The delivery of public services, the structure of taxation, and the economic relations within nations are greatly affected by the partitioning of space into regions. Regional scientists, economists, economic geographers, and planners have long had an interest in defining, analyzing, and evaluating the regional dimension of the public sector. This paper considers these issues in the context of economic development.

The link between regional centralization or decentralization, intergovernmental fiscal relations, and economic development is a complex one. In the context of economic development, there is surprisingly little applied research. Nevertheless, one may expect these problems and questions to be more important during the next decade, particularly in the regions of South and Southeast Asia, and particularly in the expectation of further economic development and higher real incomes.

The paper is divided into two parts. The first part asks the question: What do we know, in theory, about fiscal decentralization, intergovernmental fiscal relations, and their effects on economic development? We begin with positive economics: What is known, in principle, about these spatial linkages? The normative question is then asked: How can this theory be used to design better linkages among lower levels of government and to design linkages between them and higher levels of government?

The second part of the paper, attempts to isolate the most important areas of ignorance about fiscal decentralization and economic development. As we
shall see, a great deal remains to be understood about the relationship of fiscal federalism and spatial public finance to economic development. This paper tries to isolate the most important uncertainties.

I. Economic Theory and Fiscal Federalism

After more than 25 years of theoretical analysis of regional public finance (and a longer tradition of regional analysis among planners and regional scientists), there appear to be four sets of theoretical conclusions, about which we can be reasonably certain.

A. Government Functions

The first of these theoretical conclusions concerns the Musgrave taxonomy of the functional responsibilities of different levels of government. In Musgrave’s classic treatise (1959), he categorizes the economic functions of government into three branches: the stabilization branch, the distribution branch, and the allocation branch. The stabilization branch is responsible for aggregate demand, fiscal policy, and for maintaining a stable price level. The distributional branch is responsible for tax and transfer programs, so that a given level of economic efficiency is consistent with ethical notions of the appropriate distribution of household incomes. The third, the allocation branch, is concerned with the production of those goods and services, for which competitive private markets fail to operate efficiently. In important cases, namely public goods and externalities, decentralized provision, even by state or local governments, may be economically inefficient.

There is clearly an important theoretical and practical connection among the branches of this trichotomy. Nevertheless, for many purposes the taxonomy is illuminating. For reasons, which by now are well-known, it is clear that economic stabilization is self-defeating if undertaken at regional or local levels of government. Fiscal policy, which is locally financed, is likely to benefit an area that is much broader than the area financing the activity. Indeed, the openness of a national economy insures that the benefits of local fiscal and monetary policies cannot be captured by subnational units of government. Thus, it follows that if monetary and fiscal policy are to be undertaken effectively and at the right level, they must be done at the national level.

Similarly, for redistribution, it is now clear that programs undertaken at state and local levels are likely to be ineffective. Even if the citizens of a local jurisdiction honestly believe in a particular form of redistribution—a specific negative income tax or a local program, for example, for transferring resources from the rich to the poor—it would nevertheless follow that, after citizens had honestly registered this preference in a local election, it would be in the interests of richer households, who would be taxed by the program, to leave the jurisdiction. Similarly, there would be incentives for poor households, who would benefit from the program, to migrate into the local region. For this reason—given an open economy with a reasonably mobile population—redistributive activities are best undertaken by the highest levels of government, so that a sort of equality of redistribution can be achieved and these problems can be avoided.

In contrast to these two important aspects of government activity, for the allocation branch, which produces goods and services, there are strong technical reasons for providing goods and services at the local level—depending upon economies of scale in production and diversity of tastes in demand. Thus, the appropriate economic role for regional government and for lower levels of government is to be found in the provision of public services, infrastructure, and in the organization of public goods supply.

B. Public Goods

Economic theory tells us something more specific, however, about the provision of public goods by lower levels of government. There are implications about the appropriate economic geography of regions for the provision of these goods, economic and not political boundaries. Theory tells us two important things.

First, the decentralization theorem (See Oates, 1972) tells us that, for an important class of publicly provided goods, namely those whose production is characterized by constant returns to scale and whose technical character is that of rival private goods, provision by lower levels of government is superior to provision by a single government or by higher regional authorities. The theoretical reason is by now clear. All households in a given area must consume the same level of the good, necessitating some compromise. With any diversity of needs among the population, a division into smaller groups of the population will likely result in less compromise among the citizenry. When population groups are smaller, the demands of any randomly chosen household will be closer the demands of the average, or the median household, in the group. Economic welfare will thus be improved, as the provision of services for each group is closer to each member household’s optimum. Decentralized provision for this class of publicly provided goods is clearly preferred. Note that this is true, even if citizen demands vary for purely random reasons.
The intuitive argument can be illustrated with reference to Figure 1, which presents a linear ordinary demand curve for a publicly provided good $x$, as a function of its price. With average cost pricing consumers pay $P$, the total cost of production, $C(x)$, divided by the number of consumers, $N$.

$$P = C(x)/N$$

At a price of $P_i$, consumer $i$ would prefer to consume $x_i$ units of the publicly provided good. However, he is constrained to consume $x_{ii}$. The cost of this constraint is the loss in consumer surplus, shown in the shaded area of the figure. Assuming that the marginal utility of money is constant and that the demand relation is linear,

$$x_i = a_i + b_i p_i$$

then the area, $A_{ii}$, of the triangle is

$$A_{ii} = (x_i - x_{ii})^2/b_i$$

Substitution of (7) into (1), to put the equation in terms of the variable $y$, yields the indirect utility function,

$$V(y) = U(f(y), g(y)).$$

Now, consider an individual of income $y$, who achieves a level of indirect utility, $V(y)$, by choosing $x$ and $z$ optimally. Suppose that individual is constrained to consume $x_{ii}$ of the publicly provided good. Define the compensating variation, $\Delta$, as the amount of money which would restore the individual to his original level of utility,

$$V(y) = U(x_{ii} + \Delta - x_{ii}).$$

Equation (9) defines an implicit relationship between $\Delta$, $y$, and $x_{ii}$ for a single individual. Assuming that the utility function is invertable the explicit relationship is,

$$\Delta(y, x_{ii}) = U''(x_{ii}V(y)) + x_{ii} - y.$$
The aggregate loss to consumers, \( L \), is the integral of individual losses, over the income distribution, \( f(y) \),

\[
L(x) = \int \Delta(y, x) f(y) \, dy, \tag{11}
\]

and the optimal level of public provision is that value of \( x \) that minimizes the aggregate loss, such that,

\[
\frac{\partial L}{\partial x} = 0. \tag{12}
\]

Thus, in general, the loss from collective consumption depends not only on the consumption level chosen, but also on the form of the utility level, and on the shape of the income distribution.

Suppose, for example, that the utility function is Cobb-Douglas and that the income distribution is rectangular on the unit interval \((0,1)\).

Thus, the utility function is

\[
A x^\alpha y^{1-\alpha}. \tag{5'}
\]

Maximization of \((5')\) subject to \((6)\) yields demand curves

\[
x = \alpha y, \quad z = (1-\alpha) y, \tag{7'}
\]

and an indirect utility function,

\[
V(y) = A \alpha^\alpha (1-\alpha)^{1-\alpha} y. \tag{8'}
\]

Since \((5')\) is invertible, we can calculate that the monetary loss from collective consumption for a single individual is,

\[
\Delta(x, y) = [\alpha^\alpha (1-\alpha)x^{\alpha/(1-\alpha)}y^{1-\alpha/1-\alpha}] + x - y. \tag{10'}
\]

The aggregate loss to society is,

\[
L(x) = \alpha^\alpha (1-\alpha) [(1-\alpha)x^{\alpha/(1-\alpha)} [(1-\alpha)/(2-\alpha)] + x - 1/2. \tag{11'}
\]

If the government acts to minimize this loss, the level of provision is,

\[
x = \alpha^{-1} \left[ (2-\alpha)/(1-\alpha) \right]^{\alpha-1}. \tag{12'}
\]

The other theorem about the design of regions for the production and allocation of public goods has been termed the club theorem (See Buchanan, 1962). This theorem is relevant for the many public goods which exhibit some form of congestion, but which are also subject to economies in cost sharing among citizens. Under these conditions, the optimal sizes of regions and groups arise from an equilibrating process, and may be different for different groups of the population or for different goods. On the one hand, the gains to an increased size of the region (or the "club") arise from the larger number of people, over which the average cost of service provision can be spread. On the other hand, efficiency losses from increased size of regions arise from congestion. That is, when the number of people with whom the public good must be shared increases, this reduces the quality of the good. According to the club theorem, the appropriate size for a group to share in a collective good, is one in which the marginal costs from additional congestion (arising from increased size) are offset by the marginal benefits from the cost sharing-arrangement (arising because the costs of joint consumption can be spread over more people).

More formally, suppose the utility of goods is allowed to depend upon the number of other persons with whom an individual jointly consumes a good,

\[
U = U (\{x_{1n}, \ldots, \{x_{mn}\}). \tag{13}
\]

The cost function facing any individual depends upon the number of persons with whom the individual shares in consumption. For example, with an equal sharing rule, the cost of a good, say a sewage system of fixed characteristics, is only half as large when it is shared with 999 others, as it is when it is shared with 499 others. Thus,

\[
F (\{x_{1n}, \ldots, \{x_{mn}\}) = 0. \tag{14}
\]

Maximization of \((13)\) subject to \((14)\) yields

\[
\frac{\partial U}{\partial x_i} = \frac{\partial F}{\partial x_j} \tag{15A}
\]

Equation \((15A)\) repeats the standard result that the marginal rate of substitution, in consumption, between good \(x_i\) and some numeraire good \(x_k\) is, in equilibrium, equal to the marginal rate of transformation in production or exchange.

Equation \((15B)\) incorporates the unique features of cost sharing and congestion. The left hand side of \((15B)\) is the marginal rate of substitution between the
size of the group sharing in the consumption of good \( x \), and the numeraire. The right hand side of the equation is the marginal rate of transformation in production or exchange.

The equilibrium is such that the marginal costs to an individual, from sharing consumption with an additional member, are exactly equal to the marginal benefits that individual obtains from sharing costs with an additional person. Those goods for whom the optimal club size is large can be generally considered more "public." Private goods are those whose optimal size for cost sharing and consumption are low.

Implications of the Models. We may contrast the implications of the decentralized model with those of the club model. Under the former, with constant returns to scale and no congestion, the size of any jurisdiction imposes social losses, as long as there is any diversity of demand across the population. With diversity of demand for the publicly produced good, the decentralization model suggests that goods are efficiently supplied by small units of government. With identical demands, the model suggests that publicly provided goods can be efficiently provided by large units of government.

In contrast, the club model indicates that, even when demands are identical, congestion in consumption, or cost sharing rules in production, are major factors in limiting the size of a community, and may help to determine the optimal size of jurisdictions.

Together, these two theorems suggest that the public sector may look like a marbled pattern of overlapping jurisdictions for the provision of public services. Individuals would belong to several jurisdictions (or "clubs") which provide different public services and benefits, and which raise resources in a variety of ways.

C. Grants-in-Aid

Externality Theorem. The third set of theoretical ideas which underly the economic analysis of regional governmental structure relates to grants-in-aid, which characterize fiscal federalism. The economic theory which underlies grants-in-aid, that is, transfers of resources from national to provincial or local authorities, may be divided into three areas.

First, there is the externality theorem. This theorem can be traced directly to Pigou (1932). It implies that grants-in-aid and fiscal transfers can be powerful tools in promoting allocative efficiency and in correcting for the external effects of one local government upon another.

There are many circumstances in which the activities of lower level governments provide spillover benefits to other areas — pollution abatement activities are a conspicuous example. When there are important spillouts, lower levels of government will not take into account the benefits which could be "exported" from the region. Under these circumstances, the costs of activity appear greater than the benefits, and too little of the activity (e.g., pollution abatement) will be undertaken by lower level governments.

An appropriately designed matching grant would reduce the cost of public service provision for lower levels of government, thereby stimulating government activity and, the matching level is chosen appropriately, internalizing the externality. This is an important and quite practical motive which underlies many grants to local governments (See Wilde, 1968).

Figure 2 presents a schematic illustration of an efficiency-enhancing matching grant. Suppose that two adjoining jurisdictions must decide on levels of a public good, \( x \), to produce in their communities. Assume that \( x \), when produced in one region, provides spillover benefits to the other community (for example, suppose the good consists of air or water pollution abatement activity). In Figure 2, \( UU \) represents the community indifference curve between \( x \) and other goods. The community budget constraint is \( AA \), the dashed line.

Each community takes the other community's actions as given. Thus, the community, depicted in Figure 2, takes the spill-in of good \( x \), represented by line segment \( AB \), as given. The community's budget constraint is, now, \( ABB \). This new budget constraint represents the addition to the community budget that the spillover good, \( x \), provides. The tangency of \( ABB \) with \( UU \) indicates the utility maximizing choice of \( x \) and of other goods. This point is represented by point \( C \) on the diagram.
Suppose, now, that the central government taxes away the lump sum spill-in, and offers the community a matching grant along line segment AC and its extension to E. By revealed preference, the community will choose a point on line segment CE, represented by point D on the diagram. Since this point is tangent with a higher indifference curve, it will yield a higher level of utility and a greater quantity of x than the original equilibrium did.

Thus, we see the effects of a matching grant. An open-ended matching grant, that is, the offer to pay \((\Delta E/\Delta E)\) percent of the community's expenditures, internalizes the externality, makes residents of both jurisdictions better off, and increases the resources which each community devotes to good x.

**Fiscal Equivalence Theorem.** The second theorem about grants-in-aid may be described as the fiscal equivalence theorem. Untied block grants, from national to regional or to local governments can be analyzed as if they were grants to the populations served by those governments. Thus, an unrestricted block grant to a local government, from the national government, is functionally equivalent to a proportionate increase in the incomes of the citizens of that locality. That is, the grant is equivalent to a parallel shift in the budget constraint facing the locality in the choice between public and private goods. (This conclusion is subject to a number of qualifications. See Bradford and Oates, 1971, for a discussion.)

Analogously, a matching grant, from the national government to a local government, is equivalent to an increase in the incomes of citizens, in proportion to the tax shares which local populations contribute to support the activities of the local government. The formal equivalence of grants and transfers underlies many revenue sharing schemes of resource distribution.

**Tax Price Equalization Theorem.** The third theorem on grants-in-aid refers to tax price equalization. This theorem provides an additional motivation for grants from national to regional or to local authorities. This motivation is distinct from the efficiency considerations which underly matching grants, and it is distinct from direct efforts to affect the income distribution by transfers to local governments.

The tax-price-equalization rationale arises from a horizontal equity motive—to insure the equal treatment of equals. Individuals who live in jurisdictions with high tax bases may be able to tax themselves at low rates, to provide a given level of public services. In contrast, those who live in jurisdictions with low tax bases must tax themselves at higher rates to provide exactly the same services. Intergovernmental fiscal transfers are one method of reducing the horizontal inequities that arise when otherwise identical individuals live in jurisdictions that are poor in natural resources or in the tax base that supports the activity of local government. (See Musgrave, 1961, for an extensive discussion and illustration.) This is another powerful reason for a grants-in-aid program, one which transfers resources from the central government to provincial or local authorities.

In pursuit of these objectives, grants in aid can be designed to equalize the actual outlays by lower levels of government, or to equalize the actual performance of state and local governments. Most revenue sharing arrangements, designed to address horizontal inequities, seek to equalize potentials for finance in different jurisdictions, in terms of need and capacity. Thus, grants in aid are designed to reward lower levels of government which tax themselves at higher levels, or which have greater needs.

For example, suppose the resources available for outlays, \(E_i\), in jurisdiction i, come from taxes collected, and from a grant in aid, \(G_i\). Tax revenues are the product of tax rates, \(t_i\), and tax bases, \(b_i\):

\[
E_i = t_i b_i + G_i. \quad (16)
\]

Suppose, now, a revenue sharing rule is adopted, with the following specifics,

\[
G_i = (\bar{B} - b_i) t_i + (n_i - \bar{N}) B_{t_i} - b_i T. \quad (17)
\]

In equation (17), \(\bar{B}\) represents the average tax base of the \(m\) jurisdictions affected by the revenue sharing system; \(\bar{N}\) represents the average measure of "need" in the \(m\) jurisdictions; and \(n_i\) represents the "need" in jurisdiction i. For example, if all taxes are based upon real property, \(b_i\) could represent aggregate assessed values in jurisdiction i, and \(\bar{B}\) could represent the average assessed valuation. \(n_i\) could represent the average poverty rate, or age of the infrastructure, or some similar measure, while \(\bar{N}\) represents the average for all jurisdictions.

The first term of the right hand side of equation (17) indicates that grant levels are larger for jurisdictions whose need is greater. In this specific example, differences in need are weighted by the yield from an equalized tax base, \(B_{t_i}\), in computing the grant level. Finally, the third term indicates the common rate of taxation required, \(T\), across all jurisdictions, to finance the grant system. With a balanced budget,

\[
\Sigma G_i = 0. \quad (18)
\]

Equations (16), (17), and (18) consist of \(2m+1\) equations in \(2m+1\) unknowns — \(E_i\), \(G_i\), and \(T\). Tax bases and inherent need are assumed to be exogenously
distributed across the localities, but the level of taxation is chosen by each community.

From (16)–(18), the common tax rate is

$$T = \frac{\sum (\bar{b} - b_i) + \bar{b}}{m\bar{B}}$$

(19)

Under the specific grant in aid program, specified in equation (17), the common tax rate, required to finance the grant system, is higher if tax rates are higher in communities with small tax bases. The required tax rate is higher if tax rates are higher in high need localities. Tax “effort” is rewarded, and this increases the common tax rate.

This concept can be seen more clearly, by solving for the change in grant levels associated with a change in tax effort.

$$\frac{\partial G_i}{\partial t_i} = \frac{1 - b_i / m\bar{B}}{(\bar{b} - b_i) + (n_i - N)\bar{b}}$$

(20)

The term in square brackets is positive. Thus, from the term in the curved brackets, it is fiscally “profitable” for a locality to raise taxes if its tax base is below average. Similarly, it is fiscally “profitable” to raise taxes in jurisdictions where the need is greater.

The grant system rewards “tax effort”, but only in jurisdictions with low tax bases and high needs.

Finally,

$$\frac{\partial E_i}{\partial t_i} = b_i + \frac{\partial G_i}{\partial t_i}$$

(21)

Public resources, available for local expenditures, increase with tax levels, according to the tax base available in each jurisdiction, but this case can be augmented or offset, at least partially, by the rewards for tax efforts, described above.

Of course, this illustration is for a single specification of the equalization motives which may underlie revenue sharing formulas.

D. The Equilibrating Process

The fourth set of theoretical conclusions involves equilibrating the market for locally provided goods and services. According to theory, there are three ways to equilibrate supply and demand for the goods produced by lower levels of government.

The most direct and obvious way is through the political process, in some form. Individuals register demands directly, by voting or by lobbying for some government action which would aid in the pursuit of their economic well being.

The second means is through the process of household mobility and relocation. If populations care about the amenities provided by the public sector, they ought to be responsive to variations in amenities, in making their choices of residence. This need not imply that populations choose to move in direct response to public sector attributes, but it does imply that, when households do choose to relocate, they consider the provision of local public goods, as they make a choice of residence.

The third equilibrating mechanism is the pricing of land and space, in response to amenity differences. If local public goods are valued, and if they are in short supply, then site prices should adjust to reflect this scarcity. In equilibrium, reasonable levels of mobility give rise to rents. Households “vote with their feet” to equilibrate the housing, land, and public goods markets (Tiebout, 1956).

These two processes are closely related. Individuals express preferences for local public goods through the political process (i.e., by voting). The effects of public goods production are felt in the land market and thus in the local housing market. The equilibrium is one in which individuals, as voters, are content with the public goods supplied, and in which individuals, as housing consumers, are unable to improve their utility by moving (See Yinger, 1982, for a discussion).

III. Major unresolved issues

Despite the apparent clarity of the theoretical results outlined above, there are a number of unresolved issues in the decision regarding the appropriate level of decentralization in any practical circumstance. I will discuss five unresolved issues which appear to be quite important. These are important in deciding upon what level of government is appropriate to undertake particular economic functions. The issues are also important for analysts, in understanding and interpreting the data that arise from government behavior.

In considering the application of these principles, it is important to distinguish between public sector design and public sector reform. In most countries, the design of governmental structure depends on far more than these notions of economic efficiency. Thus, the power of these normative principles, in predicting government behavior, may not be that high. Nevertheless, most of the interesting questions involve changes from some complex status quo. In
A. Tax Bases

The first unresolved issue might be called the tax assignment problem. The question here, is which tax base should best be exploited by local, regional, and national levels of government. A number of authors (e.g., Bahl and Linn, 1983) have considered this tax assignment problem, and some general guiding principles about the assignment of tax responsibilities exist. For example, Bahl and Linn propose six guiding principles in assigning the tax base to different levels of government.

First, tax responsibilities should be allocated at the national level, so as to limit local competition for different kinds of tax bases.

Second, the tax base should be distributed so that the local use of exportable taxes is discouraged as much as possible — that is, the tax system should ensure that local governments rely upon taxes, whose burdens are not exportable to the residents of other jurisdictions, for generating their own revenues.

Third, tax bases ought to be utilized to encourage income elastic revenue resources and to discourage inelastic revenue resources. This reduces the administrative costs of the tax system and the transactions costs of changing tax rates.

Fourth, the tax base should be distributed among levels of government, to discourage regressive taxes and encourage progressive taxes.

Fifth, the tax base should be defined to encourage the adoption of easily administered taxes and to discourage more complex taxes that require heavy administrative expenses.

Finally, taxation should be introduced to reflect infrastructure costs and to impose user costs on both capital amortization and on direct consumption of public services.

A major problem, of course, is that central and local governments disagree on the importance of these various objectives; they are, to a certain extent, inconsistent among themselves. Local governments would surely subscribe to the last four, that is, to set of regulations which would encourage elastic revenue sources, progressive taxation, easily administered taxes, and user-charge finance. In contrast, every local government would surely like to export the burden of local taxation, to the largest extent possible and feasible, and they would also prefer to compete for desirable tax bases.

Thus, economic theory provides only limited guidance in the assignment of tax bases to different jurisdictions. In most countries, for example, the property tax base is assigned to local government, and the income tax is reserved for higher levels of government. But, this is not true in all countries. For example, in Sweden, property taxes are a national tax, and the local government is financed by a locally imposed proportional income tax.

B. Government Design

The structure of governmental levels, in any country, reflects its history and tradition. Developing countries, which were formerly part of the British Empire, tend to have a public administration that resembles that of Britain; while countries that were formerly ruled by the French, have their own common traditions. Countries forged in geographical regions with great unrest among the population, are typically highly centralized (or else very decentralized). These historical, political, and cultural determinants may be far more important in affecting the design of governmental structure and fiscal relations than the purely economic factors and theories could be.

In applying the theory of fiscal federalism to local governments, there is a contrast between the idea of overlapping special purpose governments and that of non overlapping multipurpose governments. The theory assumes that political jurisdictions and governments are formed to produce goods and services. The extent to which jurisdictions, themselves, are immutable in their boundaries, or really are endogenous to economic conditions, is unclear, in general. It surely depends a great deal on the society in question and on the political history of that society. In many places, local governments and local jurisdictions are surely endogenous, and are rearranged in the light of economic efficiency considerations. In others, political history dictates rather immutable boundaries. This may more often be the case for provincial or state governments than for local governments. In parts of the United States, it is common to be a citizen of many jurisdictions — not only a state and city, but also an independent school district, a mosquito abatement district, a street lighting district, and a junior college district, for example.

Moreover, the appropriate size of a jurisdiction, as described previously, depends upon the extent of public goods production. It may also be true, however, that the “publicness” of goods themselves, depends upon on the level of development and on the cultural disposition of the population. For example, at low levels of economic development, some health expenditures may be very close to pure public goods. Inoculations, pure water supply, and so forth, are exactly the kind of activities that benefit all citizens, by reducing the possibility of a widespread epidemic. At higher levels of economic development, however, the same economic category of expenditures, for example,
health care, may produce private goods rather than public goods. Operating rooms, the treatment of geriatric diseases, and so forth, are examples of expenditures that benefit single individuals and have fewer spillovers.

The same may be true for education. At lower levels of economic development, basic literacy surely provides benefits to all. At higher levels of economic development, educational expenditures are a rival good, and may principally increase the earning capacity of the particular individuals receiving instruction.

Similarly, the cultural disposition of the population may make some expenditures more “public” than others, particularly such activities as educational spending or family assistance programs. Much of the economic literature takes the cultural disposition of the population as a technical datum. In reality, it may be more properly endogenous, or at least variable across different societies.

C. Administrative Incentives

In the context of developing countries, there are at least three additional issues which have important implications for the choice of centralized versus decentralized government finance. These issues are essentially dynamic in nature and include: the effects of centralization on revenue capacity; the relationship between the level of government providing the services and administrative efficiency; and the effects of centralization on dynamic efficiency or administrative responsiveness.

Revenue capacity can include an enhanced ability to raise revenues by levying and collecting certain taxes locally. It can also include the ability to recover costs for area-wide public services from the tax revenues generated in those areas. The former is an issue in tax administration; the latter is a rough approximation of user charge finance described above.

The tax administration issue can cut two ways. On the one hand, local authorities may possess an inherent comparative advantage in the valuation of local land and property for tax purposes, and in the estimation of agricultural output. Similarly, for the taxation of mobile financial resources, or even in evaluating the total incomes of individuals, national authorities may possess a natural comparative advantage. On the other hand, local authorities may not initially be as well trained and thus, would be less capable of revenue collection, regardless of the comparative advantage of their formal organization.

The second issue, administrative efficiency in service provision and tax collection, can also cut two ways. A presumption, in developing countries, that central government employees are more competent (because they are recruited nationally) is surely rebuttable. Moreover, it may be completely offset by the specialized knowledge of local officials, about adaptations of services to local conditions, or about potential economies of service production in particular circumstances.

Thirdly, the dynamic and responsiveness issues tend to favor greater scope for service provision and taxation at lower levels of government. The advantages of local provision may include both adaptability in service production and also increased flexibility in administration. It may, thus, be worth sacrificing some of the short run efficiency of central government provision, to reap the long run benefits of local provision by more adaptable local officials. If there are any long run comparative advantages to local service provision, then incentives provided by central government can help raise the level of competence of local authorities, to better exploit these advantages.

D. Rules and Mandates

The fourth issue emphasizes the importance of rules and mandates. Intergovernmental fiscal relations depend not only on the flows of economic resources among levels of government, but also on the kind of regulation and the kind of command and control exercised by one level of government upon another. For example, state governments may mandate that local governments provide certain kinds of services, without providing the resources to those governments to fulfill this function.

These rules can greatly affect the efficiency of service provision and the ability of local governments to manage their affairs. The proper interpretation of rules and mandates depends on whether lower governments are to be considered as agents of the central government, imposing a national consensus upon individual governments, or whether local governments are more appropriately construed as entities, maximizing the wellbeing of their local constituents and operating autonomously.

E. Causation

Finally, in analyzing the relation between decentralization and development, there is a chicken and egg problem. At lower levels of development, it is quite possible that centralized provision is necessary, because local governments are simply not competent. At higher levels of development, more decentralized provision of services may be feasible, because administration is better. From this perspective, increased efficiency in the provision of serv-
ices might be as much a result of economic development, as a cause of increased economic development. There is real ambiguity between cause and effect, and abstract theory can provide only rough guidance.

From the viewpoint of the analyst or observer, there is a real question in interpreting data: Should we interpret measures of local performance as if local governments were merely agents of a central government, performing functions that are mandated externally? Are they simply executing a national program? Alternatively, should local governments be viewed as independent maximizing agents, providing the kind of services, and undertaking the kind of activities demanded by local populations? How one evaluates the efficiency of the system depends, to a substantial extent, on whether local governments execute activities dictated by a national will, or whether they are, in fact, responsive to the underlying desires of local populations with heterogeneous demands.

Notes
1 The paper by Smoke (1989) raising some of these issues is a conspicuous exception.
2 But see Gramlich (1985) for a different view.

References