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# SUBNATIONAL VALUE ADDED TAX IN A FEDERATION – AN ANALYSIS OF THE BRAZILIAN CASE.

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#### **1. INTRODUCTION**

In recent years there have been many debates about tax reform in Brazil. The system designed in the 1988 Constitution lead to the creation of many distortion taxes that aimed only to be effective in the sense of getting more revenues without worrying about the negative economic effects they generate. Although the need for a broader reform is clear, the proposed reforms have addressed only specific points of the tax system, such as the ICMS (the abbreviation of the Brazilian states' value added tax).

This paper aims to discuss important topics related to the reform of the Brazilian ICMS. If it is true that there are many problems related to the collection of this subnational tax and that it has been used by some states to attract investment in a way that causes distortion effects, it is also true that this tax is the major revenue for the more developed states and an important source of income for almost all the states. A reform in this tax must preserve the federative balance and consider that the states must have a source of revenue that allows them a certain degree of autonomy.

The first part of this paper discusses taxation and autonomy of subnational levels of government. The reasons for decentralization and its benefits are briefly discussed, stressing the main objective of efficiency in the administration of public resources. Usually the decentralization process assigns sub national governments major expenditures such as health and education and, in this case, they should not be financed only by intergovernmental transfers and need to have their own revenues. A discussion of the adequate sources of revenues for subnational governments is presented, based on the work of Richard Bird, and shows subnational VATs as a good alternative to finance subnational governments responsible for important expenditures.

The second part of this paper is dedicated to describe the Brazilian states VAT with focus on the federative aspects. Prior to that, VAT terminology is presented to show some theoretical possibilities for the structure of this tax. As there are many possibilities to build a VAT system and the real models vary from country to country, it is necessary to understand the basic concepts before the analysis of a real system. After that, a summary of the main characteristics of the current Brazilian states VAT is presented, stressing issues such as incidence, non-cumulativeness, interstate operations, tax rates and others.

The third part of this paper aims to analyze some proposals for subnational VATs in federative countries. The proposal from Varsano (1999) for a subnational VAT is

presented, after a brief exposition of his view about problems of ICMS and the questions that should be addressed in a tax reform. In addition, the main points of the proposal from McLure for a subnational VAT system are presented and discussed. Finally, the main points of a proposal for amendment in the Brazilian Federal Constitution, which is currently being debated in the National Congress, are analyzed with focus on federative issues.

#### 2. DECENTRALIZATION AND SUBNATIONAL TAXES

This chapter is dedicated to a brief discussion about decentralization of public expenditures and the need to assign relevant sources of revenues to subnational governments. The benefits of decentralization, mainly the gains in efficiency, are the reasons to make regional and local governments responsible for some major public expenditures such as education and health. Since transfers, though important, are constantly subject to political influence, subnational governments require major sources of income to provide the services they are demanded. Furthermore, subnational governments tend to apply resources in a more responsible way if they need to collect taxes to finance expenditures.

If it is accepted that subnational governments responsible for considerable expenditures should be financed predominantly by the revenues they collect, the analysis of potential sources of revenues is the next issue. We present a discussion about the possibilities of taxation for subnational governments based on the work of Richard Bird (*Retinking Subnational Taxes – A new look at Tax Assignment*, IMF Working Paper 99/165, 1999). It is a very rich analysis that presents VATs as a good alternative to finance sub national governments responsible for important expenditures.

#### 2.1 - SUBNATIONAL TAXES, DECENTRALIZATION AND AUTONOMY

Decentralization is the process of transfer of political power from the central government to regional and local governments. It has become a central issue in the political agenda of many developed countries (as in Europe), and is also a very important theme for developing countries, especially for the federative ones.

CANALETA et al. (2002) suggest the main reasons to justify decentralization are: the belief that decentralization increases efficiency of public expenditure; the reaction against centralized bureaucracy in some countries; the influences of changes over the last decades in private corporations' management; the difficulties of centrally-run regional policies to stimulate endogenous growth, and the demand for a democracy that can promote public participation.

The improvement of the efficiency of public expenditure must be an important objective for public management. Regional and local governments can be more productive than central government in the provision of local public services in which benefits are limited to a restricted area. Besides, regional and local governments are closer to the citizens than central government and are more likely to be sensitive to citizens' demands for public services.

Decentralization can improve efficiency in the allocation of resources by better satisfying the needs and preferences of local citizens, through better knowledge of these preferences (Oates, 1972, in Canaleta et al., 2002). If citizens have enough mobility, they would move to the jurisdiction that better matches their preferences. Tiebout (1956, in Canaleta et al., 2002) suggests that individuals would move to the community that offers the best bundle of public services and taxes according to their own interest. However, coordination among regional governments is necessary so that a satisfactory level in the provision of public services can be reached (Canaleta et al., 2002). Without coordination, externalities can result in under provision of public services<sup>1</sup>.

CANALETA et alii (2002) also analyzed the impact of fiscal and political decentralization on regional productivity inequalities. They studied the relationship between measures of regional inequalities in productivity and measures of political and fiscal decentralization in a sample of 15 OECD countries. The results suggest a strong negative correlation between decentralization and regional inequalities.

Decentralization is put in practice in many large countries through a federative system. A balanced federation must consider which services must be provided by the central government and by regional and local governments. In general, the conclusion is that public services that benefit the whole country must be provided by the national government (such as macroeconomic stabilization and national defense) and decentralized governments must provide services which benefits are limited to a specific area or population (VARSANO, FERREIRA and AFONSO, 2002). Expenditures and revenues must be assigned among the federative levels in a way that preserves fiscal balance. And, although autonomy of regional and local governments is a desired objective, coordination

<sup>&</sup>lt;sup>1</sup> In metropolitan areas, for instance, the lack of coordination makes possible for some municipalities to benefit from the public services provided by the others. It is a free-rider problem.

through fiscal instruments is required to optimize resources allocation and to preserve national interest. There's not a perfect model of federalism, and experiences are dissimilar all over the world. Each federation has to find a model that best fits its peculiarities.

Analyzing the Brazilian federalism in the nineties, MORA and VARSANO argue that Brazil is still in a transition process characterized by attempts to correct the aftermath of both excessive centralization and immoderate decentralization experienced in sequence in the past. They present an interesting chart showing the distribution of public expenditures among the three levels of government in Brazil, reproduced below. It provides a good picture of the level of decentralization of public expenditures in Brazil.

 Table 1

 Brazil: Distribution of Government Expenditures in Some Functions — 2000 (In %)

Function	Distribution			Function as a % of Total Expenditure $^{\rm b}$			
	Union	States	Municip.ª	Union	State	Municip <sup>a</sup>	Total
Social Insurance and Social Assistance	78.8	16.2	5.0	53.8	13.3	9.4	31.1
Education, Culture, Sport and Leisure	19.5	49.6	30.9	6.1	18.5	26.4	14.1
Health and Sanitation	44.2	25.4	30.3	11.2	7.8	21.2	11.6
Housing and Urbanism	15.2	16.1	68.7	1.0	1.3	12.3	3.0
Labor	90.8	9.3	_	3.4	0.4	_	1.7
Environmental Management	100.0	_	_	0.6	_	_	0.3
Energy and Mineral Resources	72.2	19.8	8.0	0.3	0.1	0.1	0.2
Transportation	23.8	47.3	28.9	1.8	4.3	6.1	3.5
Sectorial Policies <sup>c</sup>	58.9	33.0	8.1	4.9	3.3	1.9	3.8
Defense	100.0	_	_	5.9	_	_	2.7
Public Security	15.2	82.2	2.5	1.2	7.8	0.6	3.6
Foreign Affairs	100.0	0.0	_	0.4	0.0	_	0.2
Legislative Branch	23.5	41.0	35.5	1.0	2.0	4.0	1.9
Judiciary Branch	42.4	56.3	1.3	3.9	6.3	0.3	4.2
Total Expenditures <sup>b</sup>	45.5	37.9	16.5	100.0	100.0	100.0	100.0

Source: Ministério da Fazenda / Secretaria do Tesouro Nacional (Portaria 239, of the 28th of June of 2001). <sup>a</sup> Total for 57% of Brazilian municipalities.

<sup>b</sup> Total expenditure excludes Union expenditure on "special responsibilities" (essentially interest payments and debt amortization).

<sup>c</sup> Includes agriculture, agrarian organization, industry, commerce, services, science and technology, and communication.

Source: MORA and VARSANO, *Fiscal Decentralization and Subnational Fiscal Autonomyin Brazil: Some Facts of the Nineties.* IPEA, Texto para Discussao 854, 2001. Extracted from the internet in November, 2004 in the site:

http://www.federativo.bndes.gov.br/bf bancos/estudos/e0001757.pdf

ICMS (the Brazilian states' VAT) is the most important source of revenue for the more developed states, and an important source of income for all the states. Annex I shows

some data to illustrate the importance of ICMS for the Brazilian states. In Sao Paulo, the most developed state (that represents 33.4% of the Brazilian GDP), ICMS represents 71% of total state revenues (including transfers from federal government).

Decentralized expenditures require decentralized revenues for subnational units apart from transfers from other government levels. Mc Lure (2001) argues that the key benefit of decentralization is the ability of subnational levels of government to choose the level and the nature of public spending. If a subnational government is able to choose the level of spending and to control its revenues, at least at the margin, it can offer to people the bundle of services they are willing to pay for. Total decentralization, on the other hand, may cause economic distortions and lead to an insufficient level of revenue due to tax competition. Decentralization needs coordination to be economically efficient.

The key rules to decentralize taxation are McLure (2001):

- ? Benefit-based taxation: if subnational governments can choose the nature of public spending and charge the cost from the beneficiaries of these services, then people are more likely to get what they pay for than if the services are provided by a central government.
- ? The role of tax competition: if there is a relation between public services and taxation, tax competition has the benefit of protecting businesses and households from taxation that does not reflect the benefits of public spending. McLure argues that competition is desirable, and that when tax competition undermines public revenues, generally it should be taken as evidence of a faulty tax system.
- ? Residence/destination based taxation: destination based taxation is more likely to reflect benefit to taxpayers than origin based taxation. It is also unlikely to distort the location of economic activity or to result in tax competition.
- ? Exemption/deduction of business purchases: a value added tax must allow credits from the previous business purchases.
- ? Simplicity: an origin based tax system is more likely to be simple than a destination based tax system.

Real world tax systems seldom fit all these requirements. Mc Lure briefs the international experience with sales taxes in the European Union, United States, Canada, Australia and Mexico, illustrating the taxation policy options. He concludes that this international experience cannot reveal a way for Brazil to design and administrate a destination based tax system, but can teach valuable negative lessons. McLure proposed, in another paper

(2000) a tax system for Brazil, Mexico and Argentina. This proposal will be discussed further.

# 2.2 - VAT AS SUBNATIONAL REVENUE

The traditional theory of fiscal federalism prescribes that subnational governments must be given taxes that: are easy to administer locally, are imposed mainly on local residents and do not raise problems of harmonization or competition (BIRD). Among the major revenues, property taxes are usually seen as able to fill those requirements.

BIRD<sup>2</sup> argues that the subnational revenue structure requires re-examination, considering that local property tax cannot finance major social expenditures, and that international experience suggests that subnational governments carrying out important expenditure functions are more likely to do so responsibly the more they are responsible for raising the revenues they spend. He also analyzes some taxation alternatives, such as user charges, property taxes, excise taxes, personal income taxes, payroll taxes, consumption taxes and business taxes. He sees VAT as a potentially promising alternative for both subnational and national revenues, and recognizes that VAT may, over time, become the most important source of subnational revenue in at least some larger federal countries.

# User charges

User charges, such as service fees, public prices and benefit charges are economically efficient - they can be seen as a cost reimbursement from the private to the public sector. They charge only individuals who are willing to pay for the good or service, and must be used whenever it is possible. However, in most countries user charges provide small revenues, and cannot finance the major public expenditures.

# Property taxes

Property taxes have very desirable features suitable to local governments, for the reasons shown in the first paragraph. They are also visible to taxpayers, who link the services provided by local governments to the amount of taxes they pay. However, since this tax is usually levied over an estimated value of the property, the administrative costs of these taxes are not negligible, and the assessment of values is always subject to appeals and pressures for tax relief. Furthermore, the tax base does not have enough elasticity to finance elastic expenses such as education and health. Finally, although property taxes

<sup>&</sup>lt;sup>2</sup> BIRD, R. M. Subnational revenues: realities and prospects

are attractive for many reasons, they can seldom provide enough revenues to finance government expenditures.

#### Excise taxes

Excise taxes levied on products such as alcohol, tobacco and fuel can be a significant source of revenue to regional governments. Such taxes can be easily administered by regional governments and have little distortion effects if applied on a destination basis. In countries such as the United States and Canada excise taxes represent an important source of revenues to the states. It should be considered, though, that the revenues provided are inelastic and should not be used as the main source to finance elastic expenditures.

#### Personal income taxes

Income taxes levied in the form of a surtax on the national income tax base is a major source of revenue in some countries, such as Scandinavian ones. These taxes are not usual in Latin American countries and could be explored as a possibility, in the case of a broad tax reform.

#### Payroll taxes

Payroll taxes are an important source of revenue to subnational governments in Australia, and some other countries such as Mexico and South Africa. BIRD argues that these taxes can be clearly administered if imposed on large enterprises at low rates, but they may act as a barrier to employment in the modern sector. Furthermore, they are already used to finance social security systems in some countries (such as Brazil).

#### Taxes on business

There are many kinds of regional and local business taxes, such as corporate income taxes, capital taxes, nonresidential property taxes etc. in many countries. They may cause distortion in resource allocation and their use as a subnational source of revenues demands further discussion that is beyond the objectives of this paper.

Bird makes a summary of his analysis of taxation possibilities for subnational governments and the need for a deeper look at sales tax: "In the end, the search for a regional revenue source that is both economically respectable and administratively viable, particularly one with some reasonable elasticity, in the context of most developing countries often comes down to a general sales tax. Excises, yes...to some extent; but there is not always that much money, and even less elasticity, in this revenue source. Much the same can be said with respect to user charges and local property taxes: use them sensibly and as fully as possible, but do not expect large and certainly not easily expandable tax revenues from these sources. Payroll taxes are in most countries heavily utilized to finance social insurance and not always a very sensible base for regional taxation. Regional—and perhaps even local—surtaxes on the central PIT make more sense, but are not very promising in the immediate future given the poorly developed nature of that tax in the context of most developing countries. This leaves only the general sales tax, as discussed further (...)."

Bird, Richard M. *Retinking Subnatiuonal Taxes – A new look at Tax Assignment*, IMF Working Paper 99/165, 1999, p.15. Extracted from the internet (*http://www.imf.org/external/pubs/ft/wp/1999/wp99165.pdf*) in November 15, 2004

# Subnational VATs

Value Added Taxes are the general sales tax found in many countries, rather than the retail sales tax. Generally, the VAT is assigned to be run from central government, and subnational VATs are considered undesired.

Among the problems of subnational VATs emphasized by analysts, Bird stresses:

- ? high administrative and compliance costs;
- ? possible loss of macroeconomic control and general reluctance of central governments to share VAT;
- ? problems related to interstate (cross-border) trade;
- ? it may cause economic distortion if levied on an origin basis, and may be unworkable if levied on a destination basis.

Three reasons are pointed in favor of Subnational VATs.

- ? the international trend of decentralization of governmental expenditure functions, what makes decentralization of important revenue sources desirable;
- ? in developing countries in which income taxes do not play a major role, there are no other large revenue sources than VAT to finance subnational governments;
- ? in a number of large countries sales taxes of various types are the main source of revenue for intermediate levels of government.

Brazil, India, Canada and Argentina currently tax sales at both federal and state levels,

and only Brazil and a few provinces of Canada levy a VAT at both levels (Bird, 1999).

#### **3 –ICMS: THE BRAZILIAN STATES' VAT**

In this section we will present some theoretical possibilities for a VAT structure and the main characteristics of ICMS – the Brazilian states' VAT. We will explain basic concepts and VAT terminology, such as the non-cumulative nature of VAT, possible variants, tax base, origin and destination principles. These concepts will provide us a frame in which we can fit the theoretical and real models of VAT, and are necessary to understand the features of Brazilian VAT also presented in this section, and of the proposed models that will be discussed later.

#### 3.1 - VAT TERMINOLOGY

In order to understand and discuss VAT systems it is necessary to be familiar with the terminology commonly used. This terminology refers to VAT structure and the way this tax is collected. As it will be presented, there are some options in which a VAT system can be built, and each country has to find the system that best fits its own characteristics.

#### Non cumulativeness

The main feature of a VAT is that it is a non cumulative tax. In essence, it is a multi-stage tax that is levied over the value added in each step of the chain of production. It is a way to avoid the cascading effect that happens when the tax amount previously paid is included in the tax base of the next operation. Basically, a non-cumulative system can be built using the credit method or the subtraction method.

In the credit method the amount of VAT charged must be explicitly shown in the invoice in any transaction. Generally speaking, each taxpayer will pay the government in each period of calculation the difference between the tax collected in all sales (debits) and the tax previously paid in all purchases (credits)<sup>3</sup>. In Brazil, a system of debits and credits is used so that the amount of ICMS paid in each operation provides a credit to the purchaser that can be used to compensate the debits generated by his sales. This system has the advantage to have a certain degree of self-enforcement since purchasers would require their suppliers to indicate the correct amount of tax in the invoice to be able to claim the

<sup>&</sup>lt;sup>3</sup> Each tax system has it own rules for the use of credits. In Brazil, for instance, the goods that are used or consumed by the purchaser allows no credit until 2007 (Complementary Law 87/1996, articles 20 and 33).

credits.

In the subtraction method, a VAT rate is applied to the difference between all the sales and all the purchases. Unlike the credit method, the amount of VAT does not need to be explicit in invoices. This system cannot use multiple rates of VAT.

# Possible variants

There are three possible variants of a VAT: the product type (P-VAT), the income-type (I-VAT) and the consumption-type (C-VAT) (Shome, 1995). These systems can be better understood using the GDP expenditure approach:

GDP = C + I + Gc + Gw + (X-M)

Where C is the final consumption, I is the gross investment, Gc is the final government non wage expenditure on goods and services, Gw is the government expenditure on wages and salaries, X are the exports and M the imports.

A P-VAT taxes all expenditures except the government expenditure on wages and salaries. It has the broadest base among the three variants, but, as it taxes capital goods, it has the negative effect of reducing investments.

A FVAT excludes depreciation from its base, and so it taxes the net investment expenditure rather than the gross one. This mechanism reduces part of the negative effects shown in the P-VAT. An FVAT also does not tax the government expenditure on wages and salaries. The base for I-VAT is:

GDP - Gw - D = GDI - Gw - D;

where GDI is the gross domestic income.

A C-VAT does not tax expenditures on capital goods and also does not tax government expenditures on wages and salaries. Although it has the narrowest base, it is economically the most neutral. Its tax base is:

GDP – Gw - I

#### Tax base

The tax base is a very important point to be analyzed in a VAT system. The broader the tax base is, the smaller it rates can be, to give the same amount of revenue. On the other hand, a narrow tax base may lead to tax distortions and does not stimulate investment.

A pure consumption tax VAT does not include capital goods in the tax base. Although it reduces the amount of revenue in the short term, it also works as an incentive to investment that will increase revenue in the long run. In Brazil the ICMS over capital goods can be recovered in a certain period of time (4 years).

Besides goods, a VAT system can include services too. Although the inclusion of final services (that are provided for ultimate customers) is desirable, the inclusion of intermediary services that are used as inputs in the production of goods or services may not increase the total revenue collected since it will be deductible in the VAT system. The compliance costs for both private and public sectors may not compensate for the benefit of a broader tax base in this case.

# Imports and exports to other countries

If equal competition is desirable, imports have to be taxed by VAT the same way internal goods are. Otherwise, if imports are not taxed, they will have a competitive advantage comparing to domestic production that includes the VAT tax burden in its price. Tariffs can be used as a policy to improve trade terms or protect domestic groups.

Exports are usually not taxed by VAT in an effort to give domestic products international competitiveness. However, exemptions for exports are not enough to totally free the products from the VAT tax burden, since VAT is embedded in the price of many inputs used in the production. In Brazil exports are exempted and, in addition, the exporters are allowed to use all the credits previously paid in the purchases.

# Origin vs destination principle

Under a destination principle, VAT is imposed on the value added of all taxable goods and services produced domestically. Under a destination principle, VAT is imposed on the value added of all taxable products consumed domestically. (Shome, 1995)

In an open economy, the adoption of origin or destination principles leads to different

treatments of imports and exports. Under the origin principle, exports are taxed and imports are not, and under a destination principle the reverse occurs. The destination principle requires border controls over imports, especially in the case of consumers crossborder shopping, in which the importing revenues cannot be recovered in the next step of the production-consumption chain. In an origin based system, controls are necessary to avoid under declaration of values on exports and over declaration of values on imports (because the value of imports or the credit embedded in imports is deductible).

# 3.2 - MAIN CHARACTERISTICS OF ICMS

In this part, we will present the legal structure of ICMS focusing on the federative issues involved. We will present the main constitutional and legal rules, stressing points such as interstate commerce, import and export of goods, fiscal benefits, tax rates, calculation of liabilities and others.

# The Brazilian VAT system

Brazil has two value added taxes (VAT). A federal one named IPI<sup>4</sup>, that charges the industrialized goods when they leave the industry, and a state one, named ICMS<sup>5</sup>, which taxes the circulation of goods in general. Interstate and intermunicipal transportation and the communications services are also taxed by ICMS. Other services enrolled in a list of services are taxed by a municipal tax (ISS<sup>6</sup>) that is not a VAT.

The ICMS legal system is quite complex. The main rules are established in the Brazilian Constitution, and a national complementary law (87/1996) establishes some national rules. Within the limits of the Constitution and the complementary law, each state has its own rules. In the following it will be presented a brief and simplified description of the main rules of the ICMS related to federative issues.

# Tax base

ICMS is charged on operations related to the circulation of goods and in the provision of services of interstate and intermunicipal transportation services and of communication services. Circulation is a broad term that includes all the transit of goods, such as sales and every kind of transference of property.

<sup>&</sup>lt;sup>4</sup> Imposto sobre Produtos Industrializados (Tax on industrialized products)

<sup>&</sup>lt;sup>5</sup> Imposto sobre Circulacao de mercadorias e prestacao de services interestadual e interminicipal de transporte e de comunicacao (Tax On circulation of goods and transportation and communication services, a value added tax levied on goods in general and some services)

#### Non-cumulativeness

ICMS is a non-cumulative tax, wich means that the previous paid taxes are allowed to be compensated in the following operations. It works in a system of debits and credits. In each operation, the tax paid in the purchase of a good provides a credit (whose value must be explicit in the invoice) that can be computed against the debits generated by the sales, even in interstate transactions. In a certain period of time (usually monthly) the taxpayer computes the total value of credits and debits. If the total value of debits exceeds the total value of credits (the common case) the difference constitutes the liability owed to the government. Nevertheless, if the reverse happens, the excess of credits can be used in the next period of liabilities computation.

# Interstate operations

The tax rates for interstate operations are set by the Federal Senate (Resolucao 22/1989). For operations from the states of the regions south and southeast to the states of other regions and to state of Espirito Santo, the tax rate is 7%. The other interstate operations are taxed by the rate of 12%.

When a registered taxpayer purchases goods from other states, he is allowed to use the tax paid for the state of origin in the interstate operation as a credit against his CMS liabilities. Thus, the ICMS paid for a state can be used as a credit against the state of the taxpayer. If the taxpayer is buying a good that will not be used in further operations, i.e., will not be sold nor used as an input, the purchaser has to pay his state the difference between the internal tax rate and the intestate tax rate.

In interstate trade, when the purchaser is a household or is not a registered ICMS taxpayer, the operation is taxed by the internal tax rate of the state of origin, which collects the revenues.

These rules were set to assure neutrality between internal and interstate operations. Unfortunately the interstate tax rate, if misused, provides the states a margin to give fiscal benefits in order to attract new investments without any expense to its treasury.

# Fiscal Benefits

According to the Brazilian Constitution, a Complementary Law must define the way benefits, exemptions and tax incentives should be allowed and canceled, through decision

<sup>&</sup>lt;sup>6</sup> Imposto sobre Servicos (tax on services, except those subject to ICMS)

of the States and the Federal District. Complementary Law 24/1975 states that tax benefits of any nature that results in direct or indirect reduction in ICMS burden must be approved by all the states and by the Federal District, and that the cancellation of tax benefits must be approved by at least 4/5 of the states present in a meeting.

#### Federal Senate attributions

Besides setting the tax rate for interstate operations, the Federal senate has the power to define some rules for the ICMS. The Federal Senate can set minimum tax rates for internal operations inside the states, and, in the case of a conflict between states, set a maximum tax rate in these operations.

#### Tax rates

The tax rates for internal operations are set by each state, but cannot be inferior to the interstate rates unless there is an agreement among the states. The most usual tax rate is 17%, although rates may vary depending on the product that is being taxed. The existence of different tax rates allows states to assign lower rates to essential food, which makes taxation less regressive.

# Calculation of ICMS

The ICMS liability in each operation is calculated applying the tax rate over the final price of a product. Consequently, the value of ICMS is included in the tax base. This system results in an effective tax rate higher than the nominal one.

For example, in a product which the final price is 100.00 and the ICMS tax rate is 18%, the ICMS liability would be  $18.00 = 100 \times 18\%$ . The value of ICMS (18.00) corresponds to 21.95% of the value of the product without taxes (82.00 = 100.00 - 18.00).

# Imports and exports

The imports of goods or services are taxed by ICMS the same way as if they were acquired in internal operations. It is necessary to assure fair competition between imports and national production. The proceeds of taxation go to the state of final destination of the goods or services.

All exports have not been taxed by ICMS since the end of 1996 (Complementary Law 87/1996), and exporters are allowed to use the credit originated in the acquisition of these goods against other ICMS liabilities.

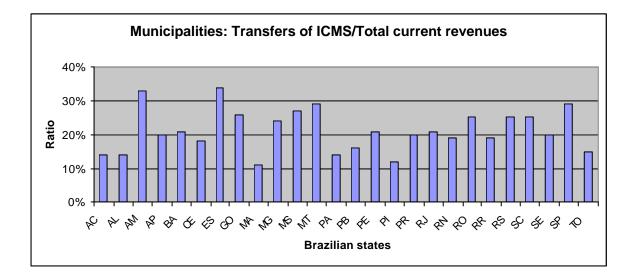
# The role of national Law

Although ICMS is a state tax, its structure is defined in the Brazilian Constitution, which also determines that a national complementary law<sup>7</sup> must rule some other issues. Among the attributions of the national complementary law, we can stress: define who the taxpayers are; define the system of tax compensation (debits and credits); rule the way in which the states can make agreements among themselves to give and cancel benefits and exemptions (National Complementary Law 24/1975).

# Distribution of ICMS revenues

The municipalities receive 25% of the total revenues of ICMS. The distribution of this value among the municipalities varies in each state, but the Brazilian Constitution rules that a minimum of 75% of the total amount must be distributed proportionally according to the value added in each municipality.

The following chart illustrates the importance of ICMS transfers to local governments. It shows the ratio between the total transfer of ICMS from states to municipalities in each state and total current revenues (including all taxes revenues, contributions, patrimonial revenues and all current transfers received) in the year 2001. The data used to calculate the ratios was collected in the site of the Brazilian Institute of Applied Economic Research (IPEA)<sup>8</sup>.



<sup>&</sup>lt;sup>7</sup> A complementary law requires the votes of the majority of all representatives to be approved, both in the House of Representatives and in the Senate. Other laws require only the votes of the majority of the representatives present in the voting session to be approved.

<sup>&</sup>lt;sup>8</sup> http://www.ipeadata.gov.br/

# **4 - SOME PROPOSALS FOR A SUBNATIONAL VAT IN A FEDERATIVE SYSTEM**

Because of its desirable characteristics, VAT is a form of taxation used in several countries. The most common case is the existence of VAT at the central level, but some federal countries adopt a subnational VAT (such as Canada and Brazil). The levy of a subnational VAT is more complex than a national one because it creates the necessity of coordination among the states of a federation. Then, some questions arise, such as taxation in interstate commerce, the competition among the states to attract investments, and others. This section will present a summary of some proposals for a subnational VAT that try to solve the main real problems that emerge according to international experience.

# 4.1 - THE VARSANO PROPOSAL

Varsano (1999) proposed a consumption-type, destination based dual VAT<sup>9</sup> whose main characteristic about interstate trade is the zero-rating state VAT and the application of a federal VAT. In internal (intrastate) operations, both state and federal VAT are levied, with different rates. In interstate trade, the federal VAT rate is higher than the federal VAT on internal trade by the amount of state VAT on internal trade. There is no state VAT on interstate trade. The rates of VAT are the same in all states.

Varsano did a broad analysis of the Brazilian subnational VAT stressing its main problems and some points that must be discussed in order to build a proposal. A summary of his work is presented and discussed in the following.

# The main problems of the current Brazilian states' VAT

The main problems identified in the Brazilian VAT system are (VARSANO, 1999):

- ? The existence of interstate rates that are (most of the time) lower than internal rates within the states is a loophole that is responsible for tax evasion. It provides an opportunity (and a stimulus) to simulate interstate operations in the case of real intrastate operations.
- ? Lack of uniformity in tax rules and rates among the states, despite the existence of

<sup>&</sup>lt;sup>9</sup> A dual VAT is a value-added tax charged by two levels of government (federal and state in this case) on the same tax basis. A consumption type VAT is limited to consumption goods only, not including services. The destination and origin principles are detailed in chapter 2.

a national general rule for the state VAT (Complementary Law 87/1996). This lack of uniformity results in high compliance costs and hinders international tax harmonization.

- ? Complex and burdensome administration (both to taxpayers and to the public sector) due to the existence of a federal and a state VAT.
- ? The exclusion of services in the tax base introduces some level of cumulativeness in the taxation system.
- ? Inability to generate reasonable level of revenue to less industrialized states.
- ? Undesired redistribution of revenue among states in exports to other countries.
- ? Fiscal war: disputes among states competing for new plants which generate misallocation of resources and consequently inefficiency from an economic perspective.

# Fiscal War

Competition among the states without coordination results in damage to all states. To avoid investment losses, all states offer similar benefits to new companies. And the firms that are already installed also ask for tax reductions to assure fair competition. After some time, the benefits lose their attractiveness and the companies decide their location according to production facilities such as infrastructure, which are better in the more developed states. In the end, the developed states win the battle, but taxation is at a lower level.

In the current VAT system, the state of destination has to support the credits from the interstate operations. When a state offers a benefit of partial or total refunding of the VAT, the company which receives the benefit is not actually paying the taxes that will be supported by the state of destination. In the end, it is the state of destination that is paying the incentive bestowed to the companies. The adoption of a destination based VAT would reduce the stimulus to these incentives fueled by interstate rates in an origin based system.

#### Important issues to design a new system

After stressing the malfunctions of the Brazilian VAT system, Varsano argues that simplification is a immediate necessity and a goal that must be pursued in a tax reform. The solution seems to be a dual VAT with a single set of legal norms. Of course, the change from the current system to the new one should be consistent with smooth transition and low risk of affecting the fiscal adjustment process in progress.

Regarding this conclusion, Varsano discussed three important questions related to the proposed changes and the autonomy of subnational governments.

# Inclusion of services in the tax base

The first question is: should the new VAT system include services currently subject to the municipal ISS? There are pros and cons in this inclusion.

The arguments in favor are:

- Pecause sometimes goods and services do not have a clear distinction for taxation purposes, services are stated in a list which must be revised frequently because the service sector is dynamic and new services are always been created.
  I think that the existence of this "gray border line" between goods and services may result in compliance difficulties. Sometimes taxpayers get in doubt if a service should be taxed by the ISS or by ICMS, and in some cases, if the legislation is not
  - clear enough, both the municipal and the state governments charge the taxpayer. There is a vertical tax competition to tax some intermediate services, such as partial industrialization of goods (seen as a step of production by the states and as a final service itself by municipalities).
- ? Many municipalities have a very narrow base to tax<sup>10</sup>. Only big cities have significant revenue with this tax.
- ? There is a strong competition between municipalities to attract taxpayers, since changing in domiciles are quite inexpensive. This starts a race to the bottom in taxation rates which damages the revenues of all municipalities. To slow down this competition, a Constitutional Amendment (37/2002) ruled that a Complementary Law must define the minimum and the Maximum tax rate for the ISS.
- ? Families with higher incomes tend to consume more services than families of lower income. If tax rates of services are lower then tax rates of goods, the tax system becomes more regressive.
- ? Exports of good are not completely exonerated if they have inputs taxed by ISS.

The arguments against are:

<sup>? &</sup>lt;sup>10</sup> Varsano presents an estimate based on an ongoing research of IPEA that the two major brazilian cities (Sao Paulo and Rio de Janeiro) accounted together for 43,6% of the total ISS collection in Brazil.

- ? VAT assessments of services can be far more complex than that of goods. It requires special tax norms that should be developed, based on the experience of other countries.
- Substitution of value added taxation of services for the ISS can shrink the revenues currently collected. In fact, ISS is not a non-cumulative tax, and some services are used as inputs for others. In a VAT system, the taxes over the inputs would be deductible from the taxes over the final services, and the final result would be a lower total revenue. Besides, I think it should be considered that if services were included in VAT basis, they would be deductible in the taxation of the final goods too. Since many services are consumed by firms that produce goods taxed by the ICMS, if the tax levied over these services would be deductible the final result of an inclusion of services in the base of the VAT in the total VAT revenue would not be very expressive.

The inclusion of services in the value added tax would result in a decrease of the municipal revenue and in the taxation power of local governments. In addition, it may not be interesting for the state governments since it would increase compliance costs and are likely to generate a poor increment in the total revenue. Despite there are sound economic reasons to include services in the VAT bases, mainly the benefits of non-cumulativeness, politically it can be undesired.

# Autonomy of the states

The second question is related to the loss of taxing power for the states and the influence in the fiscal autonomy.

Despite the 1988 Constitution gave the states the power to establish their own VAT rates, Varsano says that in practice this power has seldom been exerted, since a small dispersion of rates among the states can be observed. He also argues that it seems that state authorities are prepared to accept that central government has exclusive power to legislate on VAT, for they are convinced that present tax disorder hinders economic growth and is thus prejudicial to their own finances.

A national legislation is not incompatible with the states' power to determine internal VAT rates. From the perspective of fiscal federalism theory, it is desirable that states have power to establish their revenue level choosing VAT rates. However, it could lead

to economic distortions.

Both in the case of destination and restricted origin principle, if rates differ among jurisdictions, there would be stimuli to households and non-registered traders to buy in the lowest tax area if the difference in taxes compensates transportation, transaction and information costs. If consumers have an advantage by buying in other location, this advantage expresses the economic distortion caused by VAT.

Varsano argues that a reasonable compromise between autonomy and distortion costs would perhaps be reached if the law established a national standard rate and allowed the states to fix their own rates within a range around it.

#### Interstate trade

The third question is about interstate trade and the use of the destination principle as a general rule for border tax adjustments.

There are some problems associated with the adoption of a restricted origin based VAT with interstate rates. In Brazil, interstate rates are set by the Senate and are lower than the internal rates within the state. It provides stimuli to small registered traders who pay a fixed amount or a proportional one related to the value of their sales and to tax defrauders to buy inputs in other states. And, the lower the interstate trade rate is, the greater is the incentive to purchase out of the state. The difference between the internal and the interstate tax rates provides a margin that can cover the transportation costs. Considering, for instance, an internal rate of 17% (usual in many states) and a interstate rate of 7% (applied in Brazil in the transactions from the industrialized to the non-industrialized states), a retailer outside the state would have a margin of 10% related to another inside the state. For tax defrauders that would need to omit purchases due to their understated sales, there would be an advantage of purchasing from other state. Thus, a zero-rated interstate VAT could cause greater distortions compared to the adoption of a restricted origin principle VAT. In this sense, a pure origin based VAT is the best alternative to avoid tax evasion.

# **Destination principle**

The destination principle would also avoid the so called "fiscal war" among the states. In other to attract investments, the states usually give financial incentives for companies through partial or total devolution of the VAT paid, usually as a long term credit with low or zero interest rate. According to the Brazilian laws, a state can only give fiscal incentives if it is authorized by all states. However, as these rules have not been enforced, many disputes among the states have been happening since the early 1990's.

Varsano stresses that interstate taxation in a part origin part destination based VAT promotes some distortions in the distribution of the revenue among the states. The adoption of a destination principle VAT would correct some of this distortions and benefit the non industrialized states, who are net importers. Varsano also gives some illustrative examples of distortions:

- ? When an exporter buys taxed inputs from a supplier localized in a different state, the state of the exporter has to allow him the credit paid on the inputs. As exports to other countries are not taxed, the state of the export has to support the credit of the tax paid to another even though not reciving any revenue;
- ? It is difficult for a state to implement a policy of low taxation over essential goods when these goods come from another states. If the final tax rate is below the interstate rate, the state will not only lose revenue due to the lower internal tax rate, but also due to the credits from the other state that may overcome the debits of the intrastate sales.

# The proposal

After studying the features of the current Brazilian VAT, Varsano proposed a new model that should overcome its main problems. The model is called "the little boat", and was first described in 1995 (IPEA - Texto para Discussao 382), amid the debates of the tax reform. An improved version was presented in 1999 (Subnational Taxation and Treatment of Interstate Trade in Brazil: Problems and a Proposed Solution), and its main characteristics are discussed in the following.

Varsano proposed a dual destination-based VAT with federal and state rates collected in the state of origin. In internal operations, the VAT is collected by both federal and state governments, with different rates. In interstate operations, the state tax is zerorated and the federal rate equals the sum of federal and state rates in internal operations. In this case, the state tax is embodied in the federal tax, the VAT is also collected at the origin and the central government provides a credit to the importer in the other state. Both in interstate and internal sales the taxpayer would be charged in the same amount, although the proceeds would be shared between state and federal governments in a different way.

In the case of non-registered traders, households or small registered traders that are not charged according to the VAT system, the state tax would also be paid to the central government, which would share the proceeds among the states in proportion to their respective own VAT revenues. In the case of cross-border shopping, where it is not possible to identify the domicile of the purchaser, the origin tax should be applied. Exports for other countries are not subject to neither federal nor state VAT taxes.

Taxes paid to central government provide credit against federal liabilities, and taxes paid to a state government provide credit only against liabilities to this state. Taxes collected by a state do not allow credits neither against other state nor against the central government.

States could fix their tax rates within an interval centered in a national standard rate. It would provide a certain degree of autonomy to the states, though it may in some cases lead to some losses due to cross-border shopping. It is the trade-off between autonomy and fiscal competition discussed previously.

# 4.2 - THE MCLURE PROPOSAL

McLure (2000) analyzed the Varsano proposal, wich he called a "compensating VAT" (CVAT), and suggested some modifications to improve it. McLure considered some features of Varsano's proposal essencial, such as zero-rating state VAT in interstate operations, deferred payments on interstate imports by registered traders and uniform federal and state tax base.

McLure stressed the trade-off between uniform tax rates and autonomy of the states. In one hand, the choice of a uniform rate would bring benefits by simplifying tax administration and minimizing distortions, but at the price of a reduction in the autonomy of the state – one of the main reasons to assign revenues to state governments.

The main features of McLure proposal are the following (McLure, 2000):

? Uniform definition of state and federal tax base;

- ? Uniform administration, including all relevant laws;
- ? VAT rates set by the individual states;
- ? Zero-rating state VAT of all interstate exports;
- ? Application of the CVAT ("compensating VAT") to all interstate exports;
- ? Credit for CVAT on interstate imports by registered traders<sup>11</sup>;
- ? Exports to other countries are exempted.

Registered traders are allowed credit for the local VAT in local purchases and for CVAT in interstate purchases. Sales to households and unregistered traders in other states are subject to the CVAT. There would be only three rates: an ordinary federal rate in all sales, a state rate in intrastate sales and a CVAT rate in interstate sales. It is important for compliance and administration purposes to distinguish between interstate and intrastate sales. Since interstate operations between registered traders are zero-rated for the state of origin, it has to refund the purchaser in the state of destination any taxes previous collected.

McLure provides an example that is very useful to illustrate the way of his proposed system works. It is an operation that occurs in three stages. The first stage happens in state A, which VAT rate is 4%. The second stage is an interstate operation between states A and B, and the third stage is a sale to a household in state B. The ordinary federal VAT rate is 20%, the CVAT rate is 6%, and the state B VAT rate is 8%.

Although this system has many desirable features, such as the possibility of a great level of coordination between the states and the federal governments, what could improve compliance, and the preservation of the states autonomy to set tax rates, the need for states to refund the VAT burden prior to interstate operations is a weak point. Cash problems and the need for audit proceedings may cause delays in the refunding process and make this system infeasible due to the damages for firms which have a great level of interstate operations.

<sup>? &</sup>lt;sup>11</sup> McLure suggests that it would be appropriate to to treat all sales of digitalized content over the internet as interstate exports subject to CVAT

Stage	State A (4%)	State B (8%)	Federal VAT	CVAT (6%)	Total
			(20%)		Federal
					liability
Stage 1 (in	$D_{VAT(A)} = 4$	n.a.	$D_{VAT(FVAT)} = 20;$	n.a.	20
state A)	$C_{VAT(A)} = 0;$		$C_{VAT(FVAT)} = 0;$		
P = 100.	$L_{(A)} = 4.$		$L_{(FVAT)} = 20.$		
There are no					
previous					
credits of					
any kind					
Stage 2	$D_{VAT(A)} = 0;$	n.a.	$D_{VAT(FVAT)} = 40;$	D <sub>VAT (CVAT)</sub> =	32
(from state	$C_{VAT(A)} = 4;$		$C_{VAT(FVAT)} = 20;$	12;	
A to state	$L_{(A)} = -4.$		$L_{(FVAT)} = 20.$	$C_{\text{VAT}(\text{CVAT})} = 0;$	
B)	State A has to			$L_{(CVAT)} = 12.$	
P = 200	refund the				
	purchaser in				
	state B the				
	value of 4.				
Stage 3 (in	n.a.	$D_{VAT(B)}=24$	$D_{VAT(FVAT)} = 60;$	$D_{VAT(CVAT)} = 0;$	8
state B)		$C_{VAT(B)} = 0;$	$C_{VAT(FVAT)} = 40;$	$C_{VAT (CVAT)} =$	
P = 300		$L_{(B)} = 24.$	$L_{(FVAT)} = 20.$	12;	
				$L_{(CVAT)} = -12.$	
				This value can	
				be	
				compensated	
				with the	
				ordinary federal	
				VAT liability.	
Total	=4-4=0	= 8			= 20 +
Liability					32 + 8 =
					60

# 4.3 - THE MAIN POINTS OF THE CURRENT PROPOSAL FOR BRAZILIAN TAX REFORM

A proposal of Constitutional Amendment to reform ICMS is currently being debated in the Brazilian Congress (PEC 285 that stems from PEC 255), and can be modified since there is not a consensus regarding some important issues. Although this proposal can be changed in the Congress, its main points will be presented in the following.

# Creation of a single national legislation for ICMS

There would be a single national legislation for the ICMS. The states would not be allowed to have their own rules. A national complementary law would rule the main points of the tax structure, such as: the taxpayers, which facts would generate the obligation to pay the tax, liabilities, attributions and operations of an agency composed by representatives of all the states, the federal district and the Union and the rules of administrative litigation related to violation of taxes rules. This complementary law would also rule about penalties, such as retaining of grants, for the states and the federal district if they violate the rules of ICMS.

Another important issue is that the national law would determine the obligation to taxpayers to send information about all their operations to an integrated system that would be accessed by tax administrations of all states.

# Tax rates

The tax rates would be settled by the federal Senate. There would be only five tax rates, applied to all the country, and the maximum rate would be 25%. In addition, the federal Senate would also settle a "rate of reference" for interstate operations.

The smaller tax rate would be applied to essential food items, to low consumers of electrical energy, to machines and implements used in agriculture, to inputs for farming and cattle raising and to medicine for human use.

An agency composed by representatives of all the states, of the federal district and of the Union would define which tax rate would be applied to each good or service, and the final resolution must be approved by the federal Senate.

# Interstate operations

Compared to the current ICMS system, the proposal moves forward to a destination based

VAT, although it keeps some features of a hybrid origin/destination based system. In interstate operations, the total liability would be calculated applying the tax rate for the good or service. The state of origin would collect the amount generated by the application of the rate of reference, and the state of destination would collect the difference between the total liability and the amount paid to the state of origin. If the tax rate is smaller than the reference rate, the state of origin would collect all the VAT.

The distribution of VAT revenues in an interstate operation would depend fundamentally on the rate of reference. The proposal states that in the transition (the first two years) between the current system and the new one the rates of reference should be settled aiming to preserve an equilibrium compared to the present system.

According to rules that would be determined in a complementary law, the collection of the tax in interstate operations might be done in the state of origin. A complementary law should also define how the state of destination would receive the tax revenues generated in interstate operations.

#### Fiscal benefits

Tax benefits are allowed only in few cases, such as exemptions to essential food goods, to inputs for farming and cattle raising, to medicine for human use, and to situations related to international trade. The states would not be able to concede future fiscal benefits or even to extend the term of the existent ones. A complementary law would determine a maximum term for the current fiscal benefits that should not be longer than eleven years.

#### Capital goods

A national law would exempt the purchase of permanent assets related to business activities, through compensation of the VAT in 48 monthly parcels.

#### Agency

An agency composed by representatives of all the states, of the federal district and the Union would be created, and would take decisions approved by at least 4/5 of its components. Among these attributions, this agency will be responsible to elaborate the regulation piece for the national VAT (subordinated to the national laws), to allow the payment of fiscal debts in parcels, to determine the ways and the terms for the payment of the tax, and to define criteria and procedures of control in interstate operations.

#### Transition

In the transition to the new VAT system, the states would be allowed to set an additional tax rate, until 5%, for the maximum of 4 goods or services that had a higher tax rate in the previous system. The sum of the rate and the additional state rate cannot be higher than the tax rate for the good in January 1, 2003. The additional tax rate could be settled for three years, and after that would be reduced by 1% a year until it ends.

A national complementary law would define a compensation system for the states that would have losses in the new system. If the revenue losses are bigger than the compensation given to a state, this state can set the additional rate previously mentioned for four goods and services without the restrictions.

Another proposal of Constitutional amendment (PEC 293) rules that the Brazilian Tax System would be reviewed in 2007, with the objectives of simplification and rationalization, and aiming to transform some of others Brazilian current taxes into VATs. In this opportunity, a new system of distribution of taxes revenues would be implemented considering the changes in the tax system. It reflects the desire of a broader tax reform aimed at the entire tax system, and not only at ICMS.

#### <u>Comments</u>

The establishment of a unique law for the Brazilian ICMS replacing the 27 currently existent (from 26 states and from the federal district) seems to be a step towards simplification and reduction of compliance costs. However, this simplification comes at a cost. It would be a huge reduction in the autonomy of the states, which would not be able to adjust their revenues according to their expenditures. And it should be remembered that one of the main reasons to give some taxation power to subnational governments is to preserve their autonomy.

The possibility for the states to impose an additional tax rate with the maximum value of 5% in the transition period is a way to adjust the states' revenues in the short run. If a certain degree of autonomy is desired, this mechanism should become permanent.

Furthermore, the great economic differences among the states, related to the size of the economy and the economic activities makes the establishment of a single national legislation a very difficult task. The debates related to the details of this legislation can last for a long time, especially with the need of 4/5 of the states to be approved. An alternative

would be the remaining of some regulation power to the states although the main issues would be ruled by a national regulation. This would assure a reasonable level of tax uniformity all over the country and preserve a certain level of autonomy that is desired in a federation.

The proposed mechanism of definition of tax rates can result in a higher tax burden, since the states tend to be conservative and assign the higher tax rates (among the five national tax rates defined by the federal Senate) to goods and services that can provide greater revenues. The assignment of the lowest tax rate to essential food is a good point that can contribute to poverty reduction.

The changes in interstate operations can result in great losses for some states, especially for the more developed ones which are net exporters in interstate commerce. It is estimated that net interstate revenues correspond to 15% of the ICMS revenues of the state of Sao Paulo<sup>12</sup>. Thus, to preserve federative equilibrium, the interstate "rate of reference" should be established in a way that avoids great losses of revenues, otherwise some federal transfers would be necessary to compensate these losses.

The collection of taxes in interstate operations is a question that is not well defined the amendment. And it is a very important point to be established in a subnational VAT in a federation. It seems that it would be collected in the origin and the amount that is owed to the state of destination would be transferred through some compensation system, but the operation of this system would be defined in a national complementary law.

The end of the power of the states to concede fiscal benefits is necessary to end fiscal competition through VAT. It should be remembered, however, that in the current system the concession of fiscal benefits must be approved by all the states in a Council named CONFAZ. This rule has not been enforced, and it is necessary a political commitment among the states to establish a VAT system which rules will be obeyed.

<sup>&</sup>lt;sup>12</sup> "Reforma Tributaria, dogmas e detalhes". Article published in the Brazilian newspaper *O Estado de Sao Paulo* in April 16, 2003.

# **5 - CONCLUSIONS**

The improvement on the efficiency of public expenditure is an objective always pursued by policy makers. Decentralization is largely used as a way to achieve higher levels of efficiency in public management, and is especially desirable as a policy in huge countries such as Brazil.

In a federal system decentralization is made by transferring some attributions to regional levels of government with a certain degree of autonomy. The set of attributions that must be assigned to subnational units and the role of central government are questions to which neither public finance theory nor international experience can provide simple answers. The best federative arrangement depends on cultural and historical characteristics of each country and needs to be established through a political agreement.

Decentralization of public expenditure must be associated with the assignment of relevant sources of revenues to subnational governments. Otherwise the provision of public services would be subjected to political influences that often affect governmental transfers. Once subnational governments are responsible for elastic expenditures such as health, education and security, they shall have access to elastic sources of income. As the assignment of personal income taxes to subnational units do not seem to be politically feasible in many developing countries, sales taxes such as VAT seem to be a convenient source of tax revenues to finance the expenditures of regional governments.

Many federal problems may stem from the operation of a subnational VAT. Difficulties in compliance, tax evasion in interstate operations, high administrative costs and disputes among the states to attract investments are weak points of the Brazilian states' VAT. A solution for these problems requires the design of a new model with a simpler and more uniform legislation and a high level of cooperation among tax administrations. The new system must allow a relative degree of autonomy for the states (what is desirable in a federation) and must provide a stable equilibrium in the federation. Practical issues related to the feasibility of the collection must also be considered to assure low levels of tax evasion.

The models presented in this paper try to provide solutions for the main problems associated with subnational VAT. The major questions to be solved are the adoption of an origin or a destination based system and how to tax interstate trade using the method of debits and credits. A dual VAT levied by both federal and state governments is suggested

in the literature. A great level of coordination of tax administrations efforts seems to be the key for a workable subnational VAT.

Although the main ideas stressed in the models bring great contributions that are quite helpful in the design of a new tax system, there is still a long way to go to achieve a feasible model that preserves the autonomy of the states. From a pragmatic perspective it should be recognized that technical studies may not be enough to build an adequate subnational VAT system acceptable by all the states, since political questions play a great role and, in essence, a constitutional amendment is a political event. But surely theory provides guidelines to conduct political debates toward a rational tax system suitable to Brazilian federation characteristics.

Many points of the current proposal of the constitutional amendment for Brazilian states' VAT tax reform could be improved. Some tough issues are not well defined, such as how taxes would be collected in interstate trade and the compensations for losses in the transition period if a destination based system is adopted. A solution for these problems can be reached through a tax system with a great level of cooperation and coordination among the states.

One of the major problems of the current Brazilian states' VATsystem is that it has been used by some states to attract investments – the so called "fiscal war". It should be considered that maybe the overuse of state taxation to attract investments stems from the lack of a development policy able to generate balanced growth for all the states. Such a policy does not need to sacrifice the more developed states to benefit the poorest ones. Instead, Brazil needs a balanced federative system where the states can achieve growth with sound public policies to attract investments balanced with policies of inequality reduction. In order to consider all these aspects, perhaps it would be better to discuss subnational taxation in the context of a broader federative reform considering issues such as regional development, the attributions that should be assigned to the states and the suitable sources of revenue to finance them.

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# ANNEX I - THE IMPORTANCE OF ICMS FOR THE STATES OF BRAZIL

ICMS is the main source of revenue for many states in Brazil, especially for the more developed ones. Any change in its structure can affect the economy of many states in different ways and, for that reason, it is very difficult to reach a consensus among the states about an ICMS reform.

The following table illustrates the importance of ICMS for the Brazilian States. It shows the ratio between ICMS and the total current revenues (includes taxes, contributions, revenues generated by state properties and grants) from 1998 to 2001. The last column provides a measure for the size of the economy of each state, showing the ratio between the state and the national GDP.

	STATE	ICMS divided by total	Participation in	
		current state revenues	national GDP	
		Year 2001	Year 2001	
AC	Acre	15%	0.2%	
AL	Alagoas	39%	0.6%	
AM	Amazonas	60%	1.7%	
AP	Amapá	15%	0.2%	
BA	Bahia	54%	4.4%	
CE	Ceará	46%	1.8%	
DF	Distrito Federal	26%	2.8%	
ES	Espírito Santo	67%	1.9%	
GO	Goiás	63%	2.1%	
MA	Maranhão	29%	0.9%	
MG	Minas Gerais	60%	9.5%	
MS	Mato Grosso do	55%	1.1%	
	Sul			
MT	Mato Grosso	52%	1.2%	
PA	Pará	40%	1.8%	
PB	Paraíba	39%	0.9%	
PE	Pernambuco	44%	2.6%	
PI	Piauí	31%	0.5%	
PR	Paraná	57%	6.1%	
RJ	Rio de Janeiro	53%	12.3%	
RN	Rio Grande do	40%	0.8%	
	Norte			
RO	Rondônia	45%	0.5%	
RR	Roraima	18%	0.1%	
RS	Rio Grande do Sul	64%	7.8%	
SC	Santa Catarina	65%	3.9%	
SE	Sergipe	34%	0.7%	
SP	São Paulo	71%	33.4%	
ТО	Tocantins	27%	0.3%	
TOTAL		57%	100%	
Eanta: IDEADAT/				

Fonte: IPEADATA

The third column shows the ratio between the total ICMS revenue collected by the state in 2001 and the total current revenues (including all taxes revenues, contributions, patrimonial revenues and all current transfers received). The fourth column shows the participation of each state in GNP. The data used to calculate the ratios was collected in the site of the Brazilian Institute of Applied Economic Research (IPEA): http://www.ipeadata.gov.br/

The existence of great economical disparities among the states reflects in different positions related to a tax reform. For some states, grants from federal government are more important than ICMS revenues, and they want a tax reform that creates or increases the federal funds that provide transfers to the states. For the more developed states, ICMS is an important source of revenue, and any change in the present VAT system may cause major losses that have to be compensated. The following chart shows a positive correlation between state GNP and the relative importance of ICMS.

