

**International Studies Program
Working Paper 08-05
December 2008**

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International Studies Program
Andrew Young School of Policy Studies
Georgia State University
Atlanta, Georgia 30303
United States of America

Phone: (404) 651-1144
Fax: (404) 651-4449
Email: ispaysps@gsu.edu
Internet: <http://isp-aysps.gsu.edu>

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Tax Assignment Revisited

Richard M. Bird

University of Toronto

Abstract

This paper first restates the lessons to be learned from Richard Musgrave's pioneering discussion of the tax assignment issue. Next, it considers subsequent developments in the theory of fiscal federalism related to the issue of tax assignment. Surprisingly little clear guidance is offered by the theoretical discussion when it comes to the practical policy issues facing any country with respect to tax assignment: what countries do seems to bear little relation to what theory suggests they should do. This point is illustrated this point by a brief review of tax assignments observed around the world in large emerging countries. The tax assignment issue in such countries as India and China is both important and unduly neglected: for the most part, these are still countries in search (whether they know it or not) for a sustainable solution to this problem. The paper concludes with some reflections about what seem to be future possible -- or, perhaps better, needed -- developments with respect to both the theory and practice of tax assignment, again with special reference to large emerging countries.

Keywords: tax assignment; fiscal federalism; Richard Musgrave; Brazil, India, China, Nigeria, Russia

JEL classification: B29, H77

Introduction

Like many public finance economists of my generation, my first thought when faced with untangling any issue has often been “What would Richard Musgrave say?” More precisely, it usually turned out to be “What *did* Musgrave say?” since he usually had been there first, thought about the issue with care, and reached conclusions that, even if one did always accept them, at the very least made one think very carefully before reaching a different conclusion. Tax assignment is one such issue. Musgrave’s conclusions on this issue were first sketched in brief in *The Theory of Public Finance* (1959, pp. 179-83) and subsequently developed in much more depth at an earlier conference in Australia in a famous paper appropriately entitled “Who Should Tax, Where and What?” (Musgrave 1983).

I break no new ground in this paper. My first objective is simply to restate the lessons to be learned from Musgrave’s pioneering discussion of the tax assignment issue. I next consider more recent developments in the theory of fiscal federalism related to the issue of tax assignment. However, surprisingly little clear guidance is offered by the theoretical discussion when it comes to the practical policy issues facing any country with respect to tax assignment: what countries do seems to bear little relation to what theory suggests they should do. I illustrate this point by a brief review of tax assignments observed around the world in large emerging countries. This emphasis on such countries seems justified for three reasons. First, it draws on some of my own recent work. Second, it serves as a small nod to Musgrave’s considerable involvement in developing

country fiscal reform – an interest not otherwise highlighted in this volume.¹ And third, the tax assignment issue in such large emerging countries as India and China is both important and unduly neglected: for the most part, these are still countries in search (whether they know it or not) for a sustainable solution to this problem. Finally, I conclude by offering a few reflections about what seem to be future possible -- or, perhaps better, needed -- developments with respect to both the theory and practice of tax assignment, again with special reference to large emerging countries.²

What Did Musgrave Say?

Unsurprisingly, Musgrave approached the issue of what he called "multilevel finance" within his standard three branch budgetary model. In summary, he argued that stabilization was essentially a central government issue as on the whole was distribution, so the principal function of subnational governments was essentially confined to the allocation branch. However, always well aware of the diversity of intergovernmental arrangements in the real world, even in his earliest discussion of this subject Musgrave noted that "the solution depends on what view of federalism we wish to take" (Musgrave 1959, 179).³

Since Musgrave (1986, 33) elsewhere noted that his "generation of public policy oriented economists has been essentially centralist in approach" it is interesting that in his initial 1959 formulation Musgrave set out two distinct views of federalism. In the first

¹ For a sample of Musgrave's work on developing countries, see Musgrave (1969, 1981) and Musgrave and Gillis (1971).

² I consider this issue more broadly in the (generally non-federal) context of developing countries in Bird (2008), from which some of the argument in the present paper is derived.

³ Subsequent references to Musgrave's writings are, for convenience, to the papers collected in Musgrave (1986, 2000). The key 1983 paper is included in Musgrave (2000).

view, which he called "pure federalism," regional governments had full autonomy and differed from the central government only in the area for which they were responsible. Essentially, each state could determine how to allocate resources in accordance with preferences of its own citizens. The central government is limited to the provision of services whose benefits accrue to all citizens. Under the assumption that people with the same income had the same preferences, the appropriate way to finance such central expenditures would therefore be on the basis of an income tax treating equals equally throughout the country.⁴ Although presumably the principle of equal treatment should also apply within any state with respect to state taxes, a combination of uniform central and differential state taxes would obviously lead to differentiation in tax levels amongst regions and hence affect the allocation of resources within the country. "But," in Musgrave's words (1986, 4), "such is the cost of political subdivision, be it on an intranational or international level."

Moreover, although even in this case he argued that the central government had to perform the stabilization function, he explicitly recognized that it was possible in principle for either the central or the regional level to have the last word on distributional issues. However, since interregional mobility could cancel actions at the regional level, he concluded that there was much to be said for letting the central level serve as the final distributive arbitrator.⁵

⁴ Even in his initial brief exposition, Musgrave (1959) carefully considered such difficult questions as the appropriate treatment of cross-border flows of income, the treatment by one jurisdiction of taxes levied by another jurisdiction, and interjurisdictional benefit spillovers but these complex matters are not further considered here.

⁵ Musgrave (2000, 298) is more explicit: "member jurisdictions... do not have a simple option of choosing between federation-wide and regional redistribution. Rather, the choice may be between central or no redistribution. At best, decentralized redistribution policy would carry a high efficiency cost."

On the other hand, under what Musgrave called "qualified federalism" -- further characterized as "a qualified and less consistent application of the principle of federalism"⁶ -- he discussed two additional scenarios. Under the first, the central government assumes responsibility for ensuring that horizontal equity applies with regard to the total tax bill -- or more precisely, following Buchanan (1950), to the "fiscal residue" or the net benefit from budgetary operations. Interestingly, he notes that one strong argument for the central government to undertake interstate equalization by applying different taxes to citizens of different regions depending on the level of public services reason they receive is to prevent "fiscal irresponsibility" by which he means regions exporting part of the cost of the services they provide to other regions (Musgrave 1986, 7).⁷ Under the second scenario he considers the central government to undertake to achieve an additional target, namely, to provide all citizens with the given minimum level of public services. In this case, additional transfers to poor regions may be required subject to various considerations.

These last arguments lead in interesting directions that cannot be considered further in this paper.⁸ For present purposes the key point is that the issue of tax assignment was not explicitly raised in this first foray into the field except for the apparent assumption that all public sector activities were apparently financed by income taxes at all levels. It was only in his 1983 paper that Musgrave turned to a full discussion of the tax assignment issue.

⁶ This term does not appear in Musgrave (1959) but is introduced in the slightly revised version of this material included in Musgrave (1986, 6).

⁷ Musgrave's discussion of this point focuses on the federal deductibility of state taxes. However, as Smart (1998) shows, similar problems may emerge in a number of other ways in federal states.

⁸ The first aspect not further discussed here is Musgrave's stimulating work on the theory and design of grants (Musgrave 1961); the second is his detailed discussion, in part in with Peggy Musgrave, of the problem of achieving horizontal equity when multiple jurisdictions are involved (Musgrave 1983; Musgrave and Musgrave 1972, 1993).

Interestingly, he once again began his discussion with a clear recognition that there were many different types of "federations" in fiscal terms ranging from intermunicipal agreements on a garbage dump to international alliances as well as federations of "varying degrees of closeness" (Musgrave 2000, 304 n.1). Importantly, he also recognized explicitly that "... existing fiscal structures... have not been established in line with fiscal logic... [but rather] reflect the vagaries of geography and the historical forces of nation making, wars, territorial rivalry, colonialism and regional disputes" (Musgrave 2000, 284). The basic problem he considered in this paper was thus not how best to construct an optimal tax system for multilevel governments in abstract but rather how taxes should be allocated amongst existing fiscal institutions in real countries.⁹ Nonetheless, he began by sketching a simple analytical framework, and then added to it various levels of problems and constraints in order to approximate more closely to real-world problems.

With a closed economy, any country can arrange its tax structure as it wishes subject to the constraints of the structure of its economy, its administrative capability, and its equity and efficiency objectives. When such a country enters into trade it may attempt to export part of its tax burden; on the other hand it also faces the risk of tax base flight. When factor mobility is allowed for, both possibilities may increase, particularly for smaller jurisdictions. Faced with these problems, jurisdictions may decide to cooperate in various ways, as discussed at more length in Musgrave and Musgrave (1972). These issues are likely to be most important with respect to income taxes and taxes on natural

⁹ Rereading a giant in the field is always a humbling experience. I had completely forgotten -- though perhaps my subconscious had not -- that Musgrave had made this clear statement when, some years ago, I wrote a paper emphasizing the distinction between this problem, which I called "federal finance," and the more usual literature searching for the optimal answer, which I called "fiscal federalism" (Bird and Chen 1998).

resources since in both cases important choices have to be made, essentially through some political mechanism, with respect to which jurisdiction has the right to what and how much of it.¹⁰ They are also of some significance, however, with respect to consumption taxes.

Turning more explicitly to the federal case -- and leaving aside the prior issue of expenditure assignment and benefit spillover (as do I) -- Musgrave (2000, 296) suggests the following assignment rules with the primary objective of reducing "burden export" by constraining each jurisdiction to tax only its own bases:

1. "Middle and especially lower-level jurisdiction should tax those bases which have low interjurisdictional mobility.
2. Personal taxes with progressive rates should be used by those jurisdictions within which a global base can be implemented most efficiently.
3. Progressive taxation, designed to secure our distributional objectives, should be primarily central.
4. Tax is suitable for purposes of stabilization policy should be central, while low-level lower-level taxes should be cyclically stable.
5. Tax bases which are distributed highly unequally among some jurisdiction should be used centrally.
6. Benefit taxes and user charges are appropriate at all levels."

¹⁰ Musgrave (1983) centers the discussion on two "principles of base entitlement" which he calls "allegiance" and "territoriality" -- roughly equivalent to the usual discussion of residence and source. My own views on this issue have been most recently set out in Bird and Wilkie (2000) and Bird and Mintz (2003).

More specifically, he argues that local governments should generally apply property taxes on stability and mobility grounds, while central governments should have the exclusive right to apply integrated or comprehensive income taxes. Interestingly, although with no discussion, he also suggests that payroll taxes might be suitable for local governments and notes in passing that the central government may also want a broad-based consumption tax for stabilization purposes. As for natural resources, he suggests that they could be taxed by both central and regional governments, perhaps with the former taxing only excess returns and the latter some "normal" or "average" base. The stated rationale for this suggestion is that unless regions are given a fair share of natural resource revenues, they may be unwilling to remain members of the federation, although one may perhaps also detect an element of the entitlement argument developed at more length in the international context by Musgrave and Musgrave (1972). The same argument appears to underlie the otherwise surprising statement that regional governments should be able to tax not only the income of residents but also that of nonresidents insofar as it originates within their jurisdiction through, for example, some form of corporate tax. Apart from these taxes, the major tax base suggested for regional level governments is a destination type sales tax. Interestingly, he does not distinguish between a retail sales tax or a VAT in this respect: either, it seems, might be suitable.

Finally, Musgrave (1983) discusses the question of whether "tax separation" between levels of government is a desirable characteristic. While he notes that separation is a more orderly approach, on the whole he concludes that it is "... second-best to a requirement of coordination among various uses of the same base" (Musgrave, 2000, 300). Taking allocative efficiency and administrative considerations into account, his

preferred method of coordination with respect to both income tax and VAT appears to be that used in Germany, and in Australia with respect to the VAT, that is, with a uniform central tax being returned to the regional governments on the basis of origin, provided that bases can be properly defined and implemented.

What Have Others Said Since?

Since Musgrave (1959) opened the tax assignment door, three subsequent strands of literature, often entangled, have developed. Somewhat arbitrarily, the first strand may be labeled standard fiscal federalism theory, the second second-generation fiscal federalism theory, and the third positive fiscal federalism analysis. All are discussed briefly in this section although the discussion of the latter two is combined.¹¹ Moreover, it should be noted that for the most part the subsequent discussion of the tax assignment question complements the standard Musgravian analysis by bringing out more clearly the importance of particular constraints and incentives in determining outcomes.

The Standard Model

Since Wallace Oates (1972) first developed the Musgravian approach in detail, it is appropriate to begin with a later summary by him (Oates 1996) of what standard fiscal federalism theory suggests with respect to the taxes that should be assigned to subnational governments:

¹¹ An interesting ‘positive’ approach to tax assignment is sketched in Bartle and Krane (2005). In effect – although not in precisely these terms – they suggest combining the ‘fiscal architecture’ approach emphasizing demographic and other external factors determining needs and capacities (see Wallace 2003) with a variant of the Hettich-Winer (1999) focus on transactions costs and other characteristics of different revenue instruments. Kenney and Winer (2006) have done something much like this for central government tax levels and structures, but as yet no one seems to have carried out such analysis with respect to tax assignment.

(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.

(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.

As Table 1 suggests, even the most recent thinking along these lines does not appear to diverge too much from this picture.

Table 1. Tax Assignment in a Federal State

Revenues	Central	Subnational
Personal income tax	Yes	Possible piggyback
Payroll tax	Yes	No
Enterprise profit tax	Yes	No
Natural resource taxes	Yes	Limited
Value-added tax	Yes	No
Retail sales tax	Yes	Yes
Customs duties	Yes	No
Excise taxes	Yes	Possible piggyback
Property tax	No	Yes
User charges	Yes	Yes

Note: Although largely based on Martinez-Vazquez, Rider and Wallace (2008), the present author is entirely responsible for this presentation.

To get to the key point at once: in its strongest form the conventional model of tax assignment in a multi-tier governmental structure essentially assigns no productive taxes to subnational governments. This conclusion follows directly from two key assumptions underlying what has sometimes been called the standard Tiebout-Oates-Musgrave (TOM) model.¹² First, the role of subnational governments is strictly allocative – to provide “subnational public goods.” Second, subnational taxation of such potentially mobile tax bases as trade, labor and capital is almost inevitably distorting (welfare-reducing) and hence a bad idea. Both points are, of course, made clearly in the original Musgrave formulation discussed above.

Of course, many other presumably desirable qualities of subnational taxes may also be found in the literature, most of which tend to weight the dice further in favour of central taxes. One well-known book, for example, offers such criteria as the following:

- the need for countries to maintain an "integrated economic space" (Ter-Minassian 1997, 8) that is, to avoid "tax wars" and revenue erosion (“the race to the bottom”) in the face of fiscally induced locational distortions
- economies of scale in tax administration (Vehorn and Ahmad 1997)
- visibility, accountability, and stability (Norregaard 1997)¹³

As Ter-Minassian (1997) summarizes the conventional argument -- in effect slightly expanding the Oates criteria stated above -- the best candidates for subnational

¹² For reviews of this model (which should really be called the “MOT model” although TOM trips more easily off the tongue) and its limitations, see McLure (2000), Bird et al. (2003), and Oates (2008).

¹³ Visibility and accountability are key elements in the ‘second-generation’ approach to tax assignment discussed next. An additional element often stressed is the “evenness” with which tax bases are distributed among different subnational jurisdictions. Sometimes it is assumed further that uniform treatment of all citizens of a country is essential in both economic and political terms although, as Oates (2008) recognizes, this criterion is neither simple nor persuasive. This horizontal equity issue is discussed extensively by Musgrave (see note 8 above) but not treated further here.

taxes are levied are (1) on relatively immobile bases, especially (2) when the base is relatively evenly distributed and (3) when yields are likely to be relatively stable. As Table 1 suggests, this approach leaves few scraps on the tax table for subnational governments. Local governments are left with little but property tax and regional governments generally fare little better with at most a share of personal income taxes and, more arguably, some limited access to consumption taxes.

Even authors like Martinez-Vazquez, McLure, and Vaillancourt (2006, 21), who recognize that "if fiscal decentralization is to be a reality, subnational governments must control their own sources of revenue", nonetheless emphasize that each level of government should be assigned taxes that are as closely related as possible to the benefits derived from spending them. Their list of 'good' subnational taxes assigns some minor benefit-related taxes and excises (excluding those on tobacco and alcohol) as well as taxes on property and land, motor vehicles, and perhaps retail sales taxes (RSTs) to subnational governments. 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 VAT (Norregaard 1997).¹⁴

The upshot of the standard literature is thus that local governments are almost invariably left only with the property tax and user charges as proper sources of local government taxation. The literature is less clear with respect to intermediate (regional) governments such as states or provinces, but in the end, much as Musgrave (1983) argued, the only acceptable regional general taxes are likely to be a flat rate personal

¹⁴ The argument against any subnational VAT has recently been restated by Martinez-Vazquez, Rider and Wallace (2008). For a different view, see Bird and Gendron (2001) and also, interestingly, Martinez-Vazquez (2007).

income (or payroll) tax or a retail sales tax (RST) levied directly on final (resident) consumers.¹⁵

This conventional fiscal federalism approach to tax assignment seems inadequate for several reasons:

- First, the basic guiding principles it offers usually yields an imbalance in revenue and expenditure assignments among levels of government that in the circumstances of most countries is likely to prove both economically undesirable and politically unsustainable.
- Second, the standard model offers relatively little help in understanding the reality of subnational tax structures found around the world, as Table 2 illustrates.
- Third, it also provides little useful guidance as to how to change that reality, if it is desired to change it.

Table 2 summarizes how taxes are divided between levels of government in six developed federal countries and seven large emerging countries. On average, central governments are slightly more important in the large emerging country group as taxers (71.6%) than in the developed federations group (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 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, Indonesia, and South Africa all collect 100% of income taxes

¹⁵ For an example, see Martinez-Vazquez, Rider and Wallace (2008).

centrally, for example; no developed country does. In all the developed federal countries except Switzerland most or all taxes on property are collected by subnational (and usually local) governments; only in China, Russia, and Ukraine does the central government collect less than 10% of such taxes in the large emerging countries included in the table. However, such averages conceal more than they reveal: perhaps the most important lesson from the data in Table 2 is the extremely wide variation in the allocation of tax bases among levels of government to be found in different countries around the world. Countries have a wide range of choice when it comes to subnational taxation.

A further important point that should be made about such data is that they provide no useful information at all about the degree of subnational ‘autonomy’ when it comes to revenue. For example, Martinez-Vazquez, Rider and Wallace (2008) show that in Brazil subnational governments finance as much as 75% of their spending from their own revenue sources while in China -- in contrast to the tale told by the data in Table 2 -- the corresponding figure is less than 5%. Blochliger and King (2006) show similar variation for developed federal countries: in Canada 98% of provincial government revenue is fully within their control and the corresponding figure for Switzerland is 90%; on the other hand none of the revenue of the states in Germany is entirely under their control.¹⁶

¹⁶ To complete the roll of developed federal countries, the figure for Australia is 54% -- less than that in Belgium, Spain or the United States but much more than in Austria. It should be emphasized that it is very difficult to make international comparisons of these matters even in countries with good data as Blochliger and King (2006) emphasize; these authors also define “autonomy” much more precisely than I do here.

Table 2. Share of Central and Subnational Governments in Total, Income, Property, and Consumption Taxes Selected Countries and Years (percent)

Country and year	<i>Total tax revenues</i>			<i>Taxes on income</i>			<i>Taxes on property</i>			<i>Domestic taxes on goods and services</i>		
	%Central	%State	%Local	%Central	%State	%Local	%Central	%State	%Local	%Central	%State	%Local
<i>Argentina 2001</i>	59.7	40.3	0.0	50.5	49.5	0.0	54.4	45.6	0.0	94.6	5.4	0.0
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
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
<i>China 1999</i>	45.0	55.0	0.0	24.4	75.6	0.0	0.0	100.0	0.0	55.7	44.3	0.0
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
<i>India 1999</i>	62.6	37.4	0.0	100.0	0.0	0.0	14.9	85.1	0.0	41.5	58.5	0.0
<i>Indonesia 1999</i>	97.1	2.9	0.0	100.0	0.0	0.0	74.9	25.1	0.0	95.9	4.1	0.0
<i>Russia 2001</i>	69.7	0.0	30.3	27.6	0.0	72.4	5.2	0.0	94.8	82.7	0.0	17.3
<i>South Africa 1998</i>	92.8	0.5	6.7	100.0	0.0	0.0	21.7	0.0	78.3	98.6	1.4	0.0
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
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
<i>Ukraine 2001</i>	74.3	0.0	25.7	35.6	0.0	64.4	0.0	0.0	0.0	80.5	0.0	19.5
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

Source: Martinez-Vazquez, McLure, and Vaillancourt (2006). For reference purposes, emerging countries are in italic, with those that are federal in bold italic.

The “Second-Generation” Model

Over the last decade or so what has been called a ‘second-generation’ fiscal federalism model has begun to emerge (Oates 2008; Weingast 2006). Ambrosiano and Bordignon (2006) correctly note that no optimal tax assignment to different levels of government emerges from this literature either. But what does emerge 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, is sometimes said to have begun with the basic statement of the principle of ‘fiscal equivalence’ in Olson (1969) – although it might equally be attributed to Musgrave’s initial emphasis in the pure federal model on the “matching principle,” under which each level of government finances its (allocative) expenditures from benefit taxes levied on its residents.

An additional important aspect is that, as Hettich and Winer (1999) develop at length, in the real world governments are run by real people, and those people to a considerable extent decide which taxes should be imposed in terms of a political rather than an economic calculus. 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 it is perceived to affect the probability of being reelected.

Regional governments are more politically dangerous than local governments from the perspective of the central government, particularly in less well-established countries, because they may more easily serve as a base for aspiring competitors at the national political level. Basically, what one usually finds at the regional level is what the

achievement of political equilibrium appears to require.¹⁷ Countries in which regional 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. Countries where central governments call the shots (such as Indonesia and Japan) correspondingly 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 to more and sometimes less subnational fiscal autonomy.¹⁸ This political perspective provides no normative guidance as to *what* should be done but it may help explain *why* whatever it is has been done.

In contrast, in a normative variant of this approach, Brennan and Buchanan (1980) were crystal clear as to what should be done.¹⁹ In their Leviathan model, in contrast to the prescriptions of the conventional model -- which, they correctly observe, can be interpreted as a revenue-maximizing model (subject to efficiency and, perhaps, equity constraints) -- subnational taxes should be imposed on *mobile* factors precisely so that competition between such governments can limit the grasp of Leviathan. 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.²⁰

¹⁷ See the analysis and examples from Australia and Canada in Winer (2000) and the analysis of Latin American federations in Diaz-Cayeros (2006).

¹⁸ Of course, as Winer (2000) shows, this is equally true in developed countries: see also the detailed discussion of the evolution of fiscal federalism over the years in Canada in Bird and Vaillancourt (2006).

¹⁹ For more detailed comparison of the Leviathan and standard models, see Ambrosiano and Bordignon (2006).

²⁰ 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.

As Breton (1996) demonstrates, however, in reality governments are usually both more competitive and less monolithic and monopolistic leviathans than Brennan and Buchanan (1980) imply. 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.²¹

As noted earlier the reductionist conclusion with respect to tax assignment that emerges from the standard literature is more or less that the central government should do everything that matters. The discussion of tax assignment in the second-generation literature falls almost equally short of making any practically very useful recommendations. This is not surprising: many contentious issues are embedded in the question of tax assignment. Indeed, the question is so highly contentious and politicized that in practice, as already noted, the tax assignment that actually prevails in any country (particularly with respect to regional governments) invariably reflects more the outcome of political bargaining in a particular historical situation than the consistent application of any normative principles.

In the end, McLure (2000) probably offers what is perhaps the most useful practical formulation of the normative approach to tax assignment in the complex and changing real world. As emphasized in the second-generation literature, subnational governments need to control their own revenues to facilitate effective decentralized

²¹ 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 (2003).

control of spending.²² However, control in this sense simply requires that they are able to affect the volume of revenues significantly *at the margin* through their own policy choices, in particular by choosing tax rates. Earlier (Bird 1993) I had suggested that it would be 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 instruments they control to cover the expenditures for which they are directly responsible. By far the most important point, however, is that if subnational governments are expected to act responsibly they must be able to increase or decrease their revenues by means that make them publicly responsible for the consequences of their actions.²³

Guidelines for Tax Assignment

In summary, the approach to tax assignment sketched above suggests two useful general guidelines to rethinking the problem of tax assignment. The first guideline simply follows the dictum that financing follows 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, for example, local governments are responsible only for sweeping the streets and picking up the garbage, user fees and some sort of low-rate general local tax such as a uniform tax on real property will do the job. In these

²² Such control over revenues is also, it seems, essential for macro stabilization purposes, although this point is not further discussed here: see e.g. Rodden, Eskeland and Litvack (2003).

²³ 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. On the other hand, to the extent that subnational expenditures give rise to interjurisdictional spillovers or when subnational governments are acting as ‘delivery agents’ for nationally-set policies, some conditional transfers even to the richest jurisdictions may be warranted (Bird and Smart 2002).

circumstances, the prescriptions of the standard fiscal federalism model produce roughly the right results.

On the other hand, if subnational governments are responsible for such expensive (and usually expanding) social services as health or education, as they are in many large emerging countries, the pressure on subnational revenues will obviously be much 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 required for each country particularly with respect to the generally more politically salient regional governments. But the general rule is clearly that if big expenditure responsibilities are to be carried out responsibly, subnational governments generally need access to big revenues for which they are clearly politically responsible.²⁴

The second guideline emphasized above is that meaningful tax assignment requires subnational governments to have the ability (and responsibility) to determine their "own-source" revenues in a politically and economically meaningful fashion. In some countries (such as China and Germany) subnational governments obviously have a good deal of revenue passing through their hands. However, if they 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 revenue power at the margin. From this perspective the single most critical

²⁴ To avoid possible misunderstanding, I should emphasize again that this does not in any way 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 subnational governments. Further discussion of this topic would be more appropriate in the context of the treatment of intergovernmental transfers: for an example, see Bird and Fiszbein (1998).

variable is control over the effective tax rate, preferably -- because it is most transparent -
- when such control is exercised through the power to determine the nominal (politically
visible or "headline") rate.

In short, the current state of the art suggests that four basic principles that should
be followed in assigning revenues to subnational governments:

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

Obviously, the voice of Richard Musgrave still rings loudly in the ears of all those
who till the tax assignment field.

To set the stage more fully, Table 3 presents an illustrative choice matrix for
subnational revenues: an expanded list of characteristics that might be desired in
subnational taxes is listed in the left-hand column and a set of possible taxes in the first
row.²⁵ One might conceivably fill in the blanks in this matrix in many different ways: the
entries shown in the table are obviously judgmental and many are no doubt arguable.

²⁵ 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

For example, central governments, regional governments, and local governments might have very different objective functions and hence weight the various characteristics very differently. Similarly, poor areas and rich regions, like metropolitan and rural governments, might have very different weightings from every perspective. The views of politicians, economists and tax administrators may also be very different. There is no one right answer in part because there is no one decision maker and in part because even an omnipotent decision-maker would not be omniscient and hence would almost always be unable to put any quantitative magnitudes in most of the cells.

Some may not agree that all the characteristics of a "good" subnational tax listed in Table 3 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 corporate income taxes and taxes on property transfers may either be subsumed under (respectively) the business tax and property tax headings or, if desired, added as additional columns.

Table 3. Choice Matrix: Regional and Local Revenues

Criterion	User Charges(L,R)	Property tax (L)	Excises (R)	Personal Income Tax(R)	Payroll Tax(R)	Sales Tax(R)	Business Taxes (L, R)
Revenue adequacy	OK for some activities; not in general	OK for general local government	Unlikely to suffice	Unlikely in emerging countries	Yes, if industrial area	Yes	Can be OK
Revenue buoyancy	No	Not much	Varies	Yes	Yes	Yes	Can be OK
Correspondence of payers and beneficiaries	Excellent, if well designed	Fair, if properly done	Not too high	Not high	Depends on employment pattern	Depends on border issues	Depends on design
Local Accountability	Excellent	OK for residential	Not too good, unless rate set regionally	Low (depends on rate discretion)	OK if have rate discretion	Can be OK if rate discretion	Usually low
Administrative cost	Sometimes high	Fairly high	Low	Not usually feasible unless as regional surcharge	Not high	Moderate	Depends on design
Compliance costs	Irrelevant, in principle	Depends, but not high	Low, as a rule	Medium	Not high	Moderate	Often high
Latitude for Corruption	Low?	Moderate	Low	Probably high in most countries	Low	Moderate	Fairly high
Political Acceptability	Apparently not very high in most countries	Moderate	Very high for “sin” taxes; mixed for MV taxes	Low	High	Perhaps	High
Distortionary Impact	None	Moderate	Can be low	Moderate	Not too high	May be OK	Fairly high
Progressivity	Irrelevant?	Possibly	Regressive in general (not fuel)	Unclear at subnational level	Not very	No	Usually unknown
Reduces regional disparities	May do so to some extent	No	No	No	No	No	No

A Brief Look at the Real World

Who should levy what taxes and how effectively they can do so has often been a major political issue, particularly in large countries with extensive and complex systems of subnational government. All four federal countries in Latin America, for example, have a long history of conflict – sometimes violent – 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.²⁶

Such vicissitudes are only to be expected since the correct revenue assignment in a multi-level government structure (whether formally federal or not) is by no means clear in principle and is usually controversial in practice. The fundamental problems are two. First, the central government can inherently collect most taxes more efficiently than can subnational governments. Second, the potential tax bases available to the latter vary widely from jurisdiction to jurisdiction. The first of these problems gives rise to what is often called "vertical imbalance" in the form of a mismatch of expenditures and revenues between levels of government. The second problem produces what is called "horizontal imbalance" in the sense that governments at the same jurisdictional level may have very different resource bases with which to finance public services.²⁷

²⁶ For example, Colombia, which is not a federal state (because the federalists lost the civil war at the end of the 19th century), has in recent years become much more decentralized (Acosta and Bird 2006).

²⁷ For detailed discussion of these concepts, and estimates for developed federal countries, see Bird and Tarasov (2004).

To a considerable extent, at least in principle the first of these problems may readily be solved at the regional (and perhaps even at the local) level if variable surcharges on central taxes are feasible. In practice, however, none of the large emerging countries discussed below have followed this model. One reason may be because it is considered to be technically infeasible -- which is probably not correct. More importantly, most central governments in emerging countries are themselves hard-pressed for revenues and hence are understandably reluctant to give subnational governments direct access to their revenue base.

Even if the vertical imbalance between different levels of government were to be resolved by adjusting revenue assignments the horizontal imbalance between units at the same level – different states or cities – would almost invariably be worsened by decentralizing taxing powers. Those who have more to tax are obviously better off than those less favored. Consequently, in countries in which interjurisdictional disparities are, for whatever reason, of policy concern more decentralized taxes often require increased balancing transfers to poorer regions unless regional inequality is to be exacerbated.²⁸ This issue has, for example, been a major concern in China in recent years (Bahl and Martinez-Vazquez 2006).

As emphasized earlier, unless subnational governments are able to alter significantly the level and composition of their revenues neither local autonomy or local accountability is very meaningful. In particular, some degree of rate flexibility seems essential if a tax is to be both adequately responsive to local needs and decisions and a

²⁸Note that the ‘need’ for transfers is determined by the political aims and institutions of each country and not by any ‘optimality’ calculus: as May (1969) argues, the "taste" for regional equalization may vary greatly from country to country. Among developed federal states, 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).

way to make local leaders more accountable to their citizens. Unfortunately, as the following brief discussion suggests, the degree to which subnational governments in most emerging countries are given any real rate discretion is extremely limited.

Tax Assignment in Large Emerging Countries

Consider five large emerging countries: China, Russia, India, Brazil, and Nigeria. Each of these large and complex countries of course has its own history and faces its own particular political, economic, and fiscal environment, so it is not surprising that no simple or general conclusions emerge from this review of experience. Intergovernmental fiscal relations in any country are inevitably both path-dependent and context-sensitive, and no brief review and adequately convey this context. Nonetheless, Table 4 summarizes the formal tax assignment these five countries, and the next few paragraphs highlight a few key points with respect to each country.²⁹

Table 4. Subnational Tax Assignments in Five Large Emerging Countries

Type of Tax^a	China^b	Russia^c	India^d	Brazil	Nigeria^e
Property tax	Yes	Yes	Yes	Yes	Yes
Excises	Some	Shared	Some	Some	Some
VAT	Shared		Yes	Yes	
Business income tax	Shared	Shared			
Personal income tax	Shared	Shared			
Other business taxes	Yes	Yes	Yes	Yes	Yes

Notes:

(a) In many instances quite different taxes are included under these headings in different countries.

(b) All tax rates are set centrally.

(c) All rates of shared taxes are set centrally.

(d) States can levy taxes on agricultural income.

(e) States have the power to collect PIT but the power to impose it remains with the center.

Source: Bird (2008)

²⁹ More detailed discussions of each of these countries may be found in Bird (2008).

In *China*, subnational governments have access to far more revenues than their counterparts in other countries. However, they also have even more expenditure responsibilities and extremely limited ability to alter revenue outcomes. Both sides of this budgetary dilemma demand attention, preferably by shifting more expenditure responsibilities to the central government while at the same time giving subnational governments at least some freedom to alter tax rates -- for example, local property taxes and provincial surcharges on some central excises and perhaps personal income taxes. Giving some freedom in this regard to subnational governments may be an essential element in the development and improvement of efficient and effective public service delivery by these governments. On the other hand, increased decentralization of taxing authority in the absence of adequate local accountability mechanisms obviously risks increased corruption, inefficiency, and distortions. It thus remains far from clear how or to what extent subnational fiscal autonomy can be effectively increased in China without substantial changes in the present political framework.

Russia was probably quite right to move away from the original system -- still largely employed in China -- under which a portion of the VAT was distributed amongst regions. The central government was perhaps equally justified in abolishing a highly imperfect regional sales tax established near the end of the last century. Nonetheless, if there are to be any real regional-level governments, the best revenue source for them might nonetheless be some form of consumption taxation -- either a differential regional surcharge on the federal VAT or a revived regional sales tax imposed on the same base as the federal VAT and administered federally. If both possibilities are considered to be a step too far in current Russian circumstances, but it is nonetheless desired to give some

flexibility to regional governments, an alternative might perhaps be to consider permitting some regional variations in the current flat-rate personal income tax (PIT), all the revenues of which already flow to the regions.

Turning to local as distinct from regional taxes, apart from user charges, there seem to be only two major possibilities for an improved tax base in Russia as in most countries: a revised, and revived, property tax and some better form of local business taxation. A better business tax – perhaps along the lines of the Italian IRAP (Bird 2003) - might also be imposed at the regional level to replace the present distortionary regional profits taxes, with local governments being allowed to impose a surcharge on the regional tax. Such a tax would likely not find a very welcoming political or business audience in Russia. Nonetheless, this approach offers a potentially promising alternative both to the proliferation of increasing, and distorting, sub-national business taxes that otherwise seem likely to lie in Russia's future and to the question of how best to tax small businesses in emerging countries.

In *India*, two major tasks are to create adequately hard budget constraints at both the state and local levels of government and to establish clearly delineated and properly functioning tax systems at both the state and local levels of government. Unlike the other countries considered here, India has attempted to follow the principle of tax separation by assigning distinctly different revenues to each level of government. Nonetheless, as in a number of the other countries, the most important tax reform task facing India is to continue to reform consumption taxes at the central level and especially at the state level. To do this, a number of steps are needed: (1) a constitutional revision would presumably be necessary to allow the states to tax services; (2) to achieve the goal of establishing a

uniform GST base for independent state and federal taxes, a compensatory agreement underwriting revenue may be necessary from the central government; (3) the central government also needs to eliminate the so-called Central Sales Tax that currently taxes interstate trade; (4) and finally, and most importantly, both levels of government need to reach more or less full agreement on the structure of the VAT, which will not be an easy task.

At the local level, property tax reform is again clearly important, perhaps especially in rural areas where there are essentially no alternative possible sources of local own revenue.³⁰ In urban areas, however, there is probably no realistic possibility of replacing the share of local revenues that now comes from *octroi* (essentially a local import tax) simply by increasing property taxes, no matter how well designed and well implemented. Indian cities need another major revenue source if they are to cope with their growth. India may have to consider permitting at least larger urban areas to impose some form of tax on business if they are to be able to meet the fiscal challenges they face now and in the future.

In *Brazil*, which has long had a state VAT (ICMS) as well as a much more limited federal VAT (IPI) and a municipal tax on services (ISS), the key immediate question for subnational tax reform is, as in India, to get both the federal and state VATs working better, and together. In recent years many plans along these lines have been put forth by the federal government and others. A current federal reform proposal, for example, would clearly improve the VAT in Brazil substantially but at the unnecessary expense of reducing state fiscal autonomy excessively. It should be possible for both levels of

³⁰ For extended discussions of property tax reform in developing countries, see Bahl and Martinez-Vazquez (2007) and Bird and Slack (2006).

government to tax essentially the same base with the tax being administered either by one level or by both levels in a closely coordinated fashion while still allowing the states substantial rate flexibility. However, it is as yet unclear in which direction Brazil will move with respect to reforming indirect taxes or subnational taxation in general, let alone when it might do so.

At the municipal level, the consensus appears to be that on the whole the ISS is poorly exploited by local governments and that the only way to tax services more effectively is probably to abolish the ISS and incorporate services fully into a comprehensive value-added tax. However, as already mentioned with respect to India, insufficient attention has been paid to the desirability of providing local governments, particularly those in large urban areas, with an adequately expansive source of revenue that is within their own control. In addition, since the performance of most municipal property taxes in Brazil seems to be relatively poor owing to inadequate laws, low rates, outdated property registers, and costly and ineffective administrations, there is, as always, considerable room for further reform of this tax.

Finally, in *Nigeria* the federal government has almost complete control over the allocation of all revenues between the federal, states, and local governments. States and local governments have neither well-defined jurisdictions nor significant autonomy. Although in principle states have the power to collect personal income tax, the actual power to impose such a tax remains with the federal government and few if any states would likely be capable of administering this tax in any depth in any case. The almost complete dependence on state (and local) budgets on fluctuating and volatile oil revenues both makes financial management difficult and recourse to other taxes unnecessary.

Since the revenue also arrives with very few checks and controls on what happens to it once states get their hands on it, it is not surprising that so far most of Nigeria's people seem to have seen little improvement in public service delivery as a result of the country's significant natural resource wealth.

Summing up, as Table 4 shows, in all the countries considered property taxes are essentially local, although local governments are not always able to set tax rates. All also have some form of local business tax although again with widely varying degrees of scope and flexibility. Only India and Brazil have, at the regional level, significant taxes with respect to which states have some autonomy although in both Russia and especially China regions also have access to significant shares of national taxes on mobile factors.³¹

Dangers of Increased Subnational Revenue Autonomy

Of course many reasons are mentioned even by those who recognize the theoretical advantages of permitting some subnational fiscal autonomy from the perspective of effective decentralization why that autonomy should be restricted. One potential danger in permitting local governments even limited freedom to tax, for example, is commonly 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. This concern is not very persuasive. If the service in question is one of national importance (research?) or one in which there is a strong national interest in maintaining standards (poverty alleviation?), it should presumably be funded -- and the extent to which it is achieved, monitored -- by the central government. If it is not a matter of national

³¹ As Blochliger and King (2006, 185) emphasize, in developed countries also when subnational governments have any significant own revenues it is usually from taxation of mobile factors.

interest, why should the central government be concerned? Even if the service is properly a subnational responsibility, and the problem arises from differing local capacities, if intergovernmental fiscal transfers are properly designed there should be no problem.³² Moreover, if central governments in effect 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.

Any substantial degree of local autonomy in taxation will of course exacerbate some important problems. It will, for example, increase non-uniformity across local governments: some will have higher tax rates and some lower rates. Central governments intent on keeping the system uniform for reasons of ideology or tidiness -- perhaps simply because the notion of a 'tax jungle' seems, as Simons (1938, 19) once said about markedly unequal income distribution, "unlovely" -- may not embrace this strategy. In principle, however, it is not clear why it should matter what central governments think about subnational taxes -- subject to the major provisos noted earlier, namely (1) that functions are allocated properly to subnational governments, (2) that those governments have adequate revenue sources, and (3) that they are both responsible for what they do and how they pay for it to local residents and also responsive to the wishes of local residents. If these conditions prevail, local residents who do not like what their local government does, or does not do, can (try to) throw the rascals out at the next election or by any other mechanism (such as denouncing them to higher authorities or publicizing

³² For discussions of grant design, see Bahl (2008) and Bird and Smart (2002).

their misdeeds and inadequacies) through which citizens can make their wishes known in a way to which attention must be paid.³³

The freedom to make mistakes, and to bear the consequences of one's mistakes, is an important component of effective decentralization and meaningful 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 development of responsible and responsive subnational government is likely to remain an unattainable mirage.

Of course, if such conditions as effective democracy and adequate information are not satisfied, or if those who fail to collect local taxes or to spend revenues efficiently are bailed out by discretionary transfers, the rascals may not be thrown out but rather re-elected for their success in obtaining a larger share of other people's money. The current reality found in many large emerging countries differs sharply from the ideal set out above. It is no surprise that countries with inappropriately designed intergovernmental fiscal structures seem often both to have problems in managing decentralization and unsatisfactory policy outcomes when expenditures are decentralized. What is perhaps more surprising is how long this situation often appears to remain tolerable to both central governments and citizens in some countries.

Another danger often mentioned as a reason for limiting subnational tax power is that local governments may attempt to extract revenues from sources for which they are not accountable, thus obviating the basic efficiency argument for their existence.³⁴ This

³³ For example, Shatalov (2006) suggests that when it abolished regional sales taxes in 2004, Russia was essentially responding to repeated popular and business complaints.

³⁴ Another problem often mentioned, the lack of local administrative capacity, is discussed further in Bird (2008): see also Mikesell (2007).

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 local government access to taxes that fall mainly on nonresidents -- such as most natural resource levies and taxes on business, including to some extent even nonresidential real property taxes. When subnational governments do have access to such revenue bases, problems may be forestalled to a considerable extent by a well-designed uniform national law on local taxation. For example, a country could 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. Unproductive competition may be restrained by a minimum (floor) rate that all must impose and unwarranted exploitation by a maximum (ceiling) rate that can be imposed.

Conclusions and Challenges

Theorizing in economics has often been stimulated by the desire to explain some puzzle observed in reality. When it comes to tax assignment, however, most of the theory seems more to ignore and to explain reality. As Tanzi (2007) notes, it is difficult to understand why so relatively little analytical attention has been paid to this important issue. One reason may be, as he suggests, that the real problem in most countries is not to assign revenues in some "before the fact" situation but rather to reassign them in

situations in which the winners and losers from any change are all too visible.³⁵ As Winer (2000) stresses, federal ‘contracts’ are invariably incomplete and hence inevitably constantly under renegotiation one way or another. Another issue to which increasing attention has been paid in recent years is that subnational governments are not simply concerned with the allocation of public sector resources. As Musgrave initially recognized, in many countries they are also concerned to pursue their own redistributive policies (however ineffectually). Moreover, when they are big enough players in the national economy their actions may also have potentially important impacts on the stabilization objective.³⁶

Both theory and experience in a variety of circumstances around the world suggest strongly that, for fiscal decentralization to produce net benefits, subnational governments require significant real taxing power. In most developing countries there are potentially sound and productive taxes that subnational governments could use.

- For example, regional excises may be useful to some extent; but there is not always that much money, and usually even less elasticity, in this revenue source.
- Much the same can be said with respect to local property taxes: use them sensibly and as fully as possible, but do not expect large (and certainly not easily expandable) revenues from these sources.³⁷

³⁵ That ‘reassignment’ is usually the critical issue in federal countries was brought out clearly in the pioneering analysis by Breton and Scott (1978). Its importance in the tax assignment context is also raised by Martinez-Vazquez (2007) and Ambrosiano and Bordignon (2006).

³⁶ For example, von Hagen and Eichengreen (1996) note the relation between the degree with which jurisdictions act responsibly from a macroeconomic perspective and the degree to which they are responsible for raising their own revenues.

³⁷ Moreover, absent some controls, expect local governments also to prefer to tax business property rather than residential property.

- Payroll taxes are in many countries exploited by social insurance funds and in any case are not always appropriate for regional taxation.
- Regional -- and perhaps even local -- surtaxes on the central PIT make more sense, but are not very promising in the immediate future given the poorly developed nature of that tax in the context of most developing countries.

The remaining potentially significant areas for subnational taxation are sales taxes and business taxes. As McLure (2000, 635) says, sales taxes are usually the “fiscal lifeblood” of regional governments. In principle, it can perhaps be argued that personal income taxes are better sources of subnational finance in a number of ways, but many emerging countries do not have sufficiently well-developed national income tax systems (Bird and Zolt 2005) to make subnational exploitation of this base seem advisable. The issue is thus usually not sales or income taxes but rather what kind of sales tax.

Given the central importance of state VATs in both Brazil and India, further exploration is needed with respect to the critical question of how best to make this important subnational tax function well. Such work may also suggest how, and to what extent, other large emerging countries can or should make use of similar taxes. In addition, 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. Although no country now does this -- the RST provinces in Canada have very different tax bases than the federal GST -- there does not appear to be any technical reason why such a system should not be feasible, although this issue is not pursued further here. The major challenges in designing adequate subnational sales taxes are essentially the same as

those in designing adequate national sales taxes in a globalizing world. There are certainly problems but they are not insuperable in either case.³⁸

In addition to finding an adequate tax structure for intermediate level governments, another challenge facing many countries is to find an adequate tax base for the larger cities that are, for many points of view, the real competitors in the world economy.³⁹ In particular, growing cities need a revenue base that will expand adequately to accommodate their needs to finance that growth in a sustainable way. Various forms of regional and local business taxes already exist in most emerging countries. The economic case for local business taxation is simply as a form of generalized benefit tax. The most appropriate form of tax for this purpose appears to be a “value-added income tax”, that is, a VAT levied on the basis of income (production, origin) rather than consumption (destination) – along the lines of taxes now in place in Italy and Japan. Such a tax might, for example, be administered on the basis of information available on corporate income tax returns, with the tax base for particular jurisdictions being determined on the basis of payroll tax data, as has recently been considered in South Africa. There is already considerable experience around the world with variants of this sort of tax. The potential solution offered by a well-designed local tax along these lines to both the problem of the barriers to growth that may be created by badly designed and implemented systems of local business taxation and the problem of increasing local government revenue, particularly in large urban areas, warrants further investigation.

I have no way of knowing what Richard Musgrave would have thought of these conclusions. I suspect that he might perhaps be interested particularly in pursuing the first

³⁸ As I have argued elsewhere: see, for example, Bird and Gendron (2001) and Bird (2005).

³⁹ This perspective is developed in Bird and Slack (2007a).

line of investigation mentioned above but that -- while he would undoubtedly have favored a neutral local business tax like that suggested to the much more highly distorting business taxes found around the world -- he would have much preferred that local governments got out of the business of taxing businesses and left it to those at higher levels who might -- perhaps -- do a better job. In any case, as this paper shows, his highly influential early reflections on the subject of tax assignment resonate throughout both the literature and the real-world as we continue to grapple with an issue that has turned out to be surprisingly complex and difficult in both analytical and practical terms.

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