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Fiscal Decentralization and Intergovernmental Transfers in Less Developed Countries

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This article addresses the issue of fiscal decentralization in developing countries, and the use of intergovernmental transfers to achieve this objective. We find that developing countries have more centralized fiscal structures and argue that this is consistent with the theory of fiscal federalism. Economic development, however, does push the advantage toward decentralization. We also show that developing countries use a wide variety of transfer instruments to fund local governments, and that these instruments give the national government varying degrees of control over local government finances.

Fiscal decentralization-the decentralization of governance, expenditure delivery, and revenue mobilization-is an expressed goal of the national governments of many developing countries and part of their economic development strategy. It is also a policy change frequently advocated by the international agencies and the bilateral donors that advise these countries.

Decentralization takes different forms in different countries, depending on the objectives driving the change in governance. At one extreme, countries limit their concern to the decentralization of government operations (e.g., passing decision making authority to the regional branches of national government minis- tries). In this case, subnational governments do not finance and deliver more services. Another view, that the smallest units of subnational government (e.g., municipalities, counties) are inconsequential to decentralization, proposes only to revamp national-provincial relations. Richard Bird and Diego De Mello have given good statements of this view:

> One of the most interesting features of the governmental structure in Papua New Guinea is that by far the largest city in the country, with a population greater than that of most provinces and a budget and public service establishment which is also much larger than that in most provinces, has apparently never been taken explicitly into account in any of the interminable discussions over the last decade about the relationship between national and provincial governments.[1]
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> As a rule, national development plans in Latin America do not explicitly include local governments as part of their strategies ... no Latin American development plan has come down, for example, to the establishment of a national system of cities or to a blueprint for the redistribution of functions among the several levels of government, as a means to enhance economic and social development.[2]

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[1] Richard Bird, "The Allocation of Taxing Powers in Papua New Guinea," Discussion Paper No. 15 (Port Moresby, Papua New Guinea: Institute of National Affairs, 1983), p. 56

[2] Diego Lordello De Mello, "Local Administration and National Development Strategies: A Latin American Perspective" (Paper presented at the annual meeting of the Latin American Studies Association, Houston, Texas, November 1977), pp. 28-37.

Conversely, many countries have come to realize that strengthening both state and local governments by granting them some fiscal autonomy is an important component of decentralization. The evidence for this concern is a rash of government commissions and policy changes in the area of allocating fiscal responsibilities to local governments, the actual restructuring of intergovernmental grant systems, and the special fiscal powers and responsibilities that have been given to large cities. At the decentralization extremes, some countries have organized themselves as virtual federal systems and have given state governments substantial fiscal autonomy or, in the case of unitary governments, have given a broader degree of fiscal autonomy to local governments. Russia, for example, allows its oblast (state) governments substantial autonomy in deciding on the tax sharing rates of their constituent rayon (local) governments. Indian states likewise regulate the fiscal affairs of their local governments.

In this article, we address four issues central to fiscal decentralization and the use of intergovernmental transfers to achieve this objective in developing countries:

- What does the theory of public finance suggest about the optimal assignment of functions among units of government, and how does this theory fit the situation of less developed countries (LDCs)?
- What are the advantages and disadvantages of grants as a "compromise solution" to the fiscal decentralization debate between national and local governments?
- What is the practice in the use of intergovernmental grants in developing countries, and what are the advantages and disadvantages of each?
- What are the feasible policy options, and will they lead to more or less fiscal decentralization?

Developing Countries and the Theory of Fiscal Assignment

Theory cannot lead to firm conclusions about the best division of fiscal responsibilities between national, state, and local governments, that is, about optimal fiscal decentralization. It can only suggest the considerations relevant in making the best fiscal assignments. "Best," of course, varies from country to country and depends on the institutional setting, history, and (most of all) politics. A proposition offered here is that developing countries as a class are different, in that the economic efficiency gains from fiscal decentralization weigh much less heavily than in the case of advanced countries.

Richard Musgrave's view[3] - that the purposes of government budgets are to stabilize growth, redistribute income, and allocate fiscal resources - has long been the starting point for discussing the division of fiscal powers and responsibilities among units of government. The stimulation of stable economic growth and the distribution of income, he argues, are proper budget objectives of the national government. The mobility of capital and labor rules out local government success with policies in either area. This leaves allocation as the main role for local governments (i.e., the decision about how much to spend for each service and how to finance these expenditures). Subnational governments, it is said, are closest to voter-consumers and are in the best position to read local preferences for public services and for various kinds of taxes and user charges. The "proper" degree of decentralization, then, will depend on how the efficiency gains from getting government closer to the people compare with the advantages that result from giving national governments more discretion to pursue fiscal policy.

[3] Richard A. Musgrave, The Theory of Public Finance: A Study of Public Economy (New York: McGraw-Hill, 1959).

The Case for Centralization

The arguments for fiscal centralization are stronger in developing than in industrial countries. Because low-income economies are less diversified and therefore more "exposed" to international fluctuations in commodity prices, natural disasters, wars, worldwide recession, and so forth, stabilization is especially important for them. This argues for national government control of the main tax and borrowing instruments. In developing nations, growth policy is also an argument for fiscal centralization because investment capital is scarce and must be controlled by the central government to maximize returns. If local governments are given access to major tax bases, they may "compete" with the national government and therefore limit the amount available for the central tax. As a corollary, centralization allows the national government to allocate fiscal resources to goods and services with national benefits, whereas local autonomy would inevitably lead to greater expenditures on those services with more local benefits.

Several arguments for income distribution also support fiscal centralization. The most important is that regional (and rural-urban) disparities in income and wealth may be accentuated by fiscal decentralization because wealthier urban governments will benefit most from increased taxing powers. Centralization allows the national government more discretion in shaping regional differences, public service levels, and taxation, which are especially important considerations for governments that intend to use tax and subsidy policy to shape the spatial distribution of economic development.

The final argument is that national governments have superior abilities to administer taxes and manage the delivery of public services. Local governments in almost every country have very weak administrative practices, and less local autonomy means less chance for local governments to mismanage finances.

The Case for Decentralization

One might counter the above justifications of centralization with good arguments for decentralization:

- Local governments could adjust budgets to local preferences, and a more efficient distribution of local public services could result.
- Local governments might be able to tax some sectors of the urban economy more easily than could the national government. A higher rate of national resource mobilization could thus occur.
- Cities would levy higher taxes and could thereby charge residents the full marginal cost of urbanization. A more efficient size distribution of cities could result.

Are these arguments really valid? Can local governments actually respond to citizens' preferences for more or fewer local services, or toa willingness to pay more taxes to receive local services? In fact, the efficiency case for fiscal decentralization is much stronger in developed than in developing countries. Consider first the notion that moving service provision closer to the people can lead to gains in the welfare of consumer-voters. Because the theory of fiscal assignment was developed in industrial countries, it was heavily influenced by democratic processes of budget- making (e.g., the median voter theories of public expenditure determination). In this model, the tax effort and the expenditure mix in local areas are responsive to changes in relative prices and income, and the potential losses in efficiency caused by interference from a higher level of government can be substantial (as can the potential gains in efficiency from the greater fiscal autonomy of local governments). Although the model is based on a number of questionable assumptions, empirical research has shown that the behavior of U.S. state and local governments more or less squares with it.[4]

The model does not so easily fit developing countries, however, and the efficiency gains from decentralization therefore may not be so great in LDCs. This is partly because voter preferences are not as readily translated into budget outcomes as in developed countries. Local councils are often not elected; chief officials are often not locally appointed; and adjustments in the allocation of local resources are often severely constrained by national government controls. These controls include approval of the budget, central appointment of chief local government officers, national government regulation of tax administration, mandates as to salary levels of local government employees, and the general absence of a mechanism by which local voters can reveal their preferences for a larger or smaller government. In this setting-where the devolution of revenue authority and expenditure responsibility is not accompanied by a relaxation of national government control over local fiscal decision making - there is less to be gained from decentralization of taxes and expenditures than would be the case in developed countries.

Given this state of affairs, the situation in a developing country that could provide maximum gains from a more decentralized local government structure would include: (1) enough skilled labor, access to materials, and capital plant to expand public service delivery when desired; (2) an efficient tax administration; (3) a taxing power able to capture significant portions of community income increments; (4) an income-elastic demand for public services; (5) popularly elected local officials; and (6) some local discretion in shaping the budget and setting the tax rate. These conditions are most likely to exist-or are likely to exist to the greatest degree-in the large cities in developing countries.

Observed Patterns of Fiscal Decentralization

The hypotheses suggested here are consistent with an analysis of 1973 United Nations, World Bank, and International Monetary Fund data conducted by Roy Bahl and Shyam Nath.[5] Using a sample of twenty-three developed and thirty-four developing countries, and the share of expenditure by subnational governments as the measure of fiscal decentralization, they found that, on average, subnational governments in developed countries accounted for 32.2 percent of all government expenditures, compared with 14.9 percent in developing countries. Moreover, only four developing countries (all in Latin America) had a ratio of fiscal decentralization above the average for industrial countries. Further, Bahl and Nath found that this pattern did not change during the 1960s and early 1970s. In fact, between 1960 and 1973, the subnational government share of total government expenditures increased more in the high-income countries than in the developing countries. A more recent analysis using 1980 data finds little change in this measure since 1973 for either developing or developed countries.[6]

The question of what types of countries are most likely to decentralize has been addressed with econometric models, and three main answers are suggested. Cross- section studies have shown that "stage of development," measured as per capita GNP or urbanization, is associated with a significantly greater

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[4] Roy W. Bahl, Marvin Johnson, and Michael Wasylenko, "State and Local Government Expenditure Determinants: The Traditional View and a New Approach," Public Employment and State and local Government Finance, eds. Roy Bahl, Jesse Burkhead, and Bernard Jump, Jr. (Cambridge, Mass.: Ballinger, I980).
[5] Roy W. Bahl and Shyam Nath, "Public Expenditure Decentralization in Developing Countries," Government Policy 4 (November I 986): 405-418.
[6] Michael Wasylenko, "Fiscal Decentralization and Economic Development," Public Budgeting and Finance 7 (Winter 1987): 57-71.

subnational share of expenditure.[7] A second influence on fiscal decentralization is country size: The larger the country, the greater the degree of decentralization.

Third, there is the "crisis effect," namely, a propensity to give fewer discretionary powers to local governments in countries where there is a continuing threat of social upheaval. This possibility was raised in Alan Peacock and Jack Wiseman's displacement theory of the growth of government expenditure. It has been supported by at least one cross-section study of developing countries which shows a negative association between fiscal decentralization and the national government share of expenditure devoted to defense.[8] There are many examples of this effect. In the aftermath of civil war, Zaire considered complete abolition of local government, and Bolivia and Honduras abolished their municipal councils in the late 1970s, as did Jamaica (Kingston's) during the economic crisis of the early 1980s. Fiscal centralization may also be stimulated by a revenue "bonanza effect." One example is the growth of the Nigerian public sector during the period of oil price increases. The revenues did not pass through; the state government share of total federal revenues fell from 40 percent in 1970 to 15 percent by 1973.[9]

Intergovernmental Grants

The discussion above concerns why governments in LDCs choose to decentralize their fiscal structures. The discussion here turns to the question of how they decentralize and, in particular, to their use of intergovernmental transfers. What one hopes to learn from this is whether the choice of grant instruments - and the choice is very wide - somehow reflects the LDC's sense of the proper role of subnational governments and the proper way to organize the relations between national and local governments.

Grants are a compromise solution in the debate over the division of revenue raising authority and expenditure responsibility. They permit national governments to retain the authority to tax productive resource bases, but guarantee state and local governments a flow of revenues. A system of grants is a step toward fiscal decentralization in that it finances local government services, but the degree of autonomy it gives local governments in making their budget decisions depends on the structure of the grant system.

A Taxonomy of Grant Systems

Grant distribution systems have two dimensions: the method of determining the size of the divisible pool and the method of determining the distribution among state and local governments. Bahl and Johannes Linn argue a new taxonomy for evaluating and comparing grant systems that takes both of these dimensions into account[10] (see Table 1). Consider first the determination of the size of the total amount to be distributed in a given year (i.e., the divisible pool). The current practice in developing countries suggests three basic approaches: a specified share of national government tax revenues, an ad hoc decision (such as an annual appropriation voted by a parliament), or reimbursement of approved expenditures.[11] Once the amount of the pool is determined, allocations among local governments are

[7] Wallace E. Oates, Fiscal Federalism (New York: Harcourt Brace Jovanovich, 1972) and Bahl and Nath, "Public Expenditure Decentralization in Developing Countries."
[8] Alan Peacock and Jack Wiseman, The Growth of Public Expenditure in the United Kingdom (Princeton, N.J.: Princeton University Press, 1961).
[9] See also Ladipo Adamolekun, ed., "Federalism in Nigeria: Toward Federal Democracy," Publius: The Journal of Federalism 21 (Fall 1991).
[10] Roy W. Bahl and Johannes Linn, Urban Public Finance in Developing Countries (New York: Oxford University Press, 1992).
[11] For a detailed review of the practice, see ibid., Chaps. 12 and 13.

typically made in four ways: by returning shares to the jurisdictions from which the taxes were collected (i.e., using a derivation principle); by formula; ad hoc; or by reimbursing costs.

This two-way classification gives a taxonomy of twelve grant "types." The eight types that seem more or less common in developing countries are displayed in Table 1. For example, the total national allocation for a type B grant is based on a share of a national tax, but the distribution among local governments is made by a formula. Thus in the Philippines, 20 percent of national internal revenue collections is distributed among local governments on the basis of population and land area. A type C grant differs in that the distribution is on the basis of project costs; for example, a fixed percentage of a national tax is distributed among local governments on the basis of the cost of public works projects or teachers' salaries.[12]

Table 1
Alternative Forms of Intergovernmental Grant Programs

	Method of determining the total divisible pool		
Method of allocating the divisible pool among eligible units	**Specified share of national or state government tax**	**Ad hoc decision**	**Reimbursement of approved expenditures**
Origin of collection of the tax	A		
Formula	B	F	
Total or partial reimbursement of costs	C	G	K
Ad hoc	D	H	

Type C, G, and K grants are usually categorical (designated for specific purposes) rather than general purpose: most grants that reimburse costs are designated for specific projects which usually must be approved by the national government. Type K grants may be open-ended, in that the total grant fund is determined as the sum of all reimbursable expenditures. Type C and G grants are closed-ended: the degree of reimbursement and the number of projects approved may vary from year to year according to the total funding available.

The remaining five types are all more likely to be general purpose rather than specified for a particular use, and are all closed-ended. Type A is a shared grant in terms of both the determination of the pool and its allocation among jurisdictions; these funds are usually not earmarked. Types B and D are probably the most common. The pool is determined as a share of a national or state tax and is then allocated by formula or on an ad hoc basis. For types Fand G, the pool is determined in an ad hoc manner (usually on a political basis) as part of the national government's regular budgeting process. For type F, the allocation is by formula, whereas for type H, it is purely ad hoc.

This taxonomy could easily be expanded by identifying many more types and subtypes. To develop a perfect classification system that takes every grant feature into account is not our objective, however. Rather, we make two uses of the taxonomy in analyzing grants for equity, efficiency, administrative ease, and effectiveness in generating revenue. First, we will be able to pay separate attention to the two dimensions of divisible pool and allocation. Second, we will be able to better understand the importance

[12] The distinction between grant types B, C, and D blurs somewhat, for example, because the approval of cost-reimbursable projects can in some cases be ad hoc, or because teacher salary grants may actually be distributed by formula. Still, there are enough pure cases to retain the present classification.

of how grants are designed for meeting the objectives of a grant system. Indeed, the objectives of a country's system become very murky when (as often is the case) that system combines the eight types.

The Pure Shared Tax

The purest form of shared tax-type A grants-requires that some proportion of the amount collected in the jurisdiction of a local government be returned to that local government (i.e., that a derivation principle of revenue sharing be applied). The national or regional government deducts a fee for collection, usually a specified percentage of total receipts. Under this system, the local government has no control over the determination of rate and base. Type A is thus an intergovernmental transfer and not an assigned local tax.

Why would a shared tax be used instead of an outright grant or a local tax? There are at least three reasons. First, the national government may be pursuing a bona fide program of fiscal decentralization, intent on guaranteeing the subnational government some share of locally generated revenues. Revenue-productive and income-elastic tax bases are most likely to be devolved in large federal countries in which state, and perhaps local, governments have substantial political power and diverse preferences. Brazil designates shares of the value added tax (VAT) for state and local governments;[13] Colombia shares beer tax revenues with Bogota and the departments;[14] Malaysia shares excise taxes on petroleum with the states; the Chinese central, provincial, and local governments share the revenues from income and sales taxes;[15] and the Russian federal and subnational governments share income and value added taxes.[16] Second, the national government may see the need to mobilize more resources from local tax bases, thinking that local governments do not have the administrative capacity or political will to carry it off. Third, the government may want-through shared taxes rather than independent local taxes- to keep open a line of fiscal control while quieting somewhat the calls for a better vertical fiscal balance.

Property Taxes. The property tax is commonly shared. This enables the national government to control the (difficult) administration of the tax, maintain some degree of nationwide uniformity in the implementation of the tax, and control rate- setting, which is everywhere a sensitive political issue. Indonesia and many Latin American countries (e.g., Brazil and Colombia) are examples of the use of shared property taxes to support local government finances. Property transfer taxes are also shared with local governments, and can be a significant source of revenue. In Bangladesh, a tax of 1 percent of the value of transferred land and buildings is levied by the national government and credited to the accounts of the cities and municipalities. It generates about 5 percent of own-source revenues in Dhaka and 8 percent in Chittagong.[17]

Are shared property taxes a successful transfer? They may be for small municipalities in which administrative skills are limited and in which the historical absence of a strong property tax leaves local officials loath to impose a high enough rate or penalize delinquents. The argument for a shared tax versus a local tax is weaker, however, for large cities. Up-to-date valuation of parcels, identification of new improvements and subdivisions, and tracking of ownership and land-use changes might all be done more

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[13]Dennis J. Mahar and William R. Dillinger, Financing State and Local Government in Brazil: Recent Trends and Issues. Staff Working Paper 612 (Washington, D.C.: The World Bank, 1983).
[14] Richard Bird, "Fiscal Decentralization in Colombia," Decentralization, Local Governments, and Markets: Towards a Post-Welfare Agenda, ed. Robert J. Bennett (Oxford: Clarendon Press, 1990).
[15] Roy W. Bahl and Christine Wallich, Intergovernmental Fiscal Relations in China, Policy Research Working Paper 863 (Washington, D.C.: The World Bank, 1992).
[16] Christine Wallich, Fiscal Decentralization: Intergovernmental Fiscal Relations in Russia (Washington, D.C.: The World Bank, 1992).
[17] James Alm, "The Immovable Property Transfer Property Tax," Financing Governmental Decentralization: The Case of Bangladesh, ed. Larry Schroeder (Boulder, Col.: Westview, 1989).

efficiently by local officials.[18] Even with national administration, there would seem little reason to deny the local government the right to set the tax rate within specified bounds.

Consumption Taxes. Some local governments have been given access to more income-elastic and productive consumption (and income) tax bases. Perhaps the best example is the value added tax in Brazil. Responsibility for administration of, and all revenues from, the VAT on final sales has been assigned to the states, but the federal government has retained the power to define the base and set the rate. In this sense, the VAT is a shared tax for both state and local governments. Moreover, the law guarantees that municipalities must receive 15 percent of state tax collections within their boundaries. The result is that this shared tax accounts for about a third of total municipal revenues.

Sharing of the consumption tax base raises the especially important, and troublesome, issue of whether state and local governments should benefit from national taxation of natural resources within local areas.[19] There are arguments that the states or local areas with mineral resources ought to be compensated for being dispossessed of their land, having to suffer from pollution, and being required to invest in infrastructure to meet industry needs. The counterarguments are that state and local governments should not forever have their fiscal capacities enlarged by an accident of geography, and that grants rather than shared revenues are the best way to compensate governments for social costs incurred by mining activities. Such a debate ensued over the allocation of a share of mineral royalties to Bendel and Rivers states in Nigeria in 1980. Both Malaysia and Papua New Guinea return a share of mineral-based taxes to the states on a derivation basis. The debate about who should get the fiscal benefits of natural resources is not limited to developing countries. The situations regarding taxation in mineral-rich states and provinces in Australia, Canada, and the United States are other good examples of this problem.

Advantages and Disadvantages. There are three important advantages to pure shared taxes (type A). First, by comparison with allocation by formula or ad hoc arrangement, the amount of transfer to the local unit is certain and the fiscal planning of local governments is improved by this certainty. If ad hoc (type D) methods of distributing earmarked national tax shares are used, there is much room for debate over the proper method of allocation; and for cost-reimbursement allocations (type C), the national government may make ad hoc changes in the conditions under which costs may be covered. Second, pure tax sharing might give local governments access to an income- and inflation-elastic revenue base, such as consumption or production, and thereby improve the adequacy of revenues raised by local governments.

Third, if conditions are not imposed on the use to which the funds are put, local fiscal autonomy might increase significantly under a pure shared tax. This third advantage, of course, depends on the national government's willingness not to tamper with the vertical fiscal balance once it is created. This is not an infrequent problem. The Brazilian government redefined the base of the state VAT to exclude "projects of national interest," hence dampening the flow of revenue. Dennis Mahar and William Dillinger note the revenue loss to state and local governments, though they doubt Sao Paulo State's estimate of a one-third reduction in VAT revenues.[20]

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[18] Bahl and Linn, Urban Public Finance in Developing Countries, Chap. 4 and William Dillinger, "Urban Property Taxation in Developing Countries," World Development Report 1988, background paper (Washington, D.C.: The World Bank, 1988).
[19] For a good review of this issue, see Wallich, Fiscal Decentralization: Intergovernmental Fiscal Relations in Russia, Chap. 5.
[20] Mahar and Dillinger, Financing State and Local Government in Brazil: Recent Trends and Issues, pp. 22-23.

In most countries, the sharing arrangements are meant to be fixed, but there are many variations on this: in the Philippines, they are embodied in the Local Government Code; in India the Finance Commission works out a new set of sharing percentages every fifth year; and in China they are negotiated on an irregular basis.

Shared taxes are not without major disadvantages and enthusiastic opponents. The Revenue Allocation Committee's 1978 report to the government of Nigeria stated: "It is our firm belief that the principle of derivation has little or no place in a cohesive fiscal system for national political and social development." Eventually, the Nigerians did away with the derivation principle and installed tax sharing by formula and on an ad hoc basis. From the point of view of the national government, sharing arrangements tend to be inflexible, because it is politically difficult to change the earmarked percentages-the vertical balance-and because it is difficult to make year-to-year adjustments in the total budget allocation to specific local governments. Such flexibility is important in economies that are exposed by external events (e.g., rising energy costs, declining world prices for minerals, typhoons, and so forth) to economic uncertainty.

An even more important problem with the pure shared tax is that it is not equalizing. The return of revenues on the basis of point of collection will further enrich the higher income urban communities. This may accommodate the national government's need to provide resources to meet the pressing expenditure needs of large cities, but it runs counter to the goal of reallocating national resources so as to reduce interregional disparities in fiscal capacity. For example, under Brazil's VAT sharing with municipalities, an industrial city within metropolitan Sao Paulo received $147 per capita in 1975, whereas a bedroom suburb received less than $1 per capita.[21] Counter equalizing transfers, because they are so visible and can be so extreme, may provoke negative public sentiment, disrupt national unity, and offset the distributional effects of other, more equalizing, transfers in the system. China has used a shared tax approach to reinforce its objective of stimulating the development of its wealthier coastal provinces.[22]

The fact that this form of national assistance is effectively a local area tax over which the local government has no control creates both advantages and disadvantages. The advantage is that the lack of local control frees local officials from having to make unpopular decisions about increasing tax rates and enforcing collection. This feature probably makes the tax more productive than would be the case if it were an independent local tax. However, the potential disadvantage with any form of national assistance is that the separation of the pleasure of the benefits of expenditure from the pain of taxation means that local governments are given less incentive to operate more efficiently, to reallocate expenditures among functions, and to increase the total level of spending or tax effort. The shared tax is better than the other forms of grant assistance on this count, and the greater the percentage of the tax to be retained, the more incentive local residents will have to comply. The issue here is the extent to which local taxpayers perceive the shared tax as being "kept at home" to finance local services.

Formula Grants

An alternative to the pure shared tax is to distribute the grant pool among eligible local units on the basis of some formula. Formula grants may be differentiated according to whether the total grant fund is determined as a shared tax (type B), or on an ad hoc basis (type F).

Determining the Pool. The shared tax or earmarked version of a formula grant requires that the total amount to be distributed among eligible units be determined as a fixed percentage of a national tax, but that the allocation among local units be made by formula. The shared-tax formula grant is probably the

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[21] lbid., p. 43.

[22] Bahl and Wallich, Intergovernmental Fiscal Relations in China.

most common form of intergovernmental transfer, but the central taxes that are shared cover the spectrum (e.g., income taxes in Turkey, sales taxes in Colombia, and a pool of nearly all national revenues in Nigeria and the Philippines).

The ad hoc version differs in that the total grant pool is determined by political decisions on a year-to-year basis; that is, the national assembly or the president's office makes a budgetary allocation of some amount to each grant program in each budget year, or the amount is determined in some arbitrary way. This divisible pool is then allocated to state and local governments by formula. Ad hoc determination of the pool is not uncommon. Since the mid-1970s, Jamaica and Korea have both changed from a shared tax to an ad hoc method, though both have retained a formula for distribution among local governments.

The choice between the shared tax and ad hoc methods depends on how much control the national (or state) government wants to retain over the division of fiscal resources among units of government, and on how much faith the national government has in the ability of localities to absorb increased revenues efficiently. Jamaica has little confidence in the ability of its local governments to use revenues productively, whereas Korea-although it makes substantial allocations to the local sector-reserves the power to vary this amount as national needs dictate. In Brazil, India, and Nigeria-large countries that use a tax share to determine the grant fund-the inclination has been for the share to creep up over time.

Which tax should be shared with subnational governments, and what percentage of the tax should be shared? It depends on the extent to which there is an intention to guarantee subnational governments a potential for revenue growth. Some countries have given quite income-elastic bases to tax-sharing programs, indicating a willingness to allow aggregate local expenditures to grow as fast as national expenditures and to be as susceptible to fluctuations in the business cycle.

Determining the Formula for Allocation. The formula for allocating the pool among local governments also varies widely, but seems to reflect some combination of the desires to equalize fiscal capacity (or to reduce disparities in levels of public service) and to encourage local governments to mobilize resources. In almost every country, the formula developed is constrained by the availability of data about state or local needs and conditions. These constraints are sometimes so severe that the issue becomes less "what we would like to do" than "what we can do."

The desire to balance regional inequities in the ability to finance public services or in the level of public services actually provided is the primary motivation for formula grants. Although the idea of giving more funds to poor jurisdictions is straightforward, the practice is disappointing. The problem is finding an operation- al measure for making an equalizing allocation. Measures of personal income are commonly used for this purpose in advanced countries, but are rarely available below the national level in developing countries. There are some exceptions to this general situation; personal income estimates are made for states in some large federal countries. Brazil and India allocate certain grants partially according to per capita income. Otherwise, a certain part of the grant may simply be reserved for those areas of a country that are known to be poor, for example, the Northeast in Brazil, the "backward areas" in India, and the "deficit provinces" in China.

Allocations intended to respond to needs for public services are plagued by the problem of how to identify indicators of need and by data limitations. Some countries have resorted to very general measures of differences in the cost of providing services, with no recognition of differences in financial capacity. Population and land area are common in grant formulas, probably more because of data availability than because of the belief that these are good proxy measures of need.

In some countries, grants have been allocated to match the needs for certain services-usually those which are most important in the local budgets. For example, measures of the need for road maintenance are not unusual in grant formulas (e.g., road mileage in Jamaica, Kenya, and Tunisia; the number of licensed vehicles in Brazil).

Finally, some countries have attempted to build measures of tax effort directly into the formula in order to stimulate local resource mobilization. The Korean system is one effort to try to hold tax rates at about their present level; if a city drops below the standard tax rate, there is a built-in penalty in the form of a lower allocation. Other programs are more aggressive and try to reward higher tax efforts in the allocation. For example, India's Plan Grants include a measure of tax effort in the formula, as does the Nigerian formula for sharing national revenues with the states. Few countries can follow this practice, however, because the common measure of tax effort is the ratio of taxes to personal income, and few countries have adequate measures of local personal income.

Grants to Reimburse Costs

A third way to transfer resources to local governments is to reimburse costs (types C, G, and Kin Table 1). Under such schemes, the national government agrees to reimburse the locality for all or a portion of the cost of an activity (if a portion, a matching share from the locality is required). Grants to reimburse costs are typically tied to a particular government expenditure.

There are various methods for determining the total amount of reimbursed costs available for distribution. If it is desired to limit the total, a specified share of a national revenue source or an ad hoc method may be used to fix the size of the pool. A more open-ended method is to reimburse all eligible expenditures. The catch here is that the national government determines what is eligible; the grant is thus always closed-ended. The closed-ended, shared tax method is often used to support current services; ad hoc determination is more frequent for capital projects.

As for the allocation among local units, there can be a fine line between distributing a grant amount by formula and distributing to reimburse costs. Both approaches may reflect differences in need and the objectives of equalization, and both may use exact equations to arrive at a final distribution among local governments. Only reimbursement, however, takes the cost of providing the service explicitly into account. This is a very important distinction.

No less important an issue is whether reimbursement is full or partial. The choice suggests quite different consequences. Full reimbursement of costs amounts to national government financing of a locally administered service; hence, no incentive is given to the local government for improved efficiency in the delivery of the service. Moreover, full reimbursement is likely to be accompanied by a rigid national government approval process, and local government fiscal choices may be minimized if not eliminated.

Despite these shortcomings, full reimbursement schemes are used. The idea is to stimulate the provision of certain services by lowering their marginal cost to zero and by mandating a certain level of services. Full reimbursement of teachers' salaries is a common form of local grant. Grants to cover the full cost of all local government employee salaries, as in Egypt and Indonesia, are other examples of this practice. This method may promote the equalization of services in different parts of the country and stimulate certain types of activities, but it does not encourage local governments to mobilize additional resources nor does it lead to more efficient operations.

National governments have attempted to overcome the problem of incentives by subsidizing less than 100 percent of costs, i.e., by requiring a match from the recipient government. Such grants can stimulate the tax effort of local governments on behalf of the aided function. The amount of stimulation depends on (1) the percentage of reimbursement, which lowers the tax price of the service in question; (2) the income and price elasticities of demand for the service, which determine how the local government will expand provision of the service in the face of the lower tax price; and (3) the fungibility of local expenditures, that is, whether the matching funds are generated by lowering expenditures on non-aided services. Despite its merits, this type of grant imposes important costs on the residents of recipient communities, and perhaps on society. The stimulation of expenditure induced by the grant will distort the local budget in favor of the aided service and against other services that local residents might have chosen. Another potential cost is that such grants may be counter equalizing: many of the takers will be those most able to put up the match (i.e., wealthy communities).

An interesting example of the partial cost reimbursement approach is Korea's local share grant, which reimburses local governments for the difference between the cost of providing an estimated standard of public services and the "expected" tax effort. The indicators of need are such measures as the number of voting districts for election expenses, length of road for paving expenses, and population for public health expenditures. In each case, an approved unit cost is prescribed by the Ministry of Home Affairs. On the revenue side, the standard for financial ability is 80 percent of local taxes collected at "normal" rates. The difference between expenditure needs and financial ability defines the cost reimbursement to which that local government is entitled. The amount awarded, then, becomes a form of deficit grant. A similar method is used in Zambia. This type of grant has merit in that it is less likely to reward slack tax effort than is a straight needs allocation, and it may be used to stimulate local public expenditures for targeted services. However, it is very complicated to manage; for example, standard unit costs must be updated, and data on the many underlying indicators must be gathered annually.

Another problem with grants that reimburse costs partially is that they tend to carry national restrictions on reimbursable costs. The most common restriction is a requirement that all local governments participate, and that reimbursed expenditures be approved by the national government. The usual procedure is for national officials to provide a list of eligible expenditures, such as number of approved positions, compensation levels, and construction standards. This practice eliminates some of the problems of regional equity in that it mandates a local contribution, but in reducing the options for local fiscal choice, it gives up the chance for a maximum stimulation of tax effort. For example, the possibility that a local government would be willing to raise more taxes to meet its matching share of a teacher's salary grant could be thwarted by placing an upper limit on the number of teachers permitted.

Ad Hoc Grants

Perhaps the extreme case of centralization in grant design is an ad hoc program (type H grant) in which the size of the divisible pool is determined annually by the national government and the distribution is made on some subjective basis. Examples include: (1) open-ended construction grants that require approval of each project, (2) any grant allocated on a discretionary basis by the state or national government, and (3) supplementary grants allocated for special purposes during the fiscal year.

The great advantage (and disadvantage) of ad hoc grants is that they do not mandate a particular vertical fiscal balance between the national and local governments. This gives the national government maximum flexibility to redirect resources to the sectors of greatest need, but it leaves local governments vulnerable and uncertain about the finances available to them. In many instances, the creation of an ad hoc grant program is motivated by a desire to limit the financial autonomy and importance of state and local governments. Several experiences illustrate this point.

The government of Bangladesh abolished the octroi tax of local governments in 1981 and installed a compensatory octroi grant to replace the lost local revenues.[23] In the ensuing two years, the divisible grant pool was set at 75 percent of previous octroi collections. Hence, two years after the establishment of the compensatory grant, the real amount distributed was less than half of 1980 real octroi collections. Moreover, the distribution across local governments, to be based on 1980 octroi collections, did not reflect changes in the relative degree of economic growth in the recipient cities.[24] In Kenya, a local wage tax was abolished in 1973 by the national government and replaced by a compensating grant. By 1982, this grant to the Nairobi City Council was at about the same nominal level as it had been in 1973.[25] Virtually the same story of a declining amount transferred can be told for Kingston, Jamaica, in the aftermath of the replacement of the shared property tax by a compensatory grant.[26] Korea is yet another example. Before 1972, Korea's local tax share grant was fixed at 17.6 percent of national tax collections. An ad hoc determination of the total grant fund was adopted in 1972, and the local share of national tax revenues had fallen to 10.9 percent by 1977 and had climbed back to only 13.3 percent by 1985.

Policy Choices

No optimal grant structure exists. What is a good feature of a particular type of grant depends on whether one takes a local or a national government view, and on which objectives the government most wants to achieve. This review suggests that developing countries are not of one mind about what is most important. Some appear to push fiscal decentralization and local autonomy. Others are more concerned with tax effort, equalization, or the stimulation of local expenditures on particular activities.

Given this state of affairs, it is not surprising that intergovernmental grant systems in developing countries are in a state of flux as each country continues to look for the proper system. What is proper, however, depends on one's point of view. Accordingly, it would seem useful to summarize the advantages and disadvantages of the grant types discussed above, casting this summary in terms of the relative preferences of national versus local governments. The policy matrix in Table 2 enumerates eight important objectives of a grant system.

Maintenance of Control

Both national and local governments desire to maintain as much control as possible over local finances. The national government is always suspicious of the ability of local units to operate efficiently, whereas localities are ever seeking more autonomy to meet rising budgetary needs. National officials can maintain maximum control over local finances if the total grant fund is determined ad hoc and if allocations are made by formula or to reimburse costs (i.e., grant types F, G, H, and K in Table 1). These are noted as P in the first row of Table 2 to indicate that they are most preferred by the national government, and as Lin the fifth row to show that they are least preferred by local governments. Large, wealthy local governments prefer a shared tax redistributed on the basis of derivation (type A). Shared taxes distributed by formula (type B) also permit a reasonable amount of local control, and are favored especially by small municipalities. These types are noted as Land P, respectively, in the first and fifth rows of the table. In many cases covered by the study, the dominant grant types are A and B, indicating a concern for allowing

[23] Octroi is a form of sales tax, or perhaps import duty, levied on all goods entering the local government area or in transit through the local government area.
[24] Larry Schroeder, "Governmental Decentralization in Bangladesh," Financing Governmental Decentralization: The Case of Bangladesh, ed. Larry Schroeder.
[25] Bahl and Linn, Urban Public Finance in Developing Countries, Chap. 13.
[26] Francine Bougeon-Maassenand Johannes F. Linn, Urban Public Finances in Developing Countries: A Case Study of Metropolitan Kingston, Jamaica, Urban and Regional Report 77-7 (Washington, D.C.: The World Bank, 1977).

some degree of local autonomy. Type Bis relatively more of a compromise, for although the total pool is determined automatically, the distribution among eligible units remains in the hands of the national government.

Table 2
Appropriateness of Various Types of Grants to the Objectives of Governments

	Grant Type							
Objective	**A**	**B**	**C**	**D**	**F**	**G**	**H**	**K**
Of national government								
Maintain control of local finances	L	L	L	-	P	P	P	P
Stimulate expenditures for a particular function or overall tax effort	-	-	P	-	-	P	-	P
Equalize services and fiscal capabilities among localities	L	P	-	P	P	-	P	-
Increase local tax effort	-	-	P	P	-	P	-	P
Of local government								
Maintain control over local finances	P	P	-	-	L	L	L	L
Plan efficient budget	P	P	-	-	L	L	L	L
Increase adequacy of local revenue flow	P	P	P	-	L	L	L	P
Joint								
Minimize administrative costs	P	-	L	-	-	L	-	L

NOTE: P= most preferred; L=least preferred; =effect is uncertain. See Table 1 for a description of types.

Equalization

Presumably, national governments would like to use the grant system to equalize public services or fiscal capabilities among jurisdictions in the country. At the very least, the national government would want the flexibility to pursue this objective if it so chose. The best grant systems from this perspective are those that distribute among recipient units ad hoc or by formula (types B, D, F, and H). Especially attractive for national officials is type H, which allows the national government to make annual changes in both the amount of equalization grants and their distribution across localities. The least preferred by national governments, and by the poorer provincial and local governments, is the pure shared tax (type A), for which the origin principle of distribution guarantees a counter equalizing pattern.

Stimulation of Expenditure

The national government may also desire to induce local governments to increase spending on a particular function or to increase overall tax effort. The preferred grants for stimulating expenditures are those that reimburse costs (types C, G, and K). As demonstrated above, these grants allow the national government to induce changes in local government behavior with both an income and a price effect. Formula grants with tax-effort terms conceivably have the same effect, but they are not proven by experience in either developing or industrialized countries. Local governments, conversely, see reimbursement grants as compromising their expenditure choices and prefer general purpose grants.

Efficient Budgetary Planning

It is important that local governments be notified of the annual grant amount in time for their budget processes. If the amount is tied to revenues from a national tax and determined by formula or as a percentage of local collections (type A or B), the local government can estimate the anticipated receipts with reasonable accuracy. But if the amount is determined ad hoc by the national government (types D and H) or is dependent on a rather vague definition of approved expenditures (types C, G, and K), the size of the transfer is not likely to be certain at the time of local budgeting.

Revenue Adequacy

It is difficult to argue which grant types result in a more or less adequate flow of revenues to local governments. Shared taxes offer the best possibilities, if the national tax chosen for sharing is based on income or consumption. Similarly, cost reimbursement grants can improve the income elasticity of the revenue system because the demand for education is income elastic and because education finance is a prime candidate for such grants. Grant funds determined ad hoc lead to the slowest revenue growth because national governments seem to view grants to local governments as one area to cut during times of budget crises.

Administrative Costs

National and local governments share the objective of minimizing the administrative costs of raising revenue. In one sense, grant funding is better than locally raised taxes because the ability of the national government to collect taxes is better than that of local governments. Yet the creation of a grant system requires a bureaucracy to monitor the distribution and the disposition of the grants. The more complicated the distribution system and the more elaborate the checks on how the money is spent, the greater the administrative costs.

Cost reimbursement systems are probably the most expensive because they require that the eligibility of costs be monitored or that the design of capital projects be evaluated. The least costly is the pure shared tax, especially if the base is a national tax that would be levied even in the absence of the sharing arrangement. The more complicated the sharing formula, however, the more it will cost to implement a shared tax system.

Tradeoffs

This analysis illustrates the principle that one policy instrument (i.e., grants) cannot accomplish all objectives. For example, if the principal objective is to equalize fiscal capacity across jurisdictions, then the goals of stimulating local government tax effort, minimizing administrative costs, and promoting local autonomy are not likely to be well served. The matrix in Table 2 only suggests the degree to which designing a grant system requires first deciding which objectives are essential and which can be sacrificed.

A natural response to this problem is to include various types of grants in the system: for example, formula grants to equalize, pure shared taxes to provide adequate revenues to large cities, and cost reimbursement grants to stimulate tax effort. Although each grant may accomplish its particular objective, these effects may be offset by the workings of the entire grant system.

Conclusion

Developing countries have more centralized fiscal structures than do industrialized countries. The primary reason for this is that the advantages of centralization - namely macroeconomic policy flexibility-weigh heavily, and that developing countries do not easily capture the efficiency advantages of fiscal decentralization. The latter require substantial local government autonomy to set tax rates and determine budgets, to elect local councils and invest these powers in them, and to appoint and dismiss all local chief officers. Economic development, however, pushes the advantage toward decentralization, and countries do push more responsibility toward their subnational units as their income rises.

Some developing countries use systems of intergovernmental transfers to give local governments some resources while holding the taxing powers at the center. There is no single "best" system of intergovernmental transfers; what is best depends on what a nation most wants to achieve with its intergovernmental system. This review shows the use of a wide variety of subsidies, grants, and shared tax instruments in developing countries, each with a potentially different impact.