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SUBNATIONAL TAXATION IN DEVELOPING COUNTRIES: A REVIEW OF THE LITERATURE*

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This paper reviews the literature on tax assignment in decentralised 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. Overall, 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.

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1. Introduction

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This paper reviews the literature on *revenue assignment* to ascertain what theory suggests are the best taxes for subnational — regional and local — governments in developing countries.[1] 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?[2] If the appropriate expenditure role for subnational governments is simply to provide a few minor local services and perhaps 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

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[1] 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).

[2] See the interesting treatment of the sequencing of decentralisation decisions in Bahl and Martinez-Vazquez (2006).

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1 what extent they do so, determining the appropriate revenue assignment is much more difficult.

3 In many countries, the expenditure tasks devolved to subnational governments substantially exceed their capacity to raise revenues from sources under their own 5 control. Such governments must therefore depend on intergovernmental fiscal transfers (including revenue sharing arrangements under which they receive a share of central 7 taxes) to close the resulting fiscal gap (*vertical imbalance*). In addition, when any significant taxing power is devolved to subnational governments, existing differences 9 in needs and capacities between different governmental units at the same level of government are invariably exacerbated, thus creating a potential problem of equal- 11 isation (*horizontal imbalance*). The existence of such imbalances means that one cannot design an appropriate system of subnational taxation without simultaneously 13 designing an appropriate system of intergovernmental transfers. However, we do not discuss this important question further in the present paper.[3]

15 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. 17 To do so, one must take into account not only the normal public finance goals — efficiency (allocation), equity (distribution), and stabilisation — but also the extent to 19 which economic growth is emphasised as a policy goal, as well as nebulous but politically resonant factors such as regional balance and the maintenance of national 21 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 23 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 25 intergovernmental fiscal puzzle in any country thus requires substantial institutional as well as analytical knowledge. In part for this reason, international comparisons of 27 intergovernmental financial arrangements are both difficult to make and hard to interpret once made.[4]

29 Nonetheless, in circumstances in which the fiscal systems of most developing countries are subjected to increasing challenges both nationally and internationally, it 31 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 33 differentials, including those at the subnational level. The global financial crisis of 2008–2009 has accentuated this issue in many countries. Over a longer time horizon, 35 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 37 to the implications of these challenges for subnational governments in emerging countries. Already, however, it is apparent in some countries that globalisation has

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41 [3] The interdependence of transfers and subnational taxes is discussed further in Bird and Smart (2002) and Smart and Bird (2010).

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

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.[5]

How revenues are raised and distributed among and between governments at different levels is thus especially important in large countries where public sector services are provided by subnational governments. 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.[6] The economic importance of intergovernmental finance is equally critical in view of the role played in development by governmental institutions and by public sector investments in physical and human infrastructure in development.

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". Section 4 provides an overview of what an appropriate subnational tax system might look like. Section 5 concludes the paper.

2. Tax Assignment: The Standard Model

"Who should tax, where, and what?" is how Richard Musgrave (1983) once characterised the question of tax assignment in a multilevel government.[7] The answer, at least in theory, has long seemed to be clear to most economists.

2.1. *Rules for tax assignment*

As Oates (1996) summarises the position, standard fiscal federalism theory suggests essentially three rules with respect to the taxes that should be assigned to subnational governments. One, lower levels of government should, as much as possible, rely on benefit taxation of mobile economic units such as households and mobile factors of production. Two, 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. Three, if any non-benefit taxes are imposed by lower levels of government, they should be levied only on tax bases that are relatively immobile

[5] See, for examples, the case studies in Bird and Ebel (2007) as well as the review of the empirical literature in Bird *et al.* (2009).

[6] 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 *et al.* (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.

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

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

Source: This table is adapted from Bird and Smart (2010). For a much more detailed table along somewhat similar lines, see Shah (1994).

across local jurisdictions. Table 1 summarises the tax assignment to different levels of government that may be derived on the basis of these rules.[8]

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 decentralised service providers with a 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, labour and capital will as a rule be economically distorting and hence reduce national well-being.[9] 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 (U.S.) (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 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

[8] User charges are also a suitable source of revenue for subnational governments (Bird, 2001b) but this interesting subject is not further discussed here.

[9] 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 part ignored in the present paper.

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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 factors such as visibility (accountability), stability, and "evenness" (Norregaard, 1997), such assessments of tax assignment almost invariably favour central over subnational taxation.[10] For example, the standard literature suggests that only central (national) governments should impose a corporate income tax (CIT) (Mclure, 1983), tax unevenly distributed natural resources (Mieszkowski, 1983), levy a progressive personal income tax (PIT) (Musgrave, 1983), or impose a value added tax (VAT) (Norregaard, 1997).

More recent authors generally continue to emphasise 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 *et al.*, 2006, 21). Unfortunately, it is not always easy to satisfy both 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 PITs 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 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 stabilisation 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 in effect 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.
- In the conventional approach, the only acceptable regional consumption tax is generally thought to be a simple single-stage (preferably retail) sales tax levied directly on final (resident) consumers, along with perhaps a few excise taxes (Martinez-Vazquez *et al.*, 2008). The virtually worldwide replacement of single-stage sales taxes by multi-stage VATs in recent years (Bird and Gendron, 2007) thus

[10] "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.

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implies that regional governments have largely been squeezed out of this tax field as well.

- Finally, in most countries, considerable restrictions are imposed on the extent to which states can tax natural resources — in part because of concerns with inter-jurisdictional fiscal equity (natural resources are never equally distributed across the national territory), in part because of conflicting 'entitlement' arguments, and in part for stabilisation 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.[11]

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.[12] 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 too, what are frequently referred to in common discourse (as well as statistical classification) as "subnational taxes" are similar 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, 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.

[11] For recent treatments of issues with respect to the assignment of natural resource revenues, see Brosio (2006), Collier and Hoeffler (2005) and Davis *et al.* (2003).

[12] 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).

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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.[13]

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 decentralised tax system operates in exactly this way, for example. Provincial PITs are collected by the federal government in most provinces. In some provinces, provincial CITs 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 central government as a collection agent, and except perhaps in the narrowest accounting sense, there is no intergovernmental transfer of revenues at all.[14]

The key point to grasp from this discussion is that by far the most critical aspect of subnational taxing power is who is politically responsible for setting the tax *rate*. 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.

[13] 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 (2009).

[14] 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 (2010).

3. The "Second-Generation" Assignment Model

Two common elements missing from the standard fiscal federalism model are 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. 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 Ambrosanio 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. *The 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 centralised tax system that emerges from the conventional fiscal federalism model seems correct. On the other hand, if, as is true in some countries, regional governments are responsible for expensive (and usually expanding) social services such 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.[15]

In addition, regardless of the scope of subnational taxation, the second-generation fiscal federalism literature tells us that the most important point 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 (2000) emphasises, what "control" in this sense requires is that subnational governments are able to

[15] 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.

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.'[16] 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 incentives and more opportunities for citizens to figure out what is going on — and, at least in a system with accountability, perhaps even to do something about it.

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 percent) than they are in the group of developed federal countries included in the table (69.8 percent). Central governments in large emerging countries also receive a slightly greater share of income taxes (62.6 percent compared to 60.4 percent for the developed federal countries) as well as considerably higher shares of consumption taxes (72.8 percent compared to 59.4 percent) and especially taxes on property (24.4 percent compared to 7.4 percent). India and South Africa collect 100 percent 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 percent 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 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

[16] For discussions of the hard budget constraint, see Rodden *et al.* (2003) and Liu and Waibel (2008, 2009).

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 *et al.* (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).

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 by 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 by 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 have governments that 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 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.[17] This political economy perspective provides no normative guidance as to *what* should be done, but sometimes it may help explain *why* whatever 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 Sec. 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-maximising 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

[17] Of course, the same is true in for example Australia and Canada (Winer, 2000).

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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.[18] 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 still much 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.[19]

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 (2000). As discussed in Sec. 3.1, that literature emphasises the need for subnational governments to control their own revenues in order to ensure effective decentralised control of spending.[20] However, all that is 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 decentralisation 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.[21]

[18] It should be emphasised 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.

[19] For surveys of the ever-growing tax competition literature from different perspectives, see Breton (2006), Salmon (2006), Wilson and Wildasin (2004), and Afonso *et al.* (2003).

[20] Although the point is not further discussed here, it may also be argued that such subnational control over revenues may also be helpful for stabilisation purposes, for example in restraining excessive subnational borrowing: see Von Hagen and Eichengreen (1996), Rodden *et al.* (2003), and Boadway and Shah (2009).

[21] 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 *et al.*, 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).

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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 by 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 those governments usually need access to some significant revenues for which they are clearly politically responsible.[22]
- 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 policy in most countries from the perspective of fostering efficient, effective, accountable and sustainable decentralisation is for subnational governments to have at least some degree of control over the tax rates imposed in their name.

4. What Taxes for Subnational Government?

Much of the previous discussion may be summarised 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.

[22] In addition to the implications for transfer policy discussed in the previous note, to avoid possible misunderstanding, it should be emphasised 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.

(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.[23]
(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.[24]
(6) The tax should be perceived to be reasonably fair by taxpayers.[25]
(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.[26]

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.

4.1. *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 decentralisation 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

[23] For further discussion of what is might be meant by fiscal sustainability, see Bird (2006a).
[24] For a recent discussion of the importance of 'visibility' for accountability in the context of national taxes, see Bird (2010).
[25] On the importance of perceived fairness (as well as visible benefits from public spending) for tax compliance, see Torgler (2007).
[26] It is not easy to be precise as to what is 'reasonable' in this respect. For further discussion of this point, see Gallagher (2005). For some partial evidence on administrative costs, see www.collectingtaxes.net.

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that need to be resolved not only in decentralising 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 decentralisation 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.

Moreover, not everyone is likely to agree that all the characteristics of a "good" subnational tax are necessarily desirable. For example, is it unequivocally 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 emphasised earlier, unless local governments are able to some extent 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, many reasons can be offered for restricting their autonomy in this respect. Indeed, such reasons are, in some circumstances, persuasive even if one fully recognises the strong theoretical case for some subnational fiscal autonomy in order to make decentralisation 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. Many of these potential problems may be alleviated by careful design of subnational taxes, as discussed briefly below.[27]

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 utilise fully all the revenue sources open to

[27] For a much more detailed discussion of different tax instruments, see Bird (2006b) and Bahl and Bird (2008).

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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 support to capacity-building can help address the problems that arise from differing local capacities and abilities.[28] 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 subsidised sources, seeking additional grants from the center, or imposing taxes that are exported to others. A key task in designing a 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 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 publicising their misdeeds and inadequacies) through which citizens can make their wishes known in a way to which attention must be paid.[29]

A point that may perhaps not have received as much attention in the decentralisation 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 decentralisation 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

[28] For discussions of grant design, see Bahl (2008), Bird and Smart (2002), Smart and Bird (2010). The need for central support for capacity-building is developed more fully in Bird (2001a) and Bird and Fiszbein (1998).

[29] 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.

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responsive subnational governments that underpins and perhaps inspires many decentralisation strategies is likely to remain an unattainable mirage.

As Rattso (2002) notes, good decentralisation 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 above in Sec. 2. It is also reflected in limits to subnational power over tax rates and bases, such as those mentioned below (Bird, 2006b). 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 subsidised loan funds.[30] 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.[31] 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 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 decentralisation and to obtain unsatisfactory policy outcomes from decentralisation. 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

[30] 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 (2010) and the other references to transfers cited earlier.

[31] 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).

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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 (1984). 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.[32]

5. Concluding Remarks

Most developing countries face substantial fiscal challenges, not least with respect to subnational finance. Rapid growth means rapid urbanisation 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 human capital related services such as health and education, the demand on their financial capacity is likely to be especially large. 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 decentralised systems to function well, the central government must also support and guide subnational fiscal autonomy through an appropriately designed and integrated intergovernmental fiscal system.

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 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.[33]

[32] This point is underlined by many of the case studies of fiscal decentralisation found in e.g. Bardhan and Mookherjee (2006), Bird *et al.* (1995), Bird and Vaillancourt (1998), Bird and Ebel (2007), Brautigam *et al.* (2007), Rodden *et al.* (2003), Ter-Minassian (1997b) and Wallack and Srinivasan (2006).

[33] 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.

However, another challenge in many emerging countries is that unless designed and implemented properly, subnational taxation systems may have significant costs — costs of administration, costs of compliance, and not least costs arising from tax-induced inefficiencies in the allocation of scarce resources. It is not enough for subnational governments to have 'enough' taxes; they also need to have 'good enough' taxes — taxes that are good enough in both design and implementation to allow them to obtain the revenue they need in an accountable fashion while imposing the lowest possible costs on the economy. To meet this standard, many countries need to pay much more careful attention to subnational taxation than they have in the past.

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