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# Subnational Taxation in Developing Countries

## A Review of the Literature

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## Abstract

This paper reviews the literature on tax assignment in decentralized countries. 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 that primarily benefit local residents. Subnational taxes should also not unduly distort the allocation of resources. Most importantly, to the extent possible subnational governments should be accountable at the margin for financing the expenditures for which they are responsible. Although reality in most countries inevitably falls far short of these ideals, nonetheless there are several taxes that subnational governments in developing countries could use to help ensure that decentralization yields more of the benefits it appears to promise in theory. At the local level, such taxes include property taxes and, especially for larger cities, perhaps also a limited and well-designed local business tax. At the regional level, in addition to taxes on vehicles, governments in some countries may be able to utilize any or all of the following—a payroll tax; a simple surcharge on the central personal income tax; and a sales tax, in some cases perhaps taking the form of a well-designed regional value-added tax. The "best" package for any particular country or subnational government is likely to be not only context-specific and path-dependent, but also highly sensitive to the balance struck between different political and economic factors and interests.

This paper—a product of the  Economic Policy and Debt Department, Poverty Reduction and Economic Management Network—is part of a larger effort in the department to develop knowledge products on subnational finance and fiscal reforms. Policy Research Working Papers are also posted on the Web at http://econ.worldbank.org. The author may be contacted at Rbird@Rotman.Utoronto.Ca.

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# A Review of the Literature

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**Subnational Taxation in Developing Countries: A Review of the Literature**[1]

## 1. Introduction

This paper reviews the literature on *revenue assignment* to see what theory suggests are the best taxes for subnational -- regional and local -- governments in developing countries.[2] In practice, however, which level of government should tax what in any particular country depends to a considerable extent on how some other key aspects of intergovernmental finance are structured. For example, an important (and logically prior) question is that of *expenditure assignment*—which level of government should do what?[3] If the appropriate expenditure role for subnational governments is simply to provide a few minor local services and perhaps to act as delivery agents for nationally determined public expenditures, the revenue assignment question turns out to be relatively simple. However, if subnational governments are expected to deliver important (and costly) public services and have some discretion in deciding how and to what extent they do so, determining the appropriate revenue assignment is much more difficult as is discussed later in this paper.

In many countries, the expenditure tasks devolved to subnational governments substantially exceed their capacity to raise revenues from sources under their own control. Such governments must therefore depend on intergovernmental fiscal transfers (including revenue sharing arrangements under which they receive a share of central taxes) to close the resulting fiscal gap (*vertical imbalance).* In addition, when any significant taxing power is devolved to subnational governments, existing differences in needs and capacities between different governmental units at the same level of government are invariably exacerbated, thus creating a potential problem of equalization (*horizontal imbalance).* The existence of such imbalances means that one cannot design an appropriate system of subnational taxation without simultaneously designing an appropriate system of intergovernmental transfers. However, we do not discuss this important question further in the present paper.[4]

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[1] The author is Professor Emeritus at Rotman School of Management, University of Toronto. The author is grateful to Lili Liu and Eduardo Ley, Lead Economist of Economic Policy and Debt Department, World Bank for helpful comments on an earlier version of this paper, although he is solely responsible for its contents. 

[2] Of course, this question is important in all countries, particularly federal countries: see, for example, the detailed examination of subnational taxation in Australia in Bird and Smart (2010).

[3] See the interesting treatment of the sequencing of decentralization decisions in Bahl and Martinez-Vazquez (2006a).

[4] The interdependence of transfers and subnational taxes is discussed further in Bird and Smart (2002) and Smart and Bird (2009a). In principle, many other aspects related to intergovernmental finance also need to be considered in designing and implementing an appropriate subnational tax system for any particular country. For example, one issue that has received considerable attention in recent years is how best to regulate subnational borrowing and to deal with the various macroeconomic and allocative problems that may arise from subnational insolvency (Canuto and Liu 2010, Liu and Weibel 2008, 2009). Another

Even within the limited range of issues discussed in this paper, it is difficult to draw definitive conclusions about the “ideal” subnational tax system for any particular country. To do so one must take into account not only the normal public finance trio of goals -- efficiency (allocation), equity (distribution), and stabilization -- but also the extent to which economic growth is emphasized as a policy goal as well as such nebulous but politically resonant factors as regional balance and the maintenance of national unity and political stability. In addition, of course, policy change in any country must start from the existing situation. Existing fiscal institutions usually reflect the results of an accretionary process of policy change over time, and the inertia inherent in such institutions must not be underestimated. To understand, let alone to resolve, the intergovernmental fiscal puzzle in any country thus requires substantial institutional as well as analytical knowledge. In part for this reason, international comparisons of intergovernmental financial arrangements are both difficult to make and hard to interpret once made.[5]

Nonetheless, in circumstances in which the fiscal systems of most developing countries are subjected to increasing challenges both nationally and internationally, it is important to get subnational taxation right. The expanded importance of trade and international capital flows has increased the sensitivity of important tax bases to fiscal differentials, including those at the subnational level. The current financial crisis issue has accentuated this issue in many countries. Over a longer time horizon, both climate and demographic changes pose new challenges that seem likely to require new fiscal initiatives in many countries. As yet, relatively little thought has been given to the implications of these challenges for subnational governments in emerging countries. Already, however, it is apparent in some countries that globablization has interacted with domestic political and economic changes to create or exacerbate regional stresses -- stresses that may both impact on and be influenced by intergovernmental fiscal arrangements,[6]

Such issues are especially important in countries, like most large emerging countries, in which important public sector services are provided by subnational governments. How revenues are raised and distributed among and between governments at different levels is thus especially important in large countries. The political importance of intergovernmental fiscal relations is obvious, and who controls the finances is often as important as who controls the legal use of force.[7] The economic importance of intergovernmental finance is equally critical in view of the role played in development by

relevant issue in many countries is the relevant role and structure of public-private partnerships and other possible ways in financing the substantial fraction of infrastructure that is often the responsibility of subnational governments. Such questions are not treated further in the present paper; however, an earlier broader discussion of the connections between many of these issues in the context of Latin America may be found in Bird (2001a).

[5] For a recent discussion of this point with respect to developed federal countries, see Bird and Smart (2010).

[6] See, for examples, the case studies in Bird and Ebel (2007) as well as the review of the empirical literature in Bird, Vaillancourt and Roy-Cesar (2009).

[7] The historical importance of the "Cash Nexus" in the growth of state power is set out clearly in Ferguson (2001). See also the related argument with respect to the link between the control of money and the control of force in the development of federalism in Latin America in Diaz-Cayeros (2006), and the discussion in Brautigam, Fjeldstad, and Moore (2007) of how the design and implementation of subnational taxation may influence and affect the development of “social capital” and the legitimacy of public institutions.

governmental institutions and by public sector investment in physical and human infrastructure in development.[8]

How regional and local governments are financed thus directly affects the well-being of billions of people around the world. This paper looks at what theory has to tell us about which taxes should be assigned to such governments. This paper focuses solely on general taxes and not on revenues that are presumably offset by direct benefits received by those who pay them. Section 2 describes the rather limited role prescribed for such taxes by the standard theoretical literature on fiscal federalism. Section 3 reconsiders this question in light of an expanded theoretical framework that has come to be called "second-generation fiscal federalism."[9] Following a brief discussion in Section 4 of several other issues relevant to tax decentralization, Section 5 provides an overview of what an appropriate subnational tax system might look like. Section 6 then considers in more detail the major taxes that appear suitable for subnational governments in emerging countries in theory. Section 7 concludes.

## 2. Tax Assignment: The Standard Model

"Who should tax, where, and what?" is how Richard Musgrave (1983) once characterized the question of tax assignment in a multilevel government.[10] The answer, at least in theory, has long seemed to be clear to most economists.

### 2.1. Rules for Tax Assignment

As Oates (1996) summarizes the position, standard fiscal federalism theory suggests essentially three rules with respect to the taxes that should be assigned to subnational governments:

> (1) Lower levels of government should, as much as possible, rely on benefit taxation of such mobile economic units as households and mobile factors of production.

[8] Interestingly, Cantarero and Perez Gonzalez (2009) suggest a connection between the degree of revenue decentralization and regional economic growth in Spain, although no significant connection between expenditure decentralization and growth was found. The importance of infrastructure to economic growth continues to be vigorously discussed in the literature: for two recent contributions, see Straub, Vellutini, and Warlters (2008) and Seethepalli, Bramati, and Veredas (2008). The World Bank's governance data base (http://info.worldbank.org/governance/wgi/index.asp) has been used in countless studies to show the importance of government institutions in affecting policy outcomes, including fiscal outcomes: for one example, see Bird, Martinez-Vazquez and Torgler (2008).

[9] Oates (2008) distinguishes two strands of the second-generation literature. However, this distinction is ignored here since both strands emphasize the two common elements missing from the standard fiscal federalism model that are stressed in the present paper -- the treatment of politicians and officials as having their own objectives and the need to pay close attention to the political and fiscal environments within which these agents operate.

[10] A more detailed discussion of Musgrave's arguments may be found in Bird (2009).

(2) To the extent that non-benefit taxes on mobile economic units are required -- for example, for redistributive purposes -- only higher levels of government should impose them.
(3) If any non-benefit taxes are imposed by lower levels of government, they should be levied only on tax bases that are relatively immobile across local jurisdictions.

Table 1 summarizes the tax assignment to different levels of government that may be derived on the basis of these rules.[11]

**Table 1: Tax Assignment in a Federal State: The Standard Approach**

| Revenues | Central | Region | Local |
|---|---|---|---|
| Personal income taxes | Yes | Possible piggyback | No |
| Payroll taxes | Yes | Possible piggyback | No |
| Enterprise profit taxes | Yes | No | No |
| Natural resource taxes | Yes | Limited | No |
| Value-added taxes | Yes | No | No |
| Retail sales taxes | Yes | Yes | No |
| Customs duties | Yes | No | No |
| Excise taxes | Yes | Possible piggyback | No |
| Property taxes | No | No | Yes |

The theoretical public finance literature emanating from Musgrave (1959) and Oates (1972) thus suggests a system in which subnational (regional and local) governments, even if they have substantial control over expenditures, will levy few taxes. The principal reason for this outcome is because subnational governments are essentially viewed in this literature as little more than decentralized service providers with the strictly allocative role of providing sub-central public goods. Furthermore, in the absence of tax differentials, individuals and firms are assumed to make sensible consumption and investment decisions. As a result, subnational taxation of such potentially mobile tax bases as consumption, trade, labor and capital will as a rule be economically distorting and hence reduce national well-being.[12] At most, as Table 1 suggests, *local* governments may be allowed to impose taxes on land and property in addition to user charges. Interestingly, this is precisely the local finance model that one sees in most English-speaking countries, other than the United States (Bird and Slack 2004). In addition, the literature suggests that *regional* governments may be permitted to impose retail (final-stage) sales taxes and a few excises as well as to "piggy-back" -- that is, impose

[11] This table (adapted from one in Bird and Smart 2010) synthesizes previous summaries of the literature in McLure (1983a), Shah (1994), Martinez-Vazquez, Rider and Wallace (2008), and Bird (2009). For a much more detailed table along somewhat similar lines, see Shah (1994). User charges are also a suitable source of revenue role for subnational governments (Bird 2001b) but this interesting subject is not further discussed here.

[12] There may of course be some exceptions, as when direct expenditure benefits are offset by well-designed user charges) or when (as with well-designed environmental taxes) negative externalities are reduced, but these possibilities are for the most ignored in the present paper.

surcharges -- on centrally-imposed personal income or payroll taxes.

Many additional reasons for similarly limiting subnational taxation may be found in the literature, such as the need for countries to maintain an "integrated economic space" (Ter-Minassian 1997a) and to avoid "tax wars" and revenue erosion ("the race to the bottom") in the face of fiscally-induced locational distortions. Other reasons mentioned include the need to achieve redistributive equity within countries as a whole (Musgrave 1983) and the desirability of achieving economies of scale in tax administration (Vehorn and Ahmad 1997). When weighted additionally by such factors as visibility (accountability), stability, and "evenness" (Norregaard, 1997), such assessments of tax assignment almost invariably favor central over subnational taxation.[13] For example, the standard literature suggests that only central (national) governments should impose a corporate income tax (CIT) (McLure 1983b), tax unevenly distributed natural resources (Mieszkowski 1983), levy a progressive personal income tax (PIT) (Musgrave 1983), or impose a VAT (Norregaard 1997).

More recent authors generally continue to emphasize that each level of government should be assigned taxes that are as closely related as possible to the benefits derived from spending them. Often, however, they also note that "if fiscal decentralization is to be a reality, subnational governments must control their own sources of revenue (Martinez-Vazquez, McLure, and Vaillancourt 2006, 21)." Unfortunately, as discussed in Section 3 of the present paper, it is not easy to satisfy both of these conditions. Still, the overall conclusion is clear: the standard model of tax assignment in a multi-tier governmental structure essentially assigns no productive taxes to subnational governments. Local governments are left with little but property tax. Regional governments may at most be allotted a few excises, perhaps some access to payroll or personal income taxes and, more arguably, some limited access to general consumption taxes.

These are fairly slim pickings. Moreover, in many countries not even this much is left on the subnational tax table in practice, for a number of reasons:

- The personal income tax (PIT) is often simply taken off the table by those who think that the income tax should be retained entirely by the central government, for instance to help achieve its designated stabilization and redistributional goals. Even if regions do have access in principle to the option of levying surcharges on the central PIT base, in most developing countries even the national government seldom secures much revenue from the PIT (Bird and Zolt 2005) so there is little PIT base on which to impose a surcharge.
- Since in many countries payroll taxes are allocated to social security finance, they are seldom considered to be available for general tax finance at any level of government.

[13] "Evenness" in the sense of treating all citizens of a country uniformly is often assumed, implicitly or explicitly, to be an essential component of an adequate national tax system in either economic or political terms: as Oates (2008) discusses, however, this is neither a simple nor a persuasive criterion.

- In the conventional approach, the only acceptable regional consumption tax is generally thought to be a simple single-stage (preferably retail) sales tax (RST) levied directly on final (resident) consumers, along with perhaps a few excise taxes (Martinez- Vazquez, Rider and Wallace 2008). The virtually worldwide replacement of single-stage sales taxes by multi-stage value-added taxes (VATs) in recent years (Bird and Gendron 2007) thus implies that regional governments have largely been squeezed out of this tax field also.
- Finally, in most countries considerable restrictions are imposed on the extent to which states can tax natural resources -- in part because of concerns with interjurisdictional fiscal equity (natural resources are never equally distributed across the national territory), in part because of conflicting 'entitlement' arguments, and in part for stabilization reasons. Who gets how much and in what form from natural resource taxation is always and everywhere a highly controversial, political and context-dependent matter. Although this issue is important in a number of countries it is too complex to be further discussed here.[14]

Unfortunately, the usual data sources on governmental finance seldom make clear how much tax 'freedom' subnational governments really have. In 2006, for instance, IMF (2008) shows that subnational taxes as a share of total taxes are roughly the same in Canada (52.9%) and China (51.8%). In fact, however, it can be argued that subnational tax power is stronger in Canada -- even in those provinces in which subnational governments themselves collect hardly any of their taxes – than it is in China.[15] Since this point is critical to understanding the key argument of the present paper, it is developed further in Section 2.2.

## 2.2. What Is a "Subnational" Tax?

In principle, a "totally" subnational tax may be defined as one that satisfies five distinct conditions:

(1) Subnational 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) They administer (assess, collect, enforce) the tax.
(5) They get to keep all the revenue they collect.

In the real world, however, many so-called subnational taxes possess only one or two of these characteristics, with the result that the "ownership" of particular taxes may be unclear.[16]

[14] For recent treatments of issues with respect to the assignment of natural resource revenues, see Brosio (2006), Collier and Hoeffler (2005) and Davis, Ossowski and Fedelino (2003).
[15] Revenues from land assets and financing are substantial own financing sources for subnationall governments in China (Peterson and Kaganova 2010). Non-tax revenues are not dealt with in this paper.
[16] See OECD (1999) for a pioneering discussion of this problem and detailed evidence of the difficulty of classifying many taxes along these various dimensions even in developed countries; a recent update of this discussion may be found in Blochliger and Rabesona (2009).

In Argentina, for example, although a share of the proceeds of many central taxes accrues to the provinces, the rates (and bases) of these taxes are determined by the national government, which also assesses and collects them. In many other countries also, what are frequently referred to in common discourse (as well as statistical classification) as "subnational taxes" are similarly examples of *tax sharing* – the allocation of shares of (some or all) central taxes to subnational governments. As a rule there is little that is 'subnational' about such taxes – apart, of course, from the important fact that subnational governments can spend the revenue. For the most part, these are essentially *central* taxes that are distributed (in whole or part) to subnational governments. This interpretation is particularly plausible when, as is often the case, there is little connection between the amount transferred is determined by a formula that has no link to the amount collected locally (as in Germany and Morocco). However, it also holds to a substantial extent even when revenues are distributed on the basis of their point of collection. Most so-called tax sharing is thus simply an alternative way to determine the amount of an intergovernmental transfer and does not constitute subnational taxation in any meaningful sense.[17]

In other countries, however, what may seem from most perspectives to be a central tax coupled with a related transfer program may really be a subnational tax. Suppose, for example, that a subnational government has the ability (a) to decide whether or not to impose a particular tax, (b) to determine the tax base (perhaps within some limits), (c) to set the tax rate (again perhaps within some limits), and (d) it also receives all the revenues. Under these conditions, even if the tax is imposed on a tax base on which the central government levies its own tax and it is collected by the central government along with its own tax, it is still a subnational tax. So far as the subnational government is concerned the central government is simply acting as its administrative agent in collecting what is essentially a subnational tax.

Much of Canada's extensively decentralized tax system operates in exactly this way, for example. Provincial personal income taxes are collected by the federal government in most provinces. In some provinces, provincial corporate income taxes and sales taxes are also collected by the federal government. Nonetheless -- subject to the important limitation that the bases on which these provincial taxes are imposed for reasons of administrative simplicity must be essentially the same as the base of the corresponding federal tax – all these taxes are clearly provincial taxes. The provinces decide if they want to impose the tax; they also determine (within some limits) its rates; and of course they receive all the revenues. Moreover, if they wish to do so, they also have the option of imposing and collecting all these taxes themselves, as indeed one province (Québec) does. In effect, most Canadian provinces have simply contracted for the services of the

[17] To illustrate the issue, when Australia introduced a GST (VAT) in 2000, the OECD and others initially classified this tax as subnational (state) because all of its proceeds went to the states. Subsequently, however, the tax was reclassified as a central tax because its only subnational aspect is who gets the revenue -- and even that is determined by a central government formula. For a recent OECD discussion of the classification problems with tax sharing arrangements, see Blochliger and Petzold (2009b).

central government as a collection agent, and -- except perhaps in the narrowest accounting sense -- there is no intergovernmental transfer of revenues at all.[18]

The key point to grasp from this discussion is that by far the most critical aspect of sub-national taxing power is who is politically responsible for setting the tax *rate*.[19] The potential accountability virtues of subnational taxation depend on local and regional governments having the authority to decide how much revenue they raise and being openly responsible to their own citizens for doing so. What matters for accountability is not so much who gets the revenue or who administers the taxes but who bears the political responsibility for them, and the simplest and clearest evidence of accountability in this sense is who determines tax rates.

## 3. The "Second-Generation" Assignment Model

In part in reaction to the inadequacies of the standard fiscal federalism model, over the last decade what has been called a 'second-generation' fiscal federalism model has begun to emerge (Oates 2008; Weingast 2006). As Ambrosiano and Bordignon (2006) correctly note, no clear optimal tax assignment to different levels of government emerges from this literature either. However, a key relevant point that does emerge is that there is a surprisingly strong case for a significant degree of tax autonomy at the subnational level, both local and regional. This second-generation approach to this issue, which focuses on the dynamic effect of incentives, may perhaps be seen as beginning with the basic statement of the principle of 'fiscal equivalence' in Olson (1969) – though it may also equally be traced back to such common sayings as "every tub on its own bottom" and "match revenue and expenditure responsibilities."

### 3.1. Key Points

Essentially, the argument is that regional governments are more likely and able to allocate and control their expenditures efficiently and effectively if they also control their own revenues. One key rule is simply that "tax assignment should follow expenditure responsibilities" (Warren 2006, 49). The appropriate way to assign taxes in any country thus depends on how spending responsibilities have been assigned. If regional governments, like local governments, are responsible (to exaggerate a bit) only for sweeping the streets and picking up the garbage, then user fees and some sort of low-rate general local tax such as a uniform tax on real property will likely suffice. In these circumstances, the prescription for a centralized tax system that emerges from the conventional fiscal federalism model yields seems correct. On the other hand, if, as is true in some countries, regional governments are responsible for such expensive (and

[18] For discussion of how the Canadian system evolved with respect to income taxes, see Bird and Vaillancourt (2006), and for discussion of how it currently operates with respect to sales taxes, see Bird and Gendron (2009).

[19] Until recently the Canadian case was not pure in this respect because the agreement under which the federal government collected provincial sales taxes requiree that all the provinces for which it performs such collections must impose the same tax rate. However, there is no technical reason for this requirement (Smart and Bird 2007) and since July 2010 tow provinces (British Columbia and Nova Scotia) impose different rates. (Rate uniformity has never existed with respect to income taxes.)

usually expanding) social services as health or education, this conventional prescription is unlikely to produce sustainable results. If regions are to carry out big expenditure functions responsibly, they generally need access to big revenues for which they are clearly politically accountable.[20]

In addition, regardless of the scope of subnational taxation, the second-generation fiscal federalism literature tells us that what is most important is that subnational governments should control the effective tax rate at the margin, preferably through the power to determine the nominal (politically visible) rate. As McLure (2000a) emphasizes, what "control" in this sense requires is that subnational governments are able to affect the volume of revenues significantly *at the margin* through their own policy choices. In the interests of transparency, the best way to do so is probably by imposing their own tax rates. If governments at any level are to be expected to act responsibly and in the interests of their residents they need to face a 'hard budget constraint.'[21] That is, they should be able to increase or decrease spending in any budget period only by increasing or decreasing their revenues in such a way that they are publicly responsible for the consequences of their actions. Of course, even if this condition is satisfied in reality governments may not in fact be held politically accountable. Governments at all levels tend to shift the blame for unpleasant action to external factors -- including the actions (or inaction) of other governments. With more explicit subnational taxes that actually touch their pockets directly, however, there should be both more incentive and more opportunity for citizens to figure out what is going on – and, at least in a system with accountability, perhaps even to do something about it.[22]

## 3.2. Tax Assignment in Practice

Table 2 illustrates the patterns of tax assignment found in a number of emerging countries around the world as well as, for comparison, in a number of developed federal countries. On average, central governments in the emerging country group included in Table 2 are slightly more important as taxers (71.6%) than they are in the group of developed federal countries included in the table (69.8%). Central governments in large emerging countries also receive a slightly greater share of income taxes (62.6% compared to 60.4% for the

[20]Note that this argument does not preclude a significant national government role in both financing and guiding -- for example, through minimum or national standards -- policy in such areas of national interest as education, even when the service is delivered entirely by regional and local governments. However, this important issue is not discussed further here.

[21] For discussions of the hard budget constraint, see Rodden, Eskeland, and Litvack (2003) and Liu and Waibel (2008, 2009). Intergovernmental transfers should also be designed with this principle in mind: that is, unless it is explicitly intended to alter subnational spending decisions in the national interest (e.g. by taking externalities into account) such transfers should both pre-determined (fixed in advance for the budget period) and unconditional (Bird and Smart 2002).

[22] Another important aspect when it comes to revenue assignment – though one that is not further developed in this paper -- is that governments are run by people who to a considerable extent decide which taxes should be imposed in terms of a political rather than an economic calculus (Hettich and Winer 1999). Competition for tax base may, for instance, affect political decision-making regarding taxation not so much through its effects on resource allocation but rather in terms of the extent to which it is perceived to affect the probability of being reelected.

developed federal countries) as well as considerably higher shares of consumption taxes (72.8% compared to 59.4%) and especially taxes on property (24.4% compared to 7.4%). India and South Africa collect 100% of income taxes centrally, for example; among developed federal countries, only Australia does. In all the developed federal countries except Switzerland most or all taxes on property are collected by subnational (and usually local) governments. However, only in China, Russia, and Ukraine among the emerging countries included in Table 2 does the central government collect less than 10% of such taxes. Numbers like those just cited may be interesting: however, on the whole they probably conceal more than they reveal. Indeed, perhaps the most important lesson to take from Table 2 is simply that there is wide variation in the allocation of tax bases by level of government in different countries around the world. Perhaps the main conclusion one can draw from such data is simply that countries have a wide range of choice when it comes to subnational taxation.

In most emerging countries -- other than the few like Brazil and India that have effective federal constitutions -- the taxes that are assigned to lower governments are generally determined at the discretion of higher-level governments. It is not uncommon for such taxes to fall into one of three categories:

- Taxes (and user fees) that too small to bother with --the minor nuisance taxes on dogs, billboards, and the like that are so often found at the local level.
- Taxes difficult or costly for central governments to administer, especially if they are potentially politically challenging -- such as the property tax.
- Taxes that may, so to speak, slip between the cracks – such as the technically rather bad local business taxes found in a number of countries.

This list actually describes fairly accurately what one sees around the developing world in the way of *local* taxation (Habitat 1996).

At the regional level, however, the picture is less clear. Regional, state or provincial governments (second tier) are more politically powerful than local governments from the perspective of the central government, if only because they may more easily serve as a base for aspiring competitors at the national political level. It is thus not surprising that what one usually finds in the way of regional taxation is essentially what political "equilibrium" seems to require (Diaz-Cayeros 2006). Countries where regional, state or provincial governments have significant political power and hence some decision-making autonomy (such as Canada and Brazil) tend to be countries in which such governments have access to major tax bases. On the other hand, countries in which central governments essentially have dominant power (such as Japan) tend to have regional governments that are highly dependent on

**Table 2: Share of Central and Subnational Taxes, Selected Countries and Years *(percent)***

| **Country and year** | **Total tax revenues** | | | **Taxes on income** | | | **Taxes on property** | | | **Domestic taxes on goods and services** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | %Central | %State | %Local | %Central | %State | %Local | %Central | %State | %Local | %Central | %State | %Local |
| ***Germany 1998** | 70.7 | 22.0 | 7.3 | 43.4 | 36.6 | 20.0 | 0.8 | 48.6 | 50.6 | 62.8 | 37.0 | 0.2 |
| ***Spain 1997** | 83.0 | 7.5 | 9.4 | 85.7 | 8.7 | 5.7 | 2.8 | 52.4 | 44.7 | 78.5 | 5.4 | 16.0 |
| ***Ukraine 2001*** | *74.3* | *0.0* | *25.7* | *35.6* | *0.0* | *64.4* | *0.0* | *0.0* | *0.0* | *80.5* | *0.0* | *19.5* |
| ***Canada 1999** | 52.5 | 38.5 | 9.0 | 63.5 | 36.5 | 0.0 | 0.0 | 21.1 | 78.9 | 41.0 | 59.0 | 0.1 |
| ****Russia 2001*** | *69.7* | *0.0* | *30.3* | *27.6* | *0.0* | *72.4* | *5.2* | *0.0* | *94.8* | *82.7* | *0.0* | *17.3* |
| ****South Africa 1998*** | *92.8* | *0.5* | *6.7* | *100.0* | *0.0* | *0.0* | *21.7* | *0.0* | *78.3* | *98.6* | *1.4* | *0.0* |
| ***Switzerland 2000** | 66.0 | 20.0 | 14.0 | 30.3 | 39.1 | 30.7 | 30.9 | 42.8 | 26.3 | 92.2 | 7.6 | 0.2 |
| ***Australia 1999** | 77.4 | 19.3 | 3.3 | 100.0 | 0.0 | 0.0 | 0.0 | 63.6 | 36.3 | 66.2 | 33.8 | 0.0 |
| ***United States 2001** | 69.3 | 19.1 | 11.6 | 83.0 | 15.5 | 1.5 | 10.0 | 8.0 | 82.0 | 15.7 | 67.6 | 16.8 |
| ****Argentina 2001*** | *59.7* | *40.3* | *0.0* | *50.5* | *49.5* | *0.0* | *54.4* | *45.6* | *0.0* | *94.6* | *5.4* | *0.0* |
| ****India 1999*** | *62.6* | *37.4* | *0.0* | *100.0* | *0.0* | *0.0* | *14.9* | *85.1* | *0.0* | *41.5* | *58.5* | *0.0* |
| ***China 1999*** | *45.0* | *55.0* | *0.0* | *24.4* | *75.6* | *0.0* | *0.0* | *100.0* | *0.0* | *55.7* | *44.3* | *0.0* |
| ***Indonesia 1999*** | *97.1* | *2.9* | *0.0* | *100.0* | *0.0* | *0.0* | *74.9* | *25.1* | *0.0* | *95.9* | *4.1* | *0.0* |

*Note:* *indicates a federal country. Data for the emerging country group are shown in italics.
*Source:* As calculated from International Monetary Fund (2002) by Martinez-Vazquez, McLure, and Vaillancourt (2006). Countries are listed in order of tax-to-GDP ratio (as based on a variety of sources and in some instances for a later year than the detailed tax data included in this table).

central transfers. Countries in transition from one political balance to another (such as Spain and Russia) have gone in different directions from time to time, sometimes moving towards more and sometimes towards less subnational fiscal autonomy.[23] This political economy perspective provides no normative guidance as to *what* should be done, but sometimes it may help explain *why* whatever it is has been done.

### 3.3. Normative Rules on Tax Assignment

The major normative rules found in the conventional fiscal federalism literature were set out earlier in Section 2.1. A reductionist statement of the guidance to tax assignment that emerges from the standard literature is more or less that the central government not only gets all the big taxes but also determines which remnants of the tax system – essentially those that fall least on mobile bases -- should be given to subnational governments.

A very different normative assignment rule was suggested by Brennan and Buchanan (1980) in their Leviathan model. As they observe, the conventional model of fiscal federalism can be interpreted as a revenue-maximizing model (subject to efficiency and, perhaps, equity constraints). However, since the objective in Brennan and Buchanan (1980) is to limit the grasp of the government leviathan rather than to extend it, they argue that subnational taxes should be imposed on *mobile* factors so that intergovernmental competition for tax base would lead to lower tax rates and hence smaller governments. In this view, to paraphrase McLure (1986), what's good for the private goose is good for the public gander; that is, competition is seen to be as healthy and beneficial between governments as between private economic agents.[24] As Breton (1996) demonstrates, however, in reality governments are usually both more competitive and less monolithic (and monopolistic) leviathans than Brennan and Buchanan (1980) assume. While there is much still to be learned about intergovernmental competition between governments at the same level (horizontal competition) as well as between governments at different levels (vertical competition), in the context of tax assignment it seems fair to conclude that there is no great analytical or empirical support for either extreme position in this debate.[25]

From a subnational perspective the outcome of the discussion of tax assignment in the second-generation literature is somewhat less bleak than either of the rules just discussed. Perhaps the most useful practical formulation of the normative approach suggested in the second-generation literature is that of McLure (2000a). As discussed in Section 3.1, that literature emphasizes the need for subnational governments to control their own revenues in order to ensure effective decentralized control of spending.[26] However, all that is

[23] Of course, the same is true in for example Australia and Canada (Winer, 2000).
[24] It should be emphasized that McLure (1986) does not recommend that subnational government *should* tax mobile factors; but he does note that if such governments do so, then competition might have beneficial effects in some circumstances.
[25] For surveys of the ever-growing tax competition literature from different perspectives, see Breton (2006), Salmon (2006), Wilson and Wildasin (2004), and Afonso, Ferreira, and Varsano (2002).
[26] Although the point is not further discussed here, it may also be argued that such subnational control over revenues may also be helpful for stabilization purposes, for example in restraining excessive subnational

required for such control is for subnational governments to be able to affect the volume of revenues significantly *at the margin* through their own policy choices, in particular by choosing tax rates.

Bird (1993) suggests that it would also be a good practice if subnational taxes provided sufficient revenue for at least the richest subnational units to be essentially fiscally autonomous in the sense of being able to raise sufficient revenue through taxes (and revenue instruments like user charges) that they control to cover the expenditures for which they are directly responsible. However, by far the most important tax assignment rule emerging from the recent literature on fiscal decentralization is that for subnational governments to face the incentives needed to ensure that they will act in as fiscally responsible a manner as possible, they must be able to increase or decrease their revenues by means that make them publicly responsible for the consequences of their actions.[27]

In summary, the second-generation approach to tax assignment sketched above suggests two useful, though general, normative guidelines for tax assignment:

- First, financing should follow function in the sense that the importance of the tax assignment problem in any country depends very much on the assignment of spending responsibilities. If local governments do not do much, they do not need much in the way of taxation. A property tax (plus user charges) as prescribed by the standard model, seems fine in such cases. On the other hand, if subnational governments are responsible for health or education or both, the pressure on subnational revenues is obviously greater, and the conventional prescription is less likely to produce sustainable results. Careful context-specific-- and often path-dependent -- analysis of what taxes can and should be levied at the subnational level is then required for each country, particularly with respect to the more politically salient regional governments. If a country wants big expenditure responsibilities to be carried out responsibly by subnational governments then

borrowing: see Von Hagen and Eichengreen (1996), Rodden, Eskeland, and Litvack (2003), and Boadway and Shah (2009).

[27] This argument implies that transfers made by higher levels of government to poorer subnational units for such (egalitarian and/or efficiency) reasons as e.g. permitting regional governments to provide similar levels of public services should be *inframarginal* (that is, unconditional) so that all subnational governments, rich and poor alike, face the full marginal tax price of the spending decisions for which they are responsible. Only when this is the case can the hard budget constraint that experience suggests is critical to the establishment of sustainable good intergovernmental fiscal and financial policy be achieved (Rodden, Eskeland, and Litvack 2003). Of course, to the extent that subnational expenditures give rise to interjurisdictional spillovers or when subnational governments act as delivery agents for nationally-set policies, some conditional transfers even to the richest jurisdictions may be warranted (Bird and Smart 2002). Although the issue of the appropriate design of transfer systems is not further explored here, in some important ways – as Smart and Bird (2009a) discuss in detail – subnational taxes and central transfers to subnational governments need to be designed to fit together properly. Much the same might be said with respect to subnational borrowing powers (Canuto and Liu 2010, Liu and Waibel 2008, 2009), although this issue too is not discussed further in this paper.

those governments usually need access to some significant revenues for which they are clearly politically responsible.[28]

- Secondly, subnational governments should have the ability (and responsibility) to determine their "own-source" revenues at the margin in a manner that is both politically and economically meaningful. In some countries subnational governments already have sufficient revenue to finance their expenditures without recourse to unwarranted borrowing or other undesirable expedients. However, if these governments are unable to choose which taxes they levy, what the tax bases are, what tax rates are imposed, or how intensively taxes are enforced, they have no real control at all over their revenues and hence no taxing power at the margin. Of the policy choices mentioned, by far the most important in most countries from the perspective of fostering efficient, effective, accountable and sustainable decentralization is for subnational governments to have at least some degree of control over the tax rates imposed in their name.

## 4. Other Issues Related to Tax Decentralization

Section 3 suggests that there is almost always a good prima facie case for decentralizing at least some taxing authority to subnational governments. Nonetheless, not many developing countries have as yet done so to any significant extent. Indeed, who should levy what taxes and how effectively they can do so has often been the focus of major political discussions, particularly in large countries with extensive and complex systems of subnational government. All four formally federal countries in Latin America, for example, have a long history of evolution and debates over this question, and the current very different state of affairs in different countries, ranging from virtually complete centralization in Venezuela to very considerable decentralization in Brazil, with Argentina and Mexico somewhere in between, reflects this history (Diaz-Cayeros 2006). Many other countries, even when not formally federal, have similar histories of periodic changes from more to less decentralist fiscal systems. [29]

Such vicissitudes are only to be expected because the correct revenue assignment in a multi-level government structure (whether formally federal or not) is not only usually controversial in practice but also not all that clear in principle. We discuss in this section a number of other issues that sometimes come up when the question of devolving more taxing powers to subnational governments is discussed.

[28] In addition to the implications for transfer policy discussed in the previous note, to avoid possible misunderstanding, it should be emphasized again that this argument does not in any way preclude a significant national government role in both financing and guiding policy -- for example, through minimum or national standards -- in such areas of national interest as education, even when the service is delivered entirely by subnational governments. Further discussion of this topic would be more appropriate in the context of the treatment of intergovernmental transfers -- see, for example, Bird and Fiszbein (1998) – than in a paper focusing on subnational taxation.

[29] For example, Colombia, which is not a federal country (essentially because the federalists lost the civil war at the end of the 19th century), has in recent years nonetheless become much more decentralized (Acosta and Bird 2006).

## 4.1. The Capacity Issue

One issue is simply that the central government can collect most taxes more effectively and efficiently than can subnational governments. It can do so not only because of economies of scale but also because its jurisdictional span is wider so that it is inherently more able than smaller subnational jurisdictions to identify, assess, and enforce taxes on mobile tax bases such as income and sales. In addition, the central government in most countries obviously has more, and usually better-qualified, administrative capacity at its disposal than is true for most (if not all) smaller subnational governments. These arguments are usually valid to a considerable extent. However, they are not necessarily conclusive.

For example, the case for centralizing taxation because of the inherently greater capacity of the central government to administer taxes on mobile tax bases may largely be dealt with by allowing subnational governments to impose surcharges on central taxes. However, few (if any) developing countries have followed this path. One reason may be because central governments in most emerging countries are so hard-pressed for revenues that they are understandably reluctant to give subnational governments direct access to their revenue bases. Another reason may be because they consider it to be technically infeasible or economically undesirable to do so. This argument, however, seems to be neither theoretically nor empirically supportable. As we discuss further in Section 6 below, it is clearly technically possible for subnational governments to "piggyback" on some national taxes to some extent, subject to certain restrictions. Indeed, with certain restrictions to prevent undesirable tax competition between jurisdictions, allowing subnational governments to impose such surcharges may sometimes be the best way to satisfy the normative conditions for good tax assignment set out in Section 3.3.

Similarly, a common rationalization for not devolving taxes to subnational governments is that they are incapable of administering them effectively. As just mentioned, this point is misconceived to some extent since some of the potentially most important subnational taxes may in many instances be administered by the central government with no loss of local accountability. Nonetheless, there certainly are some taxes – such as the property tax -- that probably should be administered at least to some extent directly by local governments. One reason is simply because the central government is unlikely to be interested in delving into all the intricacies of local taxation in a wide variety of jurisdictions all over the country. Local administrators are likely to have better and more detailed information about the real distribution of the tax base in their jurisdiction than do those far away in the capital city. In some instances even poor local administrators may be better than technically superior and better qualified -- but uninformed and remote -- central administrators in providing local residents with services that they actually desire and are willing to pay for. For example, the power of local information was demonstrated by the improved outcomes observed when more authority over education spending was devolved to local levels in governments in Madhya Pradesh (MP) state in India (McCarten and Vyasulu 2004). Improved outputs are even more likely when – unlike the case of MP -- local taxpayers actually have to pay for a significant fraction of the cost.[30] Finally, local communities around the world have learned through experience that it is seldom wise to rely on the uncertain mercy of decision-makers in distant capitals to ensure either that local taxes are collected as they should be or that transfers needed to pay for necessary local expenditures arrive on time (Mikesell 2007). For different reasons, both local and central governments may thus prefer to have at least some taxes administered locally.

Of course, it would be irresponsible for any central government to devolve responsibilities to unprepared subnational governments without some form of support system to enable such governments to equip themselves to handle the new responsibilities properly. However, it seems to be too easy for those at the top in some countries to forget this and to underestimate the potential ability of local administrators to do a better job than they appear to have done in most countries in the past. If better performance is valued and rewarded, and if pathways to improving capability and capacity are made available, there is no a priori reason to assume that people will not respond positively. Indeed, it is not hard to find instances of such positive local responses when decentralization expenditures and revenues are appropriately designed.[31]

When local capacity is currently inadequate, it may sometimes be advisable to phase in any devolution of taxing power to subnational governments. This may be done in several ways. For example, it may be appropriate to devolve power asymmetrically – say, first to the larger regional (and perhaps metropolitan) governments -- or perhaps simply to devolve more power to those governments than for those responsible for smaller jurisdictions. Alternatively, it may perhaps be advisable to require governments at all levels to achieve certain levels of competence before giving them more independent taxing powers. If the latter path is chosen, the central role of the central government in ensuring that decentralization works is especially clear since central support for local capacity-building is likely to prove an essential component of this approach. A third approach may be to "pilot" any devolution by trying it out first in a region in which it is likely to be successful and then to "learn by doing" in this case before rolling out the approach on a nation-wide basis. Developing an appropriate strategy and approach to effectively plan and implement tax decentralization is an important and often complex task. But the fact that it may not always be easy to do it right is not in itself a reason for failing to empower subnational governments with sufficient tax authority to do their job properly.

## 4.2. The Equalization Issue

The potential tax bases available to subnational governments usually vary widely from jurisdiction to jurisdiction. The result is what is often called horizontal imbalance in the sense that governments at the same jurisdictional level may have very different resource

[30] See Fiszbein (1997) and especially Faguet (2003) for some empirical evidence of this proposition; for an interesting recent experimental demonstration, see Wahl, Meuhlbacher, and Kirchler (2010).

[31] In addition to the papers cited in the previous note, consider also the earlier experience in Colombia discussed in Bird (1990).

bases with which to finance public services.[32] Even if the vertical imbalance between different levels of government is resolved by adjusting revenue assignments (as suggested in Section 3.3) to the point at which for the subnational units with the richest tax bases, there was no longer any imbalance, any decentralization of taxing powers inevitably worsens the horizontal imbalance between units at the same level. Those who have more to tax are obviously made much better off by tax decentralization than those less favored. Consequently, in countries in which interjurisdictional disparities are of policy concern more decentralized taxes often require increased balancing transfers to poorer regions unless regional inequality is to be exacerbated.[33] This issue has, for example, been a major policy focus in China in recent years (Bahl and Martinez-Vazquez 2006b).

One may rightly be concerned with the prospect that tax decentralization will likely give more to those who already have most. Large cities, for example, are more likely to benefit than poor rural localities because they have both a larger tax base and a better chance of developing the administrative capacity to collect their own taxes. Rich coastal provinces will gain more than poor interior regions. The correct response, however, is not to deny those who are able to do so the chance – indeed, the responsibility – to help themselves more by taxing more but rather to design the intergovernmental transfer system properly to ensure that poorer regions and localities, while being encouraged to do as much for themselves as they can, do not fall behind too far. In other words, those concerned with equalization should focus more on getting the transfer system “right” from this perspective rather than, in effect, ensuring that the subnational tax system is “wrong” by denying those subnational governments that can and should tax themselves more the ability and responsibility to do so.

## 4.3. The Revenue Issue

It was noted in passing above that one reason many countries have been reluctant to concede more taxing power to subnational governments is that central governments are understandably concerned with their own revenue positions. As Bahl and Bird (2008) note, however, it is also possible that fiscal decentralization, if successfully implemented, may increase rather than reduce total revenue mobilization. Central governments in developing countries usually rely on a combination of income and consumption taxes. In most such countries, however, these taxes properly have a high entry threshold.[34] For this and other reasons, in many countries small firms, most individuals, and many owners of immovable property are largely left out of the tax base. Even if this is done not by design

[32] For a more detailed discussion of both horizontal and vertical imbalance, as well as estimates of both for developed federal countries, see Bird and Tarasov (2004).

[33] Note, however, that at root the ‘need’ for transfers is determined by the political aims and institutions of each country and not by any abstract ‘optimality’ calculus. As May (1969) argues, the "taste" for regional equalization may and does vary greatly from country to country. Among developed federal countries, for example, compare the explicit interregional redistributive grants of Canada and even more so Germany and Australia with the much less equalizing systems of Switzerland and the United States (Bird 1986).

[34] Keen and Mintz (2004) suggest that the VAT threshold is too low in most developing countries. On the other hand, because excluding businesses from VAT means that they are unable to obtain credit for tax imposed on their inputs, those concerned with the development of micro and small enterprises may tend to favor lowering tax thresholds rather than raising them (World Bank 2007).

it may occur as a result of inadequate enforcement as these groups in effect opt to take themselves out of the tax base by hiding in the informal economy (Alm, Martinez-Vazquez and Wallace 2004). At least in some situations, subnational governments may have the potential – and, provided the intergovernmental system is properly designed, the incentive -- to try to reach this part of the tax base in ways that the central government cannot. If so, increased subnational government tax revenues need not come at the expense of reduced central revenues. Indeed, the latter might conceivably even gain if increased subnational revenue mobilization reduces the need for central transfers to subnational governments.[35]

There is at least some small-scale evidence in support of this optimistic view (Bahl and Wallace 2005). In some countries, subnational governments, especially at the local level, do seem to have broadened the tax base somewhat through a variety of tax and related non-tax 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 such levies. Often, for instance, local governments oversee licensing and regulatory activities and track property ownership and land-based transactions for a variety of reasons.[36] They thus have ample opportunity to identify businesses in the community and to gain some knowledge about their assets and scale of operation. Moreover, because the potential revenue is much more important for them in relative terms local governments presumably have more incentive to carry out such activities than do national governments. However, such local levies (and regulation) on business may create high compliance costs and a significant barrier to new business activities (World Bank 2007, 2009).

## 4.4. The Stabilization Issue

Central governments may be reluctant to give too much discretion to subnational governments for other reasons as well. One such reason is the fear of losing macroeconomic control.[37] Subnational governments may, for example, borrow recklessly -- even to the point of causing major macroeconomic imbalances, as notoriously occurred in some Latin American countries in the 1990s (Dillinger, Perry and Webb 2003). However, as von Hagen and Eichengreen (1996) note, countries in which subnational governments do not have adequate own-source revenues seem more prone to stabilization

[35] Offsetting any such possible gains, however, some argue that decentralization may end up wasting resources both through duplicating central services and especially by increasing the chance of corruption. Given that more governments are involved, there may indeed be more instances of corruption, but it is far from clear that decentralization increases the loss of public revenues owing to corruption: a few big bites at the center may easily outweigh a thousand little nibbles on the periphery. Empirical work on the relationship between decentralization and corruption is extensive but 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 useful review of this extensive literature, see Martinez-Vazquez, Arze del Granado, and Boex (2007).

[36] A possible way to alleviate such problems is discussed in Section 6.6 below.

[37] See Tanzi (1996) as well as the more balanced treatment of the potential macro impact of decentralization in Boadway and Shah (2009). Rodden, Eskeland and Litvack (2003) provide a number of interesting case studies of the links between subnational finance and stabilization problems in Brazil, India and China, among other countries.

problems associated with decentralization than countries in which an increased degree of reliance on own-source taxes imposes a degree of fiscal discipline on subnational governments In particular, unless great care is devoted to ensuring that transfers have no effects on spending at the margin, heavy reliance on intergovernmental transfers – still the prevalent reality in most developing countries – almost invariably reduces the incentives for good fiscal behavior facing subnational decision makers.[38] An important distinction between "bad" and "good" decentralization is that the latter requires subnational governments to finance a greater share of their spending from own sources, thus driving up the politically visible tax price of public services and reducing the upward pressure on subnational government expenditures that is often at the root of any macroeconomic problems associated with decentralization.

### 4.5. The Development Issue

Another reason central governments may be reluctant to devolve meaningful taxing power to subnational governments may be their concern for economic development. 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. Although local investment decisions may be better for local people than central decisions (Fiszbein 1997), circumstances and outcomes may be very different with respect to large-scale, cross-jurisdictional decisions particularly in networked systems like transportation and power (World Bank 1994). On the other hand, if subnational governments have the power to reap at least some of the gains of economic growth directly through taxes (or other sources of revenue, such as fees and land sales), they will presumably be encouraged to follow more "market-oriented" policies and thus to foster rather than retard economic growth. If the economy grows substantially faster than would otherwise have been the case, the costs arising from such policies as inefficient tax competition between jurisdictions or inadequate or inequitable service provision to residents (as distinct from businesses) may be more than offset. As yet, however, we know far too little about the connection between taxation and growth in general to reach any definitive conclusions about the effects of various forms and degrees of tax decentralization on growth and development.[39]

[38] This comment applies, of course, only to transfers that are not specifically intended to influence local spending decisions in particular directions: for analysis of the different purposes and hence different designs appropriate for different kinds of transfers see, for example, the discussion of the Colombian case in World Bank (1996) and the theoretical discussion in Smart and Bird (2009a).

[39] For a recent OECD review of the literature on taxation and growth, see Myles (2009) as well as the recent stimulating paper by Gordon (2009). The empirical jury is also still out with respect to the effects of fiscal decentralization on growth: see, for example, the recent meta-analysis by Yeung (2009) as well as the interesting case study by Cantero and Perez Gonzalez (2009)

## 4.6. The Accountability Issue

None of the issues discussed above has a clear enough resolution in either theory or practice to lead to a clear recommendation one way or the other with respect to the appropriate degree or structure of subnational taxation in any country. However, one thing does seem clear. In every case, the discussion suggests that the results of fiscal decentralization are more likely to be beneficial if the general rules for tax assignment outlined in Section 3.3 are heeded. The key is accountability. As Olson (1969) argued, local residents are more likely to hold officials accountable if local public services are financed to a significant extent from locally imposed taxes and charges as opposed to central government transfers. People care much more about how their "own money" is spent than they do about the efficiency with which "other people's money" -- such as transfers -- is used. What this implies is that ideally subnational taxes must be both visible to voters and large enough to impose a noticeable burden. Moreover, that burden must not be easily exportable to residents outside the jurisdiction.[40] The minor levies and nuisance taxes found at the local level in many developing countries do not measure up to most of these requirements.

If fiscal decentralization is to work properly, subnational governments must thus have both the authority to impose adequate and noticeable taxes and the incentive to act correctly – as well as (as discussed in Section 4.1) the capacity to do so. Ideally, for example, such governments should have the power to control their spending (and employees) at least at the margin. That is, if they increase spending local residents must know that they will pay and if they reduce taxes, local residents must equally be aware that the public services they receive are going to diminish. Similarly, local residents must also have some power to control and influence their governments (usually through elections but also through voicing public complaints without fear of reprisal). Moreover, for any of these "error correction mechanisms" to function properly, sufficiently accurate information must be available so that subnational governments know what they are doing and so that their constituents can evaluate their fiscal decisions (Bird 2000). Unfortunately, in many developing countries such conditions are seldom fully satisfied, and to the extent they are not fiscal decentralization in practice may not live up to its conceptual promise.

Significant tax assignment to subnational governments is not uncommon in developed countries (OECD 1999). The subnational tax share in total taxes in developing countries is on average only about half that in industrialized countries -- 10 percent compared to 20 percent. These figures have changed little in the last 30 years (Bahl and Wallace 2005). 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 many developing countries

[40] Since local politicians will obviously prefer invisible taxes that are shifted to nonresidents, some constraints on local tax freedom are thus generally desirable, as discussed later in this paper.

lack good own source taxes and impose little in subnational taxes (as defined in Section 2.2 above).[41] 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. Interestingly, in the three countries just mentioned regional and/or local governments invariably have access to some form of taxation on business – a point we discuss further in Section 6.6 below.[42]

## 5. What Taxes for Subnational Government?

Much of the previous discussion may be summarized in the form of the following four basic principles that should be followed in assigning revenues to subnational governments:

1. Ideally, own-source revenues should be sufficient to enable at least the richest subnational government to finance from its own resources the services that they provide primarily benefiting their residents.
2. To the extent possible, taxes imposed by subnational governments should burden *only* their residents, preferably in relation to the benefits they receive from the services provided.
3. Governments at all levels should bear clear public responsibility at the margin for financing expenditures for which they are politically responsible.
4. Subnational taxes should not unduly distort the allocation of resources.

Among the characteristics that appear to be desirable in a subnational tax structure designed to satisfy these requirements the public economics literature suggests the following:

1. The tax base should be relatively immobile in order to permit subnational authorities some leeway in varying rates without losing most of their tax base.
2. The tax yield should both be adequate to meet local needs and relatively stable and predictable over time.
3. At the same time, tax yields should be sufficiently buoyant over time to maintain fiscal sustainability: that is, broadly, taxes should expand at least as fast as expenditures.[43]
4. Subnational governments should not be able to export to non-residents much of the burden of the taxes that they impose.
5. The tax base and rate should be visible, to ensure accountability.[44]

[41] See, for example, the discussion of some Asian cases in Taliercio (2005).
[42] As mentioned earlier user charges are a potentially important source of subnational revenue; in the city-state of Singapore, for example, such levies provide over one-third of revenue. Other non-tax revenues such as revenues from sales of land use rights are very important to subnational governments in China (Wong and Bird 2008) and elsewhere (Peterson and Kaganova 2010). However, to keep the discussion within bounds, this paper focuses solely on general taxes and not on revenues that are presumably offset by direct benefits received by those who pay them.
[43] For further discussion of what is might be meant by fiscal sustainability, see Bird (2006a).
[44] For a recent discussion of the importance of 'visibility' for accountability in the context of national taxes, see Bird (2010).

6. The tax should be perceived to be reasonably fair by taxpayers.[45]
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.[46]

## 5.1. A Policy Choice Matrix

Table 3 presents an illustrative choice matrix for subnational taxes. A somewhat expanded list of characteristics that might potentially be desired in a subnational tax system is set out in the left-hand column and a set of possible taxes is listed in the first row.[47] The entries in the cells shown in Table 3 are obviously almost entirely subjective (drawing on considerable experience but with little solid evidence to be offered in support of most), and many are no doubt arguable. The top row of Table 3 suggests that, even leaving aside such major non-tax items as user charges, transfers, borrowing and returns on investment, a wide range of possible subnational taxes should be considered. Note, however, that for the most part all those listed except for the property tax are for the most part suitable only for regional (and perhaps also metropolitan) governments as indicated by the symbol (R) in the top row of the table.[48]

The left-hand column of Table 3 lists a number of criteria that may be used to assess the relative desirability and/or feasibility of each of the revenue sources shown. As is common in policy analysis, it is difficult either to find good numbers with respect to most of these matters or to make clear and uncontroversial qualitative judgments to fill in the cells of the matrix. Inevitably, therefore, just as the particular instruments and objectives shown in the table reflect subjective views -- albeit informed to the extent possible by experience -- so do the illustrative entries in the cells.[49] Nonetheless, it is an interesting and useful exercise for anyone thinking about subnational taxation in any country to try to “fill in the blanks” in this table – or in any modified version of it that he or she may consider more appropriate.

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[45] On the importance of perceived fairness (as well as visible benefits from public spending) for tax compliance, see Torgler (2007).

[46] It is not easy to be precise as to what is ‘reasonable” in this respect. For further discussion of this point, see Gallagher (2004). For some partial evidence on administrative costs, see www.collectingtaxes.net. In Latin America, for example, this source reports administrative costs as a percent of revenue as only 0.88% for Brazil and 0.95% for Mexico, but 1.84% for Argentina and 2.24% for Peru. These figures are all higher than the comparable US figure (0.45%); on the other hand, they are not out of line with the figures in some other developed countries such as Canada (1.22%) and Australia (0.93%). It is hard to know what to make of such data, but, to the extent other things can be assumed equal, presumably lower costs are better. Of course, compliance costs must also be reasonable as emphasized by Evans (2003). While much less is known about the level and structure of these costs in developing countries, World Bank (2009) shows wide – and not always easily understandable -- deviations in the compliance burden placed on taxpayers in different countries.

[47] The table is illustrative, not comprehensive. For example, some possible taxes such as taxes on estates and inheritances are excluded as probably inherently infeasible at the subnational level while others, such as corporate income taxes and taxes on property transfers may either be subsumed under (respectively) the property tax and business tax headings or, if desired, added as additional columns, as seems appropriate.

[48] See Slack (2007) on the financing of metropolitan governments.

[49] For a more detailed discussion of the subnational taxes and criteria listed in (an earlier version of) Table 3, see Bird (2006b).

Doing so with care will almost certainly lead to the important realization that in all likelihood the cells in the table should be filled in differently for different types of subnational governments in any country – local vs. regional, urban vs. rural, big vs. small, rich vs. poor. Similarly, different groups relevant to the policy process -- local mayors, regional governors, central ministers of finance, citizens, and various components of the private sector such as small and large businesses, banks, and exporters and importers -- would likely weight the different criteria differently. Where one stands on most of the questions raised by consideration of a matrix like that shown in Table 3 depends not only on where one sits and on one's weighting of different objectives but also how one evaluates an exceedingly complex set of effects and cross-effects. Indeed, in the end perhaps the main lesson to be learned from considering the kinds of questions implicitly posed by the instrument-objective matrix set out in Table 3 is simply that, while many local revenue packages are conceivable, the 'best' package for any particular country or local government is likely to be not only very context-specific (and, in all likelihood, path-dependent) but also highly sensitive to the balance struck between a number of different political and economic factors and interests.

### 5.2. The Heart of the Matter

Deciding on an appropriate system of subnational taxation is an important question because in many ways it lies at the heart of both the taxation and decentralization puzzles. The question is difficult to resolve because it is inextricably related to many of the same complex and conflicting political, social, administrative, and economic issues that need to be resolved not only in decentralizing but also in raising public revenues generally. The "right" answer to subnational taxation is thus not something that may be quickly or easily discerned, let alone resolved, in any country. To illustrate, central governments, regional governments, and local governments may often have very different objective functions and hence weight the various characteristics very differently. Indeed, unless they differ to some extent in these respects there is little or no rationale for decentralization in the first place. Similarly, poor areas and rich regions, like metropolitan and rural governments, might have very different weightings from every perspective. The views of politicians, businesses, citizens, economists and tax administrators may be very different. There is no one right answer in part because there is no one decision maker and in part because since even an omnipotent decision-maker would seldom, unless also omniscient, be able to put any evidence-based numbers in most of the cells of Table 3.

**Table 3: A Policy Matrix for Subnational Taxes**

| Criterion | Property tax (L) | Excises (R) | Personal Income Tax (R) | Payroll Tax (R) | Sales Tax (R) | Business Taxes (L, R) |
|---|---|---|---|---|---|---|
| **Revenue adequacy** | OK for general local government | Unlikely to suffice | Unlikely | Yes, if industrial area | Yes | Not likely |
| **Revenue buoyancy** | Not much | Varies | Yes | Yes | Yes | May be OK |
| **Correspondence of payers and beneficiaries** | Fair, if properly done | Not too high | Not high | Depends on employment pattern | Depends on mobility | Depends on design |
| **Local Accountability** | Low | Not too good, unless rate set regionally | Low (depends on rate discretion) | OK if have rate discretion | Can be OK | Usually low |
| **Administrative cost** | Fairly high | Low | Not usually feasible unless as regional surcharge | Not high | Moderate | Sometimes high |
| **Compliance costs** | Depends, but not high | Low, as a rule | Medium | Not high | Moderate | Often high |
| **Latitude for Corruption** | Moderate | Low | Probably high in most countries | Low | Moderate | High |
| **Political Acceptability** | Moderate | Very high in some instances | Low | High | Perhaps | High |
| **Distortionary Impact** | Moderate | Can be low | Moderate | Not too high | May be OK | Usually high |
| **Progressivity** | Possibly | Regressive in general, except fuel | Largely unknown | Not very | No | Usually unknown |
| **Reduces regional disparities** | No | No | No | No | No | No |

Moreover, not everyone is likely to agree that all the characteristics of a "good" subnational tax listed in Section 5.1 (or in Table 3) are necessarily desirable. For example, is it unequivocably good that subnational governments should be insulated from the tax base consequences of their tax rate choices or from inflation? It is possible, but not likely, that subnational and central governments may agree that the subnational tax base should be immobile. It is perhaps more likely that they may agree that the tax yield should be stable and adequate to meet local needs. Central governments concerned to stimulate efficient and effective subnational government would presumably strive to ensure both that those governments are able to export little of the tax burden to non-residents and also that the local tax base is visible to ensure accountability. On the other hand, subnational governments are likely to view both of these attributes quite differently: the more 'other people' can be burdened with the costs of local expenditures and the more the real costs can be hidden from local residents, the better it will be from their perspective!

As emphasized earlier, unless local governments are able to some extent to alter significantly the level and composition of their revenues neither local autonomy nor local accountability is very meaningful. In particular, some degree of rate flexibility seems essential if a tax is both to be adequately responsive to local needs and decisions and to serve as a means of making local leaders more accountable to their citizens. However, in many developing countries the degree to which subnational governments are given any real rate discretion is extremely limited. As noted in Section 4, many reasons can be offered for restricting their autonomy in this respect. Indeed, such reasons are, in some circumstances, persuasive even if one fully recognizes the strong theoretical case for some subnational fiscal autonomy in order to make decentralization more effective and efficient in economic terms. For example, concerns about limited local capacity, the distorting effects of subnational tax competition, and exacerbating regional inequality must be taken seriously. As discussed earlier in Section 4 and illustrated further in Section 6, however, many of these potential problems may be alleviated by careful design of subnational taxes.

Moreover, some problems commonly raised are not really problems. For example, one potential danger in permitting subnational governments even limited freedom to tax is often said to be that they will not utilize fully all the revenue sources open to them, thus allowing the level and quality of public services to deteriorate. Despite the evidence in many countries that subnational governments often do not fully exploit the tax sources available to them, this concern is not persuasive. If the service is properly a subnational responsibility, then properly designed intergovernmental fiscal transfers and central government's support to capacity-building can help address the problem arises from differing local capacities and abilities.[50] Furthermore, if grants are so badly designed that in effect central governments accept full responsibility for making up local deficiencies in service delivery through additional grants -- a practice that Rao and Chelliah (1991) once called "fiscal dentistry" -- there is neither any incentive nor any need for local governments to do their job right. No government at any level will choose to tax its own people if it has any 'easier' way out – such as borrowing from subsidized sources, seeking additional grants from the center, or imposing taxes that are exported to others. A key task in designing a

[50] For discussions of grant design, see Bahl (2008), Bird and Smart (2002), and Smart and Bird (2009a). The need for central support for capacity-building was discussed earlier in Section 4 and is developed more fully in Bird (2001a) and Bird and Fiszbein (1998).

good intergovernmental finance system is thus to make sure such escape routes are closed, so that subnational governments will use their taxing powers properly.

Another problem in some countries is that central governments may want to keep the system uniform for reasons of ideology or tidiness – perhaps simply because the notion of a 'tax jungle' seems, as Simons (1938) once said about regressivity, "unlovely "—or perhaps because concern for regional cohesion (or perhaps the constitution) may mandate that even the most 'unequal' units must be treated uniformly no matter how diverse the result of such 'equal' treatment may be in terms of outcomes. In principle, however, it is not clear why it should matter what central governments think about subnational taxes -- subject to the important, though seldom satisfied, provisos noted earlier, namely (1) that functions are properly allocated to subnational governments, (2) that those governments have adequate revenue sources, and (3) that they are responsible at the policy margin both for what they do and how they pay for it to local residents. If these conditions prevail, local residents who do not like what their local government does, or does not do, can (try to) change the government at the next election or by any other mechanism (such as denouncing them to higher authorities or publicizing their misdeeds and inadequacies) through which citizens can make their wishes known in a way to which attention must be paid.[51]

A point that may perhaps not have received as much attention in the decentralization literature as it deserves is that the freedom to make mistakes, like the requirement that decision-makers should bear the consequences of their mistakes, is an important ingredient both in effective decentralization and in its inseparable twin, subnational autonomy. Indeed, unless local governments are given some degree of freedom with respect to local revenues, including the freedom to make mistakes (provided always that they are sufficiently accountable to their citizens), the image of responsible and responsive subnational governments that underpins and perhaps inspires many decentralization strategies is likely to remain an unattainable mirage.

As Rattso (2002) notes, good decentralization policy should provide three lines of defense against the possibility that such freedom may lead to subnational fiscal indiscipline. The first is to limit subnational governments to providing only local services financed by taxes paid by local residents: this is the domain of the traditional fiscal federalism literature discussed in Section 2 above. It is also reflected in the limits to subnational power over tax rates and bases sketched later in the present section. The second line of defense is to make it difficult (costly) or impossible for subnational governments that spend more than they can raise through their own taxes to claim increased grant or subsidized loan funds.[52] The third line of defense is to establish explicit fiscal controls such as limiting borrowing to certain amounts (and perhaps purposes), requiring balance in current accounts and so on.[53] In addition, however, if the system fails and some subnational government manages to break through all these lines of defense, countries need to have in place some kind of "last resort" insolvency system. The design of the insolvency

[51] For example, Shatalov (2006) notes that even in Russia, the abolition of regional sales taxes was in part in response to repeated popular and business complaints.

[52] In addition, 'legitimate' revenues may come from both pre-determined (fixed) central transfers and sound borrowing for infrastructure, although neither of these points is discussed in this paper: see Bird (2001a) as well Smart and Bird (2009a) and the other references to transfers cited earlier.

[53] For examples of such controls in a number of European countries, see Dafflon (2002). For examples of regulations in developing countries, see Liu and Waibel (2008, 2009).

system is critical to enforcing subnational fiscal discipline (Canuto and Liu 2010, Liu and Waibel (2009).

If conditions like effective accountability and adequate information are not satisfied, or if those who fail to collect local taxes adequately or to spend revenues efficiently are bailed out by discretionary transfers or in other ways, poorly-performing subnational governments may not be removed. On the contrary, they may well be re-elected for their success in obtaining a larger share of other people's money. It is no surprise that countries with inappropriately designed intergovernmental fiscal structures often seem both to have problems in managing decentralization and to obtain unsatisfactory policy outcomes from decentralization. What may be more surprising is how long this situation appears to remain tolerable in some countries to both central governments and citizens in some countries alike.

A final potential danger often mentioned as a reason for limiting subnational tax power is that subnational governments may attempt to extract revenues from sources for which they are not accountable, thus obviating the basic efficiency argument for their existence. This may indeed be a problem. If inappropriate tax bases are assigned to subnational governments, wasteful competition and undesirable tax exporting are likely to result. To avoid this problem, it is generally desirable to limit the access of subnational governments to taxes that are likely to be borne mainly by nonresidents -- such as most natural resource levies and most taxes on business (including differentially heavy nonresidential real property taxes). Even when subnational governments have access to broad revenue bases, however, such problems may be forestalled to a considerable extent by a well-designed national ‘framework’ law on local taxation. For example, a country might establish a uniform set of tax bases for local governments (perhaps different 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 (Bird 1984a). Unproductive competition can be restrained by a minimum (floor) rate that all must impose. Similarly, unwarranted exploitation can be restrained by a maximum (ceiling) rate. As always, what can be done in practice along these lines in any country at any point in time is inevitably heavily constrained both by the history underlying the present intergovernmental system and by the prevailing social and political context.[54]

## 6. An Appraisal of Potential Subnational Taxes[55]

The present assignment of taxes in most emerging countries with important subnational levels of government appears to fall short of the ideals sketched earlier in this paper in a number of ways.

In principle, if subnational governments are to be efficient spenders, they must be fully accountable to higher-level governments or, if real devolution in terms of fiscal autonomy is the objective, they must be made accountable in a significant way to the local residents that they are supposed to be serving. Moreover, for subnational governments to be autonomous in any

[54] This point is underlined by many of the case studies of fiscal decentralization found in e.g. Bardhan and Mookherjee (2006), Bird, Ebel and Wallich (1995), Bird and Vaillancourt (1998), Bird and Ebel (2007), Brautigam, Fjeldstad, and Moore (2007), Rodden, Eskeland and Litvack (2003), Ter-Minassian (1997b) and Wallack and Srinivasan (2006).

[55] Earlier versions of some of this material in this section may be found in Bird (2006b) and Bahl and Bird (2008).

meaningful sense they should have both the right and the responsibility to raise their own revenues at least to the extent that it is appropriate for them to do so.

In practice, however, there is often significant vertical imbalance between expenditures and revenues, with consequent implications for autonomy, efficiency, and accountability. If subnational governments are to be big spenders, they must, in the interests of fiscal responsibility and accountability, also become bigger taxers.[56] In addition, another challenge in many emerging countries is that the still evolving subnational taxation systems have significant costs — costs of administration, costs of compliance, and not least costs arising from tax-induced inefficiencies in the allocation of scarce resources.[57]

As the discussion in the present section suggests, in principle many different taxes might be utilized at least to some extent by regional and local governments in emerging countries. Even if countries decide not to extend the tax portfolio of subnational governments, much more can and should be done to encourage the more effective utilization of taxes to which such governments almost always have access, such as property taxes.

## 6.1. Property Taxes

Almost every report ever written on subnational taxation concludes that there is good reason to emphasize the critical role of property taxes in financing local governments. Such advice is sound, not least in less heavily urbanized areas where other tax bases are often scarce (Bird and Slack 2008). 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).[58] It is true that land and buildings cannot easily run away and hide from tax officials. Nonetheless, the unfortunate reality is that the conventional case for property taxes is to some extent flawed. For instance, since property valuation is as much a matter of art as science, there is always considerable room for discretion and hence for argument with respect to the determination of the base of the tax. In addition, experience around the world suggests that the political costs of reliance on residential property taxes in particular are so high that no government with access to politically "cheaper" sources of finance is likely willingly to take the risk. 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, vastly preferable in political terms to confronting local citizens with the true costs

[56]In principle, even subnational governments that depend heavily upon intergovernmental transfers may spend such funds efficiently and responsibly *provided* that budget constraints are hard and local decision-makers bear the full consequences of their decisions at the margin. However, since few, if any, countries are likely to achieve such perfection, the better part of wisdom would appear to be to follow the advice that emerges from the literature.

[57]A 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. Although this problem is important in a number of countries, it is not discussed here: see, however, Brosio (2006), Collier and Hefler (2005), and Davis, Ossowski and Fedelino (2003) for further discussion.

[58]The classic arguments for the property tax as a “user charge” may be found in Vickrey (1965) and Netzer (1973). For a more recent view, see Fischel (1992).

of the decisions made by their governments. Indeed, as already mentioned, the temptation to indulge in politically painless but economically inefficient "tax exporting" is so strong that constraints often need to be imposed to ensure that local governments do not try to impose unduly heavy taxes on business compared to residential property.[59]

One important reason for the strong resistance to the property tax that seems apparent in many countries is simply because it is a very visible tax. Most people do not like general taxes of any sort, in part because, since such taxes are by definition not directly related to any specific benefits they may receive from public sector activities, they cannot pay them and still 'free ride' on the public services provided. They seem to like them even less when they are made aware of them (Bird 2010). One may argue that such tax sensitivity plays a useful role in ensuring that governments will impose taxes only to finance activities that are at least as popular as the taxes are unpopular. Nonetheless, it certainly makes the life of policymakers more difficult. In the case of the property tax in developing countries, for example, the tax is usually 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 when take-home pay is reduced in small nibbles by weekly or monthly tax deductions or expenditure outlays are increased in even smaller chunks by sales taxes. The need to make periodic large payments may increase the accountability and responsibility of local compared to central governments. However, it seems also to increase the sensitivity to property tax increases of the middle- and upper-income taxpayers who are most likely to both hold property and to vote (or otherwise influence government policy). Moreover, although this question does not appear to have been much explored in the literature, since in most developing countries wealth inequality is even greater than income inequality and relatively more of elite wealth is likely to take the form of real property, property taxes may in any case not be pushed very hard by governments that to a considerable extent often depend on elite support.[60]

In addition, since property taxes usually finance such local services as roads and garbage collection, the quantity and quality of these services (or their absence) is 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 in practice makes it especially vulnerable to political resistance. It is little surprise that academics generally tend to be much fonder of the property tax than are the politicians who actually have to impose it.

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[59.] Studies in the U.S. (McLure 1967; Morgan, Mutti and Rickard 1996) and Canada (Ballantine and Thirsk 1982), two countries in which property taxes are 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 of property taxes. As discussed later, although some form of local business taxation may be justified on benefit (efficiency) grounds, such taxes too must be regulated to preclude localities from attempting to shift the costs of services to outsiders.

[60] An additional factor in some countries is the effect of inflation. Since the base of the property tax does not increase automatically over time, simply in order to maintain real revenues when price levels rise increased tax rates are required. Again, confronting people with the cost of government may be a virtue of the property tax in terms of political accountability. However, the downside from the government's point of view is the need to make highly visible nominal tax increases that are unlikely to be welcomed by taxpayers.

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 (which is usually defined in the law 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 often arise for a variety of reasons, especially over time, between assessed values and market values within classes of property, between classes of property, and across municipalities. Since taxpayers can easily compare their property taxes with those of similar properties in their neighborhood, such discrepancies may lead both to costly appeals and to general pressure for tax relief.[61]

Property taxes can thus be surprisingly costly and difficult to administer well, and taxpayer resistance to the property tax may increase exponentially with increases in the tax burden. Moreover, although in principle the case for property taxation as a good local tax assumes that the tax is paid entirely by local residents, in practice in emerging countries experience suggests that most – often 80% or more – of property taxes are imposed on nonresidential properties. If so, increasing property taxes may actually *reduce* rather than increase local accountability to local citizens as a result of 'tax exporting': local revenue may be raised but at the expense of increasing tax-induced resource misallocation.

Moreover, local property taxes seldom yield enough to finance all local services. Developed countries that depend significantly upon property taxes for local fiscal resources generally have smaller local government sectors than countries with more diversified local tax bases (Bird and Slack 1991). In developing countries, property taxes seldom account for more than 20 percent of local current revenues -- or less than 1 percent of total public spending (Bahl and Martinez-Vazquez 2007). This does not mean that the property tax is not a useful, even a necessary, source of local revenue. In itself, however, this tax is most unlikely to be able to provide sufficient resources to finance a significant expansion of local public services in most countries. Indeed, many developing countries have been hard-pressed even to maintain the present low relative importance of property tax revenues (Bird and Slack 2004). Even the best administered local property tax is thus unlikely to suffice 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, subnational governments financed primarily by property taxes in many countries are thus likely either to be confined to providing such minor local services as street cleaning and refuse removal or to be heavily dependent upon transfers (including shared taxes) from higher levels of government. This pattern is seen with respect to local governments even in most countries where the property tax is the mainstay of local finance. In OECD countries, for instance, when local governments constitute a significant fraction of total public sector spending one of three conditions usually prevails: (1) most commonly, they are largely dependent on national transfers (including shared taxes) as in Korea, Mexico and many other countries; (2) they can levy surcharges on national income taxes as in Sweden and other Nordic countries; or

[61] For a detailed examination of the importance of such factors even in a developed country, see, for example, Slack, Tassonyi and Bird (2007). It may perhaps be worth mentioning also that, since it takes money to appeal, the effect of appeals is usually to make the property tax more regressive.

(3) they have access to a variety of tax bases including local business taxes as in Italy and Spain.[62]

Although the property tax on its own cannot solve all subnational tax problems, nonetheless it is a useful and important subnational revenue source, and much can and should be done to strengthen the deficient property taxes that now exist in place in most emerging countries (Bird and Slack 2004). For example: 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 license authorities, public utilities, and the like. In addition, as Dillinger (1991) emphasizes, from a revenue perspective in most countries it is more immediately urgent to pay attention to improving the "sharp end" of the property tax -- collection and enforcement -- than to the technically more costly (and less immediately productive in terms of revenue) mapping and surveying of the traditional cadastral approach towards extending and updating the tax base. In addition, in order to turn the property tax into a responsive instrument of subnational public finance, as emphasized earlier subnational governments must be allowed to set their own tax rates – at least within some range.[63] Where the power is given, it is often not used – perhaps because intergovernmental transfers (including tax sharing) are so generous: Pakistan and the Philippines are examples. Once an effective property tax is established, it is important to maintain the tax base adequately.[64] Finally, as noted above, numerous administrative reforms are often needed to improve collection efficiency, valuation accuracy, and the coverage of the potential tax base.[65] 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.

Although experience around the world suggests that there are no short cuts to successful property taxation, some countries have tried to find some. For example, area-based systems that tax at a fixed rate per square meter of land area or building size seem to be becoming increasingly popular in a number of countries around the world (Slack 2006). Others – for example, Bogotá, Colombia – have had some success with 'self-assessment' systems (Acosta and Bird 2005). In India, Delhi recently changed its property tax system to one relying primarily on self-assessment and unit value. Such systems may be criticized both for being less related than value-based

[62] These conclusions are supported for earlier years by Bird and Slack (1991). This analysis is currently being updated, but even with the recent expansion of the OECD to include a number of developing countries preliminary examination of data in various recent OECD publications (e.g. Bach, Blochliger and Wallau 2009, Blochinger and Petzold 2009a, Blochinger and Rabesona 2009) suggests it is still largely valid, whether one considers only local governments or local and regional governments together.

[63] As noted earlier, at least with respect to business property a maximum rate may be needed to prevent tax exporting and a minimum rate to discourage tax base shifting.

[64] In countries where inflation is a concern, some form of index adjustment of assessments may be advisable. Colombia is an example (World Bank 1989). In addition, if as may be sensible, assessment is carried out by regional or national agencies, it may be important to ensure that these agencies have sufficient incentives to keep local tax bases up to date. Again, Colombian experience illustrates the point.

[65] An additional important point in some countries relates to property transfer taxes. When the rates of transfer taxes are high, under-declaration of sales values is encouraged, thus compromising the data base necessary to do proper valuations for the annual property tax. 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. Such taxes may be good politics and administratively relatively simple, but they are seldom sensible economically (Bird and Smart 2010).

assessments to the benefits received from services and for failing to capture the value of publicly-provided amenities that raise the value of property.[66] Moreover, they often place a relatively greater burden on lower income taxpayers, who generally live in accommodation with a much lower per square meter value. In addition, and importantly in the context of many emerging countries, property taxes based on area do not capture changes in relative values over time. Revenues from this source will therefore be inelastic unless the fixed charges are frequently readjusted, which is not the experience in most countries that have employed such systems (Slack 2006). Similarly, while self-assessment systems seem appealing, simple, and acceptable and have in some instances resulted in an increase in tax yields, as with tax amnesties any such impact is unlikely to be sustained for long unless it is supported by a sound and enforced system of official assessment.[67]

Despite all these cavils a uniform low-rate property tax definitely has an important role to play in financing local governments in emerging countries, whether rural or urban.[68] This role may be especially important in the rural areas that so often fall far behind in the provision of local public services in such rapidly emerging countries as India, since rural local governments are seldom able to tax any base except real property (Bird and Slack 2008).[69] 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 particularly in rapidly expanding metropolitan areas although this issue is not discussed further here (Bird and Slack 2007).[70] It is unlikely, however, that subnational governments in most developing countries can or should be expected to finance any but so-called “hard” (property-related) services such as streets, lighting, parks and so on out of property taxes alone. If they are expected also to play any significant role in financing “soft” (people-related) services such as education and health, the property tax alone cannot do the job.

Particularly in large countries, regional (intermediate) governments in particular often play a major role in financing social expenditures. Even if *local* governments may able to finance local

[66] There may be a useful limited role for ‘value-capture’ taxes in some countries, particularly if the proceeds are explicitly earmarked to financing the public capital improvements (e.g. roads or parks) with respect to which the increase in value is attributed (Smolka and Amborski 2000). However, as Rhoads and Bird (1969) noted long ago not only is it costly to design and implement such levies but they are in any case likely to function well only in countries that already have well-functioning assessment systems. In addition, such taxes are by their very nature neither stable nor general sources of revenue.

[67] The idea of underpinning such self-assessment systems by permitting the state, or anyone, to buy properties at the self-assessed price appears to have a fatal attraction for economists and has in fact been made law in a few instances. However, this too is a false path to developing a sustainable system: see Bird (1984b) for a brief history of this idea and its implementation in practice.

[68] However, as Bird and Slack (2004) argue, progressive property taxes (like those in Argentina) make little sense. In addition, for reasons discussed further in Section 6.6, differentially heavier taxation of non-residential property is undesirable in terms of its effects on resource allocation as well as accountability.

[69] It is perhaps worth noting that one must be careful in interpreting cross-country data on what is “urban” and what is “rural.” Few countries follow India in having completely different governmental structures for urban and rural areas; more common is the pattern found in China and Latin America of identical local government structures throughout the country. Countries also differ sharply in the size and dispersion of local government units, although most have both some large metropolitan regions and some small and remote areas: for more detailed discussion of these two extremes see Slack (2007) and Kitchen and Slack (2006).

[70] For more extensive discussion of metropolitan revenue systems in developing countries, see Slack (2007) and Rojas, Cuadrado-Roura and Fernandez Guell (2008).

services adequately through property taxes (and user fees) on residents, *regional* governments that are responsible for social and human capital services cannot easily do so. As mentioned earlier, the fear of (vertical) tax base competition on the part of central governments is probably one reason that the access that regional governments – governments that in some instances may pose credible political challenges to the center – have to broad tax bases is usually limited. Nonetheless, when there is a basic imbalance between the expenditure functions assigned to regional governments and the revenue over which they have control, as is true in most large emerging countries, something has to be done to improve subnational taxation at the regional level. In the balance of this section, we discuss five possible sources of revenue for regional governments (and also, perhaps, for large metropolitan governments, which in some countries are responsible for activities that in other parts of the country are carried out at the regional level).

## 6.2. Excise Taxes

Largely on administrative and efficiency grounds, McLure (1997) suggests that excise taxes may be a potentially significant source of regional revenue. Such taxes are, he argues, easily administered by regional governments and permit regionally-differentiated rate determination. Moreover, in terms of efficiency, regional excise taxes applied on a destination basis should have little distortionary effect. In addition, there is at least some benefit argument for excises -- for example, on alcohol and tobacco to the extent regional governments are responsible for health expenditures, and on vehicles and fuel to the extent they are responsible for roads.

There is indeed something in all these arguments, although in some instances not all that much. For instance, the benefit case for "sin" taxes, for example, is weak in general (Cnossen 2005) although such taxes may certainly provide a significant and steady source of revenue. Nor is it always simple to impose regionally differentiated taxes without incurring substantial administrative and compliance costs and giving rise to resource misallocation and evasion (Bird 1984a). Moreover, it does not seem particularly desirable to tie regional finances to inelastic excise taxes when regional treasuries are under pressure from increasing expenditures for health and education.

In both theory and practice the strongest economic and administrative case for regional (and perhaps local) excises is undoubtedly with respect to vehicle-related taxes (Bahl and Linn 1992). Such taxes could definitely be exploited more fully at the subnational level than is now the case in most developing countries. From a revenue perspective the most important tax on the vehicle sector is the fuel tax, which is also the simplest and cheapest form of automotive taxation to administer. Much as central governments no doubt appreciate the revenue they receive from this source, fuel taxes can equally well be levied at the state level. Indeed, different regions could impose different taxes if they chose to do so, subject of course to the constraint that they would be unable to differ much from the rates imposed by their neighbors owing to the mobility of the tax base. Administratively, differential regional fuel taxes are usually 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.

To the extent automotive taxation is intended to price either the utilization of publicly-provided services or externalities, taxing fuel is a crude instrument at best. Fuel taxes are related both to road usage and to such external effects of vehicles as accidents, pollution and congestion, but not in any precise way (Newbery 2005). Toll roads and an appropriate set of annual automobile (and driver) license fees may serve the benefit tax function much better. For example, fees might be based on such features as the age and engine size of vehicle (older and larger cars generally contribute more to pollution), the registered location of the vehicle (cars in cities add more to pollution and to congestion), driver records (20 percent of drivers are responsible for 80 percent of accidents), and axle-weight (heavier vehicles do exponentially more damage to roads and require roads that are more costly to build). If technology permits, even more refined pricing schemes could perhaps be applied, at least in the most heavily congested urban areas or perhaps at border crossings.[71] However, differentiation intended to approximate a benefit tax is seldom evident in developing countries. Where automotive taxation is differentiated the aim is often distributive in the form of imposing higher rates on higher-valued vehicles. 'Luxury' excises may indeed have a small distributive role to play in a national tax system, particularly as a signal that the rich are being singled out for taxation at least to some extent. However, such taxes are unlikely to make much sense at the subnational level and may, from an efficiency perspective, sometimes counter rather than facilitate the potential economic benefits that might be achieved from a good automotive tax system.

Nonetheless, although it is often designed and implemented poorly in many developing countries, subnational taxation of motor vehicles is fundamentally a good idea. Careful study of the appropriate design of any system of automobile taxation (national, regional, or local) is needed in any country as Smith (2006) demonstrates but it seems particularly important for developing countries to avoid repeating the mistakes of most developed countries (e.g. Hughes, 1987; Smith 1991) and to attempt to achieve both more revenue and better economic effects through a revised system of automotive taxation (Smith 2006). Subnational revenues could be still further boosted, if desired, by giving regional governments some access to the fuel tax by permitting them to impose (regionally variable) surcharges. Indeed, automotive (and fuel) taxation appears to be the only commonly available subnational revenue source likely to demonstrate more than unitary income-elasticity, thus matching this aspect of some of the key services (education, health) for which regional --and even in some countries local -- governments are increasingly responsible.

## 6.3. Personal Income Taxes

If more subnational "own-source" revenue is desired, whether to expand the size of subnational activities or to make subnational governments more self-reliant, the experience of developed countries – from Canadian provinces to Scandinavian municipalities -- suggests there is much to be said in principle for supplementary ("piggybacked") subnational personal income taxes (PITs). Like the property tax, a subnational PIT would be visible and hence foster greater

[71] See, for example, the interesting discussion of the imposition of weight-based taxes on trucking in India in http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTINFORMATIONANDCOMMUNICATIONANDTECHNOLOGIES/EXTEGOVERNMENT/0,,contentMDK:20486012~isCURL:Y~menuPK:702592~pagePK:148956~piPK:216618~theSitePK:702586,00.html

political responsibility and accountability.[72] For example, in the Nordic countries (Denmark, Finland, Norway, Sweden) subnational governments both have large expenditure roles and are largely fiscally autonomous. It is no coincidence that the best-known examples of local income taxes are in these 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 -- allow local governments (communes) to 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. In Canada, most provinces levy flat-rate income taxes at rates of their own choosing on essentially the same base as the federal income tax.

In a number of east and central European countries moving to more market-based economies in the 1990s – for example, Russia (Martinez-Vazquez, Rider and Wallace 2008) -- subnational governments were initially assigned significant shares of income tax revenues (Bird, Ebel and Wallich 1995). In none of these countries, however, did subnational governments have any freedom in establishing the tax rate and little attention appears to have been given to permitting them any freedom in this respect.[73] In most developing countries subnational income taxation not only does not exist but appears never to have been considered seriously. As with other major taxes, one reason subnational governments have seldom been given access to personal income taxes in any way other than some revenue-sharing system (as in a number of Latin American countries, for example) is perhaps because central governments want this revenue for themselves. Another reason for the absence of any subnational income tax in developing countries, however, is that in reality even central governments appear to find it difficult to collect much from the 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 let subnational governments to set tax rates, suggest that that no quick fix for subnational revenues lies in this quarter. Nonetheless, the possibility of imposing regional (and in some instances -- for example, metropolitan areas – perhaps even local) surcharges on personal income taxes should likely be explored further in more advanced emerging countries like Brazil. Indeed, such a tax might be a particularly attractive revenue alternative for local governments in the largest urban areas (Slack 2007). Should such surcharges be permitted however, although they may vary from region to region, they should probably in all cases be levied at a single ("flat") rate to minimize both administrative and economic distortions.[74]

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[72] The fact that income tax revenue may grow with less political fuss than property tax revenues may be good news for local officials, but it also perhaps suggests that increased reliance on subnational income taxes may be seen differently by others. Nonetheless, there may still be a good case for regional income taxes to finance income-elastic public expenditures like those on health and education.

[73] For an early exception, see Bird and Wallich (1992). This paper also discusses how a subnational PIT might be implemented -- although essentially only on wage income.

[74] Even a flat rate may be progressive to some respect depending on exactly how the base is calculated, whether any income-related credits are granted, and so on. One might also argue for allowing full rate flexibility to subnational governments (provided the base is essentially congruent with the central base) on the assumption that regions that “overtax” the wealthy will pay the price in terms of losing tax base. At least in a democratic federal structure, if a region wants to penalize its (remaining) residents in this way, presumably it should be free to do so. If the residents do not like what their government does, they can vote out the government.

## 6.4. 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 and Australia. Such taxes have several merits: they are easy to administer, at least when imposed on large enterprises, and they can yield a lot of revenue even at relatively low rates. However, payroll taxes are also distorting, particularly in emerging countries in which labor is invariably relatively less scarce than capital because they discourage employment in the modern sector and encourage firms to substitute capital – much of which is imported -- for labor (Bird 1982). In addition, in many countries the payroll tax base is already heavily exploited to finance (central) social security systems.

Nonetheless, payroll taxes are in principle not a bad source of regional revenue (Warren 2006). They may be considered by some to be inequitable to the extent they fall on labor income and by others to be inefficient to the extent they are borne by business and fall only on one factor of production. The fact that payroll taxes are -- even if technically imposed to some extent on workers as part of a social security finance system -- invariably collected at the business level tends to emphasize the latter aspect and may result in some degree of interstate competition -- which may, or may not, be a bad thing.[75] Given the 'job-killing' label that politicians may attach to payroll taxes, it is perhaps unlikely that even relatively immobile labor would be unduly exploited by such taxes imposed by regional governments in a relatively open economy. However, although taxes borne by (or simply remitted by) enterprises may lead to complaints from business – and subnational governments in many countries have certainly been known to respond to such complaints – taxes perceived to fall on "business" are unlikely to stir the hearts or minds of politically aware citizens and hence may do little to improve the accountability of state governments.

A subnational PIT would in practice reach much the same tax base – wages and salaries – as a subnational payroll tax. Both taxes would also be administered essentially at the employer level. However, subnational PITs, like social security payroll taxes but unlike subnational payroll taxes, presumably have to be linked to specific employees and hence would be more costly to administer. On the other hand, a subnational PIT may not be perceived to be as obviously biased against employment as a payroll tax. In addition, in principle at least subnational PITs can more easily be imposed on a destination (resident) than origin (employment) basis, thus improving (rather than reducing) political accountability if not necessarily political acceptability.[76] How one balances these different considerations may obviously differ from case to case. Although this question needs closer attention than it has so far received in the literature, a reasonable conclusion might be that on the whole, although a regional payroll tax deserves consideration as a possible revenue source in large emerging countries, in principle surcharges on a nationally uniform PIT base are a more appropriate way for subnational governments to tax wages – at least

[75] In Australia, for example, most states seem to think it is detrimental to their revenue base and have agreed to constrain competition through tax concessions. It is a more open question whether such constraints increase or reduce welfare (McLure 1986).

[76] When regions are relatively small, and many who work in one region live in another, it is difficult to impose a regional PIT on a residence rather than employment basis (Bird and Wallich 1992). Such problems are even greater at the local level, of course.

in those emerging countries with a central PIT that functions sufficiently well to consider such measures.

### 6.5. General 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. 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 and a few Canadian provinces, is now an aberration in world perspective. Its future seems dim. The dominance of the VAT (Keen and Lockwood 2006) poses a serious problem for the finance of regional governments. Most tax analysts 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.[77] 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). In fact, two quite different systems of subnational VAT are now in operation in Canada. The Québec Sales Tax (QST) and the federal VAT (Goods and Services Tax, or GST) together 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 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. A quite different system exists in several provinces that 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 initially all the original three HST provinces imposed the same rate (8%) as part of the agreement, this is not a necessary condition for this system to operate as shown by the fact that one of the two large provinces that joined the HST system in 2010 applied a different rate (7%) while another long-time HST province at the same time raised its rate (to 10%).[78]

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 the regional level. In principle, it is immaterial whether there are two separate administrations or one; or, if there is one, which level operates it. However, an essentially common base is highly desirable and a single administration is clearly more efficient. In addition, a high degree of intergovernmental trust is required if the

[77] 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.
[78] See the much more detailed discussion of the Canadian sales tax ‘system’ in Bird and Gendron (2010) as well as the economic analysis in Smart and Bird (2009b).

system is to work efficiently. In Canada, for example, the complex issues arising from interprovincial trade are dealt by agreements on, first, a simplified "place of supply" rule (which means that in many cases the tax is applied on what is called an 'origin' basis) and, second, a revenue allocation rule that divides the revenues on the basis of the place of final consumption (thus turning the tax into one on a 'destination' basis). This system is backed up even in the case of the more independent QST by a fairly unified audit system and a very high level of information exchange. Most importantly from the perspective of improving accountability, each taxing government must independently establish its own tax rate and defend its decisions to local citizens.

Both Brazil and India are currently considering major revisions in their existing subnational sales tax regimes. These countries would seem to be well advised to consider carefully the lessons from Canada's extensive and varied experience with subnational VATs when designing and implementing their own systems. Of course, other approaches are also possible. For example, an interesting approach developed (though not yet implemented) in Brazil (Varsano 2000) is to impose what is in effect a supplemental central VAT, which McLure (2000b) called a "compensating" VAT or CVAT. This proposal is intended to reduce 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 would provide some protection to the revenue when tax administration (at all levels of government) is not well-developed. Such a system may perhaps make subnational VATs more feasible in at least some large emerging countries in which states have major expenditure roles, the VAT is the principal source of actual and potential revenue, and tax administration is not as good as it might be.[79] More simply perhaps, countries interested in exploring this potential subnational revenue source might instead consider something more like the Canadian HST approach to sharing VAT revenues on a (statistically determined) destination basis.

Given the central importance of state VATs in both Brazil and India, close attention needs to be paid to the critical question of how best to make this important subnational tax function well. In other countries, the question whether and to what extent a central VAT can be married to a regional retail sales tax (RST) imposed on the same base should also be investigated. No country now does this -- the remaining RST provinces in Canada have very different tax bases than the federal GST[80] -- but there does not appear to be any technical reason why such a system should not be feasible. Indeed, for a brief period a few years ago Russia appeared to have something along these lines in place (Martinez-Vazquez, Rider and Wallace 2008).[81] Further exploration of the possibilities and limitations of implementing a good destination-based subnational sales tax like one of the Canadian VAT variants thus remains high on the agenda of those concerned with improving subnational taxation in emerging countries.

It should be emphasized, however, that this conclusion in no sense implies that such sales taxes are necessarily the best source of subnational revenues even for large regions in such large

[79] Although not all the details of the recent Indian proposals (Empowered Committee 2009) are yet fully clear, it may perhaps in some respects come close to this scheme.
[80] Smart and Bird (2009b, 2009c) examine in detail implications for progressivity and resource allocation of shifting retail sales tax is to the GST base in those Canadian provinces that now have RSTs.
[81] See also Piffano (2005) for a proposal to replace Argentina's present defective provincial sales taxes by an RST rather than a VAT.

emerging countries such as Brazil and India. Actually, in terms of the accountability arguments stressed in the literature reviewed here, a subnational PIT seems preferable in most respects. However, given the problems with enforcing effective PITs in most emerging countries, in addition to improving the PITs, an effective VAT may be an important additional way to strengthen regional tax revenues when regional governments have big spending responsibilities and hence should also have control of and responsibility for some major revenue sources.

### 6.6. Business Taxes

Finally, another important source of subnational taxation is taxes on business. Regional and local business taxes in such forms as corporate income taxes, capital taxes, nonresidential property taxes, as well as ancient levies as *octroi, patente*, and various forms of "industry and commerce" tax already exist in many developing countries.[82] Not only do subnational governments in many countries already impose a variety of such taxes, licenses and fees, but there are a number of understandable reasons, both valid and not so valid, why they are likely to continue doing so.

Subnational business taxes often produce substantial revenue and are more elastic than property taxes. When subnational governments have to meet expanding expenditure needs from their "own" revenue sources, as emphasized earlier they generally need a more elastic source of general revenue than that provided by property taxation. Experience in both developed and developing countries suggests that some form of business taxation is generally the most elastic source of revenue at the subnational level. Indeed, given the unpopularity of residential property taxes and the fact that central transfers may not be reliable, in reality business taxes have often provided the main way in which subnational governments, particularly in rapidly expanding urban areas, have been able to expand revenues in response to perceived local needs. Moreover, in part because it is difficult to estimate the incidence of such taxes, it is easy to assume, or assert, that they are paid by someone other than local residents. When decentralization results from (or is accompanied by) increased responsiveness to local citizens, local governments are thus inevitably tempted to impose taxes on 'business' – that is, on 'someone else' – whenever they can rather than directly confronting their citizen-voters with increased tax bills on their homes, their incomes or their consumption purchases. This may not be good policy since it clearly reduces accountability, but it is usually good politics. Perhaps surprisingly, in some instances it may also be good economics. By giving subnational governments a way to reap some revenue gains directly from economic growth, they may be encouraged to adopt more 'market-facilitating' policies that encourage such growth and hence change from being a barrier to economic development, as they now are in many countries (World Bank 2007) to a factor stimulating such development (Weingast 2006). When budgetary needs, growth objectives, and political realities thus all seem to point in the direction of taxing business it is not surprising that most subnational governments around the world seem, when they can, to respond to the call.

Tax experts, however, have generally been considerably less enthusiastic about subnational business taxes. One reason is perhaps simply because experts seldom like things whose effects they do not understand – and who knows who actually pays local business taxes? A more

[82] For discussions of such taxes, see Pola (1991), Bennett and Krebs (1988) and Bird (2003). Such taxes may also be imposed in less obvious ways: see, for example, Bird (1991) on "implicit" taxation, Prud'homme (1992) on "informal" taxation, and Corthay (2009) on the close relation between business regulation and business taxation.

theoretically grounded reason is because subnational business taxation is likely to distort the allocation of resources to some extent unless offset by corresponding benefits to business. Since the evidence in most countries appears to be that business taxes usually exceed business benefits, most experts dislike such taxes (McLure 1994). However, since for the reasons discussed earlier 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 *idea* of subnational governments taxing business or rather with the *way* in which they now generally do so. On the whole, it seems to be the latter that is the real problem.

There is in fact a good economic case for some regional and local business taxation as a form of generalized benefit tax. When 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 is warranted. It is difficult, however, to find any support in this line of argument 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.[83]

Before developing this conclusion further, however, consider Table 4, which presents a policy matrix for local business taxes along the lines of Table 3 above. As Table 4 suggests, several distinct forms of subnational business taxation may be found around the world (Bird 2003). Many of these approaches may produce revenues for local governments, and some of them may even be sufficiently buoyant to keep up with growing expenditure needs. However, most achieve these objectives only at the cost of introducing new (and unneeded) distortions into production and allocative decisions and are hence are unlikely to be a desirable way to foster economic activity and growth. Some local business taxes such as *octroi* (domestic trade taxes) and gross receipts taxes are particularly unpalatable in terms of their distorting effects. Others, such as business (corporate) income taxes are both inherently hard to administer well on a subnational basis and also (owing both to their compliance costs and because they penalize success rather than stimulate it) more likely to discourage rather than encourage the growth of the formal economy (McLure 1983b). As in the case of the earlier policy matrix, Table 4 is inherently subjective and hence open to debates. On the whole, from the perspective of this paper, the conclusion nonetheless seems clear. Subnational governments in emerging countries that wish to tax business activities face a choice: they can use one (or more) of the tried and true but defective business taxes now found in various countries or they may instead consider imposing a (relatively good) ‘modern’ business tax. It is not surprising that up to now most countries have followed the more familiar presumptive path with such variously named levies as the *patente*, the professional tax, *industria y comercio*, the single business fee, the simplified tax, and so on. However, the greater elasticity and reduced distortion of an alternative approach to taxing local business through adopting a simple flat-rate tax imposed on an accounts basis on

[83]Indeed, as Sullivan (1965) documents, the original conception of VAT was in fact as a business benefit tax.

**Table 4: Evaluating Subnational Business Taxes**

| Criterion | Property Tax (higher than on residential) | Income Tax | Gross Sales Tax | VAT | Taxes on Trade | Patente/Licenses |
|---|---|---|---|---|---|---|
| **Revenue adequacy** | Potentially yes | Unlikely | Yes | Yes, at regional level | Yes | Perhaps at local level |
| **Revenue buoyancy** | No | Yes | Yes | Yes | Yes | Perhaps, if indexed |
| **Correspondence of payers and beneficiaries** | Not high | Not high | Not high | Potentially satisfactory | Not high | Potentially satisfactory |
| **Progressivity** | Not likely to be high | Largely unknown | No | No | No | Unknown |
| **Administrative cost** | Relatively high (if done well) | Not usually feasible locally (but regional surcharge possible) | Not high | Perhaps reasonable regionally | Feasible, but high cost | Feasible but not cheap to set up properly |
| **Compliance costs** | Not high | Medium | Low | Higher than sales tax | Very high | Probably moderate if well designed |
| **Latitude for Corruption** | Moderate | Probably high in most countries | Moderate | Moderate | Very high | High |
| **Political Acceptability** | Moderate | Low | Fairly high | Unknown | Moderate | High |
| **Local Accountability** | Low | Low (depends on rate discretion) | Low | Moderate | Low | High |
| **Reduces regional disparities** | No | No | No | No | No | No |
| **Distortionary Impact** | Moderate | Moderate | High | Low | High | Low |

(essentially) the costs of the factors of production employed by a business appears to be a potentially promising path to pursue, particularly in more urbanized areas.[84]

The question is how to realize the potential virtues of local business taxation – essentially an elastic revenue source and increased autonomy – while minimizing such problems as economic distortions, high administrative costs, and breaking the "correspondence principle" by permitting local governments to 'export' (non-benefit) taxes to non-residents. One way to achieve this aim is to impose what has been called a 'business value tax' (BVT).[85] Businesses add value by combining labor and capital with other purchased inputs. The value added by labor is the cost of labor (wages and salaries) while the value added by capital is the cost of capital (both debt and equity). The tax base would consist of revenues less purchases of inputs (except labor). From an administrative perspective, such a tax base could be calculated in three different ways. The first is simply to add back appropriate amounts of interest and wages to the base of a business income tax as usually calculated. A second approach is to impose both a payroll tax and an appropriate tax on capital. The third and probably the easiest approach in most countries is to impose the tax on essentially the same base as a value-added tax.

Compared to a conventional value-added tax (VAT), however, a BVT has three important distinguishing features. First, it is a tax on income, not consumption: that is, it is imposed on profits as well as wages or, to put it another way, on investment as well as consumption. Second, as a tax on production, rather than consumption, it is imposed on an origin rather than a destination basis, and thus in effect taxes exports but not imports. A third distinction is administrative: the tax would be assessed on the basis of accounting records (or equivalent estimates) rather than on a transaction basis and collected annually (or by periodic payments based on an annual assessment.

While taxing investment and exports may not at first appear to be a very good idea, such a tax actually has several important advantages as a form of subnational business tax, especially compared to the various forms of such taxes now existing in most countries. To begin with, it discriminates less against investment than do income or property taxes. Moreover, because of its broader base rates can be lower so that economic distortion costs (which roughly rise as the square of the tax rate) will also be lower than with other business taxes that yield the same revenue. In addition, the revenues from a BVT will be more stable than taxes on income or profits, thus providing a more secure revenue base for subnational government. At the same time, since a BVT is more responsive to changed economic conditions than property taxes it will give subnational governments more incentive to encourage economic growth. Moreover, to the extent the rationale for taxing business at the local level rests on benefit or entitlement grounds, a BVT is arguably a more equitable way to tax business than a tax on income or profits. Finally, the broad base of the BVT may make it more resistant to base erosion and "tax games" than either income or property taxes. This last characteristic would be strengthened if subnational governments were restricted to imposing only a single uniform rate on all forms of business.

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[84] In small rural areas, however, as a rule, the only fiscal basis acceptable to local governments in such cases is some form of tax based on property.(Bird and Slack 2008): see also the broader discussion of rural finance in Kitchen and Slack (2006).

[85] This concept was introduced in Bird and Mintz (2000) and spelled out for Canada in Bird and Mckenzie (2001) and for developing countries in Bird (2003).

Such a restriction would also have the additional benefits of preventing abuse by over-taxing exporting firms as well as reducing the possibility of corruption and evasion.

Other possible problems might also be obviated by careful tax design. For example, the danger of tax exporting and, more importantly, 'beggar-my-neighbor' tax competition suggest that, as with some other subnational taxes on business such as property taxes, it may be advisable to place a floor (and perhaps also a ceiling) on such taxes as well as requiring that the same uniform rate should be imposed on all types of business. Similarly, compliance and administrative costs could be kept low by imposing the tax on the basis of information available on existing business income tax returns. The tax base for individual regions and localities might be determined on the basis of payroll data, which in many countries is already collected for purposes of social security and payroll taxation.

Although there is considerable experience around the world with variants of this sort of tax (Bird 2003), as yet the relative unfamiliarity of this idea appears to have discouraged its use in many countries at least until recently.[86] Most countries thus remain stuck with essentially presumptive forms of business levy. However, even these levies may often be improved by better design and implementation in order to improve their elasticity and to reduce both their distorting effects and their vulnerability to abuse (Bird and Wallace 2004). Many recent studies have highlighted the barriers to the growth of micro and small enterprises that may be created by badly designed and implemented systems of local business taxation (World Bank 2007). The potential solution offered by the BVT to this problem and to local government revenue problems, particularly in large and expanding urban areas, appears to deserve more detailed examination in many emerging countries.

## 7. Conclusion

The intergovernmental fiscal arrangements in any country must be thought of as a *system.* The pieces of the system have to fit together properly if decentralization is to work properly. One cannot 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 in most countries decentralize significant revenues to subnational governments without having in place an intergovernmental transfer 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.[87] There is much to be considered before determining an effective system of subnational taxation for any country. Nonetheless, one clear lesson from this review of the literature is that both theory and experience suggest strongly that for fiscal

[86] South Africa recently considered such a tax but has not yet decided to adopt it. However, Italy (Bordnignon, Gianni, and Panteghini 2000) and more recently Japan do have such taxes in place. Such a tax was recently proposed by a recent official commission on local business taxation in France (Fouquet 2004). More limited forms of taxes along these lines may also be found in Hungary and in a few U.S. states, notably Michigan (McIntyre and Pomp 2009).

[87] For example, on the special problems of metropolitan areas see Slack (2007) and Rojas, Cuadrado-Roura and Fernandez Guell (2008).

decentralization to produce net benefits subnational governments require significant real taxing power in the form of taxes imposed on their residents for which they bear full accountability.

In most developing countries there are several potentially sound and productive taxes that subnational governments could use. Regional excises – especially on vehicles and fuel -- may be useful to some extent. However, there is not always that much revenue (or, apart from the vehicle sector, much elasticity) in this tax source. Property taxation should be exploited as fully as possible. However, developing countries cannot as a rule expect large (and certainly not easily expansible) revenues from this source. Payroll taxes are in many countries exploited by social insurance funds and may not in any case be appropriate as a regional tax base. Regional -- and perhaps in some countries even local -- surtaxes on the central personal income tax make more sense, but this source is not immediately promising given the poorly developed nature of the income tax in most developing countries. In addition, subnational sales and business taxes could be made more effective than they presently are in most developing countries. However, careful research in the context of the specific economic institutional and administrative factors relevant in particular countries is needed with respect to the feasibility and best design of such taxes. At present, in many countries neither business nor sales taxes at the subnational level are well-designed or well-implemented with the result that they are both unduly costly in terms of administration and compliance and economically distorting. Even 'good' taxes done badly may reduce than to increase the incentives for subnational governments to act in a politically, economically, and administratively accountable and responsible way. Better design of subnational sales and business taxes is, however, possible, as was discussed in Section 6 above.

Most developing countries face substantial fiscal challenges, not least with respect to subnational finance. Rapid growth means rapid urbanization and a growing demand for urban public services. It also usually means increasing divergence between living standards and access to public services in urban and rural areas as well as between different regions. If subnational governments play a significant role in financing such human capital related services as health and education, the demand on their financial capacity is likely to be especially large. As emphasized throughout this paper, experience around the world suggests that an important factor shaping the quality of subnational governance is whether local and regional governments have access to significant tax sources that they control to a significant extent. For decentralized systems to function well, the central government must also support and guide subnational fiscal autonomy through an appropriately designed and integrated intergovernmental fiscal and financial system.

A key concern in many developing countries (e.g., China and India) is to address growing regional inequality. In the future, such concerns may be further exacerbated by changes in climate and the adjustments in regulatory and taxation policies that will occur in response to such changes. For example, what if any role do (or should) subnational governments have with respect to carbon taxation or environmental regulation?[88] It is easy to say that such matters must be dealt with globally or at least nationally. In the real world, however, subnational governments are already players in the environmental game, whether they should be or not. This reality needs to be dealt with more explicitly than seems to have the rule in most countries so far. When -- as seems to be true with regard to "fiscal environmentalism" -- no one really knows exactly what to

[88] For a recent overview of the question (at the national level), see Aldy, Ley and Parry (2008).

do or how to do it, it is unlikely to be sensible to prohibit subnational governments from trying to work out their own solutions – though ideally within a broader national or even global framework. If the framework is right, and the budget constraint is hard (in the sense that subnational governments bear the full consequences of their own decisions), then putting more minds to work is surely better when tackling important and intractable problems than throwing all one's eggs into a single central policy basket. Decentralization may thus help, or hurt, national policy outcomes. Which way it works depends upon, among other factors, the incentives facing subnational decision-makers. As this paper has argued, an important and unduly neglected component of those incentives is to ensure that they have enough (and the right) degrees of freedom with respect to subnational taxation.

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