



Joseph L. Rotman School of Management
University of Toronto

Rotman

Institute for International Business

Working Paper Series

IIB Paper No. 16
August 2008

**Subnational Taxes in Developing Countries: The Way
Forward**

Richard M. Bird
Professor Emeritus of Economics
University of Toronto

Roy Bahl
Georgia State University

Subnational Taxes in Developing Countries: The Way Forward

Roy Bahl and Richard Bird
Georgia State University and University of Toronto
July 2008

Abstract

This paper reviews the literature and evidence on the most appropriate structure of regional and local taxes in developing countries. A good subnational tax system is critical to an effective and sustainable system of intergovernmental fiscal relations – a need that has become increasingly important around the world as more and more public services are being delivered through subnational governments. In most developing countries potentially sound and productive taxes exist that are suitable for regional and local governments: property taxes, taxes on motor vehicles, surcharges on national personal income taxes, payroll taxes, and even, in some cases, regional value added taxes and properly designed local business taxes.

Key words: local taxes; regional taxes; fiscal decentralization

JEL codes: H71, H77, O23

Subnational Taxes in Developing Countries: The Way Forward

Roy Bahl and Richard Bird¹

Georgia State University and University of Toronto

Revised; July 2008

Many developing countries have strengthening subnational -- local and regional -- governments as one item on their development policy agenda. In principle, the most important benefit from decentralization is the increased efficiency (and consequent welfare gain) that comes from moving governance closer to the people (Oates 1972). The argument is straightforward. Assume that people's preferences for government services vary, e.g., because of religion, language, ethnic mix, climate, economic base or just because of their inclinations or those of the local political leadership. Assume further that people with similar preferences live in the same region. If subnational governments respond to these preferences in structuring their budgets, decentralization will result in variations in the package of services delivered in different regions. In a system in which there is downward accountability, voters will see to this and since people will get what they want, their welfare will be enhanced. In contrast, with a centralized system in which accountability is upward to a higher level of government, service provision will be more uniform so people in different regions will not get the service mix that they want. The more heterogeneous the country, the greater the welfare costs of uniformity.

True believers in fiscal decentralization argue that, successfully implemented, it will not only improve welfare directly but also contribute to alleviating several key problems facing most developing countries: economic development, revenue mobilization, innovation in public service delivery, accountability of elected officials, capacity development at the local government level, and grassroots participation in governance.² What more can one ask? Of course, to achieve any of these benefits local

¹ This is a revised version of a paper originally delivered at the South Africa Tax Symposium, Pretoria, March 2008. Since the authors have written so much in so many places on this topic over the years, it is inevitable that much of what is said here draws heavily on some of these earlier writings. To avoid excessive self reference for the most part we do not indicate specific sources when what we say here is based on our own earlier works. In this paper, we draw especially heavily from Bahl (forthcoming) and Bird (2006).

² For simplicity we sometimes use "local" (instead of the somewhat awkward "subnational") to mean both regional and local: the context should make the precise meaning clear.

governments must have the power to control their employees and local residents must have the power to control their governments (normally through elections). Moreover, there must be sufficiently accurate information available for voters to evaluate the fiscal decisions of their local governments. Unfortunately, in many developing countries one or more of these conditions is not met.

One reason fiscal decentralization may increase revenue mobilization is because by involving subnational governments more directly in taxation a greater share of GDP may be reached by the tax system. Typically, central governments rely on a combination of company income tax, individual income tax, value added tax, excises and customs duties. In most developing countries, however, these taxes have a high entry threshold.³ Small firms, most individuals, and owners of immovable property are under-represented in the tax base as the result of a combination of this feature and widespread evasion. The revenue mobilization hypothesis is essentially that subnational governments have the potential – and, if the intergovernmental transfer system is properly designed (as discussed below), the incentive --to reach the traditional income, consumption and wealth tax bases in ways that the central government cannot.

If this hypothesis is correct, increases in subnational government tax revenues will not be offset by reductions in central government tax revenues. Indeed, increased subnational revenue mobilization will reduce the need for intergovernmental transfers from central revenues. In many countries, local governments do to some extent seem to have broadened the tax base with a variety of tax instruments and administrative measures such as levies on the sales of assets of firms, licenses to operate, betterment charges and various forms of property taxation. Subnational governments may have a comparative advantage when it comes to at least a few taxes. Often, for instance, local governments oversee a variety of licensing and regulatory activities and track property ownership and land-based transactions for a variety of reasons. They thus have ample opportunity to identify businesses in the community and to gain some knowledge about their assets and scale of operation. Because the potential revenue is much more

³ See Keen and Mintz (2004) for discussion of the appropriate threshold with respect to value-added taxes: these authors conclude that the VAT threshold is too high in most developing countries -- a fact recently recognized in South Africa's 2008 budget when the VAT threshold was substantially increased.

important for them in relative terms local governments have more incentive to carry out such activities than do national governments.

The traditional theory of fiscal federalism prescribes a very limited tax base for subnational governments. The only good local taxes are said to be those that are easy to administer locally, are imposed solely (or mainly) on local residents, and do not raise problems of harmonization or competition between subnational – local or regional - governments or between subnational and national governments.⁴ The only major revenue source that usually passes these stringent tests is the property tax, with perhaps a secondary role for taxes on vehicles and user charges and fees. Since central governments are in any case generally reluctant to provide subnational governments access to more lucrative sales or income taxes, it is not surprising that the ‘property tax only policy’ has become both conventional wisdom and common practice in many developing countries.

There may be good reasons why central governments are often reluctant to give too much discretion to local governments such as fear of losing macroeconomic control.⁵ The desire to control key infrastructure development is also a factor. Fiscal decentralization may shift resources from central governments that have higher rates of capital spending to regional and local governments that spend relatively more on consumption goods and services. If the result is a lower overall rate of spending on infrastructure, national growth could be harmed. Fiscal decentralization may also lead to a shift in the composition of public capital investments because national priorities for capital investment are unlikely to be the same as those of subnational governments: the latter, for example, are unlikely to take network effects adequately into account.

Moreover, if fiscal decentralization takes the path of heavy reliance on own source revenues, a decided advantage is given to subnational governments with a greater fiscal capacity -- such as large cities in which there is both a larger tax base that is easier to reach and a better chance of developing the administrative capacity to collect taxes. Decentralizing revenues is thus likely to increase regional inequality. Finally, revenue

⁴The classic tax assignment arguments are set out in Musgrave (1983) and restated in Oates (1998). A useful recent treatment with respect to emerging economies is Martinez-Vazquez, McLure and Vaillancourt (2006).

⁵ See Tanzi (1996), but see also Boadway and Shah (forthcoming) for a more balanced assessment.

decentralization may be costly, relative to the benefits gained. Subnational governments may not have the administrative skills to collect taxes efficiently. There may be duplication of services with the central government and, some argue, perhaps increased corruption.⁶

Despite such potential problems there are nonetheless strong arguments for assigning some significant taxes to subnational governments. Local residents are likely to hold officials more accountable if local public services are financed to a significant extent from locally imposed taxes and charges as opposed to central government transfers. Ideally, to have this beneficial effect, local taxes must be both visible to local voters and large enough to impose a noticeable burden (one that should not be easily exported to non-residents). The minor levies and nuisance taxes found at the local level in many developing countries do not measure up to these requirements.

Reliance on own-source taxes also has the important advantage of imposing fiscal discipline on subnational governments. A greater share of financing from own sources drives up the tax price of public services and reduces the upward pressure on subnational government expenditures. Heavy reliance on intergovernmental transfers – the common situation in most developing countries -- has precisely the opposite effect unless unusually great care is devoted to ensuring that transfers have no effects at the spending margin.

Significant tax assignment to subnational governments is not uncommon in developed countries (OECD 1999, 2006). At one extreme, US State governments and Canadian provinces have almost complete autonomy in choosing any tax base, so long as there is no interference with interstate commerce. In Denmark and Sweden, local taxes account for nearly one-half of local government spending. Revenues from subnational government taxes in Switzerland are greater in amount than revenues received from grants. Japan lagged other industrialized countries in the assignment of taxes to local governments but is now introducing a new intergovernmental reform that shifts taxing power significantly to local governments (Ikawa forthcoming).

⁶ Empirical work on the relationship between decentralization and corruption is inconclusive. Fisman and Gatti (2002), for example, find that corruption is lower in more decentralized countries; Treisman (2000) finds corruption to be higher in federal than in unitary countries. For a good review of the literature and of the underlying issues, see Martinez-Vazquez, Arze and Boex (2007).

In most developing countries, however, central governments have been reluctant to release taxing powers to subnational governments. The subnational tax share in total taxes in developing countries is only about 10 percent by comparison to 20 percent in industrialized countries. These figures have changed little in the last 30 years.⁷ Most subnational government expenditures in developing countries are financed through transfers. Even those taxes that are passed down are often costly and difficult to administer. For example, Pakistan gives its provincial governments the right to tax agricultural income, the consumption of services and property transfers. The result is a level of subnational government tax revenue that is less than one percent of GDP (Bahl, Wallace and Cyan 2008). Subnational governments in countries like Cambodia, China and Vietnam are equally starved of own source taxes and raise less than 5 percent of their total revenues from own sources (Taliencio 2005).⁸ In contrast, in a few developing countries, like the Philippines, Brazil, and Colombia, a third or more of subnational government expenditure is financed from own source revenues. In these cases regional and/or local governments usually have access to some form of taxation on business in addition to a property tax. We shall return to this point.

In the balance of this paper, we first discuss further the general question of what taxes are best levied by subnational governments and then turn to some important aspects of the major taxes that seem suitable for subnational governments in developing countries.⁹

What Taxes for Subnational Government?

Who should levy what taxes, and how effectively they can do so, has been a major issue in some countries. The correct revenue assignment in a multi-level government structure is by no means clear in principle, and is often controversial in practice. The fundamental problems are two. First, the central government can inherently collect most taxes more efficiently than can subnational governments. Second,

⁷ Calculated from IMF, *Government Finance Statistics Yearbook*, various years, and from country studies (see Bahl and Wallace, 2005).

⁸ For reasons we note later, these figures exclude national taxes "shared" with subnational governments.

⁹ User charges are a potentially important source of local government revenue but we do not discuss them in this paper.

the potential tax bases available to the latter vary widely from jurisdiction to jurisdiction. The first of these problems gives rise to vertical imbalance; the second produces horizontal imbalance.

To some extent, as we discuss later, the first of these problems may readily be solved if variable surcharges on central taxes are feasible. However, even if vertical imbalance is resolved by adjusting revenue assignments, horizontal imbalance is invariably worsened by decentralizing taxing powers since those who have more to tax are obviously better off under this system than those less favored. Consequently, in countries where interjurisdictional disparities are, for whatever reason, of policy concern more decentralized taxes imply a need for more balancing transfers to poorer regions.¹⁰

What Is a Local Tax?

To clarify the discussion it may be useful to make clear exactly what we mean by a local (or regional) tax. A *completely* local tax might perhaps be defined as one that satisfies six distinct conditions:

- (1) Local governments can decide whether to levy the tax or not.
- (2) They can also determine the precise base of the tax.
- (3) They can decide the tax rate.
- (4) In the case of 'direct' taxes, they assess the tax imposed on any particular taxpayer.
- (5) They administer the tax.
- (6) They get to keep all they collect.

In the real world, however, many taxes may possess only one or two of these characteristics, and the "ownership" of the levy may be unclear.

In Argentina, for example, although part of the proceeds of many taxes accrues to the provinces, the rates (and bases) of these taxes are determined by the national government, which also assesses and collects them. Such 'local' taxes are common in the developing world. For most purposes, however, such taxes are best considered to be

¹⁰As May (1969) argues, the "taste" for regional equalization may vary greatly from country to country. Compare, for example, the explicit interregional redistribution of the unemployment insurance system in Canada with the state-based (and hence non-equalizing) system of the United States

central government taxes that are distributed (in whole or part) to local governments. This interpretation is particularly plausible when, as is often the case, there is little connection between the amount transferred and the amount collected locally (as in Germany). But it also holds to a substantial extent even when revenues are distributed on the basis of their point of collection (as in China).

On the other hand, what looks to be a central tax coupled with a related transfer program may from some perspectives really be a local tax. If, for example, a local government can (a) decide whether or not to impose a particular tax, (b) determine the tax base, (c) set the tax rate, and (d) receives all the revenues, then even if the tax is collected by the central government, the only role the center plays is as a collection agent. With the exception that the base can be altered only by credits (against taxes due) and not by deductions or exemptions, this is essentially how the provincial personal income tax operates in most provinces of Canada for example. In effect, the provinces have simply contracted for the services of the central government as a collection agent. In this case, there is no intergovernmental transfer at all except in the narrowest accounting sense.

Intermediate cases between these extremes may easily be found. In Brazil, for example, the states impose and collect their own VATs (ICMS), but the rate of the tax is set centrally. As mentioned above, in China VAT proceeds are shared with the regional governments on a derivation basis. In Québec, Canada, the federal VAT (the GST) is collected by the provincial government and the proceeds remitted to the federal government. In contrast, in three other Canadian provinces, provincial VATs are collected by the federal government and the proceeds remitted to the provinces in question. In which of these cases is subnational tax power the strongest? Both theory and experience suggests that it is in Canada -- especially in Québec but to some extent even in those provinces in which subnational governments do not collect their own VAT.¹¹ Why? Because the most critical aspect of sub-national taxing power is who is politically responsible for setting the tax *rate*. All the accountability virtues of subnational taxation depend on local governments both having the authority to decide

¹¹ Under the existing federal-provincial agreement, all three of the current provinces for which the federal government collects VAT must impose the same rate, but that rate can be altered at any time by agreement of a majority of the provinces. As Smart and Bird (2006) argue, there is no technical reason for this requirement: in principle any province should be able to alter its own tax rate.

how much revenue they raise and being openly responsible to their own citizens for doing so.

This argument of course lends some support to the tendency noted above for subnational governments almost everywhere to be urged to make more use of property taxes, and criticized when they do not do so enthusiastically. The property tax is indeed a very good local tax up to a point. Unfortunately, that point generally falls far short of the task facing many subnational governments for reasons we discuss below.

What Is a Good Local Tax?

Four basic principles for assigning revenues to subnational governments may be suggested:

- First, subnational taxes should not unduly distort the allocation of resources.
- Second, to the extent possible governments at all levels should bear significant responsibility at the margin for financing the expenditures for which they are politically responsible.
- Third, ideally own-source revenues should be sufficient to enable at least the richest subnational governments to finance from their own resources all locally-provided services primarily benefiting local residents.
- Fourth, to the extent possible, subnational revenues should burden only local residents, preferably in relation to the perceived benefits they receive from local services.

Economists often emphasize the first of these criteria, non-distortion. Earlier, we have discussed the importance of the second criterion, accountability. The other two criteria listed are also important, however. The third focuses on the desirability of reducing vertical fiscal imbalance and hence the need for intergovernmental transfers: the lighter the load put on the intergovernmental fiscal system the more likely it is to be able to do its job adequately. Finally, the last criterion listed is obviously related to both reducing distortion and increasing accountability, but it also reflects another important aspect of an appropriate approach to subnational finance, namely, that the principal task of subnational governments cannot and should not be income redistribution. While local governments are often critical deliverers of services to the poor, they are seldom well-

sued to play any substantial redistributive role in terms of financing such services.¹²

Among the characteristics that might be sought in a subnational tax to meet these requirements are the following:

- [1] The tax base should be relatively immobile, to allow local authorities some leeway in varying rates without losing most of their tax base.
- [2] The tax yield should be adequate to meet local needs and sufficiently buoyant over time (that is, it should expand at least as fast as expenditures).
- [3] The tax yield should be relatively stable and predictable over time.
- [4] It should not be possible to export much, if any, of the tax burden to non-residents.
- [5] The tax base should be visible, to ensure accountability.
- [6] The tax should be perceived to be reasonably fair by taxpayers.
- [7] The tax should be relatively easy to administer efficiently and effectively. The cost of efficient administration should be a “reasonable” proportion of revenue collections.¹³

Not everyone would necessarily agree that all these characteristics are necessarily or equally desirable. For example, is it unequivocally good that subnational governments should be insulated from either the tax base consequences of their tax rate choices or from inflation? Moreover, the characteristics that may be sought in an ideal local tax from the point of view of local and central governments are not necessarily compatible. Both levels might perhaps agree that the tax base should be immobile, and perhaps also that the tax yield should be stable and adequate to meet local needs. On the other hand, central governments should be concerned to ensure that it is not possible to export much, if any, of the tax burden to non-residents and that the local tax base is visible to ensure accountability. Subnational governments are likely to view such attributes quite differently. Finally, since not all local governments are the same, in most countries the appropriate tax mix is likely to differ not only between regional and local governments but also between governments at each level of different sizes and

¹² For further development of (and caveats to) this argument, see e.g. Bird and Rodriguez (1999).

¹³ For further discussion of this point, see Gallagher (2004). Compliance costs must also be reasonable as emphasized by Evans (2003)

complexities although we cannot discuss such asymmetry further here.¹⁴

In any circumstances, however, the key point is that unless local governments have some significant degree of freedom to alter the level and composition of their revenues neither local autonomy nor local accountability is meaningful. In particular, although this condition is seldom found in developing countries, some degree of rate flexibility with respect to a significant component of local revenues seems essential if a tax is to be both adequately responsive to local needs and decisions and an instrument to make is to make local leaders more accountable to their citizens.¹⁵

Some argue that a potential danger in permitting local governments even limited freedom to tax is that they will not utilize fully all the revenue sources open to them, thus allowing the level and quality of public services to deteriorate -- the infamous "race to the bottom." If intergovernmental fiscal structures are properly designed, this should not be a problem.¹⁶ If the service in question is one of national importance (research?) or one in which there is a strong national interest in maintaining standards (poverty alleviation? integrated national networks?), it should presumably be funded -- and the extent to which it is achieved, monitored -- by the central government. If it is not a matter of national interest, why should the central government be concerned?

The result of such a system of local autonomy in taxation will be non-uniformity across local governments: some will have higher rates and some lower rates. Central governments bent on keeping the system uniform may not embrace this strategy. Decentralists, on the other hand, will note that local taxes are best viewed as benefit charges for local services that will properly both vary in quality and quantity as well as in the efficiency and cost with which they are provided from place to place.

If local electors do not like what their local government does, or does not do, they can (try to) throw the rascals out at the next election. The freedom to make mistakes, and to bear the consequences of one's mistakes, is an important component of local autonomy in any country. Indeed, unless local governments are given some degree of freedom with respect to local revenues, including the freedom to make mistakes (for which they are

¹⁴ For different treatments of metropolitan and rural areas, for example, see Slack (2007) and Bird and Slack (2008).

¹⁵ Weingast (2005) presents this as a critical component of "second-generation fiscal federalism."

¹⁶ For further discussion of grant design, see Bahl (2008) and Bird and Smart (2002).

accountable to their citizens), the development of responsible and responsive subnational government is likely to remain an unattainable mirage. Of course, if the conditions we mentioned initially -- effective democracy and adequate information -- are not satisfied, or if those who fail to collect local taxes or to spend revenues efficiently are bailed out by discretionary transfers, the rascals may not be thrown out but rather re-elected for their success in obtaining a larger share of other people's money. Countries that, for whatever reason, fail to set up an appropriately designed intergovernmental fiscal structure are likely to have both more problems in managing decentralization and less satisfactory policy outcomes.

Another danger is that local governments may attempt to extract revenues from sources for which they are not accountable, thus obviating the basic efficiency argument for their existence. To avoid this problem, it may be desirable to take two steps. First, limit local government access to taxes that fall mainly on nonresidents -- such as most natural resource levies, pre-retail stage sales taxes and, to some extent, nonresidential real property taxes. Second, a uniform set of tax bases may perhaps be established for local governments (perhaps differing for different categories such as big cities, small towns, and rural areas), with a limited amount of rate flexibility being permitted in order to provide room for local effort while restraining unproductive competition and unwarranted exploitation. If inappropriate tax bases are assigned to subnational governments, wasteful competition and undesirable tax exporting are likely to result. On the other hand, if inadequate tax bases are assigned, the results are likely to be imposition of a variety of undesirable and distortionary fees, levies and informal charges often outside the normal budgetary process.¹⁷

Financing Regional Governments

The present assignment of taxes in most countries with important regional levels of government, such as India, Brazil, Pakistan, South Africa, and Russia falls short of ideal. One common problem is that there is a significant vertical imbalance between expenditures and revenues, with consequent implications for autonomy, efficiency, and

¹⁷ For two very different examples along these lines, see Prudhomme (1992) and Wong and Bird (2008).

accountability. Another problem is that the present confused and confusing system results in significant costs — costs of administration, costs of compliance, and costs arising from tax-induced inefficiencies in the allocation of scarce resources.¹⁸

As we have already discussed, in principle multi-tiered governments work best when taxes and the benefits of public spending are as closely related as possible — when those residing in a particular political jurisdiction both pay for what they get from the public sector and get what they pay for (that is, benefit from the expenditures financed by the taxes they pay). When citizens reside in several overlapping jurisdictions the "principle of fiscal equivalence" (Olson 1969) implies that they should pay taxes to each level corresponding to the benefits they receive from each jurisdiction. In this framework an essential purpose of intergovernmental transfers is to restore this equivalence, for example, when some benefits flow from one jurisdiction to another or (negatively) when some taxes levied by one jurisdiction are in fact paid by persons residing in another jurisdiction.¹⁹

Politics or considerations of administrative efficiency and feasibility may dictate that higher (or lower) levels of government impose certain taxes or carry out certain expenditures even when it would not be strictly appropriate to do on equivalence grounds. If adequate subnational taxes are made available, this "fiscal gap" (Boadway and Hobson 1993) argument for transfers disappears. If the richest units of government at subnational levels are essentially self-sufficient there is no case for universal intergovernmental fiscal transfers. Any grants from higher levels of government made for reasons of regional equalization in this system should be clearly *inframarginal*, so that all subnational governments face the full marginal tax price of the spending decisions for which they are responsible, thus yielding the hard budget constraint emphasized by such

¹⁸A particular problem arises in some countries because of the uneven geographical distribution of natural resources and the resulting severance of the link between "local" taxes and benefits when subnational governments are able to tax such resources, as is often the case. The ideal solution is of course to prevent them from doing so (Mieszkowski 1983), but if this is not possible, considerable care must be taken in designing other aspects of intergovernmental finance, particularly transfer systems, in order to offset the resulting distortion as much as possible. Unfortunately, although this problem is important in a number of developing countries, we cannot discuss it in detail here.

¹⁹Note that such transfers would be horizontal, between provinces or municipalities, and not between levels of government. A rare example of such a system in a developing country is the *Fondo Comun Municipal* in Chile.

authors as Rodden, Eskeland, and Litvack (2003).

Good subnational taxes -- at both regional and local levels -- should thus in principle satisfy two main criteria. First, they should provide sufficient revenue for the richest subnational units to be essentially fiscally autonomous.²⁰ Second, they should clearly impose fiscal responsibility at the margin on subnational governments. As we stressed earlier, the simplest and probably best way to achieve the latter goal is by allowing those governments to establish their own tax rates with respect to at least some major taxes.

The most immediately important subnational revenue issue facing many larger countries is to develop a satisfactory revenue base for regional governments, that is, one for which those governments are politically responsible. While as we note below more can be done in the form of regional excise taxes, especially on vehicles and fuel, in most developing countries if regional governments have significant expenditure responsibilities, there are really only two important possibilities -- a surcharge on the central personal income tax (PIT) or a surcharge on the central value-added tax (VAT). If a country wants its local governments to be *both* large spenders *and* less dependent on grants, it must provide them with access to national tax bases. "Piggybacking" through surcharges seems to be the only viable way to do this while retaining an important element of political accountability. We discuss these issues further later.

First, however, it should be stressed that an implication of this discussion is that three long-accepted principles governing subnational taxation need to be reconsidered and perhaps discarded:

First, the conventional model of tax assignment, which in effect assigns all significant revenue sources to central governments, is clearly inappropriate for countries in which subnational governments, for whatever reason, account for a significant proportion of public sector spending. If such governments are to be big spenders, they must, in the interests of fiscal responsibility and accountability, also become

²⁰Of course this criterion does not preclude intergovernmental fiscal transfers not only to achieve the usual "spillover" objectives but also in order to ensure the adequate provision of certain services to "national standards."

bigger taxers.²¹

Second, the VAT is the key to central government finance in most developing countries (Bird and Gendron 2007). Central governments are obviously most reluctant to lose any control over this tax, and this understandable reluctance has, until now, been supported by the conventional wisdom that subnational VATs are not technically feasible. In certain circumstances, however, as we discuss below subnational VATs may be not only feasible but in some cases even desirable.

Third, admirable as the property tax conventionally recommended for financing local governments is, experience has made it clear that this tax is difficult to implement. Moreover, it is unlikely to provide an adequate fiscal base in countries in which local governments have major spending responsibilities. One answer to the resulting fiscal dilemma facing subnational governments in some countries has been the proliferation of a variety of bad taxes on business. Partial relief from the resulting distortions may lie in the introduction of a better local business tax at a low and uniform rate.

Even major reforms along these lines would not, of course, solve all the problems of establishing sound and workable regional and local tax regimes in developing countries. Such reforms would, however, at least move matters in the right direction.

Taxing Real Property

However subnational tax systems may develop in the future in developing countries, right now much can and should be done to strengthen the deficient property taxes already in place in most countries (Bahl, Martinez-Vazquez and Youngman 2008; Bird and Slack 2004). The tax should be simplified and applied uniformly. Cadastral maps should be updated, and valuations made more consistently and currently. Improved use should be made of flows of information from property registries, local building

²¹In principle even subnational governments that depend heavily upon intergovernmental transfers may spend such funds efficiently and responsibly *provided* that budget constraints are hard and that local decision-makers bear the full consequences of their decisions at the margin. Since few, if any, developing (or other) countries are likely to achieve such perfection, the better part of wisdom would seem to be to follow the advice in the text to the extent possible.

license authorities, public utilities, etc. In addition, as Dillinger (1991) noted, from a revenue perspective, relatively more attention should generally be paid to improving the "sharp end" -- collection and enforcement -- compared to the technically more costly (and less immediately productive in terms of revenue) mapping and surveying of the traditional cadastral approach.

For decades, local governments around the world have been told that the only appropriate general tax source for them is the real property tax (in effect as a sort of generalized user charge).²² As we have noted earlier, however, the property tax alone is unlikely to be able to do the job that needs to be done, particularly in big cities and at the regional level. Even in the most sophisticated countries, local property taxes seldom yield enough to finance all local services.

No developed country that depends significantly upon property taxes for local fiscal resources has a local government sector that accounts for more than 10 percent of total public spending (Bird and Slack 1991). Property taxes seldom account for more than 20 percent of local current revenues -- or less than 1 percent of total public spending -- in developing countries (Bahl and Martinez-Vazquez 2007). The property tax is a useful, even a necessary, source of local revenue, but it cannot easily provide sufficient resources to finance a significant expansion of local public services in most countries. Indeed, many countries have been hard-pressed even to maintain the present low relative importance of property tax revenues.

Even a well-administered local property tax is unlikely to provide sufficient revenue to finance major social expenditures (education, health, social assistance) except perhaps in the richest (and usually largest) communities -- and even then usually only in part. To the extent that it is desirable for governments to finance from their own revenues the services they provide, either subnational governments financed by property taxes are confined to providing such minor local services as street cleaning and refuse removal, or they are heavily dependent on transfers from higher levels of government. This pattern is seen with respect to local governments even in most developed countries, including the

²²The classic arguments for the property tax as a "user charge" may be found in Vickrey (1963) and Netzer (1973). For a more recent view, see Fischel (1992).

relatively few in which the property tax is the mainstay of local finance. In the OECD countries, when local governments are not dependent on national transfers, they invariably either impose significant direct taxes on business or levy surcharges on national income taxes.

The conventional argument for reliance on property taxes does not take adequately into account the existence in some countries, especially larger ones, of important regional (intermediate) levels of government that play a major role in financing social expenditures. Even if *local* governments are able to finance local services adequately through property taxes and user fees on residents, *regional* governments that are responsible for social and human capital services are unlikely to be able to do so. Moreover, in at least some developing countries higher level governments in may have pushed the property tax so much that other, good options for local government finance have not been developed. The reasons for this vary from country to country, but the fear of tax base competition on the part of central governments is probably high on the list in most countries.

The case for property taxes as the primary source of local revenues is thus to some extent flawed. It is true that buildings cannot easily run away and hide from tax officials. But it is equally true that valuation is an art, not a science, and there is much room for discretion and argument with respect to the determination of the base of the tax. Other problems arise from property tax administration. As a rule, for example, property is supposed to be assessed on the basis of its market value, usually defined as the price struck between a willing buyer and a willing seller in an arm's length transaction. Even in countries with well-developed property tax systems, discrepancies arise between assessed values and market values within classes of property, between classes of property, and across municipalities for both political and technical reasons. Since taxpayers can easily compare their property taxes with those of similar properties in their neighborhood, such discrepancies lead both to costly appeals and to general pressure for tax relief. Although the assessment and collection of property taxes can certainly be improved in most developing countries, it is difficult to administer this tax equitably in a rapidly changing environment, and it is always difficult to increase revenues from this source very much or very quickly.

Moreover, taxpayer resistance to the property tax seems to increase exponentially with increases in the tax burden. One important reason for widespread resistance to the property tax is simply because it is a very visible tax. The tax generally has to be paid directly by taxpayers in periodic lump sum payments. Taxpayers who pay taxes directly to government tend to be more aware of the size of their tax bill than those whose take-home pay is reduced by weekly or monthly tax deductions. The need to make periodic large payments adds to the accountability and responsibility of governments, but it also increases the sensitivity of taxpayers to even nominal increases in taxes.

In addition, since the base of the property tax does not increase automatically over time, the periodic nominal increases needed even to maintain real revenues when price levels rise require increased tax rates. Confronting people with the cost of government is a virtue of the property tax in terms of political accountability. The downside from the government's point of view is the visibility of nominal tax increases and the accompanying political resistance.

Finally, property taxes best finance such local services as roads and garbage collection. The quantity and quality of these services (or their absence) is thus readily linked to the property tax. When potholes develop in their street, taxpayers are understandably quick to question the taxes that supposedly finance street repair. Again, a feature that in principle makes the property tax a good source of local government revenue makes it especially vulnerable to political resistance in practice. It is not surprising that academics tend to be fonder of the property tax than are the politicians who actually have to impose it.

For such reasons, experience around the world suggests that the political costs of reliance on residential property taxes are so high that no government with access to politically "cheaper" sources of finance will willingly do so. Transfers (other people's money), borrowing (a problem for the next government!), and taxes on business that can largely be exported are all, from the perspective of subnational governments, politically preferable to confronting local citizens with the true costs of the decisions made by their governments. Moreover, even academics may not be quite so fond of the tax when they realize that political realities mean that increases in property taxes are often concentrated

primarily on those nonresidential properties which most lend themselves to tax exporting, thus undercutting one of the principal arguments for local use of this tax base.

The temptation to indulge in politically painless but economically inefficient "tax exporting" suggests that constraints should be placed on differential local taxation of nonresidential property.²³ As we discuss below, some local business taxation may be justified on benefit (efficiency) grounds. But such taxes should always be regulated to preclude localities from attempting to shift the costs of services to outsiders.

In any case important policy reforms are needed in most developing countries to turn the property tax into a responsive instrument of local fiscal policy:

- First, and most importantly, as we emphasized earlier, local governments must be allowed to set their own tax rates. Few developing countries currently give local governments much freedom in this respect. Where the power is given, it is often not used because intergovernmental transfers are generous. Pakistan, Philippines and Japan are examples here.
- Secondly, the tax base must be maintained adequately. In countries where inflation is a concern, some form of index adjustment of assessments may be advisable. Colombia is an example.
- Third, if the system is done centrally, assessing agencies sometimes must be provided direct financial incentives to keep local tax bases up to date. Again, Colombian experience illustrates the point.
- Fourth, attention must be paid to the reform of property transfer taxes. In developing countries transfer tax rates tend to be high, which encourages under-declaration of sales values and compromises the data base necessary to do proper

²³Studies in the U.S. (McLure 1967) and Canada (Ballantine and Thirsk 1982), where residential property taxation is especially important, suggest that "exporting" local taxes on business is both a common and an important phenomenon. It seems unlikely to be less so in developing countries in which businesses often pay 80% or more property taxes.

valuation for the annual property tax.²⁴

- Finally, procedural reforms are often needed to improve collection efficiency, valuation accuracy, and the coverage of the potential tax base.

None of these steps is easy, but countries that want to have local governments that are both responsive and responsible must follow this hard road. There are no short cuts to successful local property taxation.²⁵

Nonetheless, a low-rate uniform property tax has an important role to play in financing local governments, whether rural or urban.²⁶ Moreover, other "land-based" subnational taxes -- for example, betterment taxes and even transfer taxes to a limited extent -- may be both feasible and, in moderation, desirable although again we cannot discuss these levies further here. Without disparaging the potentially more important role that property taxes can and should play in financing local governments in many developing countries, if regional (including metropolitan) governments are expected to play any significant role in financing "soft" services (education, health), it seems clear that as a rule they will need to have access to at least some more elastic and broad based revenue sources.

Excise Taxes

Among the taxes that might be considered at the regional (as opposed to the local) level are excises, payroll taxes, corporate income taxes, personal income taxes, payroll taxes, retail sales taxes, and value-added taxes (VATs). Largely on administrative and efficiency grounds, McLure (1997) suggests that excise taxes are a potentially significant source of regional revenue. Such taxes are both easily administered by regional governments and lend themselves to regionally-differentiated rate determination.

²⁴ Moreover, unlike property taxes which provide an incentive to make better use of one's property in order to generate the resources to pay the tax, transfer taxes discourage sales and hence the transfer of property to more economically productive uses.

²⁵ In addition, the extent to which area-based systems, which usually substantially reduce the elasticity of this revenue source, seem to be becoming increasingly popular in a number of countries around the world is reason for concern (Slack 2006).

²⁶ As Bird and Slack (2004) argue, progressive property taxes (like those in Argentina) make little sense.

Moreover, in terms of efficiency, regional excise taxes, if applied on a destination basis, should have little distortionary effect. Finally, it is sometimes argued that there is at least some benefit argument for excises -- for example, on alcohol and tobacco to the extent that regional governments are responsible for health expenditures and on vehicles and fuel to the extent that they are responsible for roads.

There is of course something in all these arguments, although in some instances not all that much. The benefit case for “sin” taxes, for example, is weak in general (Cnossen 2005). Moreover it is not always that easy to impose regionally differential taxes without serious distortions as well as substantial administrative and compliance costs and dangers of evasion. Finally, it does not seem particularly desirable to tie regional finances in any substantial way to such inelastic levies when the pressure on those finances comes largely from elastic expenditure demands for health and education.

Undoubtedly, the strongest economic and administrative case for regional (and perhaps even local) excises is with respect to vehicle-related taxes (Bahl and Linn 1992). Such taxes should certainly be exploited more fully than is commonly the case in most developing countries. The most important tax on automobiles from a revenue perspective is the fuel tax, which is also the simplest and cheapest form of automotive taxation from an administrative perspective. Although central governments too like to exploit this source of revenue, in principle fuel taxes can equally well be levied at the regional level. Different regions could impose different taxes, if they chose to do so, subject of course to the constraint that they would not likely be able to differ much from the rates imposed by their neighbors given the mobility of the tax base. Administratively, differential provincial fuel taxes can as a rule be imposed at the refinery or wholesale level, with the refiner or wholesaler acting a collection agent for the states, remitting taxes in accordance with fuel shipments.

Fuel taxes are related both to road usage and to such external effects of vehicles as accidents, pollution and congestion, but not in any very precise way. To the extent that automotive taxation is intended to price either the utilization of publicly-provided services or externalities, fuel taxes are a very crude instrument. Toll roads and an appropriate set of annual automobile (and driver) license fees can in principle serve this

benefit tax function much better. For example, vehicle license fees might be based on such features as the age and engine size of vehicle (older and larger cars generally contribute more to pollution), location of vehicle (cars in cities add more to pollution and to congestion), and especially the axle-weight of the vehicle (heavier vehicles do exponentially more damage to roads and require roads that are more costly to build). Similarly, even drivers licenses could, like insurance premiums, be related to driver records (20 percent of drivers are responsible for 80 percent of accidents) or, as a crude proxy, to age and sex.

Subnational taxation of motor vehicles is fundamentally a good idea. Careful study of the appropriate design of the automobile tax system is needed, however (Smith 1991). In most countries, both more revenue and better economic effects could be achieved through a revised system of automotive taxation. Subnational revenues could be further boosted by giving states access to the fuel tax (through surcharges). Indeed, automotive (and fuel) taxation is often the only tax available subnational governments that is likely to have greater than unitary income-elasticity, thus matching this aspect of some of the key services (education, health) for which regional --and even local -- governments are increasingly responsible in many countries. Nonetheless, automobile taxation alone cannot do the job.

Personal Income Taxes

If more subnational "own-source" revenue is desired -- either to expand the size of subnational activities or to make subnational governments more self-reliant -- OECD experience suggests there is much to be said for supplementary ("piggybacked") local personal income taxes (PITs) been. Like the property tax, such a tax would be visible and hence in principle satisfy the criteria of political responsibility and accountability.²⁷

²⁷ On the other hand, the fact that piggybacked income tax revenues tend to grow with less political fuss than e.g. the property tax, while presumably good news for local officials, suggests that increased reliance on local income taxes ought perhaps to be viewed with mixed feelings.

Among the few countries in which subnational governments both have large expenditure roles and are largely fiscally autonomous are the Nordic countries. It is no coincidence that the best-known examples of local income taxes are in those same countries (Soderstrom 1991). These local income taxes are basically levied at a flat, locally-established rate on the same tax base as the national income tax and collected by the central government. In Switzerland, most cantons -- the intermediate level of government -- even let local governments (communes) levy surcharges at locally-established rates on the cantonal income taxes -- taxes that are, like most U.S. state income taxes, in no way harmonized with the central income tax.

Although local income taxes have occasionally been levied in developing countries, they are not common. In contrast, in a number of transitional economies, subnational governments were assigned significant shares of income tax revenue. At present in Russia, for example, 100% of PIT revenues go to subnational governments. In none of these countries, however, do local governments have any significant freedom in establishing the tax rate.

One reason local governments have seldom been given access to income taxes in developed countries is because of the reliance of central governments on this source of revenue. In developing countries, of course, even central governments often have trouble collecting much from the personal income tax (Bird and Zolt 2005). The combination of weak PITs at the central level, the difficulty of strengthening these taxes quickly, and the reluctance of most central governments to share taxes with subnational governments, makes it unlikely that any quick fixes for subnational revenues are to be found in this quarter. Nonetheless, the possibility of imposing regional (and perhaps in some instances such as large metropolitan areas even local) surcharges on personal income taxes should certainly be explored further in more advanced developing countries. In particular, this might be a workable revenue alternative for regional governments and large urbanized areas. Should such surcharges be permitted however, although they may vary from region to region, they should in all cases be levied at a single ("flat") rate to avoid both administrative and economic distortions.

Payroll Taxes

A closely related question concerns regional payroll taxes. Payroll taxes at the state level are important sources of subnational finance in a few countries such as Mexico. Such taxes have several merits, and at least two demerits. Their merits are that they are easily administrable, at least when imposed on large enterprises, and they are also relatively productive at relatively low rates. Their demerits are, first, that they act not only as a tax barrier to employment in the modern sector but also encourage firms to substitute capital for labor and, second, that in many countries the payroll tax base is already heavily exploited to finance (central) social security systems.

If payroll taxes can be made effective on a regional or local basis, so could (flat-rate) personal income taxes. In practice, both PIT and payroll taxes are levied on essentially the same base although the former, which is explicitly levied on employees, is not as obviously biased against employment as is the latter, which is usually levied in whole or in part on employers. Also in principle -- if perhaps not so easily in practice -- subnational PITs may more easily be levied on a destination (resident) than origin (employment) basis and thus improve (rather than reduce) political accountability. On the whole, therefore, although the payroll tax requires closer examination especially in larger countries with substantial regional governments than we have given it here, surcharges on a nationally uniform PIT base seem to be a more appropriate way than payroll taxes for subnational governments to tax wages.

Consumption Taxes

In many countries, the search for a regional revenue source that is both economically respectable and administratively viable, particularly one with a broad base and a reasonable elasticity, comes down to a general sales tax. Excises, yes...to some extent; but there is not always that much money, and apart from vehicles and fuel usually

even less elasticity, in this revenue source. Much the same can be said with respect to local property taxes: use them sensibly and as fully as possible, but do not expect large (and certainly not easily expandable) revenues from these sources. Payroll taxes are in many countries exploited by social insurance funds and in any case are not always appropriate for regional taxation. Regional -- and perhaps even local -- surtaxes on the central PIT make more sense, but are not very promising in the immediate future given the poorly developed nature of that tax in the context of most developing countries. Only the general sales tax is left.

The general sales tax now found in most countries is of course a VAT. The retail sales tax once favored as a regional tax (Musgrave 1983), though still in place in most U.S. states, is now largely an aberration.²⁸ Based on recent developments around the world its future seems dim although, as we discuss below, this judgment may be a bit premature. The VAT is now clearly dominant in developing country tax systems (Keen and Lockwood 2006). This would seem to pose a serious problem for the finance of regional governments since most tax analysts have long thought that the only good VAT is a central VAT. Subnational VATs were considered to be either infeasible or undesirable for a variety of reasons: high administrative and compliance costs, the possible loss of macroeconomic control, the general reluctance of central governments to share VAT room, and the problems arising from cross-border (interstate) trade.²⁹ Early experience in Brazil with subnational VATs was generally taken to support this negative appraisal.

The only well-functioning destination-base subnational VATs now in existence are those in Canada (Bird, Mintz and Wilson 2006). Two different systems are in operation in that country:

²⁸ In reality, most "retail" sales taxes even in developed countries fall to a considerable extent on business inputs. One Canadian study, for example, found that between one-third to one-half of the retail sales tax base in different provinces consisted of such inputs (Kuo, McGirr, and Poddar 1988). Similar results were found in a US study (Ring 1999).

²⁹ Broadly, the argument with respect to such trade was that subnational VATs were, if levied on an origin basis, distortionary, and if levied on a destination basis, unworkable.

- The Québec Sales Tax (QST) and the federal VAT (Goods and Services Tax, or GST) constitute an operational “dual VAT” system with essentially none of the problems usually associated with such systems. The rates of the two taxes are set quite independently by the respective governments. The tax bases are also determined independently, although they are essentially the same. From the beginning, both taxes have been collected by a single administration -- that of the province. Taxes on interprovincial sales from one business to another are basically handled by a deferred-payment system similar to that now applied in the European Union.
- In addition, three small provinces impose value added taxes (the HST -- Harmonized Sales Tax) on the same base as the federal GST. These provincial taxes are administered by the federal government and the revenues distributed to the provinces on the basis of estimated taxable consumption in each province. Interprovincial sales are dealt with in the same way as under the QST. Although all HST provinces currently impose the same rate as part of the agreement, this is not a necessary condition for this system to operate.

Canadian experience shows that with good tax administration it is perfectly feasible to operate a VAT at the subnational level on a destination basis, at least for relatively large regional governments. In principle, it is immaterial whether there are two separate administrations or one; or, if there is one, which level operates it. Clearly, a single central administration and a common base (as in Canada's personal income tax system) is likely more efficient, but this degree of convergence is not essential. What *is* critical is a high-level intergovernmental trust as illustrated by unified audit or at least a very high level of information exchange. Most importantly, from the perspective of improving accountability each taxing government should be able independently to determine its own VAT rate.

But what can be done when, as in most developing countries, there is no realistic prospect of “good” tax administration, and especially not at the subnational level, in the near future? A potentially promising approach developed (though not implemented) in Brazil (Varsano 1999) is to impose what is in effect a supplemental central VAT, which McLure (2000) has called a “compensating” VAT or CVAT. This proposal reduces the

risk that households (and unregistered traders) in any state can dodge state VAT by pretending to be registered traders located in other states. It thus provides some protection to the revenue when tax administration (at all levels of government) is not well-developed. Without going into further details here a system along these lines may perhaps make subnational VATs appear more feasible in at least a few developing countries -- those in which states have major expenditure roles and the VAT is the principal source of actual and potential revenue, and tax administration is not up to Canadian standards. More homogeneous or smaller countries interested in exploring this potential subnational revenue source would on the whole seem better advised to follow something more like the Canadian HST approach to sharing VAT revenues on a (statistically determined) destination basis.

Business Taxes

Finally, regional and local business taxes in many forms -- corporate income taxes, capital taxes, nonresidential property taxes, and such ancient levies as octroi, patente, and various forms of "industry and commerce" tax are found in many developing countries.³⁰ Whether or not there is an economic case for such taxes, the political realities of governing in a democratic society are such that virtually any subnational government that is permitted to do so will wish to impose such a tax. In many developing countries, given the restrictions on (and unpopularity of) residential property taxes and the unreliability of central transfers, business taxes have sometimes provided almost the only way in which subnational governments have been able to expand revenues in response to perceived local needs.

Subnational business taxes are not only widespread but they are also generally popular with officials and citizens alike, for at least two reasons. First, they often produce substantial revenue and in particular tend to be much more elastic than, for example, property taxes. Second, since no one is quite sure of the incidence of such

³⁰ For discussions of such taxes, see Pola (1991), Bennett and Krebs (1988) and Bird (2003).

taxes, it is easy to assume, or assert, that they are paid by someone other than local residents.

As a rule, experts have looked at the distortions and problems arising from local business taxes, shuddered, and said, more or less, “just don’t do it” (McLure 1994). However, since such taxes are likely to continue to exist, no matter what economists may say, it is important to consider whether the problem is with the very *idea* of subnational governments taxing business or rather with the *way* in which they now generally do so.

The economic case for local business taxation is simply as a form of generalized benefit tax. Such benefit taxes are actually essential to the attainment of efficiency. Where it is not feasible to recoup the marginal cost of cost-reducing public sector outlays through user charges, some form of broad-based general levy on business activity may well be warranted. It is difficult, however, to find any support along these lines for taxing any one input, however, whether labor (payroll tax) or capital (corporate income tax or differential business real property tax). Instead, what this line of reasoning suggests is that a broad-based levy neutral to factor mix should be imposed, such as a tax on value-added.³¹

The most appropriate form of VAT for this purpose would seem to be a “value-added income tax” or a VAT levied on the basis of income (production, origin) rather than consumption (destination). Compared to a conventional VAT, such a tax -- which to distinguish it we shall call a “business value tax” or BVT -- has three important distinguishing features:

- First, it is levied on income, not consumption: that is, it is imposed on the sum of profits and wages, or to put it another way, on investment as well as on consumption.³²
- Second, it is imposed on production, not consumption: that is, it is imposed on an origin not destination basis and hence, in effect, taxes exports and not imports.

³¹As Sullivan (1965) shows, the original conception of the VAT was in fact as a business benefit tax.

³²Note that an “income” basis can be applied to gross income, net (of depreciation) income, or even consumption (add back depreciation and deduct capital expenditures). The net income basis is the most logical.

- Third, it is assessed by the subtraction (or addition) method on the basis of annual accounts rather than on a transaction or invoice-credit method.

The danger of tax exporting and, more importantly, beggar-my-neighbor tax competition suggest that it may be advisable to place a floor (and perhaps also a ceiling) on such taxes. A minimum rate is needed to prevent distorting "tax competition" (with richer jurisdictions -- those with larger tax bases -- lowering rates to attract still more tax base). A maximum rate is needed to prevent distorting "tax exporting" (as when jurisdictions in which breweries or gas distribution pipelines are located impose especially heavy taxes on such facilities in the expectation that the taxes will ultimately be paid by persons not resident in the jurisdiction).

A BVT is likely to be less distorting than most existing subnational business taxes which often discriminate against (certain forms of) investment. It would also, owing to its broader base, both be less susceptible to evasion and base erosion and less volatile over business cycles. These advantages would apply even if the rate of the BVT were set to produce the same revenue as existing business taxes. If the rate were set to match roughly the benefits-received basis suggested above, it would generally be lower, and the tax would have the additional important advantages of eliminating inefficient spillovers and encouraging more responsible and accountable subnational governments.³³

Conclusion

To conclude, it is critical to emphasize that intergovernmental fiscal relations must be thought of as a system and that all the pieces in the system must fit together if decentralization is to work properly. One cannot, for example, develop a good subnational tax system without having first established clear and logical expenditure assignments to the different levels of government. Similarly, given political realities one cannot usually decentralize significant revenues to subnational governments without

³³ We do not discuss here how such a local business tax might be implemented: see Bird and McKenzie (2001).

having in place an intergovernmental transfers system to offset at least some of the disequalizing effects that would otherwise occur. Nor does it make sense to think of decentralizing exactly the same package of tax choices to all subnational governments regardless of their scale and scope of operations.³⁴ There is much to be thought about before determining what taxes subnational governments in any particular country should have access to and with what degree of freedom.

Nonetheless both theory and experience in a variety of circumstances around the world suggest strongly that, if fiscal decentralization is to produce sustainable net benefits in developing countries, subnational governments require much more real taxing power than they now have. Moreover, in most developing countries there are potentially sound and productive taxes that subnational governments could use: personal income tax surcharges, property taxes, taxes on the use of motor vehicles, payroll taxes, and even subnational value added taxes and local "business value" taxes may all be viable options in particular countries.

³⁴ For example, on the special problems in metropolitan areas see Slack (2007).

References

- Bahl, Roy (forthcoming) "The Promise and Reality of Fiscal Decentralization," in *Decentralization Policies in Asian Development*, ed. by Roy Bahl and Sinichi Ichimura (Singapore: World Scientific Press)
- Bahl, Roy (2008) "Opportunities and Risks of Fiscal Decentralization: A Developing country Perspective" in *Achieving Decentralization Objectives* ed. by Gregory Ingram (Cambridge, Mass: Lincoln Institute of Land Policy).
- Bahl, Roy and Johannes Linn (1992) *Urban Public Finance in Developing Countries*. New York: Oxford University Press.
- Bahl, Roy and Jorge Martinez-Vazquez (2007) "The Property Tax in Developing Countries," Working Paper, Lincoln Institute of Land Policy, July.
- Bahl, Roy, Jorge Martinez-Vazquez and Joan Youngman, eds. (2008) *Making the Property Tax Work: Experiences in Developing and Transitional Countries* (Cambridge, MA: the Institute of Land Policy).
- Bahl, Roy and Sally Wallace (2005). "Public Financing in Developing and Transition countries," *Public Budgeting & Finance*, Silver Anniversary Issue, pp 83-98.
- Bahl, Roy, Sally Wallace and Musharraf Cyan (2008). "Pakistan: Provincial Government Taxation" ISP Working Paper (Atlanta: International Studies Program, Georgia State University).
- Ballantine, Greg. and Wayne Thirsk (1982) *Taxation without Representation: the Consequences of Taxing on Residential Property* (Ottawa: Canada Mortgage and Housing Corporation).
- Bennett, Robert and Gunter Krebs, eds. (1988) *Local Business Taxes in Britain and Germany* (Baden-Baden: Nomos Verlagsgesellschaft).
- Bird, Richard (2003) "A New Look at Local Business Taxes," *Tax Notes International*, 30 (7, May 19): 695-711.
- Bird, Richard (2006) "Local and Regional Revenues: Realities and Prospects," in Richard Bird and Francois Vaillancourt eds, *Perspectives on Fiscal Federalism*. WBI Learning Resources Series (Washington, DC: World Bank), pp. 177-96;
- Bird, Richard and Pierre-Pascal Gendron (2007) *The VAT in Developing and Transitional Countries* (New York: Cambridge University Press).
- Bird, Richard and Ken McKenzie (2001) *Taxing Business: a Provincial Affair?* Toronto: CD Howe Institute.

Bird, Richard and Edgard Rodriguez (1999) "Decentralization and Poverty Alleviation: International Experience with Reference to the Philippines," *Public Administration and Development*, 19: 199-219.

Bird, Richard and Enid Slack (1991) "Financing Local Government in OECD Countries: The Role of Taxes and User Charges," in Jeffrey Owens and Giorgio Panella, eds., *Local Government: An International Perspective* (Amsterdam: North-Holland).

Bird, Richard and Enid Slack (2004) *International Handbook of Land and Property Taxation* (Cheltenham, UK and Northampton, MA: Edward Elgar).

Bird, Richard and Enid Slack (2008) "Property Tax and Rural Local Finance," in Roy Bahl, Jorge Martinez-Vazquez and Joan Youngman, eds. (2008) *Making the Property Tax Work: Experiences in Developing and Transitional Countries* (Cambridge, MA: the Institute of Land Policy), pp. 103-24.

Bird, Richard and Michael Smart (2002) "Intergovernmental Fiscal Transfers: International Lessons for Developing Countries," *World Development*, 30 (No. 6): 899-912.

Bird, Richard and Eric Zolt (2005) "Redistribution via Taxation: The Limited Role of the Personal Income Tax in Developing Countries," *UCLA Law Review*, 52 (6, 2005): 1627-95.

Bird, Richard, Jack Mintz and Thomas Wilson (2006) "Coordinating Federal and Provincial Sales Taxes: Lessons from the Canadian Experience," *National Tax Journal*, 49 (4): 889-903.

Boadway, Robin and Paul Hobson (1993) *Intergovernmental Finance in Canada* (Toronto: Canadian Tax Foundation).

Boadway, Robin and Anwar Shah (forthcoming) "Fiscal Federalism," Cambridge University Press.

Cnossen, Sijbren, ed. (2005) *Theory and Practice of Excise Taxation: Smoking, Drinking, Gambling, Polluting and Driving* (Oxford: Oxford University Press)

Dillinger, William (1991) *Urban Property Tax Reform: Guidelines and Recommendations*. Urban Management and Municipal Finance (Washington: World Bank).

Evans, Chris (2003) "Studying the Studies: An Overview of Recent Research into Taxation Operating Costs," *eJournal of Tax Research*, 1 (1): 64-92.

Fischel, William (1992) "Property Taxation and the Tiebout Model: Evidence for the Benefit View from Zoning and Voting," *Journal of Economic Literature*, 30: 171-77.

Fisman, Ronald, and R. Gatti (2002) "Decentralization and Corruption: Evidence across Countries," *Journal of Public Economics* 83:325–345

Gallagher, Mark (2004) "Benchmarking Tax Systems," *Public Administration and Development*, 25 : 125-44.

Ikawa, Hiroshi (forthcoming). "Trinity Reform of Local Fiscal System in Japan" in *Decentralization Policies in Asian Development*, ed. by Roy Bahl and Sinichi Ichimura (Singapore: World Scientific Press)

Keen, Michael and Ben Lockwood (2006) "Is the VAT a Money Machine?" *National Tax Journal*, 49 (4): 905-28

Keen, Michael and Jack Mintz (2004) "The Optimal Threshold for a Value-added Tax," *Journal of Public Economics*, 88: 559-76.

Kuo, Chin-Yun, Thomas McGirr, and Satya Poddar (1988) "Measuring the Non-neutralities of Sales and Excise Tax in Canada," *Canadian Tax Journal*, 36: 655-70.

Martinez-Vazquez, Jorge, Javier Arze del Granado and Jameson Boex (2007). *Fighting Corruption in the Public Sector* (Amsterdam: Elsevier)

Martinez Vazquez, Jorge, Charles McLure and Francois Vaillancourt (2006) "Revenues and Expenditures in an Intergovernmental Framework," in Richard Bird and Francois Vaillancourt eds, *Perspectives on Fiscal Federalism*. WBI Learning Resources Series (Washington, DC: World Bank).

May, Ronald. (1969) *Federalism and Fiscal Adjustment* (London: Clarendon Press).

McLure, Charles (1967) "the Interstate Exporting of State and Local Taxes: Estimates for 1962," *National Tax Journal*, 20:49-77.

McLure, Charles (1994) "The Tax Assignment Problem: Ends, Means, and Constraints," *Australian Tax Forum*, 11: 153-83.

McLure, Charles (1997) "Topics in the Theory of Revenue Assignment: Gaps, Traps, and Nuances," in Mario J. Blejer and Teresa Ter-minassian, eds., *Macroeconomic Dimensions of Public Finance* (London: Routledge).

McLure, Charles (2000) "Implementing Subnational VATs on Internal Trade: The Compensating VAT (CVAT)," *International Tax and Public Finance*, 7: 723-40.

Mieszkowski, Peter (1983) "Energy Policy, Taxation of Natural Resources, and Fiscal Federalism," in Charles McLure, ed. (1983) *Tax Assignment in Federal Countries* (Canberra: Centre for Research on Federal Financial Relations, Australian National

University).

Musgrave, Richard A. (1983) "Who Should Tax, Where and What?" in Charles McLure, ed., *Tax Assignment in Federal Countries* (Canberra: Centre for Research on Federal Financial Relations, Australian National University).

Netzer, Dick (1973) *The Property Tax* (Washington: The Brookings Institution).

Oates, Wallace (1972) *Fiscal Federalism* (New York: Harcourt Brace Jovanovich).

Oates, Wallace (1998) "Federalism and Government Finance," in Wallace Oates, ed., *The Economics of Fiscal Federalism and Local Finance* (Cheltenham, UK: An Elgar Reference Collection).

OECD (Organisation for Economic Co-operation and Development) (1999) *Taxing Powers of State and Local Governments* (Paris).

OECD (Organisation for Economic Co-operation and Development) (2006) *Fiscal Autonomy of Sub-Central Governments* (Paris).

Olson, Mancur (1969) "The Principle of 'Fiscal Equivalence': The Division of Responsibilities Among Different Levels of Government," *American Economic Review*, 59: 479-87.

Pola, Giancarlo ed. (1991) *Local Business Taxation: An International Comparison* (Milano: Vita e Pensiero).

Prudhomme, Remy (1992) "Informal Local Taxation in Developing Countries," *Environment and Planning C: Government and Policy*, 10: 1-17.

Ring, Raymond (1999) "Consumers' Share and Producers' Share of the General Sales Tax," *National Tax Journal*, 52: 81-92.

Rodden, Jonathan, Gunnar Eskeland, and Jennie Litvack, eds. (2003). *Fiscal Decentralization and the Challenge of Hard Budget Constraints* (Cambridge: The MIT Press).

Slack, Enid (2006) "Alternative Approaches to Taxing Land and Property," in R. M. Bird and F. Vaillancourt eds, *Perspectives on Fiscal Federalism*. WBI Learning Resources Series (Washington, DC: World Bank),pp. 197-223.

Slack, Enid (2007) *Managing the Coordination of Service Delivery in Metropolitan Areas: the Role of Metropolitan Governance*, World Bank Policy Research Working Paper WPS 4317, August.

Smart, Michael and Richard Bird (2006) "The GST Cut and Fiscal Imbalance," in Charles Beach, Michael Smart, and Thomas A. Wilson, eds., *The 2006 Federal Budget: Rethinking Fiscal Priorities* (Montreal: McGill-Queen's University Press, 2007).

Smith, Roger (1991) "Motor Vehicle Taxation," in Roy Bahl, ed., *The Jamaican Tax Reform* (Cambridge, MA: Lincoln Institute of Land Policy).

Soderstrom, Lars (1991) in Remy Prud'homme, ed., *Public Finance with Several Levels of Government* (The Hague/Koenigstein: Foundation Journal Public Finance).

Sullivan, Clara (1965) *The Tax on Value Added* (New York: Columbia University Press).

Taliercio, Robert (2005). "Subnational Own-Source Revenue: Getting Policy and Administration Right" in *East Asia Decentralizes: Making Local Government Work* (Washington: The World Bank), pp 107-128.

Tanzi, Vito (1996) "Fiscal Federalism and Decentralization: a Review of Some Macro Economic and Fiscal Aspects," *Annual World Bank Conference on Development Economics 1995* (Washington, DC: World Bank).

Treisman, Dan (2000). "Decentralization and the Quality of Government," Washington, DC: International Monetary Fund.

Varsano, Ricardo (2000) "Subnational Taxation and Treatment of Interstate Trade in Brazil: Problems and a Proposed Solution," in S.J. Burki and G.E. Perry, eds., *Decentralization and Accountability of the Public Sector* (Washington: World Bank, 2000).

Vickrey, William (1965) "General and Specific Financing of Urban Services," in Julius Margolis, ed., *The Public Economy of Metropolitan Areas*

Weingast, Barry (2006) "Second-Generation Fiscal Federalism: Implications for Decentralized Democratic Governance and Economic Development," Hoover Institution Working Paper, June.

Wong, Christine and Richard Bird (2008) "China's Fiscal System: A Work in Progress," in Loren Brandt and Thomas Rawski, eds., *China's Great Transformation: Origins, Mechanisms, and Consequences of the Post-Reform Economic Boom*, (Cambridge: Cambridge University Press, 2008), pp. 429-66.