived from our previous discussion. Differences in local demands imply that each regional government has a reservation price for obtaining the power to provide (and fund) its ideal service level, and that these reservation prices vary among regions. A regional government's willingness to seek autonomy varies with the wealth of its citizenry and the intensity of citizen preferences for the underprovided services. Consequently, the maximum sacrifice that regions are willing to make to obtain local authority may vary widely both within and among public policy areas. The national *demand for decentralization* can be characterized by ordering regional reservation prices for increased service autonomy in each service area from high to low.

Figure 1 depicts a typical equilibrium in this "political market" for a particular area of local autonomy.

Figure 1



The geometry of figure 1 implies that *asymmetric federalism* is the result whenever there are substantial regional differences in the demand for local autonomy and the price is more or less

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the difficulty of organizing a pressure group to "demand" local autonomy from a central government. It may be argued that a common language, religion, or ethnicity reduces organization costs, but the existence of such organizations also implies that the local benefits at stake may be substan-

uniform. Communities to the left of the intersection of the demand and marginal cost curve obtain local policy-making authority in the policy area of interest. Communities to the right accept the centrally provided fiscal package. As in ordinary markets, only communities willing to pay "the price" will actually secure additional local autonomy.

The more policy areas in which local authority is obtained by communities, the greater is the average degree of national decentralization. However, *only in countries where all or none* of the local governments "purchase" policy-making authority *is the resulting federal system completely uniform* in terms of local policy-making authority.

The comparative statics of the market for local autonomy are similar to those of ordinary monopoly markets. As the willingness to pay for the power to make policy within a given area increases or as the costs faced by authority seekers decline, the extent of autonomy "purchased" or otherwise secured from the central government tends to increase. Conversely, policy-making authority may be relinquished by towns that find their benefits declining or their costs increasing. The price charged for autonomy reflects demand and cost conditions faced by the central government.

#### **D. A Mathematical Digression on Reservation Prices for Local Autonomy**

One of many analytical structures that can generate the geometry of figure 1 is the following. Suppose there are  $N$  regions with pivotal policymakers  $i = 1, 2, N$  respectively. Assume that region  $i$ 's pivotal policymaker's utility function is separable, twice differentiable and strictly concave function defined over private income,  $Y_i = y_i(t, G_i)$ , and the government service of interest,  $G_i$ , as with  $U_i = y_i(t, G_i) + a_i U(G_i)$ . Personal income rises with government service  $G_i$  but falls with tax rate  $t$ . The intensity of local political demands for the government service of interest is represented with parameter  $a_i$ . The pivotal policy maker would be the regional median voter in a democracy without agency problems, the dominant member of the ruling council within an aristocracy, and the local baron, bishop, or burgomaster in an authoritarian community.

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tial. That is to say, the local benefits from collective action must be large enough to support these organizations. We neglect difference in organizational costs in the present analysis.

Assume that the revenue maximizing central government cannot discriminate against communities in setting its tax rate,  $t^*$ , or its service level  $G^*$ , and that the cost of the public service of interest is  $C = c(G, N)$ . Net tax receipts are maximized when tax rate  $t^*$  and service level  $G^*$  are such that  $\sum^N t Y_{it} + Y_i(t, G) = 0$  and  $\sum^N t Y_{iG} - C_G = 0$ . Local government  $i$  will negotiate for local authority to supplement government services whenever the local demand for services is greater than  $G^*$  at tax rate  $t^*$ .

If authority to produce supplemental services is granted, the overall income tax rate be composed of a regional tax,  $t^R$ , and the national tax,  $t_i = t^R + t^*$  and total services will be a combination of regional and central government services,  $G^i = G^R + G^*$ . For purposes of illustration, assume that all tax revenues generated by  $t^R$  are used to fund the public service. In this case,  $t^R Y_i^A = C = c(G^R)$  where  $Y_i^A$  is average income in region  $i$  and  $C$  is the cost of producing additional services for a single region, and the local tax rate will be  $C/Y_i^A$ . The demand for locally provided public services is:

$$\text{argmax}_G y_i(C/ Y_i^A + t^*, G^* + G^R) + a_i u(G^* + G^R), \quad (1)$$

which requires the local supplemental serve level to satisfy:

$$Y_{it} [C_G / Y^A - (Y^A_G + Y^A_t) C / (Y^A)^2] + Y_{iG} + a_i U_G = 0, \quad (2)$$

and implies a local demand for *additional* services characterized by:

$$G^{R*} = g(a_i, Y^A, G^*, T^*). \quad (3)$$

The first term of equation 2 is the subjective marginal cost of supplemental local production and the last two terms are its marginal utility to the pivotal decision maker. Local demand for additional services will be greater than zero whenever the marginal utility of local production exceeds its marginal cost at  $G^*$ . This is clearly possible given a sufficiently intense local demand for the public service. ( $Y_{iG} + a_i U_G$  can be made arbitrarily large given  $Y_{iG}, U_G > 0$ ; consequently, the second term can easily exceed the first as long as the first term,  $Y_{it} [C_G / Y^A + C( Y^A_G + Y^A_t) / (Y^A)^2]$ , is finite.) Note also that:

$$G^{R*}_{ai} = U_G / [- U_{iGG}] > 0$$

and

$$G^{R*}_{YA} = Y_{it} [ - C_G + 2(Y^A_G + Y^A_t)C/Y^A ] / [ - U_{iGG}(Y^A)^2 ] > 0$$

for  $C_G > 2(Y^A_G + Y^A_t)C / Y^A$ .

The regional demand for additional local services increases monotonically with the intensity of local demand,  $a_i$ , and local income,  $Y^A$ . Thus, regional governments have systematically different inclinations to seek local autonomy whenever regions have different average incomes and/or pivotal decision makers with differing tastes for the public service of interest. (Similar but somewhat less general results are reported in Panizza [1999].) The regional reservation price for the right to provide those services varies systematically with the same factors.

Region  $i$ 's reservation price,  $R_i$ , makes the pivotal member of the local government indifferent between the nationally produced level and that which it would produce, given sufficient fiscal authority to "top up" the national service level.

$$0 = [ y_i(t^*, G^*) + a_i U(G^*) ] - [ y_i(c(G^{R*})/Y^A_i + t^*, G^* + G^{R*}) - R + a_i u(G^* + G^{R*}) ] \quad (4)$$

implies:

$$R_i^* = r(a_i, Y^A, G^*, T^*) \quad (5)$$

The effects of regional preferences and income on the reservation price for supplemental authority are:

$$R_{i a_i}^* = [ U(G^*) - u(G^* + G^{R*}) ] / [-1] > 0 \text{ for } G^{R*} > 0. \quad (6a)$$

$$R_{i Y^A}^* = [ - y_i(c(G^{R*})/(Y^A_i)^2) ] / [-1] > 0 \text{ for } G^{R*} > 0. \quad (6b)$$

The pivotal decision maker's reservation price for autonomy increases with the intensity of the his or her demand for government services and average income within the community of interest.

### E. Historical Examples of Decentralization under Leviathan

There are many contemporary and historical examples where the level and homogeneity of decentralization *increases* in response to new economic circumstances. Consider, for example, the emergence of federalism in medieval Europe--a setting in which the Leviathan model is a reasonably accurate characterization of many central governments. During the early Middle Ages, many towns began to prosper as overland trade routes were perfected and ex-

panded, replacing Mediterranean Sea lanes lost to Arab merchants. The population of towns and cities along overland trading routes increased and land within towns became used more intensively. As community wealth and the value of town services increased, "free cities" emerged along the major trading routes throughout Europe.

Pirenne (1925/1980) analyzes the increased autonomy of these rapidly growing commercial cities throughout France, Italy, England, and the Netherlands during the twelfth century. Law and order services were evidently underprovided by the national and regional governments during much of this time period. He notes that relatively prosperous communities often negotiated a special charter from the ruling barony or bishopry in order to secure greater local autonomy, or, in some cases, simply acted to secure greater services independently. Pirenne observes that:

The charter granted to St. Omer in 1127 may be considered as a point of departure of the political programs of the burgers of Flanders. It recognized the city as a distinct legal territory, provided with a special law common to all inhabitants, with special aldermanic courts and full communal autonomy. Other charters in the course of the twelfth century ratified similar grants to all the principal cities of the county. Their status was thereafter secured and sanctioned by written warrants (Pirenne, 1925/1980, p. 190).

It is clear that large prosperous cities obtained special grants of autonomy and smaller less prosperous ones did not. Again from Pirenne:

. . . the city of the Middle Ages, as it existed in the twelfth century was a commercial and industrial commune living in the shelter of a fortified enclosure and enjoying a law, an administration, and a jurisprudence of exception which made of it a collective privileged personality (Pirenne, 1925/1980, p. 212).

These medieval charters remain relevant for modern Europe governance, because many of the privileges of modern European cities are grounded on their medieval charters as free towns.

Of course, there are many other cases around the world in which differences in local demands for autonomy have led to unequal grants of local authority.<sup>14</sup> For example, Fairfax

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<sup>14</sup>Many other examples from medieval and modern Europe may be discovered in Tilly (1994). For example, within the United States, incorporated (chartered) cities generally have substantially more fiscal autonomy than nonincorporated cities and towns. The economic success of the early



Virginia, the wealthiest and most populous county in Virginia, has recently petitioned the state for special authority to impose its own sales tax in order to fund regional mass transit projects, while most other counties in Virginia have not. As in the medieval cases that Pirenne studied, increases in the local demand for public services, together with organized efforts to secure more authority, can lead to a more decentralized structure of governance, although often an asymmetric one.

### III. Emergence of Asymmetric Confederalism from an *Undercentralized* State

In settings where supraregional externality or public goods problems exist at the margin, the organization of policy-making may be said to be *undercentralized*, insofar as unrealized mutual advantages from coordinating regional government policies exist. Such unrealized gains from further centralization may exist for many reasons. A demand for greater centralization may reflect the usual enforcement problems of using Coasian contracts to solve coordination, externality, and public goods problems (Cornes and Sandler, 1986). Undercentralization may also be caused by unexpected changes in economic, scientific, and political circumstances that increase the cost advantage of centralized production, the value of international public goods, or reduce the political risks associated with centralized policy-making.<sup>15</sup>

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"charter towns" often caused local authorities, subsequently, to create their own "free towns" as a means of promoting economic growth and tax resources.

<sup>15</sup>The origins of "undercentralized" states or clusters of regional governments are, again, not of particular interest for the purposes of this paper. Although it is easy to exaggerate the advantages of scale in government services, the advantages from centralization clearly change through time. Unrealized gains to trade in the assignment of policy-making authority may emerge for a variety of reasons. Empires may suddenly collapse for noneconomic reasons creating patterns of governance with greater local autonomy than optimal. Changes in production technology may increase economies of scale in the production of commercial or government services or the value of coordinating output decisions. Advances in science may increase demands for policies for which large-scale coordination increases policy effectiveness (e.g., global warming, national defense, and free trade). External military threats or natural disasters may increase the returns from centralized control of public safety. Preferences for government services may change, or constitutional advance may reduce the expected cost of central government services.

### **A. The Political Risks and Economic Advantages of Centralization**

Consider the case in which an externality or joint production problem is to be solved by creating a new central authority or supraregional organization that will make policy decisions on the matter of concern. In this case, the decision facing the regional or national governments is analogous to that facing individuals when they decide to join or not join a "club" that provides excludable public services.

The club metaphor for collective action among governments is more general than it might first appear. It includes a wide range of new federal governments, treaties, and other specialized international and intranational organizations that have been created to address problems of externalities and joint production among and within nations. Governments often participate in treaty organizations that coordinate policies on defense, transportation and regulation, while simultaneously allowing the formation of intranational authorities to address subnational externality and coordination problems. There are many cases where centralized programs are only available to the governments that agree to participate in a joint authority, and still others where regional governments can choose the degree to which they will participate in national programs.

The economic theory of clubs assumes that members are rational, in the sense that decisions to join a new or existing club reflect each prospective member's anticipated net advantages from participating in the club's joint enterprise, Buchanan (1965). In the case of an intergovernmental club, the expected net benefits are affected by both economic and political considerations: (a) the anticipated net advantage from the increased scale or scope of centralized production or regulation and (b) expectations about the manner in which those net benefits are to be distributed among member states. In most cases, services and cost shares can be varied among member states without directly affecting the overall *economic* efficiency of the joint enterprise, Samuelson (1954). The economics of joint production determine the size of the surplus to be divided among members. The net benefit realized by each member state is

determined by *political* decisions regarding the scale and *distribution* of production and tax payments.<sup>16</sup>

In order to analyze political factors that influence a member state's decision to join a confederation, we assume that the club's (confederation's) policy decisions are made by majority rule and that the members of the majority coalition receive the same benefits and bear the same costs. The anticipated benefit for state  $j$  being in the majority (decisive coalition) on service  $i$  is  $B_{ji}^M$  and is assumed to be larger than that associated with membership in the minority coalition,  $B_{ji}^N$ . Members of the majority coalition bear cost  $C_{ji}^M$  for public services, which may be smaller than that paid by members of the minority coalition,  $C_{ji}^N$ .

The probability that state  $j$ 's is in the majority coalition on issue  $i$  is denoted as  $P_{ij}$ , and the probability that state  $j$  is in a minority coalition on issue  $i$  is  $1-P_{ij}$ . If state  $j$  does not join the confederation or if the confederation chooses not to provide service  $i$  centrally, state  $j$  may produce government service  $i$  independently and realize a net benefit of  $N_{ji}$  from its own independent production. State  $j$  favors service  $i$  being provided by the central government if:

$$P_{ij}(B_{ji}^M - C_{ji}^M) + (1-P_{ij})(B_{ji}^N - C_{ji}^N) > N_{ji} \quad (7)$$

Note that this simple, but very general, characterization of a region's decision to centralize policy decisions regarding service  $j$  demonstrates that both economic and political factors enter into decisions to shift policy-making authority to a central government. If both  $B_{ji}^M - C_{ji}^M$  and  $B_{ji}^N - C_{ji}^N$  exceed  $N_{ji}$ , economic considerations are sufficient to justify centralized provision of service  $i$ —given the anticipated distribution of program benefits and costs among fa-

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<sup>16</sup> The process analyzed in this section of the paper is the inverse of that developed in Bolton and Roland (1997), who analyze incentives for what might be considered member states to exit from an existing confederation. Bolton and Roland focus attention on local advantages from independent political control and weigh these against the advantages of some centralization of services. Our characterization of the process of confederation may be regarded as somewhat more general than their characterization of "deconfederalization," insofar our characterization of the policy-making process allows for a broad range of potential decisionmaking rules—not simply majority rule.

vored and disfavored groups. In all other cases, political considerations will also affect whether a policy area is decided jointly or separately.

Every viable confederal majority coalition has to assure that the net advantage for its members exceeds that of independent production,  $B_{ji}^M - C_{ji}^M > N_{ij}$ . The latter can be achieved in a variety of ways, many of which create political risks for the minority. For example, it is often possible for the majority to distribute tax burdens and/or services in a manner that makes the minority worse off with centralized provision than with independent production,  $B_{ji}^N - C_{ji}^N < N_{ij}$ . In such cases, anticipated political risks will largely determine whether state  $j$  favors centralized or independent control of service  $i$ .<sup>17</sup>

Once the range of services to be provided by the confederal government is settled, the expected net benefit of membership can be computed by summing the expected net benefits across all the services to be centrally managed. State  $j$  joins the confederation if:

$$S_i \{ P_{ji}(B_{ji}^M - C_{ji}^M) + (1-P_{ji})(B_{ji}^N - C_{ji}^N) \} > S_i N_{ji} \quad (8)$$

In a large number setting, the last member to join, the marginal member, is indifferent between confederal and independent production. Nonmembers anticipate gains from centralized policymaking that are smaller than the anticipated costs across the full range of policy decisions to be shifted to the central authority.<sup>18</sup>

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<sup>17</sup>The assumption that members of the ruling majority coalition benefit from that membership depends in part on other institutional considerations discussed below.

Olson and Zeckhauser (1966) note that cost sharing within NATO often favored smaller nations who were able to free ride to some extent on the contributions of the United States. Vaubel (1994) similarly argues that unanimity grants member states within the European Union equal power and thereby an equal claim on the gains from cooperation. In this manner, unanimity rule tends to favor the smaller member states. Sandler and Hartley (1999) extend and refine this line of reasoning, and note its applicability to the Gulf War and Kosovo.

<sup>18</sup>It would be more precise to say that the marginal member is the country with the *smallest positive net benefits* from the joint enterprise. Rationality implies that nonmembers believe themselves better off outside the club than inside it. In principle, those who are indifferent may join or not join the intergovernmental club.

Under symmetric forms of confederalism, every member that joins places the same range of government services under central control. Consequently, the least-advantaged member faces an "all or nothing offer," and accepts more centralized services than desired by its citizens, whereas other member states accept less centralization than demanded by their citizens. Insofar as only a subset of *potential* member join, it is again clear that the policy-making authority retained by otherwise similar governments will vary, even though policy-making power does not vary among those that do join.

Similar structures may emerge within a given polity insofar as local and regional governments are free to form new organizations to coordinate policies in areas of mutual interest. (The appendix discusses this case in more detail.)

### **B. Generality, Super Majority, and Menu Confederalism as a Political Risk-Reducing Institutions**

Whenever absolute size is an advantage in the production of central government services, the above analysis implies that institutional arrangements that reduce the (perceived) political risk of centralization will be in the interest of both current and potential confederal members.

Equations 7 and 8 suggest that two general categories of political institutions can reduce the downside risk of minority status within a symmetric federal system. Decision making procedures such as supermajority rule may be used to increase the probability that small states are part of the coalition that makes policy decisions, which reduces their likelihood of exploitation. Constraints on the domain of public policy such as a generality rule may outlaw discriminatory distributions of services and taxes, which diminishes the risk of being in the minority coalition, at the same time that it increases the stability of majoritarian policy choices, Buchanan and Congleton (1998). Both supermajority rule and generality constraints reduce the risk of minority exploitation, and in many cases also increase the expected net benefits realized by both the average and the least advantaged confederation member(s).

A third less studied method of reducing political risk is to adopt more flexible *membership rules*, as with "menu-based" confederalism. Menu-based confederalism allows member states to choose which services they will have produced centrally in much the same manner

that consumers subscribe to services from firms in the marketplace. The voluntary nature of "subscriptions" allows nonuniform service levels to be provided, while reducing the political risk that member states face from discriminatory central governments.

The menu approach to federalism reduces the "all or nothing" aspect of decisions to participate in centralized policy-making, because it allows individual regional governments to independently decide which policy decisions to centralize, rather than to delegate that decision to the central authority. The menu approach, consequently, reduces membership costs for marginal and near-marginal members of the confederation, while providing opportunities for additional centralization for regional governments previously constrained by the political concerns of marginal members. *Menu federalism, thereby, potentially expands both membership and the range of centralized services provided relative to that of symmetric forms of centralization.*

Note also that menu-based confederalism also tends to generate asymmetric forms of federalism. Menu confederalism *allows the degree of centralization to vary by service area*, and consequently, implies that policy-making powers will vary among members, insofar as the various member states retain different areas of complete autonomy.

### **C. Some Institutional Evidence from the European Union**

Our analysis has generated several predictions about confederations. First, more encompassing confederal states will specify collective decisionmaking processes and other institutional arrangements that protect the interests of smaller states vis á vis larger members as a means of increasing the scope for mutually advantageous centralization. Second, the number of areas in which competencies are shifted to a central government or international policy-making organization will tend to increase as such institutions are adopted, because they reduce political risks associated with centralization. Third, asymmetries tend to emerge whenever a menu approach is adopted and also as new members or policy areas are added through time to an existing confederation or international organization.

Several international organizations around the world have formed gradually and voluntarily through time, in a manner consistent with our analysis. Perhaps the most important modern example is the European Union (EU). This organization of European states has proceeded since its inception in 1951 to develop and refine institutions for central governance.

Unanimity provides complete protection of the interests of small states and is used for major constitutional decisions and such areas as culture, regional and social funds, and foreign policy.<sup>19</sup> Normal day-to-day decisionmaking also tends to favor smaller states (Bindseil and Hantke 1997). The EU has, to a large extent, implemented a generality rule, in that policies are intended to apply uniformly to all EU members. Consistent with our analysis, the range of policies brought into EU authority has been expanding through time as institutional protections have proven themselves. However, asymmetries have emerged within major policy areas, for which menulike choices are possible.

The European community is characterized by a series of treaties that can be signed independently of one another. Here we find a number of asymmetries. The traditionally neutral states of Austria, Ireland, Finland and Sweden are not members of the Western European Union. On the other hand, Denmark is a member of NATO but is not member of the Western European Union. Iceland, Norway and Liechtenstein remain out of the EU, but are members of the European Economic Area, which allows significantly greater national autonomy with respect to fisheries, agriculture, indirect taxation, and tariffs than full membership does. The United Kingdom and Denmark have retained more autonomy over macroeconomic policy than other member states by opting out of the European currency union.

#### **IV. Path Dependence and the Degree of Decentralization**

Together, the "over-" and "under-" centralized cases developed above imply that the extent of centralization that emerges from a gradual shift of policy-making authority from regional to central governments differs from that which emerges from a gradual shift of policy-making authority from central to regional governments, *because the price of autonomy differs in these two cases*. In the overcentralization case first examined, the central government charged regional governments a positive price for the right of autonomous production. In the undercentralized case, autonomy was freely available and centralization was voluntarily adopted only to the extent that it generates net benefits. These differences in the price paid for autonomy im-

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<sup>19</sup> Consistent with this, Bendar, Ferejohn, and Garrett (1996) note that the areas in which public support is greater for the EU are those that rely on unanimity for decisionmaking. The move to

ply that *gradually centralizing states tend to be more decentralized in equilibrium than gradually decentralizing states*.<sup>20</sup>

Differences in the pattern of local autonomy, however, are ambiguous. In the "over-centralized" case, asymmetric federalism emerged when relatively more prosperous high-demand jurisdictions lobbied for greater authority to provide additional services. In the case of the "undercentralized state," it is possible that states with relatively high service demands will also be the ones that choose autonomy over centralized provision. They have less to gain from economies of scale, because they already operate at a relatively large scale. On the other hand, as better-organized and possibly larger states, their political risks from centralization may be smaller than those faced by less powerful states.

Another implication concerns the order of membership. Our analysis suggests that nonmembers generally prefer more autonomy than finally agreed to by those who initially form a confederation. Nonmembers are, essentially by definition, the pool of potential new members. To induce new members to join the confederation, either new services or lesser degrees of centralized control have to be offered, other things being equal. In the latter case, the order of membership tends to generate asymmetries because the latest members tend to retain more local autonomy.<sup>21</sup>

## V. Asymmetric Federalism and Constitutional Conventions

We now turn our attention to the case in which the arrangements of federalism are worked out at a single constitutional convention convened by representatives of several pre-existing regions or peoples rather than negotiated piecemeal. Creating a new constitution or forming new international organizations has been commonplace for the past two decades as

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majoritarianism embodied in successive integrative steps lessened public support for the EU.

<sup>20</sup> It bears noting that if new members are charged a positive price for access to centralized services, the relative price difference for autonomy in the initially over and under centralized cases *increases*.

<sup>21</sup> Within the EU, some of the most recent members have received permission to maintain stricter environmental standards in some areas (subject to EU review). Consistent with the analysis, the original members (Germany, Italy, France, Belgium, Netherlands, and Luxembourg) have given up somewhat more autonomy to the EU than have subsequent members.



new constitutional democracies have been formed in Africa and Asia, and many new international organizations have been formed to address trade, security, and environmental issues. In many of these cases, the new arrangements were created by amending existing constitutional documents or charters. These cases are analogous to those analyzed above in the over and under centralization cases, insofar as member states or existing national governments exercised veto power or agenda control over the reassignment of policy-making authority.

There are also several cases in which entirely new governments were created whole cloth. These new treaty organizations and new national state governments clearly reflected both the interests of the participating parties and knowledge of the properties of alternative institutional arrangements. The "undercentralized" analysis developed above is relevant for such cases insofar as the negotiation process that determines the division of policy-making power between central and regional authorities is consensual at the level of the participating parties. Again, the preexisting status quo ante lacks desired centralized government services, and again a new governmental organization is formed to secure a more desirable pattern of public services and regulations, including in some cases law and order.

The decision to participate in the new constitution negotiated at the convention, thus, can be represented in terms of the expected costs and benefits of centralization relative to local provision anticipated by regional representatives. Let jurisdiction  $j$ 's costs for output  $Q_{ik}$  of service  $i$  be denoted  $C_{ji}(Q_{ik})$  and its benefits be denoted  $B_{ji}(Q_{ik})$ . Let  $N_{ji}$  denote the net benefit received under local provision of the service. Suppose that the central government will use majority rule to make policy decisions and that a wide range of majority coalitions are possible. and that there is a chance,  $P_{ik}$ , that a province will secure its own ideal service level,  $Q_{ik}^*$ . If there are  $M$  regional governments or regional representatives, region  $j$  will prefer that service  $i$  be provided by the central government whenever:

$$\sum_{k=1}^M P_{ik} [B_{ji}(Q_{ik}^*) - C_{ji}(Q_{ik}^*)] > N_{ji} \quad (9)$$

That is to say, region  $j$  will prefer that the new constitution centralize provision of a service whenever the expected (risk-adjusted) net benefits from the service levels that might be produced exceeds the net benefits of local provision, which are assumed to be known. Again, it is clear that both political and economic considerations influence decisions to support the new constitution or treaty organization.

### **A. Economic Determinants of Centralization**

The relevance of economic considerations for constitutional design can be demonstrated by analyzing the case in which local demands for government services are identical and the central government is bound by a generality rule. In this case, uniform demands for government services imply complete agreement about the service level that should be provided and whether particular services should be provided locally or centrally. Determination of the preferred locus of authority in this case hinges on technical properties of the service to be provided and the methods used to produce those services (Oates 1972).

If the service to be provided is an *excludable public good*, the output produced centrally is simultaneously available to all within the federation—as might be said of national defense. In such cases, centralized supply can save considerable resources and avoid free rider problems associated with local production of the same service. If the government service is a *pure private good*, centralized production may still be desirable if there are substantial economies of scale in production or in the distribution of services. In either case, centralized production is preferred to local production because the local tax cost of producing the service nationally tends to be smaller than that associated with local production.

Uniform regional interests in conjunction with uniform taxation and provision of services (as under a generality rule) imply that production and cost factors alone determine the division of policy-making policy between central and regional authorities. The constitution agreed to in such settings will call for services to be provided centrally or locally, according to economic considerations alone.

## B. Political Determinants of Centralization

Economic considerations, however, are not always decisive in determining the degree of decentralization to incorporate into a nation's constitutional law. The relevance of political concerns can be demonstrated by slightly changing the above example. Suppose that a service can be produced with economies of scale and that *all, but one* autonomous community agrees about the preferred service level. Perhaps the government service is encouragement of a local language, say French, in a country where all other provinces use another language, say, English, Dutch, or German. Assume that all the non-French provinces prefer that no (or little) French be produced and that the one French province prefers (essentially) that only French be sponsored by the state. The French-speaking province would expect nationally produced service levels of support for the French language that are too small, because there is little chance that it would be able to determine the service level. The other provinces would expect nationally produced French language service levels to be too large, as long as *any* chance exists that the French-speaking province will influence the outcome.<sup>22</sup>

Political considerations would, in this case, call for a constitutional that called for local provision—in spite of great economies of scale in production. Note that this conclusion follows even if economies of scale in production are substantial! In the illustrating example, *every province* prefers that language services be provided locally in spite of substantial economies of scale. The example, thus, demonstrates that purely economic assessments of the merits of

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<sup>22</sup> The politics of control over the provision of English are the reverse, although in this case a supermajority exists for national provision, given the assumed economies of scale in the production of English language services. The English-speaking provinces would prefer centralized provision of English language services as long as the expected cost savings from centralized provision more than offset the small chance that the French-speaking province will determine the actual service level.

The probability of a small minority influencing policy depends of course on the decision rules that determine a polity's subsequent constitutional arrangements. For example, unanimity is often used in negotiations to establish a confederation or new constitution. Under such decision rules, the French-speaking province of our example will have a difficult time blocking centralized provision of English at the constitutional level.

The possibility of secession may allow the French province to secure local authority over language if it threatens to leave the confederation. The possibility of secession tends to move the con-

centralization rest on very fragile grounds. Political risks affect decisions to rely on centralized policy-making authority in any setting where regional demands for government services vary widely. Moreover, this problem arises whether the central government is bound by a generality rule or not.

### **C. Political Risks and Federal Asymmetries**

The analysis above suggests that dividing policy-making authority between regional and central authorities allows economies of scale in specific production areas to be realized, while reducing political risks and allowing local services to vary among regions. That is to say, federalism would be a common institutional arrangement whenever governments are formed via social contract although the degree of centralization would vary with the political and economic circumstances of the "constitutional convention."

Consistent with that decentralization hypothesis is the fact that, with the possible exception of Ireland, no member state of the OECD has a completely centralized system of governance (Elazar 1991). All have local and regional political authorities with significant degrees of autonomy. Our analysis also implies that special protections or local powers may be incorporated into constitutions as a method of protecting specific regional goods and services, such as language and culture. The constitutions of Italy, Spain, Canada, Belgium, and Finland explicitly mention minority interests in regional language and culture and, in some cases, explicitly delegate authority to produce public services such as education to a subset of regional governments (Elazar 1991).

## **VI. Overview and Summary**

The purpose of this paper has been to explore some implications of constitutional exchange between central and regional governments in order to better understand the pattern of decentralization that we observe in modern nation states and in international organizations. Our analysis has generated several new hypotheses concerning the division of policy-making authority between central and local governments.

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stitutional convention back toward unanimous agreement regardless of the decision rule formally adopted.

First, the level of centralization exhibited by a nation state or international organization varies with the regional demand for government services and with the efficacy of other supporting political institutions. This conclusion parallels the economic argument developed by Oates (1972) and many other scholars working on policy issues within federal states, but our conclusion is based on a positive analysis rather than a normative one. It is an implication of "political markets" for policy-making power in decentralized governments. In our analysis, quasi-constitutional bargaining causes policy-making authority to be transferred from central to local governments, or from local to central authorities, as a means of realizing gains from political exchange. Although the final outcome is similar to that recommended by much of the previous normative literature on fiscal federalism, we have not made any normative claims about the result but, rather, analyzed a political process that can generate efficiency increasing political outcomes.

Second, history matters, because starting points imply differences in bargaining power and, thereby, in the implicit price of decentralization. In the case of initially overcentralized states, we demonstrate that cases exist where some, but not all, regions or urban centers will seek and obtain the power to regulate, tax, or produce government services. In the case of initially undercentralized states, we demonstrate that cases exist where some, but not all, states agree to delegate powers to a central authority. We also demonstrated that the relative price of autonomy tends to differ in these two settings. Consequently, less decentralization tends to arise in the former than in the latter case.

This conclusion contrasts with most Coasian (1960) analyses, and with many economic theories of centralization which posit a unique, Pareto-efficient outcome that negotiation always fully realizes, independent of starting point. In our analysis there are many Pareto-efficient constitutions. As clearly indicated by every Edgeworth box diagram, the initial allocation of resources (here policy making authority) affects which parts of the constitutional contract curve can be reached via a series of voluntary agreements. In our analysis, initially undercentralized states tend to be systematically less centralized in equilibrium than initially overcentralized states.

Third, the analysis indicates that, at least at its inception, federalism is often a method for *increasing* government service levels over what they would otherwise have been. This conclusion contrasts with much of the modern analysis of federalism, which emphasizes the importance of competition among local governments as a device for promoting the efficient supply of government services. Once established, federalism may curtail the *subsequent* growth of government in what mobile citizens consider illegitimate areas of regulation and services, but our analysis indicates that *initial* incentives for establishing federalism are often based on increased demands for government services, regardless of whether governance is initially too centralized or too decentralized.

Fourth, constitutional protections play an important role in determining the willingness of states to agree to centralize policy-making authority. Institutional features that reduce the political risk of centralized political authority tend to increase the degree of centralized authority that regions will agree to, because such protections make centralization more appealing to the marginal regional government or member state.

Fifth, our analysis suggests that asymmetric assignments of authority among local governments will be a common outcome of negotiations between central and regional governments, because asymmetric federalism often allows national and regional governments to realize mutual advantages from cooperation, while minimizing the political risk of centralized authority. This is not to say that asymmetric federalism is always advantageous in the long run insofar as asymmetries may undermine the stability of a constitutional government, for reasons noted in Buchanan and Congleton (1998), but that political asymmetries are very likely outcomes of ongoing negotiations over the assignment of policy-making authority.

A good deal of historical evidence is consistent with our analysis. In every federal government and every international organization that we have examined closely, we have found significant asymmetries that have changed through time as the economic and political circumstances of local and national governments have changed. Our analysis suggests that these asymmetries exist because of quasi-constitutional agreements reached through time by parties who differ in their assessments of the risks and returns of centralization.

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## **Appendix: Internal Organization and Asymmetry within Federal States**

Asymmetrical federalism may take several institutional forms within a given nation. Specific asymmetries may be enumerated by constitution law, as noted above, by specifying different policy areas of competency to various regional governments within a country. In our illustration, the French province was granted a special competency for language services, whereas centralized production was carried out for the other provinces. In Spain, Catalonia and the Basque Country are granted unique powers to tax, and also specific powers to regulate language. However, rather than specify specific areas of authority, the constitution may allow the possibility of internal quasi-federal arrangements which implicitly allow heterogeneous patterns of fiscal authority. For example, the constitution may organize some local governments into regional governments, subdivide some regional governments into local governments, or simply allow international "federal" organizations of state governments.

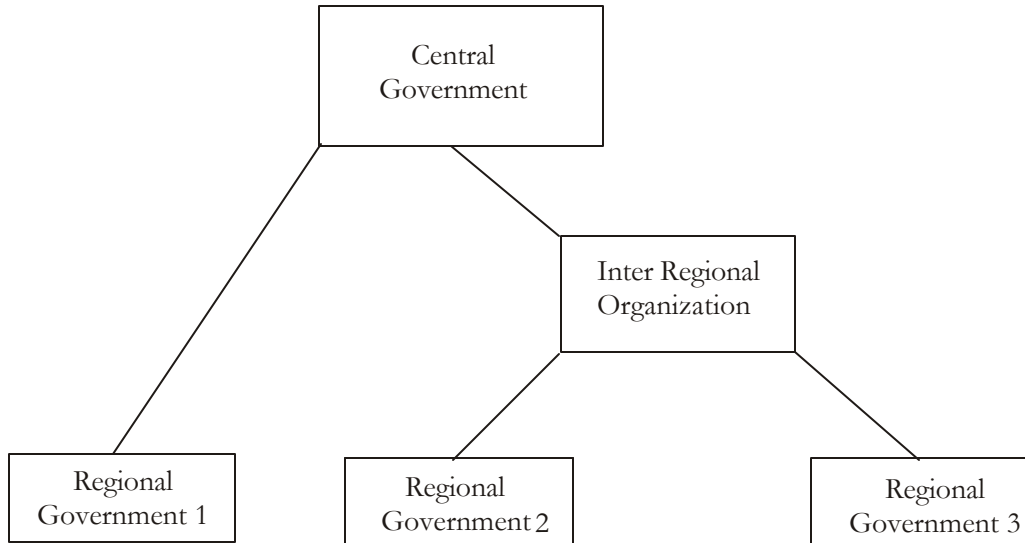
It is clear that these institutional possibilities also allow asymmetric forms of federalism to emerge in the post-constitutional period. Figure 2 illustrates one such internal structure. If we interpret the interregional government as another level of centralized control, it is clear that regional government 1 has more autonomy than regional governments 2 and 3, insofar as it is not bound by the decisions of the interregional government and the interregional government is granted no unique area of competency.<sup>23</sup> Alternatively, if the interregional government is granted powers that no state possesses by itself, local government 1 may be less autonomous than local governments 2 and 3.

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<sup>23</sup> Post-constitutional agreements between regional governments create what might be called intranational confederal organizations. Localities join these organizations to secure additional local services in the same manner that national governments may join a confederation. When such organizations form through time, the sequential analysis of confederalism developed above is relevant.

**Figure2**

Internal Asymmetry



As an example of the former, a cluster of regional governments may form an inter-regional transportation authority to coordinate the provision of transport services or an environmental council may coordinate the development of more stringent environmental rules than adopted by the national government. Such interregional service councils are clearly confederal entities insofar as the council adopts its own collective choice rules and membership is voluntary. Nonmembers would not be bound by council decisions, but would retain complete local autonomy in these policy areas. Here, asymmetric federalism emerges from the internal *organization* of the constituent regions of the federal state, because membership in regional and interregional programs varies among local governments.