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Intergovernmental Fiscal Transfers: International Lessons for Developing Countries

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Summary. — This paper reviews the central issues that arise in designing intergovernmental transfers and surveys the approaches adopted in a number of countries, with special emphasis on developing countries. Since circumstances and objectives differ from country to country, no simple, uniform pattern of transfers is universally appropriate but experience around the world makes it clear that if services are to be efficiently provided, transfers must be designed so that those receiving them have a clear mandate, adequate resources, sufficient flexibility to make decisions and are accountable for results. © 2002 Elsevier Science Ltd. All rights reserved.

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1. INTRODUCTION

Intergovernmental fiscal transfers have, for good or for ill, long been a dominant feature of public finance in many countries. The appropriate level of transfers among governments in a country is often determined by appealing to notions of fairness and equity. When evaluating the structure of transfer programs, however, it is essential to pay close attention to the incentives they create for central and local governments and, indirectly, for residents of the different regions of the country. [1] Whether the results of transfers are good or ill depends upon the incentives—whether intended or not—that are built into transfer systems. This paper reviews the central issues that arise in designing intergovernmental transfers and surveys the approaches adopted in a number of countries. [2] While we discuss some principles that emerge from analyzing the experience with transfers in developed countries, our focus here is on developing countries, where the inherent difficulties of operating a multilayered system of government are often compounded by more basic problems at all levels of government in gaining access to revenues and maintaining accountability.

Throughout our analysis, we focus on the effects of transfers on policy outcomes, in particular on allocative efficiency, distributional equity, and macroeconomic stability. Since circumstances and objectives differ from country to country, no simple, uniform pattern of transfers is universally appropriate. Experience around the world reinforces the common sense argument that, for services to be efficiently provided, those receiving transfers need a clear mandate, adequate resources, and sufficient flexibility to make decisions. They must also of course be held accountable for results. To satisfy these conditions, transfers must be properly designed.

The basic task in transfer design is thus to get prices "right" in the public sector—right, that is, in the sense of making local governments fully accountable—at least at the margin of decision-making—to both their citizens and, where appropriate, to higher levels of government. Transfers that are properly designed can achieve this goal even if they finance 90% of local expenditures. Poorly designed transfers will not, even if they finance only 10% of expenditures. [3]

In what follows, we illustrate the implications of this approach for the design of transfers by

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considering some of the basic tasks assigned to transfers in most fiscal systems: Section 2 addresses vertical fiscal imbalances, while Section 3 deals with equalization grants for horizontal imbalances. Section 4 considers the role of matching and conditional grants in pricing spillovers among governments. Section 5 addresses the special problems that arise in funding capital projects in developing countries, while Section 6 discusses the role of grants in meeting political objectives. Section 7 concludes the paper.

2. VERTICAL FISCAL IMBALANCE

Transfers are how most countries achieve vertical fiscal balance, that is, ensure that the revenues and expenditures of each level of government are approximately equal. [4] Vertical fiscal gaps may in principle be closed in other ways—by transferring revenue-raising power to local governments, by transferring responsibility for expenditures to the central government, or by reducing local expenditures or raising local revenues. In most countries, however, sufficient mismatch in the revenues and expenditures assigned to different levels of government remains for some balancing role to be assigned to intergovernmental fiscal transfers (Boadway & Hobson, 1993). [5]

No matter what its stated purpose may be, any transfer from higher-level to lower-level governments will of course help close the fiscal gap. For many purposes, however, it is useful to think of vertical fiscal balance as being achieved when expenditures and revenues (including transfers) are balanced for the richest local government, measured in terms of its capacity to raise resources on its own (Bird, 1993). Fiscal gaps will, of course, remain for all poorer local governments, but such gaps are better considered as part of the problem of achieving horizontal fiscal balance within the local government sector rather than vertical balance between levels of government.

How should transfers close the fiscal gap? An important characteristic of any good system of intergovernmental grants is stability. Another is flexibility. How can both these characteristics be achieved simultaneously? Basically, there are only three ways to determine the total amount to be transferred (sometimes called the distributable pool or the primary distribution): (i) as a fixed proportion of central government revenues; (ii) on an ad hoc basis, that is, in the same way as any other budgetary expenditure; and (iii) on a formula-driven basis, that is, as a proportion of specific local expenditures to be reimbursed by the central government or in relation to some general characteristics of the recipient jurisdictions.

In the Philippines, for example, most funds transferred to local governments come from a pre-determined share of national taxes—the Internal Revenue Allocation—and are allocated according to population, area and equal share (the weights used are 70%, 20%, and 10%). For the most part, these transfers are not conditional, except for the requirement that 20% should be used for "development purposes." Since local governments seem to be using part of their 20% development fund for a variety of medical, nutrition, social welfare, cultural, youth and sports expenditures, this condition does not seem to be very onerous in practice (Bird & Rodriguez, 1999).

Similar systems operate with respect to most major taxes in some developed countries. Examples are Austria, where local governments receive about 12% of income and value added taxes, and Japan, where local governments receive 32% of income and alcohol taxes. In both cases, the resulting total is distributed in accordance with a formula that takes into account such factors as population and community size. Large federal countries such as Brazil and Nigeria also tend to use such systems.

Many other countries (such as most of the transitional countries of central and eastern Europe) have so-called "tax sharing" (revenue pooling) systems that distribute a fixed share of certain national taxes—e.g., the income tax or the value-added tax—among local governments. Although many of these systems attempt to allocate all or part of the total thus determined in accordance with the origin (or "derivation") of the tax revenues being shared, others (e.g., in Germany and Morocco) allocate the total set by the shared tax amount in accordance with a formula that attempts to take into account both needs and capacity.

From the perspective of central government, the best system would likely be one in which the total distributed is determined annually in accordance with budgetary priorities. With this system, however, recipient governments will neither be able to budget properly nor will they face an appropriately hard budget constraint. On the other hand, any system in which the total transferred is "demand driven" or "open ended"—driven, for example, by local expen-

ditures or revenues (like the Canadian equalization system)—is unlikely to be popular with central governments in developing countries. On the whole, the best way to provide both some degree of stability to local governments and some degree of flexibility to the central government is to establish a fixed percentage of all central taxes (or current revenues) to be transferred as is (more or less) done, for example, in Colombia and Argentina. Sharing specific national taxes is less desirable than sharing all national taxes because experience shows that it biases tax policy over time as central governments invariably tend to increase more those taxes which they do not have to share. [6] Sharing all taxes also ensures that the "pain" as well as the "gain" of cyclical variations in central revenue is shared. [7]

3. HORIZONTAL FISCAL IMBALANCE

Horizontal fiscal balance, or equalization as it is usually called, is controversial both because different countries have very different preferences in this respect (Bird, 1986) and because it is a concept with many different interpretations. For example, if horizontal fiscal balance is interpreted in the same gap-filling sense as vertical fiscal balance, what is implied is that sufficient transfers are needed to equalize revenues (including transfers) and the actual expenditures of each local government.

Such "fiscal dentistry," as this approach has been called by Rao and Chelliah (1991), makes no sense. Equalizing the actual outlays of local governments in per capita terms (raising all to the level of the richest local government) in effect ignores differences in local preferences and hence one of the main rationales for decentralization in the first place. It also ignores local differences in needs, in costs, and in own revenue-raising capacity. Equalizing actual outlays would discourage both local revenue-raising effort and local expenditure restraint, since under this system those with the highest expenditures and the lowest taxes get the largest transfers.

A grant system can thus create poor incentives for local governments to raise their own revenues. This effect is most obvious in a revenue-pooling system, such as that used in Germany, Russia, and other countries, in which a given share of locally collected taxes is distributed among all local governments. In such a system, local governments receive only a fraction of the revenue collected in their own jurisdictions, with the rest distributed to other governments, usually through an equalization formula of some sort. Since the cost of local taxation is higher than the benefit to the local treasury, the marginal cost of public funds appears artificially high to the local government.

This disincentive effect is so clear that such revenue-pooling arrangements seem never to be used when local governments can influence the tax rate levied on shared bases. But problems can arise even when tax rates are set by the central government if the revenues are actually collected by local governments. Baretti, Huber, and Lichtblau (2000), for example, have argued that this incentive has led to observably lower rates of tax collection by state governments in Germany. Similar problems led to the centralization of VAT collection in Mexico, where originally the central VAT was supposed to be collected by the state governments. Such disincentives have also been prominent in those transitional countries (such as China before 1994 and Russia still) in which central revenues are collected by tax administrations which are significantly influenced by local governments (Bird *et al.*, 1995).

To avoid such problems, most countries which have formal equalization transfers avoid revenue pooling and generally aim either to equalize the capacity of local governments to provide a certain level of public services or the actual performance of this level of service by local governments. The performance criterion, which adjusts the transfer received in accordance with the perceived need for the aided service (and which may also allow for cost differentials) is generally more attractive to central governments because the level of service funded is then in effect determined centrally, and transfers can be made conditional on the provision of that level of service. Unfortunately, unless adequate adjustment is made for differential fiscal capacity, with this system once again that government which tries least will receive the most.

In contrast, under capacity equalization the aim is to provide each local government with sufficient funds (own-source revenues plus transfers) to deliver a centrally pre-determined level of services. [8] (Differentials in the cost of providing services may or may not be taken into account.) Transfers are based on a measure of each jurisdiction's potential revenue-raising capacity (such as assessed values for property taxes or measured tax bases for other taxes)

and not on actual revenues. Provided revenue capacity is measured accurately—often not an easy task—such transfers will create no disincentive for local governments to raise revenues because at the margin the local government still bears full fiscal responsibility for expenditure and taxing decisions—essentially because transfers are lump-sum (inframarginal) in nature.

Of course, if local governments can directly or indirectly manipulate the proxies for capacity used in the transfer formula, capacity equalization too may induce undesirable incentive effects. Indeed, Smart (1998) has argued that capacity equalization may drive local tax rates higher than is desirable from a national point of view. Consider for example the "representative tax system" (RTS) formula for equalization, as used in Canada and Australia. Under the RTS approach, each local government receives a transfer equal to its deficiency in the measured tax base relative to the national average, multiplied by a target tax rate that is considered appropriate (usually the national average tax rate). If all governments choose the target tax rate, then capacity differences are fully equalized, and all jurisdictions have the same (per capita) fiscal resources. But measured tax bases will generally decrease as tax rates rise—for instance as higher taxes are capitalized in property values and as economic activity moves to other jurisdictions (or more lightly taxed transactions). Consequently, local governments that raise their tax rate above the target will see their tax bases depressed and their transfers rise in consequence. To put this another way, when the local tax is just at the target level, the marginal excess burden of higher taxation perceived by the local government is zero because of the transfer effect, although it is strictly positive for the country as a whole. [9]

Full equalization as defined above in the sense of closing all gaps will be achieved only if the standard revenue-raising capacity which the grant is intended to provide is set at the level of the richest local government. In most countries, budgetary constraints lead to lower standards, such as the average revenue-raising capacity of local governments. In such cases, localities with below-average capacities obviously remain disadvantaged. [10]

Equalization transfers may have two distinct rationales. The first is to provide the necessary underpinning for decentralization in general (and, as discussed below, for matching transfers), by equalizing to some level the fiscal capacity of territorial entities, thus putting all closer to being on the same footing with respect to incentives. A second rationale might be to provide sufficient resources to enable all local governments, even the smallest and poorest, to provide a basic package of local services. [11] From a purely economic point of view, the second of these objectives may appear to make little sense. Often, however, small rural areas are simply not able to provide any significant local services solely without such transfers. It is important not to confuse this lack of local resources with a lack of local capacity to make and implement suitable expenditure decisions. As Fiszbein (1997) and Faguet (2001) show, there is strong evidence in some countries that even some poor areas may manage surprisingly well if they are enabled and encouraged to do so.

(a) *Equalization in practice*

Any good transfer system should distribute funds on the basis of a formula. Discretionary or negotiated transfers are always undesirable. The essential ingredients of most formulas for general transfer programs (as opposed to matching grants which are specifically intended to finance narrowly defined projects and activities) are *needs*, *capacity*, and *effort*. Often, needs may be roughly but adequately proxied by some combination of population and the type or category of local government. (Of course, a transfer formula that incorporates observable measures of need may induce further incentive problems, as discussed above.) A more difficult, but conceptually critical, problem is usually to include some measure of the capacity of local governments to raise resources, and their efforts in doing so.

(i) *Fiscal capacity*

A possible aim of such a transfer system might be to provide each local government with sufficient funds (own-source revenues plus transfers) to deliver a centrally pre-determined level of services. Differentials in needs and in the cost of providing services (for example in rural or less densely populated areas) may be taken into account as desired—although caution is necessary in this respect since it is all too easy to turn a simple, transparent formula into an obscure and manipulable one by introducing

too many refinements. Argentina, for example, had a transfer formula during 1973–88 that was distributed 65% in accordance with population, 10% in accordance with the inverse of population density, and 25% in accordance with an index of a "developmental gap," which in turn was based on measures of the quality of housing, the number of vehicles per inhabitant, and the level of education. [12]

Relatively few developing countries include explicit measures of the potential "tax capacity" of recipient jurisdictions in their formulas. Many countries, however, use transfers to return some or all of certain taxes to where they are collected, a policy which of course benefits most those localities in which more taxes are collected, that is, those with greater fiscal capacity as measured by actual collections. In Spain, for example, 30% of personal income taxes are allocated in accordance with local tax collections. [13] This approach may perhaps make the inclusion of a more redistributive component in transfers more acceptable to the "rich" regions: for example, other Spanish transfers are distributed mainly on the basis of population and are much more equalizing. As discussed earlier, however, such tax-sharing arrangements generally have undesirable incentive effects. In contrast, Denmark and Sweden, like Canada and Australia, explicitly make local transfers on the assumption that an average "national" local tax rate is applied, thus creating an incentive to levy at least average taxes since those localities that levy above average local taxes are not penalized while those that levy below average taxes are not rewarded. Chile goes further and actually "taxes" richer localities to some extent by reducing their transfers and raising those granted to poorer localities. Similarly, Korea assumes that a standard tax rate is applied by cities and lowers the transfer if the actual rate is lower. Of course, such approaches make sense only if local governments have the ability to vary local tax rates, at least within limits. The absence of much local autonomy with respect to local taxes combined with data difficulties probably explains the relatively few examples of transfer programs incorporating explicit capacity measures in developing countries.

(ii) *Fiscal effort*

In some countries, attempts are made to incorporate explicit measures of "fiscal effort" into distributive formulas. Brazil, for example, allocates some transfers in accordance with per capita income levels in the different states. Nigeria includes a measure of tax effort—which in turn requires some concept of "capacity" to measure "effort"—in the basic distributional formula to states, and Colombia has such an element in one of its transfer programs. In general, however, it is not advisable to include explicit measures of fiscal effort in such formulas, for a number of reasons. Conceptually, while it is not easy to define fiscal effort, it is probably most meaningfully understood as the ratio of actual taxes collected to potential taxes estimated on the basis of some standard measure of fiscal capacity and some standard (e.g., national average) tax rate. Even when so defined, the general absence of reliable empirical estimates of fiscal capacity renders the concept largely nonoperational.

The measurement of fiscal effort is complex. If, for instance, tax bases are sensitive to tax rates, then the usual measures overestimate capacity in low tax-rate areas (and hence underestimate the effort needed to increase tax rates) because the base will decline if the rate is increased. Moreover, given the limited flexibility most local governments in developing countries have to alter their revenues through their own actions in any case, it is unclear to what extent it is meaningful to interpret the behavior of revenues as reflecting their effort. In addition, placing too much weight on fiscal effort in allocating grants often unduly penalizes poorer areas, where, by definition, a given percentage increase in effort (as usually measured) is more difficult to achieve (Bird, 1976). The problem giving rise to the need for equalization in the first place is that the fiscal capacity (tax base) of poor areas is too low, not that their tax rates are too low. Imposing an additional penalty on poor localities in a transfer program that, given the shortage of resources in developing countries, will almost inevitably fall short of fully equalizing fiscal capacity, seems hard to justify. On the other hand, experience in some countries suggests that introducing an effort correction (conventionally defined as actual collections over potential collections) into fiscal transfers may end up giving still more to poorer areas—that is, increase the redistributive effect of transfers. This result comes about because poorer areas may levy relatively higher taxes than their richer neighbors—in part perhaps because of the incentive for excessive taxation discussed above. In Canada, for example, the

highest tax rates on both income and sales are found in the poorest provinces, that is, in those with the lowest fiscal capacity.

Such arguments, combined with the fact that properly designed equalization transfers in any case embody a strong implicit incentive for transfer recipients to levy taxes at least at average levels, suggest that it is neither necessary nor desirable to include explicit effort factors in transfer formulas—even if such factors could be calculated in some reliable way. Nonetheless, it is of course important to take fiscal effort into account in a more general sense in designing transfers (Wiesner, 1992). The reason is not because of some technical worry about the substitutability of transfers for local resources. It is rather because it seems essential to require local citizens to pay in some meaningful sense for what they get, if those who make local expenditure decisions are to be held accountable through local political institutions for their actions. So long as local governments are spending what they and their constituents view as "other people's money," they are unlikely to be under much local pressure to spend this money efficiently.

Experience everywhere suggests that people are more careful in spending money they have to earn (taxes they have to pay themselves) both because they are aware of the pain of taxation as well as the pleasure of expenditure and because they will feel more ownership of the activity. Local resource mobilization is thus an essential component of any successful decentralization exercise. Unless increased transfers are matched by a local contribution—however small that contribution may be in the poorest communities—the full efficiency benefits of decentralization are unlikely to be realized. People do not, it seems, take ownership of what is given to them in the same way as they do of things they have to pay for themselves, at least in part. Without local ownership, expenditure efficiency seems unlikely to be enhanced by decentralization. What this argument implies is that transfers are unlikely to have good incentive effects on local revenue mobilization unless at least two conditions are satisfied. First, transfers should be designed so that the amount received is neither larger when local fiscal effort is lower nor smaller when it is higher. Second, local governments must have both the freedom and the responsibility to impose some significant taxes of their own (perhaps as surcharges on national taxes, for example).

(b) *Risk sharing*

An aspect of intergovernmental transfers that has received considerable attention in recent years is as an inter-regional risk-sharing device (von Hagen, 2000). Any general transfer is in effect a revenue-sharing system and thus serves to some extent to "insure" regional governments against adverse cyclical conditions that affect some but not all regions. This stabilization function of transfers is desirable for everyone—unlike redistribution, which inevitably pits some against others—since stable revenues help fiscal planning and reduce the political and economic costs of short-run deficit finance. Its importance varies widely from country to country: von Hagen and Hepp (2000), for example, estimate that Germany's *finanzausgleich* system compensates states for 88 percent of annual per capita revenue changes, while Smart (2001) estimates that the equivalent figure for Canada's equalization system is only 28%. This difference is hardly surprising, since the German system is based on actual revenues—with consequently stronger adverse incentive effects, as noted above—and the Canadian system on estimated revenue capacity. As is often the case with public policy, it is a matter of judgment for each country where it strikes the balance with respect to the weight to be attached to the redistributive, stabilization, and efficiency effects of transfer design. But the stabilization aspect should certainly not be ignored in designing transfers in developing countries, some of which have in recent years experienced substantial volatility in subnational revenues and expenditures. [14]

4. MATCHING GRANTS

Once the total amount to be distributed has been decided, and the basic distribution formula determined, the remaining question is whether the transfer should be made conditional on the provision of certain services at specified levels. Money is fungible, so even transfers based solely on need and capacity measures do nothing to ensure that the recipient governments will in fact use the funds they receive as the central government might wish unless receipt is conditioned on performance and compliance is monitored in some way. As a general rule, when local governments essentially serve as agents of the center, some con-

ditionality often seems desirable—particularly when important national services such as education and health are provided by local governments (Bird & Fiszbein, 1998).

The rationale for transfers with the strongest basis in the economic literature is that local services may spill over to other jurisdictions. In order to induce local governments to produce the right amount of such services, what is needed is some form of matching grant that in effect provides a unit subsidy just equal to the value at the margin of the spillover benefit. Although matching (or conditional) transfers make local governments more susceptible to central influence and control, they also have the important political advantage of introducing an element of local involvement, commitment, accountability, and responsibility for the aided activities. Such grants may be particularly important with respect to capital investment projects (where they may either substitute for or supplement subsidized loans).

In principle, the correct matching rate, or the proportion of the total cost paid by the central government, should be determined by the size of the spillovers (or, alternatively, the strength of the preferences of the central government for the aided activity). This rate may decline as the level of expenditure rises if the externalities diminish or if the central preference is only for a basic or minimum national standard of service. It may also vary across localities if there are reasons to expect greater externalities in some places than in others or if there is reason to expect a higher local price elasticity of demand for the service in question in some areas. Basically, however, a matching grant program designed to encourage the optimal provision of public services would be expected to vary primarily with the nature of the activity, that is, the matching rate should depend upon the level of associated externalities.

Unless local fiscal capacities are fully equalized, however, a uniform matching grant—which in effect offers the same price to different local governments—discriminates against poor regions. Matching rates thus sometimes vary inversely with the revenue capacity of recipient governments or the income level of regions. [15] The rationale is to ensure that all local governments, regardless of their fiscal capacity, can provide a similar level of certain specified public services to their residents. The basic idea is simply to set the price of the service to each local government in such a way as to neutralize differences in capacity by varying the matching rate. The higher the income elasticity of demand for the service, the higher the matching rate needed for low-income recipients (to offset the higher expenditures out of local resources on the aided service in higher-income areas), and the higher the price elasticity, the lower the matching rate needed to achieve a given level of total expenditures. There may thus be a case for introducing an equalizing element by varying matching rates inversely with income levels (Feldstein, 1975).

Such equalization differs from the general equalization argument discussed earlier in three ways. First, specific services are designated—either because they are thought to entail spillovers or because they are considered especially meritorious. Education and health have been singled out in this way in a number of countries. Second, the specific level of service to be provided is also established by the donor government. Third, the payment of the grant is conditioned on that level of the specified services in fact being provided. [16]

The matching rate faced by any particular locality for any particular program should therefore be higher the greater the degree of central interest and the lower the (expected) degree of local enthusiasm (price elasticity) and ability (income elasticity) to support the program. The exact structure of the final formula for any service can usually be determined only after a period—perhaps a prolonged period—of trial and error, of observing the results of formulas such as those now in place and adjusting them as necessary to approximate more closely to the (centrally) desired outcomes. Although there have been a number of empirical studies of the effects of matching grants on local expenditures in the United States, the evidence is decidedly mixed (Chernick, 2000) and in any case is perhaps too dependent on institutions there to draw general conclusions from. At the broadest level, it appears that local governments are often more responsive to grants for capital projects such as roads than to grants for such social services as education and welfare (Slack, 1980).

Often, matching grants are designed for local expenditures—such as health and higher education—that are essentially private goods, so that spillovers among regions are unlikely to motivate central intervention. Even in such cases, however, matching grants can serve to equalize differences in fiscal need where such differences are unobservable by the central government. For example, the central government

may wish to increase spending on health, while targeting the increase to regions where funds are needed most. One way to do so is (as was done in Canada until 1977) to match local health care expenditures—say, on a dollar-for-dollar basis—essentially on the grounds that those who choose to spend more on health are, by definition, more deserving of assistance. As with a tax deduction for health-related expenditures by individual taxpayers, more benefits thus flow to those who demonstrate their need (or preference) for the favored activity.

In reality, there appear to be few good examples of matching grants in developing countries. One reason may be because even important interjurisdictional spillovers may largely be inframarginal, and the appropriate subsidy (matching) rate is of course that which applies at the margin. Another likely reason is that in practice in many countries redistributional concerns, not efficiency concerns, determine matching rates. Poor localities get more assistance because they are poor, not because a higher matching rate is required to induce them to produce the socially optimal amount of the service in question.

Perhaps the most basic problem with the matching approach, however, is that it is so demanding in terms of information. Ideally, its application requires a clear specification of the level of service to be provided. Often, for example, in education grants, many different types and levels of education service (language training, music, special education, etc.) are specified. In addition, fairly accurate and up-to-date estimates of the costs of providing each level of service are needed. Moreover, local governments need to have a fair degree of tax autonomy if they are to respond appropriately to the incentives. In addition, standard tax rates need to be carefully specified, estimates of local fiscal capacity must be made, and, ideally, some idea of the probable effect of income differentials on local responses to differential matching rates (the price of the aided service) is needed. As a rule, even the abundant information available in developed countries is insufficient to determine the precise matching rate appropriate for particular expenditure programs, let alone how those rates should be varied in accordance with the very different characteristics of different local governments. [17] Whatever their theoretical merits, in practice in many countries, conditional transfers seem to have become so detailed and onerous as to hamper effective local government. [18]

When local governments are expected to play a major role in delivering social services, they inevitably depend in large part on central fiscal transfers to do so. The design of such transfers can be based on two quite different approaches. On one hand, to the extent the primary objective is to ensure that all regions have adequate resources to provide such services at acceptable minimum standards, simple lump-sum transfers, with no conditionality other than the usual requirements for financial auditing, seem indicated. This "federalist" approach assumes that the funds flow to responsible local political bodies, that there is sufficient accountability, and that it is neither necessary nor desirable for the central government to attempt to interfere with local expenditure choices. On the other hand, when the central government explicitly employs local governments as agents in executing national policies, such as in providing primary education, then it may make sense to make transfers conditional on the funds actually being spent on education or on the achievement of a certain standard of educational performance. [19]

The Philippine model seems close to the federalist approach. Most funds transferred to local governments come from the internal revenue allocation (also known as IRA). These transfers are allocated in part equally to each province and in part according to population and area. The poorest region (Bicol) received slightly above the average, while the Cordillera Administrative Region received almost double the average regional transfer per capita. On the whole, there is not much apparent relation between per capita transfers and levels of regional poverty in the Philippines (Bird & Rodriguez, 1999).

In Indonesia, general-purpose transfers represented only 23% of all transfers in 1990–91 (Shah & Qureshi, 1994). Transfers per capita were lower than the average provincial transfer for the capital, Jakarta (as for Metro Manila in the Philippines). On the whole, however, per capita transfers appear to be more closely related to poverty levels in Indonesia. The two poorest provinces in the country, in Timor, received quite different transfers, presumably reflecting in part the well-known political situation in that region. The frontier province of Irian Jaya received more than three times the average provincial per capita transfer.

Frontier regions also receive strong attention from central governments in Argentina and Chile. In sharp contrast to Indonesia, however,

only 14% of transfers to provinces were conditional in Argentina in 1992. As in Indonesia, the relationship of transfers and poverty was broadly positive, with poorer provinces receiving more support from the central government, though it was not the very poorest that gained most (Porto & Sanguinetti, 1993). Per capita transfers to the poorest provinces (Chaco, Formosa, & Santiago del Estero), in which 40% of their populations live under the poverty line, were only slightly higher than the average per capita transfer to all provinces. At the same time, some relatively wealthier provinces such as Catamarca received almost double the average per capita transfer.

Matching grants exist in some developing countries, and matching rates are occasionally differentiated according to characteristics of the recipient regions. An example of such a system is in Zambia, where local governments receive a transfer which equals the difference between the estimated cost of providing a specified level of local services and the expected revenues to be raised locally by applying a standard set of local tax rates. A similar matching grant exists in Korea, and similar systems, with varying degrees of refinement, have been proposed in many other countries (e.g., Hungary) and to a limited extent already exist for some services in others (e.g., Colombia). Again, the basic problem with this approach is that it is quite demanding in terms of information.

Transfers intended to finance particular types of service (e.g., road maintenance or education) are often linked to particular measures of need such as length of roads or number of students. At one extreme, this approach leads to the sort of "norms" found in Vietnam and a number of other transitional countries (e.g., Hungary), and gives rise to patterns (e.g., allocating funds on the basis of installed capacity) which may reflect past political decisions, rather than need. More careful determination of expenditure needs may have some role with respect to conditional grants—e.g., for basic education—but seems less likely to prove useful with respect to grants intended to finance general local expenditures.

Experience in countries such as Australia and Canada suggests that a considerable amount of reliable disaggregated data are required before the detailed "norm" approach makes sense. In the absence of such data, simpler approaches based on, e.g., population and a simple "categorization" of localities (by size, by type, perhaps by region) seem more likely as a rule to prove useful in measuring general expenditure needs. A number of developing countries distribute transfers by a formula intended both to equalize public expenditures in localities with differing needs and capacities and to stimulate local fiscal efforts, although severe data problems often constrain the parameters employed in such formulas. Simpler approaches—such as those used in Morocco and Colombia—based on such generally available (and moderately reliable) factors as population and a simple "categorization" of localities (by size, by type, perhaps by region) have sometimes proved to be helpful guides to general expenditure needs.

5. GRANTS FOR CAPITAL PROJECTS

Finally, it is worth considering briefly the role of transfers in financing local capital investment. Central governments have two reasons for being interested in what local governments do in financing infrastructure. First, some local infrastructure projects may involve significant externalities. Second, some such projects may constitute essential elements of national development programs. Infrastructure related to the provision of basic education and health services, for example, may qualify for both reasons, as may projects improving the level and quality of water supply and sewerage treatment. Support of local roads and some rural development projects may be justified as part of efforts to improve the economic productivity of poor rural areas.

In a decentralized system, in principle, local governments should identify infrastructure needs and execute projects. Financing large infrastructure projects from local resources alone may not be possible, given the scanty current revenues of most local governments. Moreover, small localities seldom have much access to private capital markets. If they are to carry out costly public works, they must therefore as a rule rely heavily on grants (or subsidized loans) from higher-level governments. The assistance currently provided for purposes of capital expenditure in most countries, whether through transfers or subsidized loans, could be significantly improved in a number of ways (Bird, 1994).

First, the terms and conditions of such transfers should require local governments to prepare both an adequate investment plan and an adequate maintenance plan (as well as an appropriate user charge policy). Second, the

localities that receive such transfers should be selected not by political factors but by a systematic process that pays attention both to needs and to capacity as well as the economic evaluation (such as cost-benefit analysis) of the project in question. Third, adequate technical assistance should be made available to local governments (not necessarily and perhaps not even desirably from central governments) to permit them to develop plans, arrange financing, manage construction, and operate the facility in the most efficient possible fashion. Fourth, the execution and operation of grant-aided work should be monitored and evaluated, with periodic progress reports, field inspections, and formal evaluations of outcomes. Finally, all local governments receiving such aid should be required to provide surveys of the condition of the infrastructure to which aid is to be directed in order to permit adequate assessment of future needs. Although meeting such conditions may seem like a counsel of perfection in the conditions of many developing countries, to the extent they are not satisfied, the results of central aid to local public works projects are unlikely to be satisfactory.

We noted in Section 4 that in theory a matching grant, in which the central government pays part of the cost of expenditure carried out by a local government, is the best way to finance projects in which some of the benefits from the local activity in question spill over to other localities. Properly designed matching grants also have the political advantage of introducing an element of local involvement, commitment, accountability, and responsibility for the aided activities. Money alone will not do the job, however. It has to be provided in the right framework, in the right amounts, and to the right recipients under the right conditions. For such a system to work, the central government needs both clear objectives and an operational system that can efficiently work with local governments interested in having access to these resources. Unfortunately, few developing countries satisfy either of these conditions.

6. THE POLITICAL DIMENSION OF GRANTS

Analysis of intergovernmental fiscal relations must also recognize the reality of political transfers. It may be necessary, for example, to transfer some resources to jurisdictions that do not really need them, in order to make it politically feasible to transfer needed amounts to other jurisdictions. It may also be essential to transfer resources simply in order to keep some economically nonviable local governments alive for political reasons—to salvage regional pride, to provide jobs for local supporters, or for some other reason.

From an economic perspective, the problem is to avoid inflicting collateral damage in the course of achieving such political objectives. As one example, transfers that simply finance local deficits or that are entirely discretionary in nature are invariably bad. A quite different example is when the function of financing local infrastructure (new water systems, roads, schools or hospitals) is assigned to an automatic and permanent transfer not linked to coverage needs. This practice creates two problems. First, the central government loses a potentially important tool to implement its development goals and to direct resources to those regions with the most important coverage gaps. Second, the construction of infrastructure is a discrete event and all too often other central policies ensure that local governments lack the flexibility to allocate these resources to other uses. Such rigidity in funding may in the end lead to even more allocative distortions. An additional important political concern arises when transfers are changed. Since it is much easier to give someone more than to take away what they now have, revenue-neutral transfer redesign is hard to achieve. In most instances, a substantial transitional period—with perhaps a longer transition for losers than for winners—may prove necessary, and a common result is a short-term increase in total transfers.

In practice, when major changes are made in intergovernmental fiscal arrangements, they often result from important political developments that create the need and opportunity for change but not the time to think through changes adequately. Examples of acting in haste with respect to intergovernmental fiscal arrangements and repenting at leisure are not hard to find. Brazil's post-military constitution of 1988, South Africa's post-apartheid constitution, and, perhaps most dramatically the situation in many central and eastern European countries after the dissolution of the Soviet Union provide instances. Moreover, once a political settlement is reached in intergovernmental finance it often proves exceptionally hard to alter thereafter, as illustrated, for example, by Argentina's inability to date to alter

the fixed percentage shares established in 1989 despite the constitutional mandate to do so by no later than 1996. The advice offered earlier in this section—to plan carefully and allow for an adequate transition—is sensible, but it may be difficult to put into practice in many real-world political situations.

7. CONCLUSION

The principal lessons for transfer design that seem to emerge from international experience and the preceding discussion may be summed up as follows:

First, as a rule there is a role for both general purpose transfers and for special purpose matching grants (e.g., for infrastructure).
Second, it is generally advisable, from the points of view of both the grantor and recipient governments, that the total pool of resources to be distributed in general purpose transfers be set in a stable but flexible way (e.g., as a percentage of central taxes, adjustable every few years).
Third, in principle a general-purpose grant should take into account both need and capacity, but it should do so in as simple, reliable, and transparent a fashion as possible.
Fourth, if the general purpose grant is properly designed, and if local governments have some discretion in tax policy, there is no need to include specific incentive features to encourage additional tax effort. [20]
Fifth, as a rule no conditions should be imposed (e.g., through earmarking or mandates) as to how such general purpose grants are spent. [21]
Sixth, on the other hand special purpose grants should usually have a matching component, which probably should vary both with the type of expenditure and the fiscal capacity of the recipient.
Seventh, in particular to the extent such grants are intended to finance infrastructure, recipients should as a rule be required to satisfy technical conditions sufficient to ensure that the money is properly spent.
Eighth, and finally, all local governments should be required to manage financial matters in accordance with standard procedures, to maintain adequate and current accounts, and to be audited regularly and publicly. [22] Similarly, although central governments should not pre-approve or direct in detail local government budgets and activities, they should maintain up-to-date and complete information on local finances and make such information publicly available. In the world of intergovernmental fiscal relations, better information is not a luxury. It is an essential component of a well-functioning system.

Countries that can do all these things correctly will have good systems of intergovernmental fiscal transfers. Those that do not, will not.

NOTES

1. In this paper, we generally use the term "local governments" to encompass all governments below the national (central) level.

2. For a more extended review encompassing many other aspects of intergovernmental fiscal relations, see Bird (2001a). Since many of the questions discussed here are far from settled in the literature, readers may also wish to consult two other recent—and very different—discussions of the role and design of transfers in developed countries: Carlsen (1998) and Duncombe and Yinger (1998). The examples used in the paper are for the most part taken from earlier reviews of transfer systems in various countries, both developed and developing—for example, Bird (1986), Shah (1994), Bird, Ebel, and Wallich (1995), Ahmad (1996), Ter-Minassian (1997), and Bird and Vaillancourt (1998)—and may not reflect the current situation in the countries mentioned.

3. There is surprisingly little analytical rationale for the argument sometimes made that accountability requires, say, half or more of local expenditures to be financed from local sources. Jha (1999) found that the higher the ratio of central grants to total expenditures, the lower the tax effort in major Indian states, but this finding appears mainly to reflect certain institutional features in India. Pisauro (2001) distinguishes what he calls the problem of dependence on the "commons" (central transfers) from the soft budget constraint literature and contends that the former provides a rationale for expecting worse behavior from those most dependent on central revenues. As he himself admits in a footnote, however, at base this argument too depends upon his assumption that the more dependent subnational governments are on transfers the "softer" the budget constraints they are likely to face. There is thus only one argument—the "soft budget" argument, as we assume in this paper.

4. Vertical imbalance refers to the difference between expenditures and own-source revenues at different levels of government. Horizontal imbalance refers to the differences between the resources available to governments at the same level, that is, regional inequalities.

5. For a discussion of how this (vertical) gap-filling role may be largely eliminated by better design of local revenue systems, see Bird (2000).

6. Many countries face problems in central tax policy as a result of their transfer formulas. In Morocco, for example, a free trade agreement with Europe would reduce import duties received by the central government, but raising the VAT to generate the same revenue would produce only 70% as much revenue for the central government since the balance would go to local governments. As another example, in Lebanon in 1997 transfers to municipalities were set as a percentage of import duties, which were at that time also supposed to fall as a result of a trade agreement.

7. Alternatively, as has happened at times in, for instance, Canada and Argentina, the central government may at times redefine the base for transfers by such means as imposing surcharges or new taxes that are not "pooled." While such measures are often defended as necessary for effective central stabilization policy, the result may be insufficient stability in the provision of vital human development services such as health and education when, as is often the case, local governments are responsible for these services. In some circumstances, a more stable macroeconomic adjustment mechanism such as a moving average of GDP growth (as used in Canada for one large transfer program) may provide an acceptable compromise.

8. Note that it is important to distinguish fiscal capacity equalization (among jurisdictions) from considerations of horizontal equity (among individuals) since the two are not necessarily connected: Some US. literature (for example, Oakland, 1994) appears to blur this distinction, perhaps because the United States is the only developed federal country with no general federal equalization system.

9. Courchene (1994) and others have stressed a related disincentive effect in capacity equalization. Local governments will be discouraged from attracting new investment, since 100% or more of any resulting additional revenues will be "taxed back" through the equalization formula. Since governments often attract investment through lower taxes and other financial and regulatory incentives, the two views are consistent.

10. An exception is when the positive transfers required to bring those below the average up to the average are financed by negative transfers from those above the average (as in the *finanzausgleich* of Germany and the similar system in Denmark). More generally, the effects of any grant system are obviously determined in part by how the grants are financed (Musgrave, 1961), but this important question cannot be discussed further here.

11. The objective of providing similar public services regardless of location may conflict with the desirability of migration from less (privately) productive to more productive locations. Although this subject has been discussed extensively (if not very conclusively) in the literature, it is not further considered here in part because in many developing countries the relatively small differences in location-specific public service bundles (excluding education and health, which are assumed to be portable) that might result in different locations from an equalization program are unlikely to be significant factors in migration decisions.

12. In contrast, the current system in Argentina distributes the "pool" (determined as a percentage of central revenues) according to fixed percentage shares for each province. There was some rationale for these shares when they were fixed in the late 1980s; there is none now.

13. As in the case of most of the examples mentioned here, this is a highly oversimplified characterization of a complex system: for a more extended recent review of intergovernmental transfers in Spain, see Castells (2001).

14. Although some have attributed general macroeconomic instability in several Latin American countries in part to their "excessive" transfer systems, this analysis seems rather superficial (Bird, 2001a). More detailed examination of particular countries (Dillinger, Perry, & Webb, 2001) suggests that the matter is considerably more complex and is more a matter of the poor design of intergovernmental fiscal arrangements than the size of transfers.

15. As mentioned in note 8 above, capacity is preferable to macro measures of income because what matters is the ability of the local government to raise local revenues from local citizens, which may be only loosely related to the level of per capita income or regional GDP.

16. For a detailed proposal for such a system in Colombia, see Bird and Fiszbein (1998).

17. For a recent example of the problems even with the exceptionally rich data base available in the United States, see Duncombe and Yinger (1998).

18. As McCarten (forthcoming) notes with respect to India, "the vast number of such schemes, their high

administrative overhead costs, and rigid eligibility criteria, have undermined effectiveness and distorted state priorities." (Of course, the aim of such transfers is precisely to "distort" state priorities!)

19. Shah (1994) emphasizes the desirability of "output accountability" in terms of performance while Bird (1993) places more emphasis on "input accountability" in terms of expenditure. Actually, both forms of accountability seem necessary and desirable in most countries, but further discussion would lead us too far astray at this point.

20. Unless for some reason it is desired to expand the size of the local public sector beyond the level that would be chosen by local decision makers (which may already, as noted earlier, be too high).

21. See Bird and Fiszbein (1998) for more detailed discussion of this and the next two conditions and for an illustration in the case of Colombia.

22. This subject has not been discussed in detail in this paper: for an introduction, see Bird (2001b).

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