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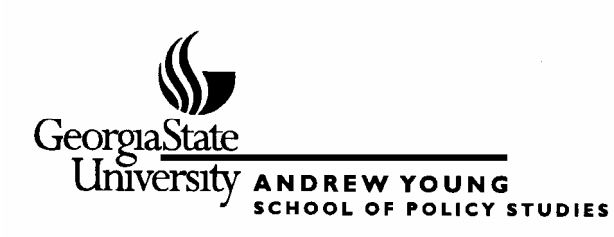

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International Studies Program
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1. Introduction

The international experience shows a variety of approaches to the organization and degree of decentralization in tax administration. It is quite common to observe, even in countries that are otherwise significantly decentralized as is the case in the Scandinavian Countries, a highly centralized organization of tax administration. Nevertheless, there are other countries, in small number, where tax administration is highly decentralized; in some cases, as in Germany, even central government taxes are administered by the decentralized subnational governments. The fundamental questions addressed in this paper are the following: what is the most appropriate approach to organizing the vertical structure of tax administration, and what are the determinant factors that may make an approach more or less optimal in any particular country.

It is important that we place these questions into the right framework. The assignment of responsibilities for tax administration must be seen as an element that must interact and be compatible with the rest of the design of a decentralized system of finance and more generally with the design of the entire fiscal system of a country. Looking at the organization of the tax administration in isolation can easily yield misleading answers. There is an element in the design of a decentralized system of finance that is key to what approach may be followed in the organization of the tax administration. This element is the assignment of taxes and other revenue sources to different levels of government.

The assignment of taxes in a decentralized system of finance must decide three types of issues.

- First, what level of government will be granted legal powers to introduce new taxes or change their structure in terms of the definition of tax bases and the determination of tax rates?
- Second, how will the revenues from the different taxes be shared, if at all, among the different levels of government?
- Third, what level of government will be responsible for the administration and enforcement of the different taxes? As pointed out, our interest in this paper lies in the third set of issues, but we cannot gain a clear understanding of the tax administration issues unless we understand the existing level of tax autonomy and how tax revenues are shared among different government levels.

Tax assignment in a decentralized system of finance basically covers two possibilities: revenue sharing, whereby local governments participate in the revenues from central government taxes according to a variety of formulas but with no independent powers to affect those revenues, and the delegation of taxes or the granting of tax autonomy, whereby local governments get (some) powers to change some aspects of those taxes, such as rates, or the composition of the tax base. In the case of pure revenue sharing, it would seem that the proper model for tax administration is that of centralized organization. After all, if only central government taxes exist, although some of their revenues are shared with local governments, it would seem that the only thing that is needed is a central tax administration. However, in real life things are not that simple. In fact, as we will see, in the most decentralized country in the world in terms of tax administration, Germany where all taxes are collected by the Lander or regional governments, these units have no real tax autonomy and all their revenues are from their sharing in federal taxes. Thus, one of the basic questions posed in this paper is what may be the reasons for decentralization in the organization of the tax administration in the case of tax sharing and what is the proper degree of decentralization?

In the case of assignment of own revenues to local governments with autonomic powers, it would seem like the proper conclusion for tax administration may be that of separate tax administrations at each level of government in correspondence with the taxes assigned to them. This is actually a common approach among federal countries and also some unitary countries. For example, the economies of scale of more centralized models of tax administration may be lost with differences in the definition of tax bases across local governments, or it may be argued that the accountability of local government officials to residents provided by tax autonomy may be reinforced with local tax administration. But, as we will also see in the actual international experience the arrangements are more complex, with a mixture of not only separate tax administrations for each level of government but also more centralized and in some cases more decentralized organization of the tax administration. Thus, another basic question posed in this paper is what may be the reasons behind the different degrees of decentralization

in the organization of the tax administration in the case of assignment of own revenues to local governments with autonomic powers.

The rest of the paper is organized as follows. In Section Two we consider the theoretical arguments for and against centralized and decentralized models of tax administration. In Section Three we review the actual practices in a number of countries as prime examples of centralized and decentralized approaches. In Section Four we conclude and extract lessons for the future redesign in the organization of tax administration. As we will see, one size does not fit all; the choices countries make in terms of their level of fiscal decentralization respond to complex agendas, which often involve political objectives. However, given the general approach to fiscal decentralization and, more in particular, revenue assignments, it is possible to identify better and worse approaches to organizing tax administration. Section five offers some closing reflections.

2. Theoretical considerations

The literature on fiscal federalism has provided so far little attention to the issue of decentralization of tax administration. However, two fairly recent papers by Vehorn and Ahmad (1997) and Mikesell (2003) have provided insightful and quite comprehensive discussions of the pros and cons associated with the centralization/decentralization of tax administration. On the other hand, the theoretical literature on tax administration (among others, Maysar, 1991, Slemrod and Yitzhaki, 2002) has exclusively focused on the case of a single or centralized tax administration. A more recent paper by Lopez-Laborda et al. (2004) employs some of the theoretical insights in the optimal tax (single) administration literature to examine the optimal level of decentralization of tax administration by focusing on how well the externalities produced by multiple levels of tax administration are actually internalized by different approaches or organization of the tax administration system.

Tax administration structure and objectives:

What the best approach to the organization of tax administration may be depends on the objectives of tax administration and the constraints faced in the pursuit of those objectives. The final choice of a model of tax administration organization eventually may depend on how these objectives are weighted and what is the nature of the tradeoffs among them. Clearly a central government perspective on these objectives (that is, the relative weights assigned to them) may be quite different from a decentralized government perspective. Thus, disagreement between different levels of government on a particular country arrangement or the observation of quite different international practices can be explained to some extent by how those objectives are defined and weighted.

In the context of what is the appropriate level of tax decentralization, two fundamental objectives may be considered. The first is the maximization of revenues subject to two constraints: a budget or administration cost constraint and a compliance

cost (for taxpayers) constraint. In brief, we will call this objective the efficiency objective. The second objective is the accountability of government elected officials to taxpayers, which may depend not only on the degree of normative autonomy provided to local governments but also on how taxes are actually collected. We will call this second objective the accountability objective.[1]

The efficiency objective and the organization of tax administration:

Let us start with the first objective of constrained revenue maximization. Building on Mayshar (1991) and Slemrod and Yitzhaki (2002) and expanded by Lopez-Laborda et al. (2004) we can think of a production function for revenue, R(.) embodying a particular technology and dependent on the two traditional factors of production labor (L) and capital (K). In addition to those traditional factors, production depends first on the "quality of the legal structure" (M), which captures not only how the tax laws facilitate (or complicate) the task of tax administration and enforcement, but also the nature of revenue assignments in the system of intergovernmental fiscal relations. A second factor is "the information context" (Z), which depends on the structure or organization of the tax administration apparatus (centralized or decentralized), and it captures the ability to efficiently use the information provided by taxpayers' returns, third parties and so on.

The organization of the tax administration (centralized or decentralized), the focus of this review paper, may also be seen as affecting other aspects of the production function, including the type of technology embedded in the production process as well as the productivity of labor and capital inputs. In addition, the organization of the tax administration may also affect the nature of the constraints on administration costs and taxpayers' compliance costs.

Several models of organization of tax administration are possible. In one extreme, all taxes central and local are administered by the central (single) tax administration. At the other extreme, all taxes central and local are administered by the (multiple) decentralized tax administrations. In between those polar cases there are several possibilities. The most obvious one is that of separate tax administrations in which each level of government administers its own taxes. But there are several other possibilities including those in which the central government administration in addition to its own may also administer some local taxes and/or the local government administrations in addition to their own taxes may administer some central taxes.[2]

[1] It is possible, of course, to think of other objectives, and for some, what we call here constraints (such as taxpayer compliance costs) could also be defined as objectives. However, we believe that efficient revenue raising and accountability sufficiently capture the fundamental tradeoff and the arguments that are made on the side of more centralization/decentralization of tax administration.

[2] As we will see in the next section of the paper, there are country examples for these cases. Lopez-Laborda et al. (2004) point out that an ideal organization for tax administration may be a single apparatus with joint authority by the central and local governments capable of internalizing information externalities and other potential advantages, but given the likely conflicting objectives, asymmetric information issues, etc., it is not surprising that this type of hybrid organization is actually not observed in reality.

The existence of several layers of tax administration units may produce externalities in their respective abilities to enforce and administer their own taxes. Although there has been some discussion in the fiscal federalism literature about the presence and consequences of fiscal externalities in the design of revenue assignments (among others, Keen, 1998 and Sato, 2000) there has been less work on the role of externalities in the issue of the potential decentralization of tax administration. These externalities involve the advantages and disadvantages for enforcement effectiveness of one level of tax administration caused by the existence and performance of other levels of tax administration. Two recent exceptions are papers by Lopez Laborda et al. (2004) and Esteller-Moré (1999). The first of these papers investigates the question of the "optimal design" of tax administration given that the existence of several layers of tax administration (in the presence or not of cooperation agreements in the exchange of information) can lead to better taxpayer compliance at any level. The second paper by Esteller-Moré argues that in a decentralized setting with overlapping layers of tax administrations the effectiveness of the usual enforcement parameters (penalties and probabilities of detection) may be weakened vis-à-vis the case of a single tax administration. The issue of fiscal externalities will not be further developed in the present paper.

In the following paragraphs we explore the potential effects of centralized and decentralized organizations on production efficiency followed by a discussion of the second objective: the accountability of government officials to taxpayers.

Efficient use of inputs and administration costs

A fundamental task of any tax administration is to collect revenues with lowest possible costs.[3] The primary advantage of a centralized tax administration would seem to be its ability to operate with lower costs through a more efficient use of inputs because of economies of scale in production, greater specialization of staff, and more sophisticated uses of capital inputs, in particular computerization.

Because there are certain overhead costs associated with collecting any tax, a centralized tax agency may be able to reduce the cost of administration and compliance for the overall revenue system, including central and subnational taxes. Unless decentralized administrations are billing and collecting continuously, it can be expensive to have staff dedicated to just collections. In contrast, centralized tax administration can utilize economies of scale in return processing, record maintenance and retention, and employing technical specialists (e.g., auditors). To the extent that there are economies of scale in tax administration processes, a centralized administration improves the chances that these cost savings will be realized. Under one organizational structure for all tax administrations, taxes are collected throughout the country following the same processes and procedures. This, *inter alia*, makes it easier for the tax administration to set up a single computer system to monitor the collection of various taxes. Taxpayers' records with respect to each type of tax can be consolidated into one database or master file.

[3] See Rubinfeld (1985) who argues that that basic principle of tax administration design should be the lowest possible administration and enforcement costs.

Stop-filers can be detected quickly, and delinquent accounts can be addressed in an organized fashion. Enforcement, especially the audit component of enforcement, is simplified if the tax inspector has information, from the taxpayer master file, on every tax for which a given taxpayer is liable.[4]

The large administrative agencies under the centralized structure may afford more qualified personnel, may be able to pay higher salaries (and thus reduce the attractiveness of corruption, which among other things has the impact of reducing revenue yields) [5], may allow personnel to specialize to a degree not feasible with smaller administrative units[6], and may have budgets that permit more sophisticated information technology. It may be much less economical for smaller (decentralized) administrations to invest in costly and specialized technology and equipment, maintain specialized training programs because of small staff numbers, or to hire personnel capable of dealing with more complex compliance issues involving, for example, global business entities.[7]

But the case for greater cost efficiency in centralized approaches to tax administration is not completely hermetic and shot. First of all, decentralized tax administrations at the regional or state level may be large enough to realize many of the advantages related to economies of scale.[8] Evidently, intermediate level subnational governments in countries such as India or China can be much larger in population size than many entire countries.[9] Second, smallness can offer some advantages too. For example, decentralized tax administrations at the local level can achieve greater collection efficiency and some cost saving by integrating tax collections with the collection of user charges (i.e., utilities) and municipal housing rents.[10] Several other features of decentralized tax administration may yield increases in efficiency. It is commonly argued that in the case of property taxes a more decentralized tax administration may have superior knowledge of local circumstances and ability to tailor procedures to local conditions and therefore be more effective in tax enforcement. It has been also argued that a more decentralized tax

[4] These points should not be interpreted to say that a decentralized approach will never be able to achieve some economies of scale in the use of information. The issue here is that this realization of economies of scale will require information exchange agreements, which can be costly, cumbersome and hard to enforce.

[5] The idea that higher pay will lead to better performance is generally accepted, but seldom tested. In an analysis in one American state (Connecticut), Bates and Santerre (1993) find no evidence linking higher pay to better performance in property tax collection. However, their performance measure – the collection rate – was an extremely narrow performance concept, so the results do little to change the basic performance presumption.

[6] Specialization of duties has the added benefit of improving internal control and lowering the chances of fraud and corruption.

[7] In contrast, decentralized administrations could be easily overwhelmed in efforts to enforce compliance from large multinational businesses. For instance, Tannenwald (2001, page 42) observes that, in the United States, "state and city tax departments are increasingly 'outgunned' in attempting to enforce [the corporate income tax]." They simply lack the legal and accounting talent to keep up with avoidance or evasion strategies of large business.

[8] The empirical evidence on the existence of size and economies scale is reviewed below.

[9] However, even in the case of a large subnational government size, informational economies such as those related to third-party information or economic activities of the same taxpayer in different jurisdictions may not be realized.

[10] This has been a common practice in a variety of countries such as South Africa and Ukraine and other transitional countries.

administration can lead to faster and deeper technological innovations as the different tax administrations can work a laboratory for innovations (Mikesell, 2003). Notwithstanding these arguments, in general the case for greater cost efficiency would appear to be on the side of a centralized approach to tax administration. Even these potential advantages of decentralized tax administration regarding the adaptability to local conditions and working as a laboratory for innovations are achievable to some degree if a centralized tax administration is willing to deconcentrate decision making and provide more autonomy in procedures to its territorial units.

The question is whether the potential greater cost efficiency of a centralized approach to tax administration actually holds in reality. Unfortunately, there has been little empirical research on cost efficiency and economies of scale in tax administration, and there are practically no studies that have compared directly centralized and decentralized approaches.

Indirect evidence of some economies of scale is suggested in a comparison of studies of administrative costs of the national and subnational taxes levied on the same base in Canada. Vaillancourt (1989) estimates administrative costs for Canada's federal personal income tax and payroll taxes at 1 percent of the revenue yield, while Lachance and Vaillancourt (2000) estimate administrative costs for Quebec's autonomous personal income tax at 1.78 percent of the revenue yield. In another study Plamondon and Zussman (1998) estimate that a single administration of Canadian federal and provincial business taxes would reduce administrative costs down to 0.90 to 0.93 percent of revenue compared to the actual 0.97 percent of revenue costs.

Moesen and Persoon (2002) use a non-stochastic production frontier approach to study the effect of the scale of operation on the efficiency of territorial branches of the Belgian tax administration. For the personal income tax they find no relation between the number of persons covered by the tax office and its efficiency in terms of number of audited returns. This result is in sharp contrast with the one obtained for the corporate income tax in Belgium by Amez and Moesen (1994), who find increasing returns to scale for larger tax offices. These results suggest that economies of scale and specialization may be more significant for some taxes than others. The corporate income tax can easily require very specialized knowledge to keep up with business and financial practices of multinational corporations, for example, with other taxes, such as the property tax or the personal income tax, the need for very specialized knowledge is much less obvious. This suggests that the attractiveness (or relative efficiency costs) of decentralizing tax administration will depend on the type of tax at hand.

Several recent studies have focused on the property tax. Sjoquist and Walker (1999) find for property tax assessments in Georgia (USA) that a ten percent increase in the volume of assessments results in an increase in total costs of approximately three percent. On the other hand, Bell (1999) finds that the quality of the property assessment does not improve with size in the United States. In fact, smaller unit valuations are at least as accurate as those done in larger jurisdictions. However, this is often accomplished by

hiring contract appraisal firms or state appraisal staffs, which have an opportunity to exploit economies of scale.

In summary, the evidence there is so far on scale and cost efficiency is at best fragmented but generally supportive of the presumption of economies of scale in tax administration. But much more and better testing should be done in the future on this issue.

The compliance costs constraint

The discussion in the literature on optimal tax systems in more recent years (e.g. Slemrod (1990)) has emphasized the importance of taxpayer compliance costs in optimal design. The organization of tax administration can impact taxpayer compliance costs in different ways. A centralized tax administration can reduce the number of points of contact between a taxpayer and the tax authorities.[11] This has several potential advantages.[12] First, a single administrative authority helps to avoid possible confusion on the part of taxpayers as to what tax authority to go to for questions and problems and where to submit appeals. Second, a single audit assignment can cover central and subnational taxes, avoiding the nuisance for taxpayers of repeated inspections in one single fiscal year. Third, with multiple administrative agencies involved communications can get misdirected by some taxpayers. A decentralized model of tax administration also can burden taxpayers with higher compliance costs if each jurisdiction issues different forms, regulations, and procedures. Compliance costs can be especially high for companies that have several branches or subsidiaries operating in different jurisdictional areas.

The lack of uniform treatment of taxpayers or dependency of tax outcomes on the place where taxes are filed may also be considered a form of compliance costs. Different taxes may be actually paid for the same nominal obligation or taxpayers may incur the cost of displacement or relocation to take advantage of a fairer or better treatment and to enjoy competitive advantages.[13] Administrative uniformity in tax enforcement involves a variety of elements ranging from the actual interpretation of the tax laws to geographical balance in the selection of taxpayer accounts for audit. A centralized model of tax administration improves the chances that taxpayers will receive consistent treatment in assessment, audit, penalties, and appeals, independently of where the taxable activities are located.

However, taxpayer compliance costs also have to do with convenience and access. In this respect, decentralized tax administrations at the local level might be better able to

[11] We must note that in terms of points of contact there can be some positive aspects in terms of visibility and accountability of local authorities to taxpayers. See the discussion of accountability issues below.
[12] See Mikesell (2003).
[13] A perception of balanced administration is believed to contribute to the probability of voluntary compliance with the tax.(Vehorn and Ahmad, 1997). A uniform application of tax laws across taxpayers sends a signal that the tax administration is committed to the fair treatment of taxpayers.

provide taxpayers with these services. Nevertheless, the use of the Internet and call centers tend to make these aspects of compliance costs less important.

The empirical evidence so far on how the decentralization of tax administration impacts taxpayer compliance costs is scarce and fragmented. However, the importance of these issues may be too easily minimized. For example, it is not unusual for national corporations in the United States to fill out over 15,000 sales tax returns each year (Vehorn and Ahmad, 1997). In addition, these same corporations have to file corporate income tax in all states where they have nexus (e.g., a permanent office), and withhold personal income taxes for their employees in all those states and local governments where they operate that levy this type of tax. Individuals with part time residency in several states and localities must file personal income taxes in each of those states if the jurisdiction has an income tax or must pay property taxes to all jurisdictions where they own real estate. For some of these reasons, Slemrod and Blumenthal (1996) find for the United States that compliance costs for the states' corporate income tax are 5.6% of revenues, which is twice as high as a their estimate for the federal corporate income tax (at 2.6 percent of revenues). The authors explain the difference as due to the non-uniformity of state tax systems. Just north of the border the evidence for the personal income tax does not appear as damaging to decentralized tax administration. Erard and Vaillancourt (1992), using simulation models for Ontario's proposed PIT, estimate marginal compliance costs ranging from 2 percent to 3.1 percent of revenue yield. Lachance and Vaillancourt (2000) estimate that the compliance costs for Quebec's independent personal income tax at 1.71 percent of the revenue yield. As a reference point, the average compliance costs for Canada's federal personal income tax and payroll taxes are estimated at around 6 percent of revenue yield, with the main determinant of the costs to individuals being the complexity of their tax situation in terms of types of income, use of tax shelters, etc. Vaillancourt (1989). In a little different vein, Plamondon and Zussman (1998) estimate that a single administration of Canadian federal and provincial business taxes (not personal income taxes) would reduce compliance costs down as much as 1.37 percent of revenues compared to the current estimate of compliance costs of 1.5 percent of revenue. These empirical studies demonstrate that the compliance costs may not be trivial, but they may be far from accurate. It appears that decentralized tax administration is more likely to increase to compliance costs for businesses than for individuals.

The accountability objective and the organization of tax administration

The fundamental question here is whether a separate local tax administration regime enhances the accountability of local officials to residents and taxpayers beyond the accountability that may exist when decentralized local taxes are collected by the central authorities. Thus the question is whether the powerful argument of fiscal accountability in decentralized systems extends to tax administration or whether it is just sufficient to provide subnational governments with tax revenue discretion or autonomy, for example the ability to set rates for certain taxes, but have those taxes centrally collected. Mikesell (2003) argues that when local taxes are administered by local governments separately, it becomes known to citizens which government is actually levying the tax and therefore it

is more likely that local governments will be held accountable. With decentralization it is easier for taxpayers to see which government is levying what taxes; it is more transparent. Transparency can be lost when a central authority administers the tax levied by a lower level of government since the separation between the lower and higher level taxes may not be always clear to the taxpayer.[14]

On the other side of the argument, much of the theory of fiscal federalism emphasizes the importance for local accountability of local government normative discretion, for example the ability to set tax rates, and at the same time it downplays the importance of the mechanics of the actual collection of local taxes, which can be done under appropriate arrangements by the central tax administration authorities. (See, for example, McLure (2001) and Bird (2001)). But clearly what matters to transparency and accountability are the specific administrative arrangements. For example, there are situations, such as in the case of a local piggyback or surcharge for the personal income tax, in which central collection of the local tax is unlikely to harm local government accountability. In this case taxpayers are unlikely to have to visit any tax office in filing the return but rather have to fill out in the self-declared return some boxes which may identify the recipient of the tax payment as the local government. But the transparency and accountability may be drastically diminished if the local tax surcharge is not clearly identified in a separate box. In the case of a piggyback sales tax, as practiced in the United States, customers pay at the time of a purchase a combination of the local sales tax and the state sales tax. Transparency and accountability could be enhanced in this case if there were two different entries in the customers' receipts for the local and state taxes. In the case of other taxes, such as the property tax, there may be more direct contact between taxpayers and tax administration and therefore there may be some differential benefits for enhanced local government accountability when the tax is directly administered by the local governments. But, even in this case too much can be made of the benefits of a separate tax administration. For example, in the United States, many property owners with a mortgage loan on their houses get to pay their property taxes automatically by their mortgage lenders through a special escrow account, which means that many of these taxpayers may never get to take a serious look at their property tax bills.

In summary, even though it can be argued that separate normative capacity to set the structure of local taxes, in particular tax rates, is of more direct importance to accountability than how or who actually collects the tax, quite clearly, depending on the particular administrative arrangements, decentralized tax administration can enhance tax transparency and the accountability of subnational government officials to their constituencies. Therefore, other things equal, a decentralized tax administration of local taxes is a preferred arrangement. However, all other things are not equal - in particular the cost effectiveness of tax enforcement and collections and possibly taxpayer compliance costs. This means that that from a normative viewpoint, choosing between tax administration organization arrangements, there will be a tradeoff between these two

[14] In some American states, for instance, the local tax appears as a single line on the state tax return and is fully subsumed in the state collection and enforcement process. In Canada, there is a single return for provincial and federal income taxes, although a separate calculation of some detail is required for each. And in American states in which local sales taxes are collected, the local and state taxes are collected together, without differentiation, on taxable transactions.

likely competing objectives: cost efficiency and accountability. Before we leave this issue, it must be noted that to the extent that the accountability argument for separate tax administrations is valid, it needs to be interpreted as an argument against both a totally centralized administration (the central authorities collect all taxes including local taxes) and a totally decentralized tax administration (the local authorities collect all taxes including central government own or shared taxes). A completely decentralized regime for tax administration where all taxes (including central government taxes) are collected by the local authorities would also be detrimental to the accountability of central government authorities to taxpayers.

Political Economy Issues in the Design of Tax Administration.

Although from a normative viewpoint the two objectives of constrained revenue sufficiency and accountability may capture the most important choices to inform the selection of a model of tax administration, in reality there are several other important issues that may affect this selection by policy makers. It is not only that the balance between cost efficiency and accountability might be seen differently by different levels of government but that policy makers at different levels of government will care about other issues such as control of taxes and the cash flow, leveraging incentives, power over employment decisions, opportunities for corruption, and situations of de facto dual subordination.

The control of tax information and revenue flows. Subnational governments may feel that administration in practice is closely intertwined with tax policy and that, without having choice over administrative decisions, they lack appropriate fiscal autonomy. After all, as the Milka Casanegra (1990, p179) now famous dictum put it, "tax administration is tax policy." While surcharges on central tax bases can be a source of marginal revenue, subnational governments may not agree, if given the choice, that the autonomy is adequate. They may prefer to exercise discretion in administrative policy, including the level of effort exercised and resources used in taxpayer audit and collection policies. With their own tax administration, subnational governments can directly supervise the collections staff and the procedures and can also modify control and audit procedures to increase the integrity, efficiency, and accuracy of the collections process, or at least feel that it can do so.

An independent administration can provide the taxing government quicker and more certain control over its revenue. As Veehorn and Ahmad (1997, p.113) point out, central administration means that "local governments may perceive that they have very little control over receipts." Prompt depositing of funds is important for safeguarding of the funds and to make the money available for cash management purposes. With independent administration, the government does not have to await distribution from the central administration because it has control over funds as soon as the taxpayer makes payment.

Slow and inaccurate payment has been a common complaint among localities in the United States whose sales or income tax is administered by the state government. Before the advent of electronic funds transfer, larger cities in the state of Texas would regularly

fly to the state capitol to receive payment of local sales tax collections so that the city could have faster use of the funds for short term investment or payment of city obligations, rather than wait for the payment to be mailed. When the American states experience budget problems, one common approach is for them to delay scheduled payments (transfers or centrally-collected local taxes) to their local governments. (Mikesell, 2003).

In the wake of acceleration of tax collections introduced by Revenue Canada in the early nineties, a question was raised by some provinces as to whether the income tax revenues collected by the federal government on behalf of most provinces were still being transferred to the provinces quickly enough. To answer this question an independent consultant was commissioned to develop a model comparing the present value of the provincial personal income tax collections to the present value of the payments received by provinces from the federal government.[15] The central conclusion of that study was that the net present value of the difference between the streams of PIT collections and payments to provinces favored the federal government by $99 million in 1995. Based on that study, the federal government provided a payment of $99 million for 1997 and effective in the 1998 fiscal year onwards, it adjusted by two forward payments the schedule of weekly payments. A follow up study for 1996 and 1997 revealed that the net present value of the difference between the time streams of PIT collections and payments to provinces still benefited the federal government by $59.4 million for 1996 and by $22.3 million for 1997.

However, these complaints pale against the two year lags in shared personal income tax receipts received by localities in Hungary (Bird et al., 1995, 86). Delays are blamed on sorting returns when a taxpayer's residence differs from the location of the workplace or tax office. Such delays would work against local governments' exercising tax effort: there would be a long lag between when the taxpayer feels the higher tax and any public service benefits from the increase (Mikesell, 2003).

Access of subnational governments to information on revenue and taxpayer accounts can be valuable, from their perspective, in a variety of ways. Taxpayer information can be used to forecast revenues or to simulate the revenue and distributional impact of changes in the structure of the tax. Taxpayer information can also be instrumental for effective delinquency control such as publication of a list of delinquent customers in local newspapers, termination of local government services, and so on. Taxpayer information may be available to subnational government even in centralized tax administration systems, but as our discussion of particular country experiences in the next section reveals, this may be the exception rather than the rule. In many transitional and developing countries, but in also some highly decentralized developed countries, such as in Spain, the problem remains that subnational governments have not received adequate information on taxpayer accounts from the national tax service. In some countries, the problem lies in that the tax legislation forbids the tax administrators from disclosing any information to the third parties, including subnational governments, despite the fact that

[15] See Grady (1997).

in some cases the corresponding tax revenues have been assigned to subnational budgets. In other cases, the lack of information sharing is just the result of administrative and political decisions. Of course with separate tax administrations these demands for information are much more easily satisfied, but they can remain troublesome in the case of central government taxes shared with subnational governments.

Decentralized separate tax administrations can reassure subnational governments about being able to respond to fiscal imbalances by adding more resources to collection and enforcement. Indeed, Esteller-Moré (2003) finds evidence that Spanish regional tax administration collection efforts are sensitive to the budgetary situation of the regional governments exerting greater tax collection efforts when the expected deficits of the regional governments increase.

In summary, being in control of the administration and enforcement of their own taxes enables subnational governments to raise revenues at the margin. This is important because it is at the core of the accountability principle in fiscal federalism (McLure, 2001).

The role of incentives. Dillinger (1991, page 29) describes, perhaps in an exaggerated way, the decision to decentralize the administration of subnational taxes as, "a tradeoff between indifference and incompetence." Although there may be far from complete indifference by the central authorities and complete incompetence by the subnational authorities, Dillinger's remark puts the spot light on the important issue of incentives in the design of the organizational structure of tax administration. When the central government receives no revenue from administering a tax, that tax is likely to receive less attention than is given to taxes yielding revenue for the central government. Thus, a key issue is whether the central tax administration, having the technical capability for cost efficiency, will have the incentives or will to collect subnational taxes with the same zeal it collects central government taxes. When higher governments (and the employees of these governments) administer local taxes, there is the danger that administrators will give collection and enforcement of lower tier taxes less attention and lower priority than taxes levied by the higher tier. The centralized administration of subnational taxes can affect the behavior of the tax staff, who may concentrate their efforts on collecting the taxes retained by the central government, at the expense of those allocated to subnational jurisdiction. For example, allocation of manpower (such as highly skilled auditors) can be uneven if revenues from one tax were primarily distributed to local governments, while revenues from another tax were primarily kept by the central government.

Allowing the collecting government to retain a portion of the lower tier tax it administers (paying a collection fee, in other words) may reduce the disincentive somewhat; such collection fees are, for instance, often provided when state governments in the United States collect local government sales taxes. However, it is somewhat questionable that allowing the central tax administration to retain a portion of the collected revenue will completely solve the incentives problem. Simply put, central tax administrators are, of course, not allowed to personally profit from the retention, and while they get their salaries paid by the central authorities, it is only the central

authorities that have access to them and that can put pressure on them. It is often argued that a remedy to this incentive incompatibility problem is to share taxes between different levels of government. Without going here into the array of issues associated with revenue sharing, this approach is unlikely to fully address the incentive problem. As Hemming, Mates, and Porter (1997, p.534) observe for the case of India: "The fact that the center retains different percentages of different taxes – with the rest being passed on to the states – may provide an incentive to concentrate the collection effort and resources of the central tax administration on those taxes … it retains in full or in higher percentage."

If collections are to be centralized, there is little doubt that attempting to put into place an incentive compatible collection fee is the right way to go. However, setting these fees is not always easy because tensions often arise between the levels of government regarding the quality and costs of tax administration. Higher-tier governments are not inclined to offer performance guarantees to lower-tier governments and, when there are many subnational units whose taxes are being administered, producing such guarantees for each of them would be difficult (Mikesell, 2003). Some American states charge local governments when they administer local income or sales taxes and pricing can be contentious. When the authorizing law prescribes a charge equal to the cost of collection, there frequently is a dispute on the cost concept used for setting the charge, with localities proposing that cost be marginal cost (or some concept that translates to that) and the state proposing a charge based on an average cost concept. When the authorizing law sets a charge, the charge is almost always seen by local governments as too high. The least contentious outcome appears to result from a law that allows the state to set a price based on cost of providing the service, subject to a maximum charge as a percent of collections.

Payroll decisions and the control of corruption. The interest at the subnational level for a system of decentralized tax administration may have may have its roots in more practical selfish objectives. In particular, subnational government officials may covet the ability to control the hiring of employees and the appointment of the top echelons in the administration.[16] A variety of public choice models would predict this type of behavior or motivation, but little evidence or research exists in this area.

Control over hiring and firing decisions and overall management of the tax administration could also be motivated by a desire by subnational government officials to influence the decisions of tax administrators or misuse the available taxpayer information. These problems are also possibly present in centralized tax administrations, thus the question is whether they are more likely to happen under decentralization. The available evidence so far is that decentralization of governance and the public finances does not lead to higher levels of corruption.[17] But in the case of tax administration several factors may enhance the possibility of corruption at the local level, including the lack of rotation of personnel, who then may develop more contacts and familiarity with taxpayers, and possibly the lower education and pay of subnational public employees (Mikesell, 2003). But again, very little evidence exists on corruption levels in centralized

[16] It goes without saying that these motivations may also be present at the central level.
[17] See the discussion in Martinez-Vazquez, Arze and Boex (2004)

versus decentralized tax administrations, and thus these a priori arguments should be taken with some healthy skepticism.

De facto dual subordination. Dual subordination in tax administration was common in the Soviet Union and all other planned socialist economies in Europe and Asia for many decades. In this approach tax officials officially responded to their superiors in the next higher level of government and also to the heads of the local governments of the tier they were at. During the transition to a market economy, most formerly planned economies shed this formal structure. Thus for example in the case of Russia, Ukraine and others, tax officials now legally are responsible only to their superiors with a centralized tax administration. But, de facto tax officials in many countries in transition are still dually subordinated to subnational government officials, who pay for the housing of tax administrators, give them bonuses, or find other ways to keep an influence over them and thus have a say on priorities for enforcement and other aspects of the process (Martinez-Vazquez and McNab, 2000).

3. A survey of the international experience

The discussion of theoretical issues in the previous section leads to the conclusion that we should expect a large variety of organizational models. From a normative viewpoint, there are different objectives to be pursued, which can be weighted in different ways. Plus, there is a variety of political economy issues that may play a more important role in the actual decisions taken by different countries than do any normative consideration. This prediction is fully borne out in reality. The international experience in the vertical organization of tax administration is quite varied.

The international experience presents many examples of subnational governments having their own tax administrations. Moreover, the list of such countries is quite diverse: Australia, Canada, China, United States, United Kingdom, Switzerland, Spain, Japan, India, Brazil, Mexico, Germany, Hungary, Estonia, Albania, and others. Generally, the involvement of subnational governments in tax administration seems to be related to their taxing powers. Thus, countries where subnational governments have legal powers to choose the rates or bases for their own taxes also have independent separate tax administration. Not surprisingly, federations such as Australia, United States, Canada, Switzerland, India, Mexico, and Brazil are examples of countries with multilevel tax administrations and tax assignment (with some control over revenue, administration, and legislation). In some cases the federal government and the states or provinces share the same tax base (the United States and Canada)over which both the levels of government have tax policy and administration powers. In this case, co-ordination of tax administration often occurs (more in the case of Canada than the United States). In some other cases, the regional governments are legally prohibited, often in the Constitution, from using the tax bases reserved to the federal government (for example India and Australia). In other cases, some revenue sources are reserved to the regional governments also in the Constitution (as in the case of Switzerland). But separate tax administrations are not exclusive to federal systems. Unitary countries such as Spain, Hungary, Inonesia

or Estonia provide subnational governments with their separate tax administrations. In the case of unitary countries, there are also countries where the central government and the regions share some of the same taxes (for example, Spain) or where this is prohibited in the Constitution (for example, Indonesia).

Centralized tax administration is, not surprisingly, much more common in unitary countries than in federal countries. The tax administrations of Scandinavian countries, Italy, France, Portugal, many countries in French speaking West Africa, many formerly socialist countries, and certain Latin American countries fit into this model of centralized tax administration. The Scandinavian countries (Finland, Sweden, Iceland, Denmark and Norway) and other Northern European countries such as Belgium are noticeable because of the high level of decentralization and tax autonomy with the share of subnational taxation as one of the largest in the world, and the fact that all taxes are administered by the central government.[18] In countries that are traditionally thought more centralized, such as France, local taxes are determined by local authorities (within limits) but collected by the national tax office and redistributed. Also, in unitary countries it is more of a rule that overlapping taxes are administered by one level of government. However, even among unitary countries there are examples of local governments collecting taxes shared with or piggybacked on by the higher-level government; such are the cases of the prefecture income tax in Japan, and the business property tax in UK.

In most transition countries, taxing powers of local governments are rather limited. With the exception of Russia these are unitary countries in many cases with just a central tax administration. But in some cases, local authorities autonomously collect fees and minor taxes, such as the Czech Republic (Mihaly Hőgye *et al*, 2000). But again, there are exceptions. For example, in Albania, localities autonomously administer taxes on property, small businesses, general sales, and local fees and charges.

The discussion above suggests several conceptual models for the vertical structure of tax administration: 1) single centralized tax authority; 2) independent tax authorities at different levels of government; 3) mixed models of tax administration; 4) fully decentralized tax authorities that collect all taxes for the central government and their own. We move on now to review several country examples in each of those categories in more detail with the objective of getting better insight into the advantages and disadvantages of the different models. There is always some arbitrariness about what countries fall into each category. Although it is convenient for exposition purposes to refer to a small group of categories it would probably be fairer to talk about a continuum, but even then some countries would be hard to brand. For example, as we see below, Italy has a highly centralized system of tax administration, except that for Sicily the system is completely decentralized.

[18] This arrangement in the Nordic countries is facilitated by the importance of local taxes that piggyback on central government taxes, in particular, the personal income tax.

The centralized tax administration model

In this model all staff of the administrative unit is employed by the central government. There may be administrative deconcentration to regional authorities, but all deconcentrated units are part of a single central administration.

Sweden and other Scandinavian countries. In Sweden, all taxes, including income tax, are collected by the central government. Thus, the Swedish National Tax Board administers local piggyback surcharges on the central personal income tax base. The rates are proportional (flat) but vary between municipalities, with the lowest rates in well-to-do suburbs of large cities and highest rates in the rural north and in municipalities suffering industrial decline. Similar arrangements for income taxes apply in Denmark, Finland, and Iceland. During the fiscal year, subnational governments receive their revenues based on a forecast. The final tax amount is settled in the following year when total revenue collected is finally assessed.

Although the Swedish Tax Administration (STA) can trace its roots back over many centuries, neither the National Tax Board (NTB) nor the county tax authorities have existed for very long. The NTB was created in 1971 through the amalgamation of three existing central agencies and a few smaller government commissions. At the regional level, the County Administrative Boards coordinated administration until 1987. Under pre-1987 organization, it was difficult for the Ministry of Finance and the NTB to control the work of the entire tax administration. In order to give the NTB greater powers to direct and coordinate all activities in the tax administration, it was decided that the national tax department should integrate county tax authorities with the status of deconcentrated units answering to the Board. The county tax authorities were in turn put in charge of the local tax authorities in the county.

In 1991, the local tax authorities ceased to be authorities in their own right and became local tax offices within the county tax authorities. However, local units gained a number of new responsibilities that were transferred from the old county headquarters. This was in response to the philosophy of customer orientation under the principle of "one-stop shopping." A business taxpayer should no longer have to speak to different people at the VAT Department, the Collection Office, Assessment Office and the Auditing Department order to sort out his tax affairs. He should turn to his Local Tax Office for all of those issues. This meant that staff had to move out from the county headquarter in the provincial center to local tax offices all over the county. (Olsson, 2000).

The National Tax Board / regional Tax Authorities structure in Sweden offers an example of deconcentration of the organization within a central national system. Recent reforms in Sweden resulted in centralization of certain functions within the national tax administration while more staff was moved to the local offices to improve taxpayer services. The ten regional authorities (one for each county) are responsible for tax collection functions. Each Tax Authority has a County Tax Director and a governing council, but they are under the guidance of the National Tax Board. Within the National

Tax Board is the Enforcement Service (KFM), itself organized in ten regional authorities (not coterminous with Tax Authority regions), which are assigned the responsibility to confirm and collect debts. The KFM collects unpaid taxes for the Tax Authority, but its authority extends more broadly to other public claims (television licenses, parking fines, etc., owed to central and local authorities) and to private claims (private judgments from general and administrative courts). The National Tax Board administers both organizations, issues directives on their implementation of the laws, and works to maintain uniformity of administration across the country. Thus in the Swedish case, two regionally-organized authorities administer tax collections, but both are subordinated to a single National Tax Board. Most central government tax systems, of course, do not have an entity like the KFM and some nations are compact enough that they do not require regional authorities.

Italy. Tax administration has been fully centralized in Italy since the 1973 tax reform. By the early 1970s, there was broad agreement in the country that the myriad of local taxes and fees had excessively complicated the tax system and contributed to distortions in resource allocation, and that local tax administration had not been particularly efficient in assessing, collecting, or auditing any of these taxes (Reviglio, 1976; Holmans, 1978). Allegedly, this centralization contributed to the substantial tax revenue increase in real terms experienced by Italy during the late 1970s and early 1980s (Ghessi, 1984).

The 1974 tax reform, which overlapped with the establishment of the ordinary regions, centralized both taxes and their administration.[19] In fact, the actual degree of revenue centralization went beyond the reform plan and taxes originally planned for the subnational governments (local tax on income and capital gains, tax on property) were also assigned to the central government. As a result, regional own revenues fell from 8-9 percent of total revenue in 1973 to 2 percent in 1979. Until 1992, subnational governments could not levy taxes or modify tax rates, which were set by the central government. In 1993, new own revenues were assigned to regional governments, although there were limits on by how much local rates could diverge from the national standards. As a consequence, the share of own and overlapping tax and non-tax revenue to total revenue of ordinary regions increased to 7.2 percent in 1993 and to 48.6 percent when account is taken of the revenue from the taxes that were transferred to the regions and earmarked to finance health expenditures.

The situation is quite different in the special regions, each of which has its own different regulations for tax administration.[20] Foe example, Sicily autonomously collects

[19] While provinces and municipalities have long been sub- national governments in Italy, regions are relatively new entities, as the regions were only established under the 1948 Constitution. Four of the five 'special regions' were established in 1949, and the fifth, Friuli-Venezia Giulia in 1964. The 15 ordinary regions' governments were not formally established until 1970; their process of expenditure devolution was completed only much later (1978), when responsibility for health care was assigned to the regions.

[20] The five "special statute" regions had their statutes issued in the form of constitutional laws to reduce the threat of separatist movements and ethnic tensions. These special regions either are large islands or are areas close to the border that have a sizable non-Italian population. The constitutional laws give them considerable legislative autonomy on expenditures (a wider scope in expenditure assignments) and their

all taxes, mostly through private tax collection agencies. In the 1980s, the private collection agency in Sicily retained 10 percent of collection, on account of collection costs, though average collection costs in Italy are estimated at around 3 percent (Stille, 1995). By contrast, in Trentino, taxes are collected by the central government, but nine-tenths of revenue remains with the regional government. Valle d'Aosta and Friuli-Venezia Giulia have a similar arrangement. Sardinia has its own tax collection agency but it is used only for some taxes.

Independent separate tax authorities at different levels of government

The basic principle inspiring this model is that each level of government has its own tax administration which is in charge of administering the taxes separately assigned to each. In this mode there is generally little cooperation and coordination among the different levels of tax administration, but they are never excluded. This model seems to have developed more fully in large federal countries indifferent parts of the world.

Australia. This is one of the more clear examples of a system of independent administration within a federation. In Australia, taxes are levied and collected at three levels of government, although a much greater share of subnational expenditure is financed by central grants than is the case for example in the United States and Canada. The Australian states' reliance on federal grants is to a large extent due to the fact that they are effectively blocked from levying any general consumption or broad-based income taxes either because of the courts interpretation of the national constitution or because of stipulations in federal grants. Thus in practice the federal government controls all four major taxes: personal income tax, customs and excise duties, corporate income tax, and the value-added tax. States are reduced to rely for their own revenues on payroll taxes, and to lesser extents on property taxes (including stamp duties and land taxes), a number of indirect taxes (franchise fees that closely resemble the federal excise duties), as well as taxes and fees on motor vehicles, gambling, and insurance. Local government taxing powers are confined to residential property.

The Australian Tax Office administers the broad-based goods and service (value added) tax, income taxes assessed on companies, trusts, and individuals, and a variety of lesser indirect taxes – in other words, all the major taxes levied in the country. Independent revenue departments in each state and territory administer taxes levied by these governments, the most significant being employer payroll taxes, land taxes, and stamp duties. Municipalities levy and collect real estate taxes (rates) and collect them in one to four installment payments on the basis of rate notices distributed to taxpayers.[21] Apart from the state government services for property assessments at the local level, in Australia there is no provision for exchange of information across the levels of

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primary source of revenue are national taxes shared with the center. The major source of financing for the "ordinary statute" regions are grants,

[21] State government valuation offices or contracted assessors, instead of offices of the municipalities themselves, establish the taxable value for these municipal levies. The states establish the standards that must be used for these valuations.

government or any other explicit form of cooperation among the different levels of tax administration.

Brazil. Among non-OECD federations, Brazil is unique as to the important role of the states in raising their own revenue. The Brazilian federal government has exclusive authority to levy and administer taxes on personal income, corporate income, payroll, wealth, foreign trade, banking, finance and insurance, rural properties, hydroelectricity and mineral resources. Federal and state governments concurrently levy a general consumption tax, which is some form of VAT. State governments have also access to motor vehicle and estate taxes, and are allowed to levy supplementary rates of up to 5 percent on the federal personal and corporate income taxes. Finally, the municipalities levy taxes on services, urban properties, retail sales of fuels, property transfers, and special assessments.

Brazil is usually cited as an example that illustrates the high administrative and compliance costs that may stem from uncoordinated tax policy and tax administration operations, especially with respect to the general consumption taxes levied by the two levels of government. The federal government levies a manufacturer level sales tax (IPI); states are assigned a broad-based credit-method VAT (ICMS), and municipalities administer a services tax (ISS). Under the ICMS, interstate sales are taxed on the origin principle (at a 12 percent rate for North-South transactions and a 7 percent rate for South-North transactions). The international trade is taxed on a destination basis. Thus in domestic trade, the relatively less developed northern states are given preferential treatment. However, the tax rate difference does not completely mitigate the revenue disparity stemming from the origin principle as consumption generally outpaces production in northern states. In the case of international trade, as most of the imports are destined for the Southern states and a disproportionate amount of exports go through the Northeastern states, the general outcome is that most of the revenues are collected by the richer states and export rebates are given by poorer states. Another emerging area of major potential interstate conflict has been the use of the ICMS as a tool for state industrial development. Some northeastern states have been offering 15-year ICMS tax deferral to industrial investors.[22]

Although ICMS registration at the state level is coordinated with federal income tax authorities, in general there is no coordination or administrative integration of any type between the administrations of the federal IPI and the state level ICMS. In fact, these two taxes use different legal norms and different bookkeeping. Even though the national tax code defines the main characteristics of ICMS, there are differences across states in the complete structure of their taxes. In particular, taxpayers need to employ two different taxpayer identification numbers and file two separate sets of tax returns. Administration costs are also heightened because there are two different sets of procedures to be followed for invoices of goods shipped between states and goods shipped within a state. Finally, since there is no central statistical database to record sales and purchases for the states' ICMS, tax auditors find it quite impossible to conduct a systematic cross-checking

[22] In highly inflationary environments, such as has been the case of Brazil in the past, unless tax liabilities are indexed, deferrals have the potential of wiping out all tax liabilities (in this case from the ICMS.)

of information (Vehorn and Ahmad, 1997). Nevertheless, the National Public Finance Council (*Conselho de Politica Fazendaria* or CONFAZ), a body consisting of all state secretaries of finance, has been attempting to coordinate the interstate ICMS. The national government establishes the rate on interstate sales, but CONFAZ determines exemptions or reductions in rates. Rate changes are infrequent because unanimous consent is required for changes, but there have been a number of exemptions approved. Although CONFAZ has not been successful in stopping tax wars between the states fought through special tax preferences, one of the ideas behind its founding, it has been working to develop a unified taxpayer master file that includes filer information from taxes at all levels as an aid to tax administration and this would be a significant achievement.

*The United States***.** Over the years, the United States has developed a peculiar but quite effective system of tax administration. Federal, state and local governments have their own separate tax administrations to collect and enforce the taxes they impose and coordination and cooperation exist but to a limited extent. In this regard, it is interesting to note that none of the states actually chose to conform their state taxable income to the definition of federal taxable income, so that it could be collected by the federal administration (IRS) – an option allowed by the US Congress during the period 1972-1990. Several explanations have been offered for this reluctance by the states to piggyback their income taxes on the federal tax, ranging from the high degree of conformity of the tax base required to the states' unwillingness to rely on federal auditing and enforcement, or even to be subject to the loss of state jobs. However, in a move that lowers taxpayer compliance costs, several U.S. states levy their state individual income tax on a taxpayer's amount of federal adjusted gross income, so that the state income tax form simply begins with a number taken from the federal income tax form. Income tax administration is coordinated between the federal and state tax authorities through agreements to exchange information. Although states only levy income taxes for the period of residence of taxpayers in the state, double taxation can still occur when individuals work in a jurisdiction different from the one of their residence unless the resident jurisdiction provides a credit for taxes withheld by the other jurisdiction.

Some local governments in the United States levy piggyback taxes or supplements to state individual income taxes. In these cases, the state tax department fully administers the local taxes in conjunction with the state tax and taxpayers comply with the local tax often by filling in a single line on the larger state tax return. Despite the convenience this represents for local governments, it is often the case that the local governments complain about slow distribution of revenue collections or about distribution of revenues to the proper locality. On the other side of the coin, state tax administrations can find it burdensome to keep collections properly allocated to each local government (Mikesell, 2003). Some local governments in the United States also levy retail sales taxes that are supplements or piggyback on the state sales tax. Indeed, local sales taxes are the second largest source of tax revenue to local governments – a distant second to property taxes in

importance.[23] Although some localities do administer their own sales taxes, more often the local taxes are a piggybacked supplement to the state tax, with state tax administration services provided at low or no cost to the locality. Administration costs are reduced because these local sales taxes are completely harmonized with the state sales taxes. In addition, sellers with many locations are required to segregate sales and collections according to the local taxing jurisdiction, which facilitates the distribution of revenues to the proper jurisdiction. Nevertheless, it is quite common for localities to complain about the distribution of collections on a untimely basis.

An interesting development in cooperation in tax administration in the United States is the fact that in some cases local governments themselves have arranged for a "consolidated" administration system. One particularly successful illustration is the Central Collection Agency (CCA), a part of the Cleveland (Ohio, USA) Department of Finance. This agency administers the individual income taxes levied independently by forty-three Ohio municipalities in the northern part of that state. The CCA performs all functions of a standard tax administration agency: it maintains the taxpayer list, mails returns to taxpayers, provides taxpayer assistance during filing season, processes all payments (both estimated and reconciliations from individual taxpayers and withholding payments from employers), bills any tax due and assesses penalties and interest, mails delinquency notices, conducts audits of taxpayers, and distributes collections each month by electronic funds transfer to contracting municipalities. The CCA contracts limit the charge for its services to five percent of collections, but actual charges are based on CCA expenses (the total is allocated among municipalities by a formula based on revenue share and number of transactions) and are much lower than the limit. In the CCA area, the municipalities can choose to levy the tax, can choose the rate that they levy, and can choose whether to administer the tax themselves or to contract with CCA for the service. This range of choices gives the municipalities greater fiscal autonomy and, because the municipalities can opt in or out of the system, it requires the CCA to pay close attention to the quality and cost of the service that it provides.

Mixed models of tax administration

As its heading reveals, this is fundamentally a residual category for countries whose tax administrations exhibit features of centralized, separate or independent, and decentralized tax administrations.[24] In some cases these mixed models of tax administration appear to follow some rationale and in others they seem to be entirely historical accidents unique to a particular country's experience.

Canada. In Canada some subnational taxes are centrally administered, some federal taxes are administered by (some) provinces, and some taxes are independently administered by each government. Both provincial and national governments in Canada levy taxes on general consumption, corporate income, and personal income. Personal

[23] It should be noted that in large American cities, local income or sales taxes often yield considerably more revenue than does the property tax. That is the case, for instance, for New York City or for Washington, D. C.

[24] Examples of decentralized tax administration are reviewed immediately below.

income taxes are levied by both the federal and provincial governments, but with the exception of Quebec, all provinces have opted to have their personal income tax administered for them by the federal government. Similarly, the federal government collects the corporate income tax for seven provinces excluding Ontario, Quebec, and Alberta.

The current model of tax administration in Canada is the result of a relatively long evolving process. Before WWII, all provincial governments levied their own taxes without any coordination with federal taxes. However, during the war provinces temporarily gave up their taxing powers with respect to personal and corporate income in return for cash transfers from the federal government. After WWII these transfers were turned into an equalization scheme but Quebec and Ontario instead opted out to retain 5 percent of federal personal income tax collected on their territory.

In the case of subnational taxes under centralized administration, taxpayers file one unified (federal and provincial) tax return. For personal income, the provincial tax was originally calculated as a percentage of the federal tax (tax on tax). The percentage could vary depending on the taxpayer's province, because each province has the authority to set its own tax rate. Since 1997, Canadian provinces have been opting for levying their personal income tax on table incomes defined on their own. By 2001 this option had been chosen by all provinces. After this move, the federal tax administration has proceeded to charge provinces more the further away is the provincial definition of the taxable income from the federal analogue.

For the corporate income tax, provinces adhere to the federally defined income but are free to establish their own credits, small business thresholds, and rates. The federal government pays an estimated amount to the provinces in weekly installments during the year and calculates a final reconciliation after all tax returns are received. The federal government absorbs all bad debts and administrative costs and retains any interest and penalties collected from these taxpayers.

The greatest array of organizational structures is exhibited in the case of the administration of the general sales taxes (Goods and Services tax (GST) – essentially a VAT). This might be reflective of the fact that the system is still in transition as the federal GST was adopted only in 1991 to replace the archaic national manufactures' sales tax. All provinces (except Alberta) have a long tradition-- since 1930s-- of levying a general sales tax. For a long time the federal government was eager to integrate the federal and provincial sales tax as a way to lower the compliance cost and offset its wide unpopularity. It was this desire for sales tax harmonization that determined the Federal Government's 1992 decision to allow Quebec to autonomously collect a provincial "GST-like tax" jointly with the federal tax. The terms of the agreement were that the GST would be collected in Quebec in accordance with federal rules but that the federal government would pay an (undisclosed) amount to the provincial government for the collection costs of the federal tax. Under the agreement, federal employees were transferred to the Quebec government to administer the unified sales tax. An audit plan is agreed to annually between federal and provincial authorities and the results are reported

to the federal tax administration, Revenue Canada. In 1997 three other provinces (Nova Scotia, New Brunswick, and Newfoundland/Labrador) replaced their sales tax with a harmonized sales tax (HST) with a 7 percent federal rate and 8 percent provincial rate applied to the same base as the GST elsewhere. In this case, the HST is administered by Revenue Canada but changes in rate and base require unanimous agreement of the three provinces.

Five provinces (Ontario, Manitoba, Saskatchewan, British Columbia, and Prince Edwards Island) continue to levy and administer their own retail sales tax independently of the GST. The tax bases are different, the registration process and rules are different, and the ways of removing inputs from taxation are also different.

Spain. The 1978 Spanish Constitution established two completely different systems of decentralization, the Foral and the Common regimes. The primary difference between the two regimes is that regions in the Foral regime (the Basque Country and Navarra) have authority to raise most taxes locally, whereas 15 regions in the Common regime have considerably more limited local taxing authority.[25] However, the rest of the regional governments, called the autonomous communities of common regime, were financed until1996 mainly via grants and a few minor taxes, on which they did not have any tax policy powers. In terms of spending responsibilities, the two regions of the Foral regime initially had similar responsibilities to those in the five "fast-track" or high-responsibility regions under the Common regime: Andalucia, Canarias, Cataluña, Galicia, and Comunidad Valenciana. The other 10 regions in the common regime were on a slow-track for the devolution of expenditure responsibilities waited until January 2002 to assume full responsibility over healthcare and education.

The Spanish constitution provides for certain limitations of the taxing power of the Autonomous Regions of the common regime. For example, these Autonomous Regions cannot levy a tax on a base that is already taxed by the central government. Also, taxes imposed by the regions may not introduce barriers to the internal trade. In addition, local authorities can only impose taxes from a closed list provided in the national legislation.

In the case of the Common regime, the central government tax administration authority (*Agencia Estatal de la Administración Tributaria*) administers the income tax (over which regional authorities have normative powers to set a piggyback rate and their own deductions), as well as the VAT, and all other broad-based taxes. The tax administrations at the regional level have the power to administer certain taxes (wealth tax, among other taxes) ceded by the central government since the beginning of the 1980s. Under the Foral regime practically all the central government taxes are ceded (impuestos concertados) to the autonomous government, giving them accompanying responsibility for tax administration and, subject to few constraints, also autonomy to set the rates and bases of these taxes in their regions.[26] Many of the major taxes – on

[25] The main reasons for this differentiation in the Constitution were the historical rights of the Basque Country and Navarra to have their own specific, traditional, fiscal institutions. See,for example, the discussion in Garcia-Mila (2002).

[26] These limitations are established in the laws regulating the *Convenio* (for the Basque Country)and *Concierto* (for Navarra)and refer to the need to maintain a certain level of harmonization with the State's

personal income, corporate income, property, inheritance and wealth transfers—are fully administered by the two regional governments. The value added tax (IVA) is collected and administered also by the Foral regional governments, but without any authority to set rates or define the base. Thus, in the Foral regions none of the main tax revenues accrue directly to the central government. To compensate for the services that the central government provides to the region, the Foral regional governments pay a fixed amount to the central government ("cupo" for the Basque Country and "aportación" for Navarra). This fixed amount is set by an "agreement" with the central government (*concierto* for the Basque country and *convenio* for Navarra).

Essentially, the foral regime regions have the power to collect, and regulate within limits, the main tax sources of revenues (the so-called concerted taxes) and to pay to the central government a fixed amount (the cupo) to contribute to the financing the central government's exclusive functions such as defense or foreign relations. The "cupo" and "aportación" are essentially grants or transfers from the regional government to the central government. The central government directly raises some minor taxes and these revenues are taken into account when the "cupo" and "aportación" are calculated. Contrary to a cost-accounting basis, the "cupo" and "aportación" have not been calculated according to the effective cost of the services that the central government provides to, and the effective revenue that the central government raises in, the two regions under the Foral regime. Instead, they have been calculated as a percentage of the difference between the national cost of those services not devolved and the national revenue of the taxes not devolved. In effect, this formula allocates to the regions in the Foral regime some percentage of an artificially and narrowly defined national deficit. The percentage is a function of the region's income share. Although the percentage was supposed to be updated as those shares changed over time, it has not been changed since it was first established in 1981.The Foral regime regions also contribute to the central government's solidarity fund ("Fondo de Compensacion Interterritorial" or FCI), which is considered a national service. The FCI is a conditional grant that supports spending on infrastructure in the poorer regions.

Within the Foral Regime, there are some significant differences between the Basque Country and Navarra. The *Convenio* with Navarra is valid for an indefinite period of time while the *Concierto* with the Basque Country must be renegotiated every five years by the Joint Committee (*Comisión Mixta*) on the Economic Agreement. [27] There are twelve members in the Committee which is made up of one council per province, three from the Basque government and six from the Central.[28] A second main difference is that the Basque Country, unlike Navarra or any other Autonomous Community, has legislative authority over municipalities including the right to establish and regulate local taxes. In addition, in the Basque Country, the tax autonomy provided by the concerted taxes does

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tax system. They are, however, established in quite broad terms, which, for example, allow the Basque Country to establish corporation tax credits that differ broadly from those of the rest of the State.

[27] Section 50 of the Economic Agreement Law. (Law 12/2002, May 23rd, *por la que se aprueba el concierto Económico con la Comunidad Autónoma del País Vasco*).

[28] In all, there have been five *Conciertos* since the Spanish Constitution of 1978, covering the following periods: 1982-1986, 1987-1991, 1992-1996, 1997-2001 and 2002-2006.

not belong to the regional government, but to the three provincial governments (Diputaciones Forales): Alava, Bizkaia and Gipuzkoa. The provincial governments regulate, collect and audit the concerted taxes and finance the regional government though a specific revenue sharing system. It is the responsibility of the (regional) Basque Parliament to enact provisions to harmonize the activities of the provincial governments. To help in these matters, the Basque Tax Coordination Agency (*Organo de Coordinación Tributaria de Euskadi* – OCTE) was created in 1989 with representation from the three provincial councils and the Basque regional government.

As several authors have pointed out, generalizing the Foral regime to other regions in the exact terms as currently applied to the Basque Country and Navarra would not be sustainable. If all regions were under the Foral regime, and the payments to the central government (*cupo or aportación*) were similar to the ones set for Navarra and the Basque Country, all regions except Extremadura and Andalucia would keep more money than what they have right now (Zubiri, 2000, and Zubiri y Vallejo, 1995). Castells (2000) has estimated that the ratio of per capita funds for the regions under the Foral regime is 1.8 times that of the five regions in the Common regime that initially had the high spending responsibilities, comparable to those of the Foral regions.

Besides the marked asymmetries in the system, the organization of tax administration in Spain is characterized by the lack of integration between the different taxation authorities of the different levels of government which also leads to a reduction in effectiveness of tax administration. For example, data on the wealth tax, administered by the regions, can be useful for taxing capital gains as part of the income tax, administered by the central (Esteller-Moré, 1999). To this point, there has been also a lack of cooperation between the central and regional tax administrations. A common complaint from the regions has been the central administration's unwillingness to share taxpayer information with the regional authorities.

Switzerland. The Swiss Confederation is comprised of 26 cantons. The Swiss Constitution is very explicit in revenue assignments or the vertical separation of taxing powers: (i) indirect taxation on consumption, excises and custom duties are exclusively federal; (ii) tax bases of direct taxes on personal income and wealth, and on business income and wealth are exploited concurrently by all levels of government, including municipalities – with priority given to cantons; (iii) each tier of government is endowed with a full or partial tax authority for more than one tax base; (iv) cantons have an exclusive right to tax motor vehicles. In contrast to the experience of most other countries, subnational – canton and municipal – Swiss governments receive the bulk of income tax collections, not the federal government. And, again in contrast to most international experience, the income tax is a relatively modest revenue source for the federal level. In fact, until World War I, direct taxation was an exclusive prerogative of cantonal and municipal government. This tax sovereignty was first relinquished for defense needs and later sanctioned by a constitutional amendment to stay until 1994. This was later extended by another amendment until 2006.

In addition, canton laws further elaborate tax assignment between the canton and communal levels. Each of the twenty-six Swiss cantons has its own tax system and local

governments are entitled to levy taxes to the extent authorized by the canton. Thus, for example, taxes on real estate are assigned either to the canton or communal level depending on the canton. For the most part, communal income taxes are levied as a percentage or multiple of the basic canton tax.

The cantons are responsible for administering all direct federal taxes, and canton's tax administration has a department in charge of collecting and enforcing those federal direct taxes. Because there is a sufficient body of tax cases decided by the Federal Tribunal, there is a great degree of uniformity in the administration of federal taxes across cantons.

With the exception of the direct federal taxes, each level of government administers its own taxes. Recently some less populous cantons have decided to contract out tax administration to larger cantons (for example, Appenzell to St.-Gallen). At the communal level, local governments are free to run their own tax administration. Moreover, up to the late 1990s, communes were very reluctant to delegate their tax administration powers not only to other communal governments but also to any form of cooperative structure of neighboring communes. However, as recent federal legislation brought about more harmonization to the taxation by cantons and communes, more communal governments are deciding to pool their tax administration into cooperative units, or "tax districts." In addition, in some cantons communes have opted to contract the administration of their taxes to the cantonal government at a marginal cost. In these cantons, the communal tax is supplemented on the canton tax while federal tax is also reported on the canton return. Thus, in these cases the canton is responsible for assessing and collecting federal, cantonal, and communal income tax.

The relative efficiency of tax administration has never been hotly debated in Switzerland in part because the issue of tax administration has been overshadowed by the diversity of tax systems across canton borders. [29] Nevertheless, it has been acknowledged that tax assessment of multicantonal companies is burdensome both for the taxpayer and tax administration (Spahn, 1997). Moreover, tax administration is not always guided by uniform rules and procedures. Taxpayers must make two calculations of taxable income, and the tax administration must verify that both calculations are correct. In addition, tax auditors must be careful not to confuse the tax rules for cantons with the tax rules for the confederation. However, because the validation of tax returns has been largely computerized, this is less of a problem now.

Several steps have also been taken at the national level to simplify matters. Because the income taxes are collected across all cantons, it was important for the federal government that the base and deductions be standardized in order that a uniform effective federal rate can be imposed on taxpayers without regard to their location. Following a constitutional amendment, the federal government undertook the agenda for harmonization of direct cantonal and communal taxation culminating with the adoption of a 1990 federal law giving cantons and communes eight years to bring their legislation in line. The law requires cantons to harmonize their income tax concept and deductions

[29] We are thankful to Bernard Dafflon, University of Fribourg, for this assessment in private communication, Spahn (1997) refers to the complexity of the tax system in Switzerland as a "tax jungle"

with the federal base, but they may set the amount of the standardized deductions and their rate schedules. Also, in 2001 local government tax forms were standardized within each canton.

Fully decentralized tax authorities

This is the rarest of cases in actual practice. As far as we know, Germany is currently the only country that operates with a fully decentralized tax administration.[30] But, because of the historical lessons they offer, we also review in this section the experiences of the former Soviet Union, and China before the reforms of 1994.

Germany. There are currently in Germany sixteen states (Länder), including the five new states of the former East Germany. The German Constitution divides authority among tiers of government along quite explicit lines. However, rather than doing it by assigning exclusive functions, the division is made by type of authority across functions. Thus, the central government is responsible for policy formulation and financing, while lower levels of government are generally in charge of implementing and administering policies. The same applies to revenue assignment. Tax policy is fully centralized while tax administration is performed by the states. As Rodden (2003) puts it, multilateral bargaining between the interdependent Bund and Länder is the modus operandi in the collection and distribution of revenue. Moreover, individual Länder can participate in tax legislation through the upper house of parliament or Bundesrat (Council of States). The Bundesrat deputies are directly appointed by state governments and can block decisions of the federal lower house of parliament or Bundestag.

The German Constitution strictly assigns revenue from particular taxes to different levels of government, but does not give them discretion over the tax rates or any other aspect of the tax structure. Revenues from the most productive taxes (income taxes and VAT) are shared between the levels of government. Altogether these shared taxes account for two thirds of total tax revenue in the country (Ma, 1997). More specifically, the sharing rates for income taxes (residence-based) are fixed in the Constitution. The sharing rate for the VAT is set in a federal law and is frequently renegotiated between the Bund and the Länder. Currently, seventy-five percent of the states' share of VAT is distributed according to population. The remaining 25 percent is distributed proportionally to states' shortfalls in fiscal capacity below the average over all states.[31]

The federal government only administers custom duties, fiscal monopolies, excise taxes, VAT on imports, and charges imposed within the framework of the European Union. All other taxes are administered by revenue authorities of the Länder subject to uniform federal administrative guidelines. Thus with respect to taxes that accrue entirely

[30] However, the case of Bosnia-Herzegovina with a de facto confederation of the Bosnian/Croat Federation of Bosnia and Herzegovina and the Bosnian Serb-led Republika Srpska can be considered a special case of decentralized tax administration. See, for example, Fox and Wallich (1999).

[31] Apart from this 25 percent share of VAT, there were no vertical equalization grants before the unification. Most of the equalization occurred through fraternal grants.

or partially to the federal or local governments, state authorities act as tax agents of the respective governments.

Administration is implemented on a uniform basis, following the federal law. Federal tax officials, in cooperation with state tax officials, determine tax administration processes and procedures. In fact, federal and state tax agents share office space in the Regional Finance Office, which is organized by tax. Separate tax departments are subordinated to either the federal and state governments according to the above provided division of taxes so that each government is responsible for organization, staffing and funding of their respective departments. On a periodic basis, the Länder tax administrators meet to harmonize implementation of the tax laws. The German Länders also have information-sharing agreements regarding businesses that pay taxes in more than one Länder.[32]

An advantage of the German approach is its adaptability. While the federal legislation establishes uniform standards, it gives the Länder a good deal of discretion in implementing the federal law so that the implementation can be tailored to suit local conditions. However, the system has also been experiencing problems. The combination of the super-equalization achieved through the fraternal equalization grant system and the Länder's degree of discretion has led in recent years to low rates of revenue collection. Empirical analysis by von Hagen and Hepp (2000) has demonstrated a declining correlation of state tax revenues with state GDP over time. The authors interpreted this trend as evidence of weakening state tax efforts in response to the incentive effects of equalization. The incentive problem has continued to contribute to what the German Council of Economic Advisors identified in the late 1990s as one of the most important problems in German public finance: falling rates of revenue collection despite increasing tax burdens. Because the Länder bear most of the costs of tax administration, while on average the marginal rate of tax revenue retention is less than 30 percent, and some time much less, the Länder face weak incentives to strengthen audits and improve revenue collection. This problem is especially severe in the most dependent (from equalization and other transfers) Länder, which receive almost no benefit from increasing tax collection efforts (OECD 1998).[33] Thus, the impact of decentralized tax administration on revenue performance cannot be disentangled in Germany from the issue of interstate equalization.[34]

Soviet Union. Under the Soviet regime, tax administration was basically decentralized. All taxes were administered by the finance department of the local Soviet (the local government council), which was subordinated to the finance department of the

[32] Curiously this information often has to be transmitted in hard copy because the Länder do not operate the same computer systems.

[33] Lower enforcement efforts have resulted in higher levels of evasion. A 1997 report estimated that the cost of lost revenue resulting from tax evasion and avoidance was around 125 billion Deutsche marks, or around 15 percent of GDP.

[34] Bareti et al. (2002) provide further evidence of this intermingling of issues. The authors find that the marginal rate of tax revenue remittance faced by German states is negatively related to their tax collection effort. This study also finds a negative effect of lump-sum grants from the federal government on state tax collection effort.

higher level of the administrative hierarchy. The bulk of budget revenue came from taxes (mostly on turnover, payroll and profits) levied on and traditionally negotiated with state enterprises.[35] In fact taxes levied on state enterprises were substitutes for the remittance of their net profits to the state budget. As the owner of these enterprises, the state could ensure tax compliance in the course of annual audits covering all enterprises. Moreover, the state could routinely monitor bank accounts of enterprises through the state banking system. The transition to a market economy required modernization of the tax administration. In January 1990, the Soviet Government decreed the establishment of the Chief State Tax Inspectorate as a department of the Ministry of Finance as well as State Tax Inspectorates at lower levels of the administrative hierarchy under supervision of their respective regional and local level departments of finance.

Before the Perestroika era, each administrative unit was governed by two parallel bodies: the local committee of the Communist Party and the local Soviet (council). However, elections to the Soviets were not contested and a single candidate for each district was effectively nominated by the Party. Thus, all decision-making was made within the Party apparatus and local Soviets were only legitimizing these decisions and implementing them through the local executive branch. The subnational elections of March 1990 provided for competition among several candidates for each seat in all subnational Soviets. This introduced some horizontal accountability (to the constituency) of the subnational tier in otherwise centralized administrative hierarchy. Political autonomy of local government effectively introduced dual subordination of local executives both to the local council and to the higher-level executive bodies.

Subnational authorities were created out of the local branches of the former state hierarchy. As a result implementation of many federal policies continued to rely on the now independent subnational authorities. However, the reliance on subnational implementation units made the center vulnerable to the actions of subnational authorities, especially given the limited control the new legislation gives central authorities over subnational governments. This was demonstrated with the demise of the Soviet Union and later disintegration processes in the post-Soviet Russia.

Boris Yeltsin set out to destroy Gorbachev's Soviet Union from within by pulling the financial rug from under the center (McAuley, 2001). He ordered Russian banks to withhold tax payments made by enterprises to the Union budget. He also encouraged regional administrations to ignore revenue-sharing arrangements by not transferring their share of taxes to the Union budget. In order to turn Russian regions away from the Union he exempted them from paying taxes to the center. Regions were being given the opportunity to reduce their dependency on the center and to learn how to bargain with Yeltsin in order to benefit themselves. Yeltsin in his fight for power got in the business of granting tax concessions for political favors. The other tactic was to challenge the centre for the ownership of enterprises and farms on the territory of the Russian Federation. In the chaotic days of 1991 they could choose under whose auspices they wished to be. Ownership of Russian enterprises (Russia produced about 75 per cent of the Soviet GDP)

[35] See Martinez-Vazquez and McNab (2000).

was absolutely crucial in the political struggle between Gorbachev and Yeltsin. The level of taxation and the amount of state social benefits which were distributed through the enterprises depended on whether the enterprise was Soviet or Russian. Yeltsin began to outbid the Union authorities, promising lower taxation and higher social benefits.

However, defeating Gorbachev was a two-edged sword. Yeltsin, without meaning to do so, was laying down the fiscal rules of the new Russia. Regional authorities soon learned to take advantage of the situation in Moscow. Fiscal advantages could be gained by smart bargaining. Yeltsin was digging his own grave when it came to dealing with authorities in the new Russia. Starting from the very creation of independent Russia, a number of regions demanded greater autonomy, greater devolution of authority, and special tax regime. These regions were mostly comprised of areas inhabited by non-Russian ethnic groups, areas rich in natural resources and industrially well-endowed areas.

In the most extreme case of Bashkortostan, a demand for a "single channel system" was made so that all revenue would flow initially to the regional government and then a negotiated single payment be made to the federal government. This is exactly what Yeltsin tried to do under Gorbachev (Fowkes, 1997: 174). Thus in 1991 he said: "We are prepared to take part in financing the army but only in proportion to our national revenue." Other Russian regions, such as Tatarstan and reportedly 20 oblasts determined their own sharing rates unilaterally.

The federal government in the early years of the transition remained reactive and tried to adapt to the agenda set by the maverick regions. In reality, the federal government in 1992-93 did not have much of a choice but to accept the reality of an asymmetric system of intergovernmental relations, which was being fast shaped by the demands of a small number of ethnic republics. In fact, it was the regions which early on dictated the agenda of the federal contract: the shape and form the Russian Federation should assume. In stark contrast to the central control during the Soviet era, during the early transition regions were able to take advantage of the fact that they had de facto control over key elements of government administration, including the tax administration and internal security forces. This left the federal government without tools to deal with noncompliant regions and enforce federal legislation. Thus, for the most part the asymmetric relations were implemented on a de facto and presumably illegal manner.

In November 1991 the State Tax Service (STS) was separated from the Ministry of Finance and directly subordinated to the Government and the President of Russia in the rank of federal ministry. Its organizational structure consists of three levels: central, regional, and local. The regional offices coordinated and supervised local offices under their jurisdiction and provided the central level with tax revenue data. *De jure*, the federal Ministry of Taxation had significant control over the operations and standards of regional and local inspectorates. De facto, however, this was not always the case. The vertical structure of Russia's federal tax administration remains extremely deconcentrated – even more deconcentrated than the federal public administration as a whole. For example, in 1995 the STS Headquarters employed 710 persons while territorial branches employed

161,000 persons. Interestingly, while the deconcentrated employment in the territorial tax offices accounts for more than one-third of the total public administration employment of the federal government, the STS Headquarters staff accounts for less than 3 percent of the federal public administration core in Moscow. This highly deconcentrated structure of the federal Ministry of Taxation does not currently allow taking advantage of all the economies of scale in designing procedures, processing returns, and employment of specialized auditors. On the contrary, regional branches have been allowed and often encouraged to experiment with their own innovations and approaches (Firestone, 1998). The lack of coordination and logistical support from the Moscow headquarters traditionally has made federal tax agents in the field dependent on the support of local authorities.

In today's Russia it is argued that, although territorial subdivisions of the federal Ministry of Taxation are not formally subordinated to subnational authorities, they might have informal loyalties toward the latter. The subnational authorities continue to be responsible for allocating and providing housing to the MinTax staff and for paying for some of their fringe benefits. Thus, subnational authorities might have some control over how much rigor the federal tax agents exercise in collecting taxes in the subnational government's territory. The extent of this informal power and whether the federal governments finally got a grip on its local agents continues to be discussed in the literature (OECD, 2000).

Many of the problems and tribulations Russia went through in the last decade, lack of fiscal discipline, economic stagnation and so on, have been explained by many observers as having roots in the inability of the federal government to impose a unified legal system throughout the Russian Federation. The combination of increased deficits with tight money supply and fixed exchange rates led to the August 1998 crisis, with the devaluation and floating of the ruble and the default by the federal government on most of its domestic debt, which in turn precipitated a banking crisis. It became clear that the special fiscal treatment provisions in the treaties had contributed to the mounting fiscal pressures that eventually led to the crisis. Undoing the damage from bilateral treaties and the special deals proved to be difficult. Nevertheless, the retreat from asymmetric treatment clearly started in the late Yeltsin years by simply not always complying with the provisions in the treaties. However, Russia would have to wait until the election of Vladimir Putin as president for substantially bringing all regions in compliance with federal laws.

China pre-1994 Reform. In pre-1994 China, there was a *de jure* centralized tax administration but *de facto* highly decentralized tax administration. Tax revenues were shared between the provinces and the center on the basis of an ad hoc revenue-sharing contract, negotiated separately for each province. Moreover, the tax agents had to serve two masters: the central government and the provincial government. Formally, the center was able to control every aspect of state and even private activities through two parallel hierarchies of vertical supervision: Communist Party committees and People's Congresses (who in turn appointed the executive) at each of the five levels of government in the country. These two hierarchies are not completely independent as elections to the People's Congresses are not competitive, with a single candidate effectively nominated

by the Communist Party for each electoral district. Thus, similar to the Soviet system, most decision-making is made within the Party apparatus and local Congresses only rubber-stamp these decisions and implement them through the local executive branch (who again are appointed based on the Party recommendation).

The 1983 devolution of some decision-making powers to the provinces and local governments created divided loyalties among the tax staff. The central tax office expected each territorial tax branch to follow national tax administration policies, but there were few incentives to ensure that national policies were implemented correctly. When the lower-level governments paid the salaries of tax administration, the temptation was strong to lower the official assessment of the tax bill and then split the difference between the local government and the taxpayer (typically a local enterprise). It was not necessarily the case that the tax agents followed the orders of the provincial officials intending to protect local industry. It was more likely that both the local officials and tax agents faced the same perverse incentive brought about by the revenue sharing contracts. As an owner of local enterprises the local governments did not want to part with the enterprise revenue while the tax agents did not want to see their collection target revised upwards as a result of greater collection effort. Although the central government officials were aware of this problem, they were unable, with a staff of about 450, to police effectively the activities of more than 500,000 tax staff in the territorial branches. Thus, tax administration in China became ruled by negotiations rather than by law.

Before the 1994 tax system reform, the central government's share of total revenue declined from 44 percent in 1978 to 23 percent in 1993, while the total subnational revenue share increased from roughly 56 percent to 77 percent during same period. At the same time, the consolidated government revenue share in GDP also shrank, from 47 percent in 1978 to 13 percent in 1993. Although the subnational share in total revenues increased, the shrinking pie considerably reduced budgetary resources available to the provincial level as a whole. However, it benefited a few wealthier provinces.

The central government started to realize that changes in tax policy could not be implemented as intended when tax collection became a process of negotiation. Unable to affect its inelastic revenues, the central government responded to fiscal pressure by attempting to devolve expenditure responsibilities to lower levels of government. Apart from the intensified bargaining between central and local governments over the sharing schemes, fiscal pressures created by the contract system of the 1980s led to undesirable responses by subnational governments. Examples include the diversion of resources from budgetary to extra-budgetary channels, the duplication of industries to capture revenues that formerly flowed to the national treasury, generous tax concessions to local state-owned enterprises (SOEs) under their own jurisdictions, and expanded local bank lending to these SOEs.

In order for the central government to regain tax policy powers and to move taxation closer to the rule of law, the Chinese tax structure was overhauled in 1994.[36] The new structure features uniform tax laws, a central tax administration for central and shared

[36] See the discussions of China's experience in Vehorn and Ahmad (1997) and Bahl (1999).

taxes, as well as parallel provincial or local tax administrations, to remove the perverse incentives of the previous system. China underwent comprehensive tax administration reform to create a separate tax administration at the provincial level in parallel with the central government tax collection agency. However, old habits die hard and there is still evidence of dual subordination in the central government tax administration system,

4. Implications and lessons from the international experience

The need for flexibility

As was presented in the preceding sections, the assignment of tax administration powers requires a fine balance among many conflicting criteria, and the recognition of several forms of constraints and political economy issues, in particular the alignment of the incentives of tax authorities with those of the government at large. These objective criteria, constraints and interests can balance out differently in different countries or regions and with respect to different taxes and even tax administration functions. Thus, one implication of our review is that from a theoretical viewpoint countries need to try more flexible approaches to designing the organization of tax administration. And that is what we do seem to observe in practice. An example of significant flexibility in the vertical structure of tax administration is presented by Canada. As we have seen, the Canada Customs and Revenue Agency collects some provincial and territorial sales, corporate income, and personal income taxes, but not for all of the subnational governments and not in the same way for all taxes.

It also clear that the level of decentralization that may be desirable, and that we indeed observe in the international experience, varies from tax to tax. As Rubinfield (1983) argued three decades back, because of information externalities, cost structures and skill levels required, income taxes, a destination VAT, customs duties, natural resource taxes, and social security taxes may be more efficiently administered by central tax administrations while property taxes, user charges, and so on may be done so at the local level. A different way to put this same conclusion is that decentralized tax administration will tend to be more efficient the less important are cross-border transactions for the tax base (Boadway et al, 1994). Thus, it will be easier for a local government to administer an income tax based on "earned income" or payrolls than a global income tax from any source, including capital income (Mikesell, 2003). In the absence of tax treaties and administrative cooperation, it would be very difficult practically to ensure compliance under local administration.[37] More specifically, administrative simplicity, required technical knowledge, and information externalities particularly favor centralizing the administration of corporate income taxes. Political economy considerations also favor centralized administration of this tax. Subnational governments are forever torn between rigorous enforcement to protect the tax base and

[37] In this sense, it has been argued that, if the federal government of the United States were to eliminate its (global) income tax, the states would have to do the same, as they would lack the information necessary to adequately administer and audit their state income taxes (McClure, 1999).

giving favorable treatment to local businesses to encourage economic development. (Boadway et al, 1994)

The need for coordination

Under a multilevel tax administration system, duplication of effort among levels can easily occur, and effectiveness can suffer to the extent that there is economy of scope in performing some tax administration functions jointly for several taxes (e.g., auditing for VAT and income tax). The coordination among various tax authorities can become crucial in the area of audits. Both the uniformity and duplication of functions can be addressed by assigning different elements of administering the same tax to different levels of government. More generally, the efficiency of tax administration can suffer if the independent tax authorities do not put in place requirements for adequate coordination. Cooperation and exchange of information – both horizontally and vertically – can improve administration and can make compliance easier as well. Co-operation beyond capacity development, technical assistance, and more important, information exchange may also include (i) coordination of registration for national and subnational taxes to ease business development and to facilitate information exchange for administration; (ii) use of a single taxpayer identification number to the greatest extent possible; (iii) exchange of audit and other compliance data to the fullest extent permitted by law; (iv) locating taxpayer services offices together to the greatest possible extent; and (v) coordinating payment mechanisms for central and subnational taxes. Cooperation does often entail some reduction in administrative autonomy, however. When cooperation is optional, its practice certainly proves benefits to all cooperating administrative units.

The international experience with coordination and cooperation across different levels of tax administration is quite varied. In the United Sates, state tax agencies, and local governments with populations in excess of 250,000 that impose taxes on income or wages can request tax information from Internal Revenue Service. To this end, agency officials need to send a written request to the District Director of IRS in their area jurisdictions and must enter into agreement with the Commissioner of IRS regarding disclosure. The state or local agency will bear the costs for the exchange on a reimbursable basis; however, state agencies can obtain tax data extract information through various IRS disclosure offices for free. Examples of the requested information include "Individual Tax Models" used by state tax agencies in determining their rate structure; Individual/Business Master File Tax Data Extracts; Individual/Business Returns Transaction File Extracts; Information Returns Master File Extracts.[38] In

[38] As of 1999, the Internal Revenue Service has written agreements with 126 State agencies representing 50 States, the District of Columbia, American Samoa, Guam, Puerto Rico, the Virgin Islands, New York City, Louisville, St. Louis, Cincinnati, Cleveland, Toledo, Philadelphia, Pittsburgh, Kansas City, and Columbus. State tax agencies may use the tax data provided for justified tax administration purposes only. Any unlawful disclosure of Federal tax data subjects the violator to both criminal and civil penalties. Agency officials are required to submit a Safeguard Procedures Report within 30 days after receipt of Federal tax data, and an annual Safeguard Activity Report. On-site safeguard reviews can be conducted by IRS personnel as needed to ensure confidentiality and security of Federal tax data, with a minimum requirement

addition, some states administering local sales taxes provide the local governments periodic lists of their local sales tax payers so that the locality can check for omissions and request state enforcement action.

In Canada, provincial governments have formal arrangements among themselves for a regular exchange of information (including information on the sales tax refunds) to help them collect sales taxes from their residents. However, not every province has an agreement with every other province. Rather each province collects and supplies information to other provinces because it has received such information from other provinces in the past and expects this to continue in the future (Hill and Rushton, 1993).

In Japan, the National Tax Administration and local tax authorities collect and share information on taxpayers, especially exchanging information on assets of delinquent taxpayers that can be used as collateral. Moreover, for proper and smooth enforcement of the local consumption tax, in April 1997 the Local Tax Law was amended to allow the District Director of local Tax Office to request from a prefecture governor, or mayor, data and information required in the assessment and collection of the local consumption tax.

In Estonia, municipal and town governments independently collect local taxes in their territory. However, with the permission of the central Office of the Tax Board, the municipal or town council and the local tax office may sign a contract whereby local income taxes (to be levied both on enterprise and individual income – not yet introduced by any local gsovernment) will be collected by local offices of the national tax administration. In some Estonian counties the coordination problem has been cleared up by mutual agreements. Thus the national tax service requires local governments to pass on information on property objects for the administration of the (national) land tax. At the same time, cooperation with the national Car Register Center is essential for the enforcement of the motor vehicle tax, which constitutes the majority of local tax revenues in some municipalities. Without matching the car's registered address to the residence of its owner, fines may be ineffective. (Mihaly Hőgye *et al*, 2000).

In Hungary, the local tax authority may request information from the central tax administration on taxpayers within its jurisdiction, an important tool in identifying taxpayers who are non-compliant with the local taxes. This is facilitated by the fact that local government tax offices use the same taxpayer identification numbers as do the central government tax offices. Actually, the central authorities provide local governments with the software needed for computer-based taxpayer registration, which allows a uniform system of registration across the administrations (OECD, 2001, 43). However, relations between central and local government tax administrations are not coordinated; in fact, they have no contact save for exchanges of information. (Mihaly Hőgye *et al*, 2000).

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of a review once every five years. Agencies are required to maintain a system of standardized records of requests for inspection or disclosure.

Mexico presents a special case of cooperative administration. In general, the central government there administers federal taxes and all states have signed agreements whereby they trade the exercise of most of their taxing authority for a share of federal revenues. The states only administer the state payroll tax, property related taxes, and business license. However, state governments sign agreements (*convenios de colaboracion administrative*) with the federal government that allows them to audit and otherwise verify compliance with federal laws in exchange for a significant portion of additional VAT revenues they locate. That gives them revenue based on their particular knowledge of local economic activities of which the central administration might not be aware. (Mikesell, 2003).

It is not accidental that many examples in the international experience of co-administration between central and local government concern the property tax. The real estate property tax, while requiring considerable technical skill to obtain a uniform appraisal of property, applies to a base that is quite immobile and non-fugitive and whose value very much depends on local market conditions. A cooperative division of functions can combine local autonomy and familiarity with local conditions and central technical skills. But nations have not reached the same conclusion about the assignment of functions between central and local governments in administering the property tax. This difference appears in the division in assignment of valuation and collection responsibilities across several nations. The different country experiences in cooperative approaches to the administration of the property taxes are further discussed in the Appendix.

For shared taxes, centralized administration is the rule and decentralized administration the exception

The most difficult and controversial case in the organization of tax administration is for those taxes that are substantially shared between the central and subnational governments. Considering theoretical considerations and international practice, the gains from centralized tax administration of shared taxes are likely to be considerable. Single procedures and forms designed at the central level can be applied throughout the country uniformly and at little additional costs, which also reduce compliance costs. Furthermore, economies of scale can be achieved in return processing, record maintenance and retention, and employing specialized technology, equipment and specialized staff such as auditors. In smaller decentralized units it is less feasible to organize staff by function rather than by tax thus undermining internal controls. Centralized administration can also facilitate rotation of personnel, helping avoid close contact between auditors and taxpayers. Centralized administration also can be better equipped both legally and resource-wise to deal with multi-jurisdictional and multinational businesses. Some political economy factors also support a centralized model. For example, horizontal equalization is easier to achieve, both in political and technical terms, when the central government collects the funds that constitute the redistribution pool.

The experiences of pre-1994 China and the Soviet Union also provide a cautionary tale for any country seriously considering the decentralization of the administration of shared taxes. As witnessed in those two countries, decentralized administration and

upward revenue-sharing can create perverse incentives to maintain revenue in the jurisdiction by favorable assessment of taxes due, especially when subnational governments own many local enterprises. When a "single-channel" version of upward tax collection is applied throughout the country, as was the case for Tatarstan and other Russian regions in the early years of the transition, fiscal and macroeconomic instabilities may occur as the central government loses control over its revenue. Fundamentally, it may come to a question of political power and control. In China, the center was able to reassert itself, not without difficulties and special concessions to the richer provinces, in 1994, but in the Soviet Union, the refusal of some of the republics (including Russia) to share the shared revenues with the center ultimately led to the demise and fragmentation of the country.

Table 1. International Experience with Decentralized Administration of Shared Taxes

Country	Circumstances	# of regions	# of taxes
Canada	Constitutional tax sovereignty	Quebec	VAT
Spain	Historic fiscal autonomy	2 (Basque Country and Navarra	most
Germany	Overall administrative fusion	all	most
Switzerland	Constitutional tax sovereignty	all	2 (PIT and CIT)
Pre-1994 China	Experimental deconcentration	all	all
Pre-1992 Russia	Spontaneous decentralization	all	all
Japanese prefectures	Traditional fiscal domain of municipalities	all	1 (inhabitant tax)
United Kingdom	Traditional fiscal domain of municipalities	all	1 (non-residential property tax)

The aforementioned advantages of centralized administration may be considered absolute in the sense that they do not reflect the narrow particular objectives of only the central government or only local governments, but rather the interest of society at large. But there are also several political economy aspects of the decision to centralize or decentralize that present gains to one party only at the expense of the other. These are control over tax staff and operations, control over revenue flow, and unimpeded access to revenue and taxpayer accounts. There could be ways to align the conflicting interests, for example through local representation at the national tax board, information sharing agreements and so on, but some tensions are bound to remain.

In all fairness, as we have seen, there are also several advantages of a decentralized tax administration. First is the advantageous positioning of local governments that allows them to tailor operations to local peculiarities and provide better customer service to the taxpayers. A related benefit is that of local governments acting as insulated chambers of experimentation so that the effective practices can be found and disseminated to the rest of the country. However, these advantages from a decentralized model are not absolute, because they can be replicated under some managerial reforms of the centralized model. There are ways to materialize these benefits even under the centralized tax administration by devolving more managerial discretion to the territorial offices.

Despite a clear tendency of the normative considerations towards a centralized approach to administering shared taxes, we have seen there are, nevertheless, some examples in the international experience with decentralized collection of shared taxes (see Table 1). Several regularities stand out from the table. First of all, in most cases, decentralized administration of shared taxes presents a response to some extraordinary circumstances: separatist threats and historical rights in Italy and Spain; constitutional tax sovereignty in Canada and Switzerland, political transformation in China and Russia. Second, the decentralized administration of shared taxes applies to only a few taxes with limited revenue importance for the higher-level government or only a few regions constituting only small part of the country. The exceptions to this latter were either proven unsustainable like in the cases of pre-1994 China and pre-1992 Russia (Soviet Union) or are perceived to be performing poorly as in Germany.

But the international experience also shows that the centralized administration of shared taxes is not free either from perverse incentives and other problems. At the top of the list is the fact that central tax administration may have little incentive to allocate scarce financial and manpower resources to those shared taxes that accrue mainly to subnational governments. In India the central government tax administration collects all individual income taxes (except for agriculture) and then returns 85 percent of revenue collected to the states. Even though the central tax administration is given a collection target in the budget, the incentive to allocate sufficient enforcement resources and perform high-quality audits for this tax is lower than for other taxes, for example, the profit tax or customs duties, where revenue is retained by the central government. Vehorn and Ahmad (1997) report that the Indian states have often complained about this situation. A second type of problem is the central administration unwillingness or reluctance to share taxpayer information with subnational governments sharing in particular taxes. In Spain the central government tax administration in the recent past has been reluctant to share information with the regional government in what pertains to the administration and enforcement of income taxes, which also has led to complaints from regional governments.

On balance the advantages of centralized administration of shared taxes seem to exceed the disadvantages. However, the outcomes of centralized solution can be improved by devolving managerial discretion to field offices, drafting incentive compatible agreements for the right allocations of resources and effort, and improving subnational governments' access to tax information and participation in formulating tax

administration policies. Where decentralized operations of shared taxes traditionally falls into the subnational domain (such as property taxation in United States and the UK, or direct taxation in Switzerland) the disadvantages of decentralization can be mitigated by centralizing selected tax administration functions that involve most economies of scale such as property assessment, design of tax forms and procedures, training of specialized staff, and the clearing of information exchange.

5. Conclusions

In this paper we have argued that what represents the best approach to the organization of tax administration depends on the objectives of tax administration, the constraints faced in the pursuit of those objectives, and how these objectives are weighted. We have also argued that in the context of achieving the appropriate level of tax decentralization two fundamental objectives may be considered: the maximization of revenues subject to the administration costs and compliance costs constraints (or the efficiency objective) and the accountability of government elected officials to taxpayers (or the accountability objective). Both centralized and multi-level tax administration have certain advantages and disadvantages. Central administration is more likely to collect revenues in an efficient manner capturing potential economies of scale and scope and informational externalities across taxes and taxpayers in different locations. Local administration enhances accountability and it provides full scope for revenue autonomy to the extent that many aspects of tax administration cannot be fully separated from tax policy itself. In addition, local administration may offer some other advantages, such as a greater ability to exploit informational advantages on local tax bases.

Best principles and international experience suggest that the vertical structure of tax administration should be related to the assignment of taxing powers among the different levels of government. Thus, there is no question, of course, that in a fairly centralized system, with little or no tax autonomy at the subnational level, tax administration should be centralized. In decentralized systems where subnational governments have been assigned their own taxes and with authority to modify rates or other aspects of the tax structure, and whose base is not shared with the central government, there is a strong case for multilevel decentralized tax administration. Separate tax administration can help to enhance accountability and efficiency of decentralized governments. Furthermore, the economies of scale and scope associated with centralized administration may be lost in the presence of a diversity of tax bases and definitions and, after all, there will not be enough incentives for the national tax agents to exercise enforcement rigor for local taxes. Thus, in all there is a strong case for multiple levels of tax administration where there is full separation of tax bases among different levels of government.

However, there are cases in decentralized assignment of revenues where centralized tax administration may be quite attractive and perhaps even superior to decentralized multilevel tax administration. For example, when subnational governments are given discretion to apply their own rate to the tax base used by the central government, there are still gains from centralized administration. Administrative and tax-compliance

economies can be achieved when local tax return consists of only some extra lines on the national return or a supplement to it, as in the case of piggyback taxes. Accountability may be preserved through the identification of taxpayers with the subnational government that makes the decision on local rates, and the right incentives can be established through incentive-compatible arrangements so that the central tax administration officials receive positive and significant pay off from collecting those subnational taxes. But, as we pointed out, administrative economies will disappear when the central tax administration has to cope with varying definitions of the tax base used by different jurisdictions. Inefficiencies can also result from centralized administration of taxes requiring knowledge of local information (e.g., on property or presumptive income).

In the case where the revenue assignments provide for the sharing of collections between the central and subnational governments, we have seen that in the majority of possible situations there are much more clear advantages to centralized tax administration over a decentralized administration where the taxes are collected by the subnational governments and then transferred to the central treasury.

In summary, for a country considering the reform of its tax administration following, for example, a fiscal decentralization reform, our advice would be that there is no need to decentralize the administration of taxes shared between the federal (central) and local governments or subnational taxes that piggyback on national taxes. In the case of taxes that are exclusively subnational taxes, their administration can be assigned to the central tax administration but this needs to be accompanied by incentive-compatible contracts to make sure federal administrators will exercise the same zeal to collect federal and subnational taxes. Subnational tax administrations are more desirable for exclusive subnational taxes for which there are information and enforcement advantages at the local level.

When the system is working with multiple levels of tax administration, a high degree of dialog and cooperation between different levels of tax administration should be institutionalized. In order to avoid overlapping of efforts and to secure uniform treatment of taxpayers, national legislation can put in place requirements for adequate coordination among the independent tax administrations. For example, the national Ministry of Taxation could provide comprehensive and uniform training to subnational tax officials. Also the central government could enforce strict adherence to audit and reporting guidelines. When feasible, subnational tax administrations should use for each taxpayer the same taxpayer identification number as used by the central tax administration. The information obtained in those audits should be routinely shared with the central tax administration and other subnational tax administrations. In turn, the central tax administration authorities should give subnational tax authorities access to national databases to facilitate delinquency control. This is a key to effective enforcement at the subnational level. Discussions should be held and final collaboration protocols established among different levels of tax administration to provide for some type of information sharing, so that cross-checking activities can be performed, and with regular meetings to discuss common problems and solutions.

Appendix

Cooperative Approaches in the Administration of the Property Tax

The property tax is typically assigned to local governments as a main revenue source because of the benefit principle link between tax payments and the enjoyment of public services by local residents. Other characteristics that make it a desirable local tax are that the property tax is largely non-exportable to residents in other communities and that it is capable of yielding a stable revenue stream during the economic business cycle. From the administration side, local authorities are likely to have better knowledge of who owns the property. However, the property tax is not an easy tax to administer. Some aspects of the tax, such as the timely valuation of properties, can be beyond the reach of many local governments. Thus, again it is not surprising that the administration of this tax elicits a variety of cooperative approaches among different levels of government. Table A-1 shows the level of government responsible for the functions of identification, assessment, billing and collection in 25 countries recently covered in a study by Bird and Slack (2004).

The assessment function seems to be essentially local in about half the cases and central or regional in the others. In many cases, however, the detailed assessment methodology is established by the central government even when assessment is a local function. For example, in Colombia the maintenance of the property register and updating the valuation is centrally coordinated, although the billing, filing of payments, and auditing of the property tax are carried out at the local level. However, even the centrally maintained property register can prove to be cumbersome and difficult to update in a rapidly changing environment of property development and escalating values, as has been the case in Colombia.

According to Table A-2, tax collection is usually, but not always, a local government function. For example, in Canada, local governments establish their own property tax rates and manage collection of taxes they have levied, but the province or territory establishes basic structure and requirements for the local taxes, establishes the policy for valuation of property parcels, and is responsible for insuring that assessment is done according to the assessment standard that reflects provincial tax policy. Thus, overall administration of the property tax combines centralized and independent administration of the collection functions. For uniformity, valuation is centralized while the other functions are handled by the local government levying the tax.

In Mexico, the assessment of the property tax is made by state governments (setting the base and rate) but collections are enforced by localities (keeping the proceeds). At the very least local governments almost always have some discretion in determining the size of the ratio of taxes collected to taxes assessed. In a few instances, however, such as Guinea and Tunisia (and likely most of francophone Africa) as well as Chile, they cannot even do this.[39] Case studies show that, at present, some of the information required for

[39] In Chile, the national tax administration (SII) is responsible for assessment since the tax is a national tax. Since all revenues are earmarked to local governments, however, many municipalities are keen to

identification is held by different government agencies. For example, in Latvia the information is split between the State Land Service, the Title Book Service, and the State Tax Service.[40]

Denmark provides a good example of co-administration, where revenue from three kinds of property taxes is assigned to subnational governments: a land tax on all plots of land; a service tax on buildings used for administration, commerce, and manufacturing; and a property value tax on owner-occupied dwellings and summerhouses. The central government has main responsibility for valuation of immovable property. Central government appoints 224 valuation committees of three members with secretarial assistance from the municipality. The basic information for valuation and collection is stored in computerized registers. The Central Customs and Tax Administration, part of the national Ministry of Taxation, maintains a register of sales prices and the municipalities maintain a valuation and collection register with (i) description of the land parcels from the national survey and land register and (ii) a building and dwelling register with the description of buildings and dwelling units. The Central Customs and Tax Administration carries out the central coordination of valuation and gives instructions to the valuation committees. A property tax office in each municipality collects the municipal and county share of the land tax and service tax. The computer-generated annual property tax bill, divided into installments as determined by the municipality, also includes municipal charges on the property (for roads, sewerage, district heating, street lighting, water, etc.) Central government collects the property value tax via withholding in combination with the individual income tax.

Table A-3. Administration of Property Taxes Around the World

Country	Tax Base	Rate	Identification	Assessment	Billing and Collection	Paid to
United Kingdom	residential property	local	national	national	local	locality
	non-residential property	national	national	national	local	redistribution pool
Australia	land	state	state	state	local	
	property	local	state	state	local	
Canada	property	provincial	provincial	provincial	local	province
	property	local	provincial	provincial	local	municipality
Chile	property	national	national	national	national	40% to locality
China	transfer of intangible assets andreal estate	national	local	local	local	locality
	Urban real estate	national	local	local	local	locality
Colombia	property	local	national/local	local	local	locality
Germany	real estate	local	state	local	local	locality

complement the SII teams with local government officials. Over 400 such officials have been trained (by SII) for this task.

[40] A similar split in institutional responsibilities has made real estate property tax reform more difficult in the Russian Federation, as evidenced in the pilot projects in the cities of Tver and Novgorod during the late 1990s.

Guinea	structures	national	national	national	national	shared
Hungary	structures	local	local	local	local	locality
India	property	local	?	state/local	local	locality
Indonesia	real estate	national	national	national	national	province/locality
Japan	real estate	local	national	local	local	locality
Latvia	real estate	national	national	national	local	locality
Kenya	land	local	national	local	local	locality
Mexico	property	state	state	state	local	locality
Nicaragua	real estate	national	national	local	local	locality
Philippines	real estate	provincial	provincial	provincial	provincial	locality
Poland	real estate	local	national	local	local[41]	locality
South Africa	real estate	local	local	local	local	locality
Tanzania	structures	local	local	local	local	locality
Thailand	real estate	national	local	local	local	locality
Tunisia	housing	national	national	joint	national	locality
Ukraine	land	national	national	national	national	locality
Argentina	property	province	province	province	province	province
	property	municipal	municipal	municipal	municipal	municipality

Source: Bird and Slack (2004).

[41] Unpaid taxes (arrears), except in the largest cities, are turned over to the national tax office for collection. However, this office seldom seems to pursue the collections of "other people's revenue" with enthusiasm.

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