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The Brazilian Fiscal System in the 1990s:

Equity and Efficiency under Inflationary Conditions

Mauricio Coutinho

THE BRAZILIAN FISCAL SYSTEM IN THE 1990s: EQUITY AND EFFICIENCY UNDER INFLATIONARY CONDITIONS

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The Brazilian Fiscal System in the 1990s: Equity and Efficiency under Inflationary Conditions

Introduction

The overwhelming impact of inflation on the Brazilian economy after 1982 biased analysis of the tax system towards an exclusively macroeconomic approach. Analysts want to know whether there is a public deficit or not, at most being attentive to crude tax performance indicators such as the share of the tax revenues in the Gross Domestic Product. Since there are links between the fiscal budget and the financing of social security, and since the public debt links monetary and fiscal policies, there is room for controversy in the simple definition of budgetary equilibrium and, as a consequence, in the prescription of anti-inflationary policies. It is not difficult to understand the irresistible and endless appeal of these controversies, but it is not easy to accept the abandonment of the efficiency and distributive concerns that usually accompany traditional public finance and microeconomic perspectives – not least because they may contribute to the refinement of our view on public activities and shed some light on inflation problems.

By contrast, what could be called the tax structure approach, especially prominent in constitutional reform periods, sometimes bypasses the anti-inflationary aspects of budgetary practices. From time to time – and at a very secondary level until 1994 – social security financing dilemmas and a faint worry over redistributive and equity matters emerge, but the almost permanent issue of debate with this approach has been the distribution of fiscal responsibilities (on the revenue and on the expenditure sides) between federal, state and municipal government. However, high inflation itself impacts on tax performances in such a way as to subvert the constitutional rules that regulate equity and the distribution of the tax burden.

By means of an analysis of the tax revenue performance within the period 1989-93, this paper aims to provide further insights into the relation between inflation and fiscal structure in Brazil, stressing issues of distribution and equity. This paper gives: (a) a brief summary of the Brazilian fiscal system under the 1988 Constitution; (b) a description of the federal experience in sharing revenues; (c) a comment on the effects of inflation on revenues and budgetary results; (d) an overview of the tax performance in the period 1988/93; (f) a review of equity and allocative effects.

The text is based on budgetary data on federal and state taxes and, due to the lack of reliable information, leaves aside local government revenues. The poor reliability and the scarcity of fiscal data in general provide weak quantitative support for some conclusions. As a consequence, the text should also be seen as a preliminary enquiry into the Brazilian fiscal structure, at some points supported more by logical inferences and scattered information than by complete statistical evidence.

The absence of concluding comments on the ongoing fiscal reform process, embodied in the 1995/96 constitutional revision, is due to the lack of clear outcomes as yet; however, the following introductory remarks include a general appraisal of the polemical issues in the current debate, designed to act as a backdrop for the 1988-93 period.

As I will attempt to show – and this conclusion applies to a span of time larger than the period looked at here – the relationship between the constitutional text and subsequent economic performance is never straightforward in Brazil. It follows a quite tortuous pattern. Fiscal matters have been one of the favourite victims of a sort of trendy legal fetishism, which attributes to the law all the existing economic and social evils. This paper takes an opposite view: my purpose is to show why the legal rules, and especially the constitutional rules, do not explain everything, at least in the fiscal field. If this proves to be a sensible approach, the paper should also be taken as a recommendation for broader studies into the (limited) economic consequences of the legal setting.

The year 1994 established a dividing line for the tax system proposed by the 1988 Constitution. On the one hand, the enduring stability of prices, resulting from the Real Plan (Plano Real), strongly influenced the performance of budgetary revenues and expenses. On the other hand, and apart from the stabilisation programme itself, the Fundo Social de Emergencia (FSE), a fiscal device created prior to the decisive phase of the Real Plan, transformed the distribution of fiscal revenues among the Union, the states and the municipalities, in favour of the Union.[1] Both factors contributed to put aside the immediate risks of budgetary deficits, lowering the fiscal constraints on stabilisation. Besides, the FSE has meant, in a sense, the end of the controversial state-federal balance achieved under the 1988 Constitution.[2]

Several factors favoured central government in the first year following the launching of the Real Plan. To the end of inflation, which eliminated the losses

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[1] A detailed description of the Brazilian tax structure and revenue-sharing practices is presented below. The FSE, established by the Revisional Constitutional Amendment 01/94 and enforced in the same year, spared from the constitutional tax transfers a share corresponding to 20% of the Tax on Industrial Production, and smaller percentages in the case of income tax. Besides, it increased the income tax burden and created additional sources of revenue on behalf of the Union. Under the name of Fiscal Stabilisation Fund, and with minor changes, the FSE was prolonged by Congress at the beginning of 1996.

[2] State-federal balance and revenue-sharing are discussed in Section 2. Approximately 80% of the FSE resources were to be obtained through redistribution, in favour of the Union, of amounts previously in the hands of states and municipalities.

provoked by the lag in tax collection, must be added a decisive set of events: the increase in imports (and in import tax revenues), new legislation altering income tax paid by legal entities, and the end of the legal questioning of the Finsocial/Cofins.[3] These generated revenues that more than compensated for the loss created by the expected end of the provisional Tax on Financial Transactions; altogether, they guaranteed a 9.2% boost to the overall federal tax revenues in the first semester of 1995, compared to the same period in 1994. Most importantly, this positive impact was not outweighed by the symmetrical negative salary-bill shock, typical of stabilisation periods, since the URV (a kind of transitory quasi-currency, preparatory to the launching of the new currency) had already indexed all salaries from March 1994 onwards.[4]

Although presented as an emergency stabilisation mechanism, the FSE also addressed the core of the Brazilian state-federal problem. A commonly held view attributes part of the explanation for price inflation to the 1988 Constitution, under the motto 'The constitution has decentralised the revenues but not the duties'. As a matter of fact, there is strong evidence to the contrary. This paper will show that the federal government soon recovered its previous position in the overall revenue balance; additionally, (sparse) evidence on the increasing burden of social expenditures – health care, education – to states and municipalities calls even further into question the received wisdom.[5] In any case, one way or another, the quest for a new state-federal balance has been addressed by the FSE.

Furthermore, the federal government has hinted at the removal of some efficiency-hindering aspects of the Constitution in a milder way. By far the most important political initiative in this direction is a multi-stage proposal for eliminating inconsistencies in the current Value Added Tax (VAT) system.

The most critical points in the current system concern interstate sales taxes and the states' degree of autonomy to establish separate taxing policies (including exemptions, percentages etc.).[6] Presently, the interstate sales are taxed according to a double criterion, which combines origin and destination:

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[3] The FINSOCIAL is a special tax, established in 1982 by means of an executive decree, that falls on the gross sales of private and public enterprises. Since its inception the percentage has been increased from 0.5% to 2.0%, which constitutes a considerable tax burden. Under the name of COFINS it has been one of the main sources of revenue in the federal budget (in 1995 it was second only to income tax).

[4] Increased real salaries still threatened the budget equilibrium in 1995, especially at the state level, but they were not produced by the end of inflation itself.

[5] In 1994 and 1995, the federal government cut its disbursements, sacrificing investments and, especially, the payment of 'social' budgetary headings (e.g. public health, education). Transfer commitments to the states were not honoured by the Union, and states and municipalities faced intense pressure on their budgets.

[6] The Brazilian tax system is peculiar in putting the Value Added Tax (ICMS), its most important source of revenue, under state responsibility. See below for a specific discussion .

one part of the tax burden applies to the territory where the goods are produced, and the other part of the tax is collected by the states where the goods are consumed. This division creates ample opportunity for tax evasion,[7] and makes it impossible to receive a full tax exclusion in the case of goods sold to other states as inputs for exported goods. In its turn, the constitutional allowance for autonomous rules and procedures has stimulated fiscal inter-state wars.

The project under discussion intends to introduce a pure destination criterion, and to eliminate the possibility of fixing differentiated state policies for VAT. Additionally, it attempts to exempt the taxation of inermediate goods, capital goods and exports, in order to approximate the ICMS to a consumption-based Value Added Tax, so stimulating exports and investment. In its first stage (to 1997), the proposed arrangement envisages the elimination of part of the states' autonomy in establishing Value Added Tax policies, and the assurance of a tax relief to exports and intermediate goods. Compensatory mechanisms for countervailing the revenue losses caused by the relief are a delicate point of discussion but, since the governors have in 1996 finally accepted the cancelling of the states' debts as a proper compensation for the ICMS losses, it seems that a new deal is possible. This deal involves an exchange of potential revenue for a mix of debt cancelling and federal cash compensation, in unspecified proportions. Its impact on the overall balance of revenues and debts is not clear, because the limits to cash compensation are an open matter. The second stage of the agreement, which includes a full destination principle to apply from 1999 on, in still under discussion.

Of course, a lot of political quibbling is expected, because the Senate dislikes any restriction on the states' autonomy for implementing ICMS incentives (exemptions, favoured percentages) and, besides, both the exemption of export and intermediate goods and the imposition of a pure destination criterion imply losses for the main states. A success in the first round of negotiations, in 1996, does not assure the continuity of the process through to the full acceptance of a pure destination principle. The exemption of exports and intermediate goods involves a states-Union bargain, and it is not impossible to envisage new solutions within the complex states-Union agenda. Yet adoption of a destination principle involves an entirely redistributive interstate tug of war, devoid of compensatory rules, and unless a new political federative agreement is reached it seems difficult to have it implemented.

Other issues within the fiscal reform agenda, whether involving constitutional changes or not, have progressed at a faster pace. New legislation has closed some loopholes in the legal entities' income tax, projecting a considerable gain from 1996 on, and a renewed tax on financial transactions in

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[7] Many internal sales tend to be recorded as exports to other states, in order to benefit from the origin state part of the tax only. It is difficult to inspect and eliminate such a widespread fraud.

general is on the verge of approval.[8] Finally, the federal government supports the approval of new legislation on Social Security, and although political circumstances imposed a retreat from its ambitious first draft, a trimming of part of public servants' benefits – a direct budgetary outlay – is expected to happen.[9]

If we were to sum up the general features of the fiscal system after the launch of the Real Plan in 1994, and to assess the major outcomes of the 'reforms' so far, it would be tempting to conclude that the federal government succeeded in increasing revenues, but failed to change the laws regulating the state-federal balance. It should be noted, however, that this failure is only apparent. There were changes in the real state-federal balance, either because the mere end of inflation suffices to alter the overall distribution of tax revenues,[10] or because the 'provisional' FSE has proved to be an enduring device. Analysts looking for dramatic changes in the constitutional arrangements fail to realise that, at the end of the day, economic conditions and some (apparently) minor rules have already given way to new conditions in federal financing.

These new conditions, detrimental to both states and municipalities, entail an inherent instability. The state-federal conflicts, typical of the Brazilian political scene, were temporarily attenuated by the general rise in revenues produced by stabilisation, but by the end of 1995 many states and municipalities faced severe budgetary constraints, due to recession and to high rates of interest.[11] By the beginning of 1996, even federal revenues had begun to be severely affected by recession and the expenses affected by the soaring impact of debt servicing. Whenever critical budgetary conditions arise, negotiation is the key-word. Governors, representatives in Congress, the federal executive, engage in

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8 This tax reintroduces an already extinguished instrument, adopted by the previous government. Its incidence encompasses all the 'financial transactions', in the form of a small percentage applied to movements in bank accounts.

9 The first draft of the social security reform envisaged a transition to a Chilean-style system. The second draft gave up the ideas of a radical privatisation, but kept as a main target the transition to age clauses, instead of the current 'years of contribution' conditions for retirement. Finally, it seems that the relevant change to be expected has been restricted to the imposition of the age clause retirement exclusively to public servants. The private sector workers' social security stays almost as it was. The funding side of the social security equation has not been dealt with as yet.

10 Stabilisation affects in a different way each type of tax and the real value of the transfers.

11 The federal government insists on the limited effects of the increased rates of interest on the state's budgets, because political agreements have determined a ceiling on the servicing of debts. In fact, the ceiling transforms a part of this burden into an increasing degree of indebtedness, and not into an increasing disbursement. It should be remembered, however, that the agreement only applies to the long-term debts. States and municipalities also recur to very expensive (rates of interest above 8% a month) short-term loans, which do not necessarily appear as liabilities at the end of the year – and hence in the balances – because they come to a zero position by December. These short-term loans certainly represent a heavy burden on state and municipal budgets.

political agreements supported by blatant pork-barrel politics. The 1996/1997 period will probably be no exception to a familiar picture: the federal executive calls for fiscal adjustments in the lower levels of public administration, whereas governors and mayors ask for a less stringent monetary policy, negotiating case by case arrangements which include privatisation, support for bankrupted banks, federalisation of debts, new loans and waivers.

In what concerns the public finance question, the Real Plan seems to mean a new turn of an old screw, in the sense that state-federal transfers remain an unsolved problem. In view of the fact that the federal pact does not rest on explicitly agreed (or explicitly imposed) clauses – the real federal rules are unwritten – changes in the legal environment seem to have a limited role in resolving the permanent federative crisis. The following and more detailed appraisal of Brazilian federal financing in a specific period is designed to illuminate these matters which, albeit under a new guise, are of an historical nature.

The fiscal structure under the 1988 Constitution

At least since the beginning of the Republican era, the Brazilian tax structure has reflected the federal character of the country. Although local government has always been the weakest part within the intergovernmental balance – a factor that began to change after the 1950s as a consequence of the urbanisation process – and despite the military and political strength of the federal government throughout the century, a pendular movement between the Union and the wealthiest states depicts the real balance of power in the Republican era. The tax structure is an essential part of this balance; as a general rule we may say that in authoritarian periods the Union subtracts revenues and the power to tax from states, the opposite happening in democratic periods.

The dynamics of public finance within the last three decades are adequately described by this rule. One of the major economic features of the military period was the concentration of public revenues and taxing authority at Union level.[12] The democratisation process, which not coincidentally had as a formal starting point the return to direct governors' elections (1982), brought about an intense pressure in favour of fiscal decentralisation. The 1988 Constitution marks a peak point in this process, and the rearrangement of public revenues provided it stands in sharp contrast to the economic rules of the game under the military.[13]

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[12] For an authoritative discussion of the fiscal reform under military rule, see Oliveira, F.A. *A Reforma Tributária de 1966 e a Acumulação de Capital* (B.Horizonte: Ed. Oficina de Livros, 1991) (2nd ed.).

[13] Two texts provide valuable information on the negotiations preceding the 1988 Constitution as well as the main features of the tax system: Oliveira, F.A. *Crise, Reforma e Desordem do Sistema Tributário Nacional* (Campinas: Unicamp, 1992); Rezende, F.

Of the many political lobbies that attempted to influence the fiscal outcomes of the new Constitution, by far the most successful one was the so-called 'regional interests' lobby. If the 1988 Constitution did not represent a radical change in the list of taxes and competencies, the new distribution of revenues from the revenue-shared taxes were intended greatly to benefit states and municipalities at the expense of the Union. Before attempting a proper discussion of the new federal balance, however, it might be useful to stress the general features of the Brazilian post-constitutional fiscal structure:

a. If we leave aside minor changes (e.g. fusion of similar taxes) and some transfers of less important taxes from one governmental sphere to another, the overall tax structure remained quite similar to that of the previous constitution. The Union has responsibility for Income Tax (IR), Import and Export Taxes, Taxes on Financial Transactions (IOF), Land Tax and an Industrial Products Tax (IPI) that mainly operates as a special inter-industry value-added tax heavily concentrated on cars, tobacco products, and beverages. The constitution has also allowed Congress to implement a new tax on property, known as the Wealth Tax, although this could not be implemented until 1995.

The states kept as their main tax a Value Added Tax (ICMS), extended in order to include some services previously out of its range. Despite the efforts from technical staff, the ICMS was not transformed into an all-encompassing Value Added Tax, but it is the most resource-effective tax within the Brazilian fiscal structure. Additionally, an almost ineffective Death Tax and a very easily managed Vehicle Property Tax (IPVA) remained under the states' responsibility.

The municipalities were given responsibility for the traditional urban estate taxes (Estate Property Tax and Estate Sales Tax) and a quite peculiar tax on the value (not the added-value) of a limited list of service activities (ISS), besides a newly created Fuel Retail Sales Tax (IVC).

Stressing the main economic linkages, we may sum up as follows: the Union controls taxes that have a bearing on monetary, macroeconomic and international trade policies; the states operate an important Value Added Tax; the local governments enforce taxes related to urban policies. Although some minor distortions have remained and deeper attempts to rationalise the fiscal system failed – as exemplified by the attempt to include the whole list of services under the state Value Added Tax rule (with the consequent suppression of the municipal Services Tax) – the fiscal structure seems to have a rational basis in accordance with established standards. Last, but not least, insofar as the three levels of government have constitutionally defined sources of revenue and expenditure responsibilities, at first sight the Brazilian fiscal system seems to be well suited to the federal character of the country.

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and Afonso, J.R. *A Reforma Fiscal no Processo de Elaboração da Nova Constituição* (R.Janeiro: IPEA/INPES, Texto para Discussão n. 121, nov. 1987).

It should be noted that the above inclusive list of taxes does not describe the full extent of general public revenues, since Brazilian law distinguishes between taxes ('impostos') and contributions ('contribuições'), which are compulsorily enforced public revenues earmarked to specific expenses or transfers. From an economic point of view, the contributions may be seen as ordinary taxes, and under this legal heading are important resources, such as the Social Security Tax, Finsocial/Cofins (directed to welfare expenses) and the Education Tax ('salário-educação', a wage-bill tax aimed to fund basic education expenses), not to mention the Fundo de Garantia por Tempo de Serviço (FGTS), which is a credit fund. Some of the contributions, such as the Education Tax, are shared with other layers of government on a regionally redistributive basis, but others are under the entire discretion of the Union.

b. The roughly unchanged assignment of competencies does not mean that the 1988 Constitution did not favour states and municipalities. The main demand of governors and mayors during the pre-constitutional period was the enlargement of the so called Fundos de Participação (FPE– states – and FPM – municipalities), the Union funds constituted by percentages of both the Income Tax and the Industrial Products Tax to be transferred to states and municipalities. Rather than reinforcing the taxing capability within their spheres, governors and mayors tried to boost the state and municipal revenues by means of an enlargement of their share in the Union tax funds (and in the states' tax funds in the case of local governments).

According to the 1988 Constitution, the municipalities should increase their share in ICMS from 20 to 25%. This change was intended to counterbalance the (finally not achieved) extinction of the Services Tax, with the consequent incorporation of all services under the state ICMS rule. The survival of the Services Tax within the local government sphere means that the enlarged ICMS percentage to be transferred represented an important net gain to municipalities. With regard to federal taxes, states and municipalities increased their share – previously 17.5% in both cases – in the funds formed by Income Tax and the Industrial Products Tax (Fundos de Participação) to 21.5 and 22.5%, respectively.[14]

There are additional and less significant transfers: the state Vehicle Tax and the federal Land Tax are shared 50:50 with municipalities; the Income Tax and the Industrial Products Tax are also divided;[15] not to mention shares in funds formed by 'contributions' instead of taxes.[16] On the whole, these transfers imply

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[14] A gradual increase of the shares was approved, so that the new shares would be fully implemented only in 1993.

[15] The Industrial Products Tax has 10% of its value transferred to exporters' states, as a compensation for the fiscal losses caused by exports.

[16] A more complete description of revenue-sharing mechanisms in Brazil is to be found in Appendix E to Shah, A. *The Reform of Intergovernmental Fiscal Relations in*

that the Union's efforts to raise revenues are severely lessened by redistributive commitments; furthermore, the municipalities' and states' efforts to enforce their own taxes have faltered, since in most cases their major resources are provided by transfers. I will return to this point later, but as a good example we may refer to the several municipalities that have simply given up collecting the Urban Property Tax or Service Tax, because the transfers they receive are sufficient for their budgets. Irrespective of other consequences, to be further examined below, we may state that the redistributive profile that characterises the Brazilian fiscal system imposes strong constraints on the short-term management of fiscal policies by the Union and reinforces fiscal negligence at the local government level.

c. The progressiveness of fiscal systems depends on factors – incidence, percentages, effective burdens - well beyond constitutional texts, and Brazil is no exception in this field. In general, we can see that the 1988 Constitution did not put the instruments best suited to achieve the redistribution of income and wealth in the Union's hands. The Wealth Tax, as already mentioned, is not yet legally defined, and this seems to be a never-to-be-implemented tax. The Land Tax has up to the present been a merely symbolic tax, although it could be transformed into an effective agricultural policy, rather than a redistributive, instrument. The Industrial Products Tax has a redistributive role, since its percentages are selective and cars in Brazil are still a luxury good; nevertheless, its main targets are tobacco and beverages, and it is designed to maximise revenue – the usual role of 'sin' taxes. The most effective fiscal instrument in the Union's hands to promote redistribution is the income tax, and its potential will be examined below.

On the other hand, the states, and especially the municipalities, control fiscal instruments that are well designed to carry out redistributive tasks. If we assume that property taxes and taxes on estate sales are not negligible redistributive instruments, the roles of the Vehicle Tax, Urban Estate Tax and Estates Sales Tax stand out. The 1988 Constitution authorises (and even suggests) a progressive approach to property taxes, but states and municipalities exploit these opportunities in a very diffident way. As a matter of fact, local authorities can hardly overcome the political pressures against progressive taxation, strengthened by a culture of non-progressiveness that is deep-rooted in the whole system. As a first conclusion (to be further developed) one can say that the Brazilian system relies heavily on indirect taxes, leaving the enforcement of direct taxation largely up to local governments; this means the 1988 Constitution has put strong fiscal redistributive responsibilities on the shoulders of the authorities least likely to be capable of performing them.

Developing and Emerging Market Economies (The World Bank, Policy and Research Series 23, 1994).

The Brazilian federal experience in sharing revenues

As stated above, the 1988 Constitution reinforced the regional redistributive pattern of the fiscal system. Income Tax and Industrial Products Tax, the most important of the Union's fiscal resources,[17] have become shared with states and municipalities in a proportion of 21.5 and 22.5%, respectively, and the municipalities' revenues heavily depend on the 25% redistributed share of each state's Value Added Tax.

Revenue-sharing systems are usual in federal countries and many arguments can be cited in their support. First of all, given the existence of a limited number of economically relevant taxes, its enforcement at a specific administrative level, providing resources to other spheres through direct transfers, avoids double taxation of the same economic activities and 'tax wars' among sub-national entities. If we think of the administrative burden of collecting taxes, this procedure has cost efficiency as an additional advantage.

Besides, a strictly redistributive approach stresses the suitability of revenue-sharing systems. Wherever the fiscal system is designed to effect an equalisation among different regions, clearly established rules for the division of taxes can openly state and more precisely assess the targets. In fact, the redistributive commitment is strong in Brazil, and the transfers are said to perform a regional levelling purpose. Although the states' VAT resources are redistributed to municipalities according to weak redistributive criteria,[18] those states and municipalities handicapped in terms of their *per capita* income and of their own taxation capability are favoured to such an extent in the Fundo de Participação system as to allow us to consider the redistribution of Union revenues as the most solid principle of Brazilian federalism.[19] For many regions federal transfers are by far the most important tax revenues and form the basis of public administration, and not just supplementary resources, as shown below.

Regional redistributive commitments notwithstanding, the transfers are not carried out according to clear-cut levelling criteria. The revenue sharing is not

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[17] The Share of Income Tax plus Industrial Products Tax in the federal tax receipts was as follows: 1988:79%; 1989:85%; 1990:78%; 1991:84%; 1992:83%; 1993:84%.

[18] Only 25% of the amounts due to local governments can be shared in accordance with redistributive concerns; 75% are delivered in proportion to the value added within each municipal territorial base.

[19] This issue is regulated by the Complementary Law 62 (1989) and by the Complementary Law 71 (1992), which have stressed the redistributive shape of the FPE (IPI + IR transferred to states): 85% of the FPE is redistributed to states in North, Northeast and Central-west regions; the remaining 15% is redistributed to Southern and South-eastern states. The FPM (IPI + IR transferred to municipalities) does not have such an extreme redistributive character. A thorough analysis of the federal transfers, emphasising its distortions and failures in what concerns levelling effects, is provided by Castro, F. and Villela, L., *Técnicos CERF* (Pernambuco, mimeo).

guided by conventional rules concerning fiscal needs and/or fiscal capability and it could be argued that the present formula even contributes to boost financial discrepancies *within* poor states.[20] That is, the redistributive commitments are not accompanied by meaningful levelling rules. The political existence of many states and municipalities – otherwise with no chance of survival as autonomous entities – seems to be the main purpose of the constitutional revenue-sharing system.

Table 1

Federal Transfers (FP) and Value Added Tax Revenues (ICMS), 1990-91

	1990			1991			1992		
	FP	ICMS	FP/	FP	ICMS	FP/	FP	ICMS	FP/
Acre	15341	1780	8.62	67419	8096	8.33	735418	68729	10.70
Amazonas	16096	46341	0.35	70720	186342	0.38	771169	1476588	0.52
Pará	38453	33548	1.15	168029	167857	1.00	1832131	1341333	1.37
Rondônia	14482	12615	1.15	62870	48762	1.29	685674	483604	1.42
Roraima	10715	1786	6.00	46901	8089	5.80	511640	84627	6.05
Amapá	14865	1930	7.70	64694	9157	7.06	705730	94079	7.50
Tocantins	22861	4568	5.00	101262	24385	4.15	1104228	278755	3.96
Maranhao	44104	16220	2.72	196467	78900	2.49	2142228	892184	2.40
Piaui	26728	9413	2.84	118222	49465	2.39	1289061	474434	2.72
Ceará	48862	41797	1.17	218063	209311	1.04	2377493	2107634	1.13
R.G.Norte	26140	14175	1.84	115125	62158	1.85	1255279	604626	2.08
Paraiba	31690	16133	1.96	139963	77327	1.81	1526015	734419	2.08
Pernambuco	47510	63131	0.75	209763	295466	0.71	2286951	2879972	0.79
Alagoas	25347	15212	1.67	110207	68028	1.62	1201704	681873	1.76
Sergipe	22292	12768	1.75	95233	61187	1.56	1238607	600213	2.06
Bahia	73177	104243	0.70	320482	479309	0.67	3493715	5225086	0.67
M.Gerais	71034	221421	0.32	313334	1106482	0.28	3414295	11377795	0.30
E.Santo	13130	45341	0.29	57714	229088	0.25	629105	2267814	0.28
R.Janeiro	18270	223891	0.08	80351	1143463	0.07	875472	11733867	0.07
S.Paulo	58373	964792	0.06	256701	4273085	0.06	2796563	43401615	0.06
Paraná	39128	132226	0.30	171524	609049	0.28	1869180	6210960	0.30
S.Catarina	20820	85402	0.24	92179	359430	0.26	1004433	3857530	0.26
R.G.Sul	37068	186721	0.20	162947	852697	0.19	1775590	9022023	0.20
Goias	26164	63192	0.41	113321	292030	0.39	1235314	2999537	0.41
M.Grosso	16628	31880	0.52	72275	146019	0.49	787960	1505496	0.52
M.G.Sul	11236	33202	0.34	49648	180132	0.28	541194	1921657	0.28

Note: ICMS and FP values in Cr$ 1000; FP/ICMS expressed as a ratio
Source: Boletim do Banco Central do Brasil

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[20] Castro and Villela, *op.cit.* and Shah, A. *The New Fiscal Federalism in Brazil* (Washington D.C: World Bank Discussion Papers 124, 1991), analyse the transfers and show they provoke horizontal imbalances within poor states and municipalities, despite their efficiency in transferring resources from more developed to less developed states.

The relation between federal transfers (FP) and the states' Value Added Tax provides a rough description of the importance of federal transfers within state and municipal budgets.

Table 1 uses December 12-monthly accumulated values as representative of annual revenue, which is not an accurate definition of real value in an inflationary situation, since it supposes a similar monthly distribution of nominal ICMS revenues within each state. The real relation between federal tax transfers and Value Added Tax resources might be misrepresented, but since the Fundo de Participação/ICMS ratio is simply an indicator of fiscal dependence, other measurement criteria were not adopted. Subsequent tables will use superior standards of measurement.

As Table 1 shows,[21] the variance is large. At one extreme, for São Paulo, the relation between federally transferred resources (Fundos de Participação) and ICMS is 0.06 (i.e. six per cent); that is, federal resources are almost negligible in the budgets of São Paulo state and most of its municipalities. Yet, in the recently created state of Tocantins, the Fundo de Participação transfers amounted in 1992 to four times the Value Added Tax resources. Since it depends almost entirely on federal funds, Tocantins may not by any means be taken as an example of fiscal autonomy. Half (13 out of 26) of the Brazilian states present a Fundo de Participação/ICMS ratio greater than one, a clear sign of fiscal dependence.[22]

There is no point in considering revenue-sharing systems incompatible with the political autonomy of sub-national layers, as the examples of Canada, Switzerland and Germany, among other countries, prove.[23] The key problem in Brazil for many states and for a majority of local governments is to avoid the waste of their own tax resources, while continuing to respect the constitutional

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[21] Table 1 relates the Fundos de Participação resources transferred to states and municipalities (within each state) to the whole Value Added Tax (ICMS) revenue collected in each state in 1990, 1991 and 1992. It should be noted that the federal resources in these tables encompass resources transferred to both states and municipalities, being part (25%) of the Value Added Tax resources due to municipalities; that is, we are not dealing with exclusive state revenues. Nevertheless, as local governments' (and especially poor municipalities') budgets are almost entirely formed either by ICMS or by Fundo de Participação transfers, it is not a serious distortion to omit municipal taxes collected locally.

[22] Nevertheless, even the most dependent entities have the political and administrative prerogatives of any other, not to mention a massive overrepresentation in the Federal Chambers, since the electoral rules for the Chamber of Deputies favour the less populated (and generally poorer) states and each state sends its representative to the Senate regardless of its size of population.

[23] For an approach to transfers in federal systems, see Bird, Richard *Federal Finance in Comparative Perspective* (Toronto: Canadian Tax Foundation, 1985); Shah, *The Reform of..., op.cit.*, presents an updated description of many revenue-sharing systems.

requirement for well-defined and powerful taxes distributed to all layers. In fact, the states are responsible for (and the municipalities indirectly benefit from) a Value Added Tax, which, on the whole, is the most revenue-effective tax within the Brazilian tax structure. The recent foundation of new states and hundreds of new municipalities,[24] despite the lack of fiscal sustainability and despite the obvious general losses (the revenue-sharing system is a zero-sum game and new entities imply additional administrative costs), suggests that the absence of economically rational criteria in the transfers is not an innocent flaw. Actually, it performs an important and well-defined role in the Brazilian political system, favouring clientelism, political misrepresentation and obscure relations between regional and local governments, Congress and the Union executive.

If we were to consider only non-constitutionally framed transfers, the absence of clear-cut economic criteria has not been an impediment. Far from negligible transfers of fiscal revenues and federal credit have been given to states and local government by means of bilateral agreements (convênios), in accordance with quite unclear rules.[25] This is a grey area in fiscal analysis, partly owing to the non-existence of reliable information, partly because credit allowances, which have an important role in political bargains, cannot be compared with grants in an hypothetical accounting of transfers. The budgetary crisis of the 1990s has contributed to a reduction in the importance of the so-called 'negotiated transfers', but a comprehensive analysis of federal questions in Brazil cannot bypass the existence of such an important instrument of public financing and political management.

Two of the main consequences of the Brazilian tax-sharing practices are the abandonment of control over administrative procedures and the financial losses caused by inflation. Despite their crucial interest in the federal revenues, the lower levels of government leave to the Union administrative control over Income Tax and Industrial Products Tax, and the same applies to municipalities in relation to the states' Value Added Tax. This means that states and municipalities have never had the least control over their most important revenue sources. Besides, although efficient fiscal routines should be backed by permanent cross-checks of economic information concerning income, properties and money flows, coordination among auditors and accountants is the exception

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[24] The prevailing rules of tax-sharing stimulate territorial and political fragmentation. For a discussion of the sharing criteria, concerning municipalities, see Silva, V. *A Constituição de 1988 e federalismo tributário: impactos sobre as finanças municipais*, Campinas (Unicamp, 1992) and Castro and Villela, *op.cit.*

[25] The non-constitutional transfers are generally referred to as 'negotiated transfers'. They are at the core of political dependence on federal government, but its mechanisms and effective amounts are to a large extent unknown. The best effort to measure and describe these transfers, unfortunately outdated, is Afonso, J.R.R. *Despesas federais com transferências governamentais: uma revisão de conceitos e diagnósticos* (Brasília: IPEA\IPLAN,1989).

rather than the rule, which facilitates tax evasion at all levels.[26] To begin with, there is not even a unified register of tax-payers, each administrative tier keeping its own records.

On the other hand, financial losses provoked by inflation are additional and important outcomes of the tax-sharing system. The relation between inflation and fiscal effectiveness will be dealt with further on, but some of its features directly related to federalism may be mentioned here. The Constitution establishes the shares in terms of percentages, but not the effective division of revenues, which, under inflation, depends on practical rules (or on infra-constitutional legislation) concerning the timing of the transfers. There is a variable time interval between tax collection and money transfers to the lower layers, and since all accounts are held in nominal terms, considerable losses arise from the acceleration of inflation. In the case of the Value Added Tax, each state has specific collection lags and redistributive schedules, and in many of them both the lags and the schedules are clearly damaging to municipalities. In the case of the Income Tax and Industrial Products Tax, the rule is uniform and the transfer lag is narrow (15 days on average), but this lag has to be added to the collection lag itself. The states and municipalities highly dependent on transfers suffer considerable losses because of the shared tax structure, in addition to the ordinary inflationary losses.

Table 2
Fundos de Participação/Income Tax(IR) + Industrial Products Tax (IPI)

	FP/		FP/		FP/		FP/		FP/
Jan/89	31%	Jan/90	24%	Jan/91	33%	Jan/92	40%	Jan/93	43%
Feb/89	42%	Feb/90	26%	Feb/91	40%	Feb/92	34%	Feb/93	42%
March/89	31%	Mar/90	48%	Mar/91	39%	Mar/92	37%	Mar/93	44%
April/89	29%	April/90	21%	April/91	31%	April/92	31%	April/93	40%
May/89	26%	May/90	57%	May/91	44%	May/92	38%	May/93	32%
June/89	31%	June/90	41%	June/91	44%	June/92	42%	June/93	51%
July/89	21%	July/90	42%	July/91	36%	July/92	37%	July/93	44%
Aug/89	24%	Aug/90	35%	Aug/91	46%	Aug/92	46%	Aug/93	44%
Sept/89	26%	Sept/90	45%	Sept/91	49%	Sept/92	32%	Sept/93	39%
Oct/89	17%	Oct/90	34%	Oct/91	30%	Oct/92	39%	Oct/93	41%
Nov/89	39%	Nov/90	38%	Nov/91	40%	Nov/92	38%	Nov/93	43%
Dec/89	22%	Dec/90	43%	Dec/91	41%	Dec/92	36%	Dec/93	43%

Source: Boletim do Banco Central do Brasil

[26] For instance, there is an obvious relationship between service sales (to be taxed by local governments) and commercial sales in general (to be taxed by states), but inspection procedures involving local governments and states are rare; the checking of property values is a primary procedure to enforce the personal income tax, but federal bureaucrats seldom use information on estate values that should routinely be collected by local authorities.

To measure these losses precisely is a difficult task, but a rough overview of both the variance and the reduction of the effective states' and municipalities' shares can be achieved by comparing the sum of Income Tax (IR) and Industrial Products Tax (IPT) with federal tax transfers to states and municipalities (Fundos de Participação – FP – transfers).

Table 2[27] – which shows effective monthly shares obtained from real monthly values – shows the extent of the variability. In only a few months in the period from January 1989 to May 1993 did the ratio come close to the constitutionally defined proportion (at least 44% in 1993); in most months there was a considerable difference between the constitutional rule and the effective results. Annual real values and proportions show the same inconsistency, largely due to inflation. No similar information concerning municipalities' shares in the Value Added Tax is available, but there is some evidence to suggest that in many states the distortions are even higher.[28]

Inflation, fiscal routines and budgetary results

As a general rule, tax revenues are negatively related to the speed of inflation, due to the time lag between tax-generation and the effective payment date – the so-called collection lag. The Brazilian inflationary experience has confirmed this rule, either through an upward change in the price index or when stabilisation plans suddenly break the inflationary trend. The temporary periods of low inflation, typical of the post-Cruzado period after 1986, have usually brought fiscal bonanzas to all levels of government, and especially to states and municipalities, thanks to the elimination of the inflationary losses associated with the collection lags and the lags inherent in the tax-sharing system (previously described). Graphs that help show this effect will be presented below, but they will provide just a broad and imprecise illustration, without aiming at the establishment of a causal relation between collection lags, rate of inflation and real revenues. Institutional regulations also have an impact on taxes under chronically inflationary circumstances and a brief commentary will

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27 Table 2 and the following tables were constructed from monthly nominal values, deflated by the General Price Index. This seems to be the best way to obtain real values, in the case of fiscal time series, but surprisingly this procedure – indexation of monthly values – is very seldom adopted. Almost all analyses of fiscal data rely on annual values, that is, the sum of monthly records held in nominal terms, deflated by yearly average indexes. Of course, this procedure distorts the economic results. It should be noted that since a great part of fiscal registers and official controls (including sharing ratios) are maintained in nominal terms, there is a complete divorce between legally defined percentages and real results. To conclude, accounting in nominal terms also falsifies budget execution.

28 Redistributive shares guided by prospective revenue values, and not by effectively accounted (and past) amounts, are the only guarantee against heavy losses in inflationary periods. São Paulo has adopted such a mechanism, but this is a striking exception rather than the general rule.

provide a sort of indirect qualitative framework for understanding the factors which affect fiscal performance. This commentary will set the paper apart from a long tradition of studies taking the collection lag as their point of departure,[29] an intentional commitment since I want to stress the importance of the many disturbing effects brought about by inflation and compensating policy measures (such as indexation). Although as important to the determination of the real fiscal revenues as the 'Tanzi effect' itself, these effects have been entirely neglected by analysts.

Among the several factors that affect tax revenues, a strong stress should be put on indexation ('monetary correction') practices. It is well known that one of the main reasons for the official establishment of indexation rules at the beginning of the military period was the protection of the Treasury. Since taxes and debts are calculated in nominal terms, an absence of compulsory debt updating induces tax-payers to delay payments. The cost of occasional fines is easily counterbalanced by the devaluation of fiscal debts, as the pre-1964 experience damagingly proved.

However, the indexation of fiscal debts does not provide a full guarantee against delays. In the presence of high real interest rates, tax evasion, instead of borrowing money, becomes a rational financing strategy, provided the estimated probability of being caught by inspection is low.[30] A mix of high level of interest rates and deterioration of inspection routines gives a boost to fiscal evasion, and indeed such a mix roughly describes the Brazilian events of the last decade. Since the tax-evader's chances of being caught are slender, not to pay the full due amounts, or to pay just enough not to raise the inspectors' suspicions, has been converted by tax-payers into a dominant strategy.[31]

Tax debt indexation is an important first step, but it always represent a partial device and does not mean indexation throughout the fiscal system. Despite far-reaching experience in indexation, only at the beginning of the 1990s were considerable efforts made to lessen the impact of inflation on real revenues, by means of a broad indexation of the tax accountancy and payment

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[29] See in particular Tanzi, V. *Inflation and the Personal Income Tax – an international perspective*; Tanzi,V. *Fiscal policy and economic reconstruction in Latin America* (IMF,WIP 89\94); Choudhury, N. *Fiscal Revenue and Inflationary Finance* (IMF,WP 90\48).

[30] If a defaulting taxpayer is caught, the fines are heavy: non-voluntary payers are charged with fines that may produce a 50%, or even a 100%, increase in the real value of the debts.

[31] Excluding, of course, those who are automatically taxed, as wage-earners. The tax inspection services in many states concentrate their attention on a few hundred big firms. The rest of the firms and individuals are included in a sampling routine, in which the chances of being chosen are insignificant. So far, the evading strategy is fully available to a majority of Value Added Tax payers, to a majority of social security payers (firms, not individuals) and to a considerable number of (non-salaried) income tax payers.

procedures. First of all, the fiscal authorities have been committed to closing the time intervals, shortening the gaps between the taxable moment and the payment date. Secondly, some payments have been fully indexed as from the first day of the month after the occurrence of the tax-generating activities. The taxpayers may be allowed to postpone their payments, but once the values are established, they are continuously updated.[32]

Nevertheless, technical and legal barriers hindered the spread of full indexation throughout the system which, in addition to the inevitable inertia and frictions inherent in any collecting structure – clearing periods, bank intermediation, etc – provokes losses strictly due to time intervals. Indexation may be considered as comprehensive as possible for most taxes, but taxing practices always involve a great amount of accounting in nominal terms. The goods and services, as well as estates and properties in general, still have prices necessarily nominated in the official currency, and there remain lags between taxable events (selling, ownership) and tax accountings. These lags have negligible consequences under low inflation, but exert a considerable impact in a highly inflationary environment. We should not forget, on the other hand, that a great part of the tax transfers between the different levels of government have remained out of the protection provided by indexation.

Advanced indexation practices, besides, do not avoid other important consequences of persistent inflation, especially the undermining of inspection routines. Inspection effectiveness is largely dependent on technical routines, devised to reconcile estimates with the real values underneath. The major part of indirect taxes is estimated and self-accounted by the taxpayers themselves and, under inflationary circumstances, the underestimation stands out. Previously fixed estimates, allowed by fiscal authorities in order to simplify tax gathering and to avoid generalised evasion, normally become undercorrected with time. The taxpayers may argue that a full indexation of estimates – apparently a neutral and recommendable practice – is not in accordance with the unstable economic results of their economic activities, proposing undervalued estimates instead. A huge variance in relative values and in business revenue flows is typical of inflationary periods, and in consequence the fiscal authorities are usually driven to excessive prudence both in the acceptance of estimated values and in the statement of taxable values.

The extreme variability of relative prices also affects other taxing practices, as exemplified by the collecting mechanisms for property taxes. Real estate

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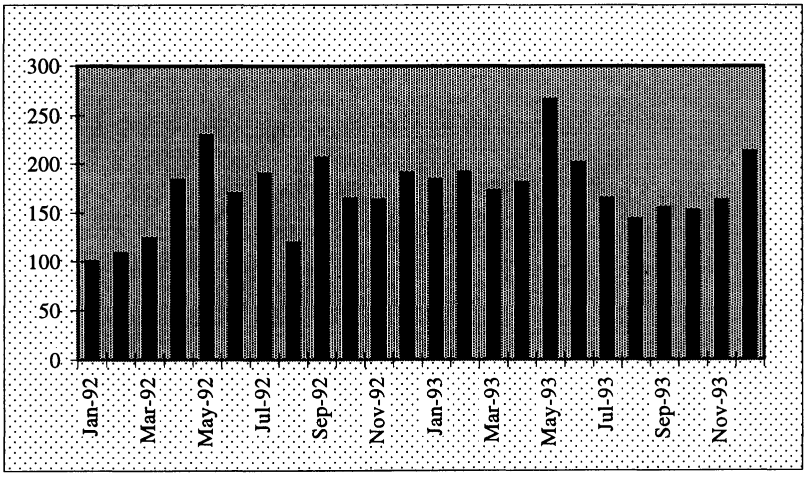
[32] This has been a widespread practice in recent years. Social Security contributions, Vehicle Tax (in many states) and Urban Property Tax (in some municipalities; in many there are still unindexed intervals) adhered to full indexation, until the launching of the Real Plan in 1994. Maybe São Paulo's Value Added Tax is the most extreme case of indexation: in 1993 and 1994 firms were obliged to calculate the taxable values every ten days, immediately indexing them until the payment date (in the following month).

values undergo a remarkable oscillation from one year to the next, and in order to avoid unfair taxation, or even litigation, the fiscal authorities are usually prone to adopt undervalued estimates when determining urban estate fiscal taxable prices, consequently undermining Urban Estate Tax and Urban Estate Sales Tax collection.

Other effects of chronic inflation are more tangible, and although no testing and measurements have so far been carried out, it is important to be aware of them. Income Tax provides a good example of the role of institutional regulations and its discretionary influence on public revenues. Income Tax in Brazil is mainly a wage tax, collected by means of at-source deductions. To cope with the increase in the real tax burden produced by the rise in nominal wages, the collection is calculated in accordance with an official table, upgraded at variable intervals, which relates nominal wage brackets to taxing percentages. To keep the table fixed for a long time, or to underestimate the updating brackets, therefore raising the real burden, has been one of the most traditional tax policy tactics.

Figure 1: Income Tax–Monthly Real Revenue, 1992-93 (Jan 92 = 100)



It should be remembered that the absence of legal wage indexation has been a strong argument against the full indexation of the wage brackets within the official table. Even when informal agreements tended to protect real wages beyond the official legislative limits, the federal government stuck to the law and only in the middle of 1993 was special legislation passed providing automatic upgrading for the wage brackets, thereby softening the sharp rise in income tax revenues in real terms through the year. Figure I shows the increase in the monthly real amounts in 1992, and the consequences of automatic indexation in the following year. In both years, the variability of the monthly amounts far exceeds the variability of the real payrolls themselves.

In the income tax example, inflation clearly favours public revenues, but this is an exceptional result rather than a normal one. The Value Added Tax provides the most outstanding example of the contrary and dominant trend, underlining the difficult management of taxing procedures under inflationary conditions. Yet, irrespective of inflation, this tax is complex to manage in Brazil. The comprehensiveness of its incidence, the great number of tax-payers, the deficiencies of the administrative staff in many states and, most importantly, the complete failure of the automatic mechanism of inspection, i.e. the check on receipts along the productive chain, make it one of the most troublesome taxes. The lack of traditions of fiscal responsibility and of tough inspection and punishment has weakened the practice of demanding and issuing receipts and, as a consequence, a tacit agreement among firms systematically understates taxable values, providing solid ground for fiscal evasion. For reasons of fiscal productivity in scarce resource conditions, the inspection procedures tend to concentrate on big firms. The consequence is that the contribution of small and medium size commercial enterprises to the fiscal revenues is far smaller than their contribution to the global value added. Again, unfortunately, no measurement of this disproportion has so far been attempted, but indirect clues are available, such as the heavy dependence of the tax revenue on a small number of big industrial enterprises, or the small amounts gathered by commercial activities.

One might argue that industrial activities are more likely to add value than commercial activities, if we are to compare similar size firms (as measured by value of sales, capital etc). This argument should not be rejected, but it does not adequately reflect the size of the overrepresentation of big industrial firms and in fact hides another (and concealed) consequence of the inflationary process: price setting mechanisms under inflation entirely distort the accounting of value-added itself, and, curiously, the value-added taxation process stimulates this distortion. This apparently surprising result becomes clear when we realise that price is an almost meaningless notion under high inflation, since real values are extremely dependent on terms. The major inter-firm disputes in Brazil have referred to terms, not to prices, and big retail commercial firms, which usually sell for cash and pay for their acquisitions 30-45 days later, have as their main strategy the bargaining of terms of payment, seeking to obtain minimal charges for nominal acquisition prices. Whenever they succeed in this strategy, the business is to sell cheap (relatively to nominal buying prices) and profit from high rates of interest in short-term investment. In such a case, the taxable added-value, calculated by differences in nominal prices, will be low or even zero. The success of this peculiar price-setting mechanism obviously depends on other factors, including high rates of interest and a not very aggressive taxation of interest receipts; however, if these factors are present, the pricing mechanism converts added value and Value Added Tax into financial gains and smaller amounts of the Financial Transaction Tax. It is difficult to assess the effective impact of these practices, but given the enormous retail sales concentration in medium-size and large cities, it is far from negligible.[33]

Retail pricing is a quite extreme example of the distortional consequences of inflation, because of its effects on value-added accounting, that is, on the very basis of tax incidence. It is not an isolated example, however, and the disturbing effect of high inflation on relative prices and incomes is widespread, providing several examples of the difficulties in operating taxation under inflationary circumstances. All the examples would contribute to the setting of indexation as a very limited countervailing tax-sustaining expedient, for very understandable general reasons: first of all, due to legal and practical barriers (accounting periods, administrative frictions etc) fiscal indexation cannot have a comprehensiveness comparable to that of the price and financial system in general; additionally, inflation produces allocative effects whose impacts on taxation can be presumed to be negative, though difficult to measure.

The previous remarks might be seen as a general framework for the analysis of tax revenue time series, but also as a qualification on the conclusions relating inflation and revenues. Tax revenues reflect a broad set of economic and institutional facts, and simple explanations linking real revenues to inflation rates are undermined by the frequent environmental (legal) changes typical of inflationary periods. Changes in percentages, in indexation rules, in terms, in administrative procedures, have been common in Brazil. In the all-embracing picture of tax revenue performance, these institutional considerations must be added to the economic fluctuations and to the different rhythms of inflation. It is not easy to isolate all these effects, but in the absence of an accurate econometric decomposition of variables, a rough and simplified graphical analysis will be used to point out some important economic linkages behind the data.

The six graphs below contrast the performance of specific taxes with the rate of inflation in the 1988-93 period. The revenue curves are constructed from monthly time series in real terms (expressed in 1993 cruzeiros) and the scales of absolute values (Cr$ x 10^3) are indicated on the right-hand vertical axis. The period encompasses three major institutional changes, namely, the new Constitution (valid from January 1989), the Summer Plan (beginning of 1989), and the Collor Plan (February 1990), and several minor institutional changes (in the indexation rules, in the time intervals between the taxable moment and actual tax collection etc.) also occurred. An important economic condition underlying the curves is the strong recession brought about by the Collor plan, with its effects spread out over 1991, 1992 and 1993.

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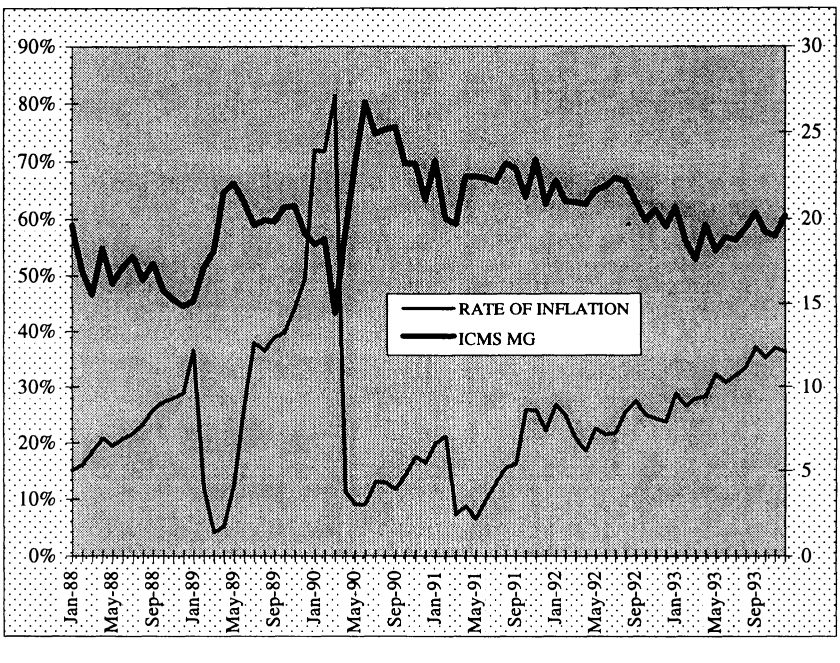
33 Some of the biggest supermarket stores have paid small or zero amounts of Value Added Tax in the last ten years.

The first three graphs refer to the Value Added Tax (ICMS) in two important states, São Paulo and Minas Gerais, and in the whole set of Brazilian states respectively. In general, the revenue curves show that: 1. the Constitution – as far as the ICMS, fully implemented in the first semester of 1989, is concerned – changed the revenue plateau; 2. the Collor plan produced an extraordinary rise in taxes, thanks in part to the fall of inflation, but mainly as a result of one of its institutional peculiarities;[34] 3. the new ICMS plateau was eroded by recession and inflation, from 1991 on, returning to a level similar to the pre-constitutional period; 4. there is a visible inverse relationship between the inflation curve and the revenue curve. Inflationary peaks coincide with revenue decreases, whereas abrupt falls in the rate of inflation, typical of the start of anti-inflationary plans, produce revenue peaks. Apart from the sharp kinks, clearly correlated with the stabilisation plans, the up and down pattern of the revenue curves seems to be (inversely) related to inflation.

Figure 2: Value Added Tax Revenue (ICMS) in Real Terms and Rate of Inflation, 1988-93 (Minas Gerais)



[34] The Collor plan put in the hands of the Central Bank all private (firms and individuals) bank deposits above a very low level, thus turning everyone illiquid at once. One of the few legal ways to use the frozen deposits was to pay taxes and tax debts. Needless to say, this allowance produced an excess of payments to the Treasury and explains the extreme upward movement of the revenue curves.

Figure 3: Value Added Tax Revenue in Real Terms (ICMS) and Rate of Inflation, 1988-93 (São Paulo)

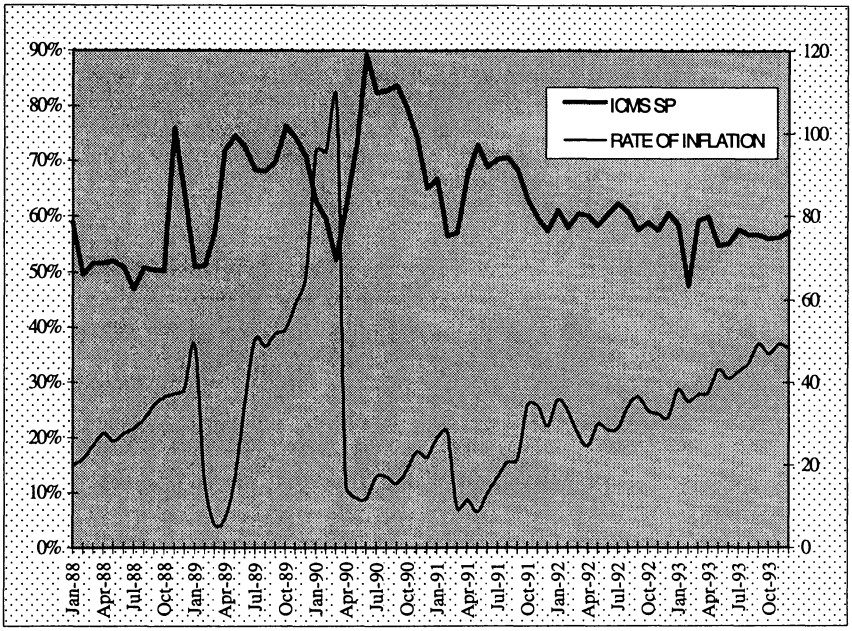
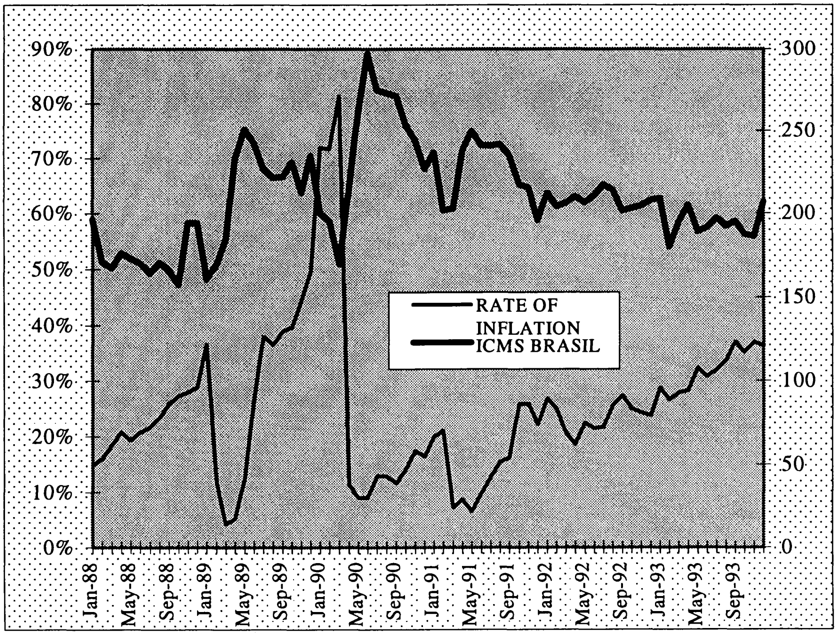


Figure 4: Value Added Tax Revenue in Real Terms (ICMS) and Rate of Inflation, 1988-93 (all states)



The next three graphs (Figures 5-7), referring to federal taxes, do not show the same strong inverse relation between inflationary movement and the revenue curves, apart from the kinks produced by the two stabilisation plans. The inflationary trend might be said to influence the curves indirectly, in the sense that the federal government was able to implement countervailing measures – e.g. changes in the indexation criteria, in terms, in percentages – not in the hands of other authorities, thus preserving the real federal resources from the full negative effects of inflation; however, the revenue cycles are less strongly related to the inverse movements of the inflation curve.

The main conclusions to be gathered from the federal tax behaviour are: 1. both Income Tax and the Industrial Products Tax, as well as the total tax revenue curves, fluctuated around the same level throughout the 1988-93 period; that is, federal taxes exhibited an extraordinary performance, taking into account inflation and recession; 2. surprisingly, in view of its concentration in a few industrial branches, the Industrial Products Tax was not so severely affected by the widespread industrial recession at the beginning of the 1990s; 3. federal taxes are negatively related to inflation.

Figure 5: Income Tax in Real Terms and Rate of Inflation, 1988-93 (Brazil)

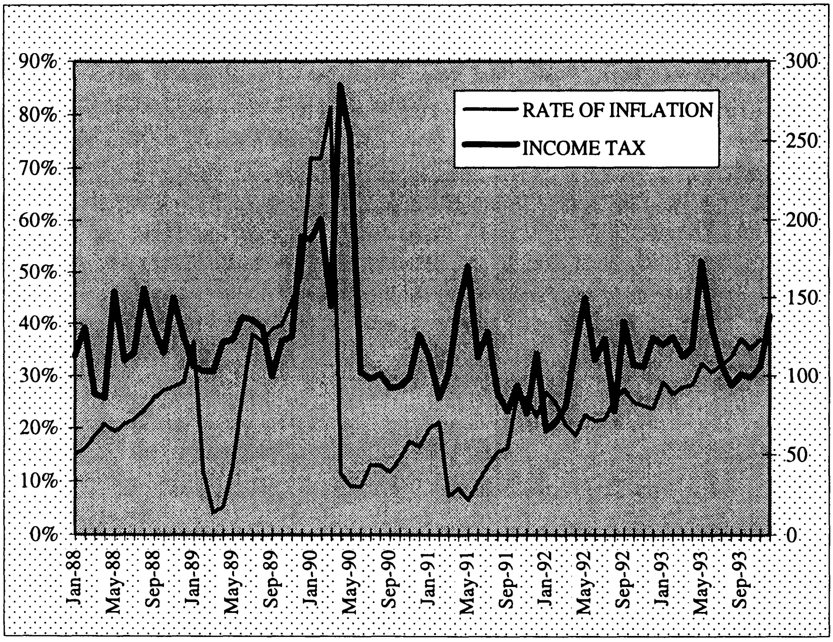


Figure 6: Industrial Products Tax Revenue in Real Terms and Rate of Inflation, 1988-93 (Brazil)

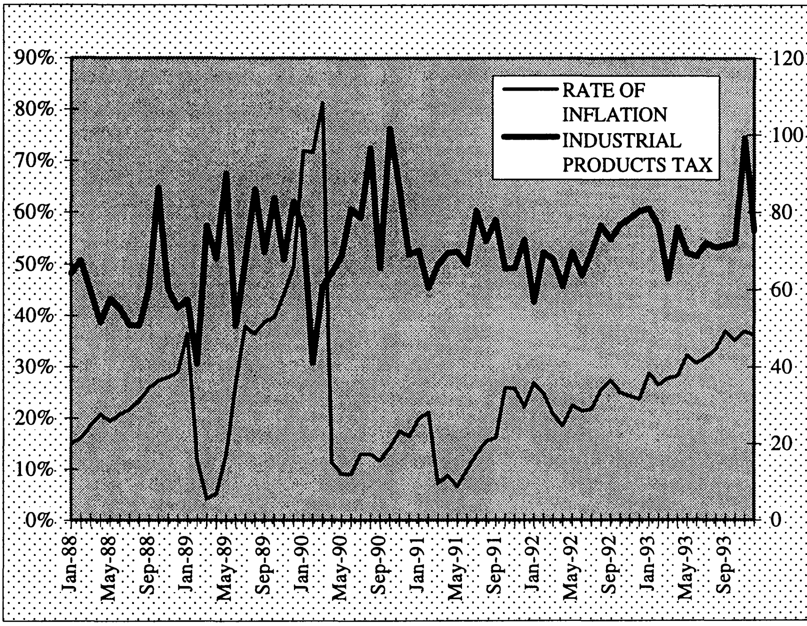
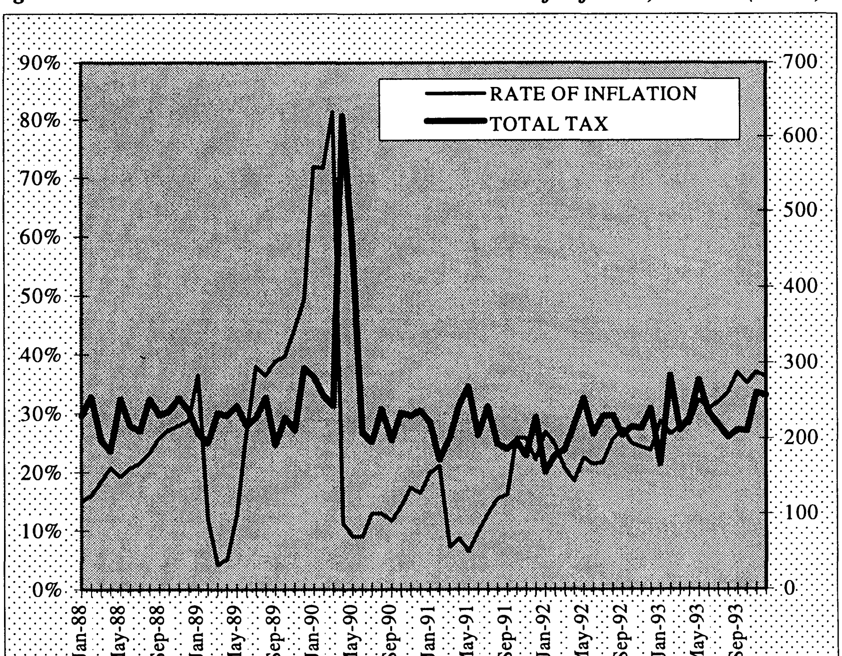


Figure 7: Total Tax Revenue in Real Terms and Rate of Inflation, 1988-93 (Brazil)



The main characteristic of all the taxes shown is their extreme fluctuation. Since the fluctuations do not coincide with seasonal effects, and are far from being explained by movements in the economic growth rate, inflation and institutional measures should be given a large part of the responsibility.

Although this paper concentrates on the revenue side, brief remarks on public expenditure are a necessary complement to the above comments on inflation. Time series deflated by the General Price Index (or by any other price index) do not really express the purchasing power of fiscal revenues, for two reasons. First, the intra-monthly distribution of expenditures and revenues is not even, and this is important whenever inflation exceeds 10% a month, as has frequently happened in Brazil since 1985. This means that time series which presume monthly averages – and all of them presume it, since the public accounting procedures require only monthly statements – can deliver only a rough approximation to purchasing power. The concern of all government managers with daily cash flow controls, in order to maximise revenues in relation to expenditures in real terms, illustrates the importance of intra-monthly flows.

The second reason is even more important. Typical governmental acquisitions include goods that do not have fully indexed prices. Except for public debt servicing, the most important expenditure item within states, municipalities and Union budgets is the salary bill (including public employees' pensions). While wages in the private sector were never fully indexed before the URV experiment at the beginning of 1994, salaries in the public sector have been even less protected from inflation. In general, wage legislation does not apply to public servants, and seldom have Brazilian governments put its public employees under any protective rule. On the contrary, apart from a few exceptional cases, public sector wages are usually ruled by entirely *ad hoc* criteria, which on many occasions have produced a devastating impact on real incomes.

One might say that public sector wage bills are not determined entirely by updating rules, but also by new jobs and some other factors, e.g. promotions, benefits dependent on the simple elapsing of time, which increase the nominal payroll even in the absence of any indexation rule. This is true but, at any rate, what matters to the above argument is that inflation and the absence of enforceable regulations together have put in the hands of public authorities a powerful real price determination mechanism, concerning the most important item of public expenditure.[35]

[35] If we were to include social security expenditures in our analysis, similar conclusions would apply since pensions are imperfectly indexed. But the absence of indexation also affects social security revenues.

By contrast, the prices of other public goods cannot be submitted to the same strict control. Public sector purchases are governed by time-consuming legal procedures and more generally by nominal price conditions. Prices above the normal market level are a natural consequence and, although no systematic public/private buying price comparison is available, there is evidence of overpricing in governmental purchasing.

In short, high inflation itself challenges the effectiveness of taxation, but the net effect, or what I have called the purchasing power of public revenues, depends not only on the real tax revenue, but also on the real prices of public goods, or their relative price compared to revenues and to prices paid by the private sector. A more authoritative conclusion on the final impact of inflation on public budgets would have to include both sides – expenditures and revenues – and further investigation on relative prices and taxation; that is, it would have to include allocation effects and relative price analysis.

Federal *versus* state revenues: overall performance

Since the main target of the 1988 Constitution has been the strengthening of states and municipalities, at the expense of the Union, it is useful to have a look at the overall balance of revenues. Table 3 compares the Value Added Tax (ICMS - all states included) with the sum of federal taxes and with the sum of federal taxes plus Finsocial, the most important and tax-like contribution, excluding social security taxes. It can be seen that an immediate (and predictable) post-constitutional increase in the ICMS/Federal Taxes ratio was followed by a sharp decline in 1992 and 1993, which confirms that federal and states' fiscal revenues have had different performances within the period. If we include Finsocial, the fluctuations in the ratio are less marked.

Table 3

Federal Tax (FT), Finsocial (F) and Value Added Tax (ICMS) in Real Terms

ANNUAL AMOUNTS, 1988-93					
	1	**2**	**3**	**4**	**5**
	FT	**F**	**ICMS**	**ICMS/FT**	**ICMS/F**
				3/1	3/2
1988	2760	3009	2101	0.76	0.70
1989	2735	3095	2590	0.95	0.84
1990	3415	4007	2881	0.84	0.72
1991	2537	3085	2750	1.08	0.89
1992	2530	2888	2489	0.99	0.86
1993	2505	2926	2127	0.85	0.73

Source: Boletim do Banco Central do Brasil
(Values in 1993 Cr$ 1000)

These results underline two important achievements of the post-88 tax system. First, the federal contributions, as well as the social security revenues, have been favoured by the Union as the most revenue-effective elements, a quite foreseeable result since these are not shared with states. The federal government preferred to concentrate its revenue efforts in the Finsocial and Financial Operations Tax (IOF) field, in order to avoid the sharing of revenues. Secondly, since inflation itself has exerted an important negative effect on ICMS, the objectives of the 1988 Constitution have been in practice overturned. Table 4 shows the evolution of the Value Added Tax for a group of representative states in the hyper-inflationary 1988-93 period. For many important states, the ICMS amounts in 1993 were almost similar to the 1988 position. It may be argued that, owing to high inflation, 1988 is not a representative year; however, the losses imposed by inflation after 1991 cannot be denied.

Table 4
ICMS – Annual Revenues in Real Terms, 1988-93

	São Paulo	**Minas Gerais**	**Rio de Janeiro**	**R.G Sul**	**Bahia**	**Goias**	**M G Sul**	**Amazonas**	**Brasil**
1988	871	201	213	163	100	49	10	24	2101
1989	1074	235	234	209	104	62	32	44	2590
1990	1154	264	270	224	126	69	38	53	2881
1991	1039	264	280	208	117	72	43	45	2717
1992	954	254	260	196	113	67	42	33	2498
1993	901	231	230	193	110	58	36	32	2334

Source: Boletim do Banco Central do Brasil
(Values in 1993 Cr$ 1000)

Yet, as Table 5 suggests, the federal taxes have been more resilient to inflationary erosion, either because there have been frequent and decisive changes in the sharing of revenues, or due to the federal government's agility in legal and administrative matters and to the nature of the taxes under consideration. It is important to note that agility, e.g. changes in percentages, changes in taxing rules, so decisive in unstable periods, are more likely to be carried out at the level of the Union for one simple reason: only the federal government has the legal ability to rule on items such as indexation criteria, and enforceable indices of monetary upgrading. States and municipalities tend to follow the federal procedures, and delays in adapting to the changeable indexation rules, provided by almost all stabilisation plans, are common.

Table 5
Federal Taxes – Yearly Amounts in Real Terms, 1989-93

	IR	IPI	IOF	IIMP	TOTAL	FINSOC
1988	1471	720	140	140	2760	249
1989	1497	841	78	180	2735	360
1990	1782	890	564	45	3415	593
1991	1306	839	217	142	2537	548
1992	1268	844	239	161	2530	358
1993	1423	896	279	160	2762	473

Source: Banco Central do Brasil
(Values in 1993 Cr$ 1000)

It must also be remembered that, unlike the ICMS, federal taxes have more flexible rules. We have already seen the extreme variability of the Income Tax real burden, thanks to delays in the upgrading of the incidence brackets. The Financial Transactions Tax (IOF) is also very manageable under inflationary conditions, and IOF enhancing has proved to be one of the favourite federal government alternatives, because this tax is an automatic by-product of both inflation and high levels of interest rates.[36] On the whole, and in spite of the adverse impact of inflation on taxes in general, Table 5 shows Union revenue has been much more protected against inflation than the states' and municipalities' budgets, while it should also be remembered that transfers to states and municipalities are devalued by inflation.

Of course, the relative success of the Union's tax-raising strategies produces effects that stimulate unfairness and inadequacy within the Brazilian tax system. We have already mentioned the extreme variability of the personal income tax burden, and it is easy to infer that the absence of stable rules undermines equity objectives in tax collection. In its turn, the Financial Transactions Tax (IOF), conceived as a complement to interest rate policies, has been transformed into an important and almost indispensable fund-raising instrument.[37] The IOF raises the real cost of loans and its final incidence is quite uncertain, because a great part of its burden falls on prices and consumers in general. Finally, the Finsocial (calculated upon gross sales), in addition to the Social Security Taxes and other contributions which fall on wage costs, increases the importance of regressive

[36] It has been a special aim of federal authorities to boost Finsocial, but very complex litigation and a strong anti-Finsocial campaign, led by businessmen, proved to be harmful to the government's attempts. The long lasting judicial dispute would be overcome only in 1994.

[37] The Share of IOF in the total sum of federal taxes (excluding contributions and social security) was as follows: 1988:5.09%; 1989: 2.85%; 1990: 16.51%; 1991: 8.54%; 1992: 9.45%; 1993: 10.0%.

taxes. To foster a tax collecting strategy which favours such contributions entirely undermines equitative concerns.

Summing up, it may be said that inflation and revenue-protecting schemes have overturned the federal purposes of the Constitution, and have created distortions in the allocation of resources and in the pursuit of equity. Furthermore, they have introduced unpredictability as the main characteristic of the tax system. Almost all monthly real tax series show an erratic movement that is well beyond what might be attributed to seasonal and product-related causes. In such an unstable environment, budget forecasting is an activity that cannot take account of the real outcomes of taxation. The criteria – administrative efficiency and fairness – that usually guide fiscal analysis, and should guide government actions, is almost totally absent during inflationary periods.

Equity and allocation concerns: a preliminary statement

Value Added Tax is the most important of all Brazilian taxes and its size is sufficient to bring the whole structure towards an indirect tax-based system. Table 6 presents the Income Tax (IR) / (Federal Taxes+ICMS) ratio as a proxy for measuring the share of direct taxes within the tax system. The Federal Taxes (FR) are the sum of Industrial Product Tax (IPI), Taxes on Financial Transactions (IOF), Taxes on Investments (I.IMP) and Finsocial (FINS); the final column shows the ratio of income tax to the sum of federal taxes and ICMS. The results could not be more harmful to equity.[38]

Table 6
Direct and Indirect Taxation in Real Terms

	I	II	III	IV	V	VI	VII
	IR	IPI	IOF	I.IMP	FINS	ICMS	IR/(FR+ICMS)
							(I/II...VI)
1988	1471	720	140	140	249	2101	0.31
1989	1497	841	78	180	360	2590	0.27
1990	1782	890	564	45	593	2881	0.26
1991	1306	839	217	142	548	2717	0.23
1992	1268	844	239	161	358	2498	0.24
1993	1423	891	279	160	473	2334	0.26

Source: Boletim do Banco Central do Brasil
(Values in 1993 Cr$ 1000)

[38] In fact, the heading Income Tax includes taxation of firms, as well as other elements that should not be automatically treated as direct taxation; however, personal incomes are dominant. On the other hand, the exclusion of other direct taxes does not affect the conclusions, since they are irrelevant. The federal taxes listed in Table 6 represent more than 90% of the overall federal tax revenues.

It might be argued that inclusion of social security funding would turn the balance in favour of direct taxation. However, direct taxation in the strict sense (deductions from wages) represents less than 50% of social security revenues, and, besides, this is only marginally progressive in fiscal terms. The social security funding is mainly provided by employers' payroll contributions and some other indirect taxes.[39]

The relative importance of indirect taxes would also not be reversed by including municipal taxes, since those municipal taxes that are strictly direct (e.g. Urban Estate Tax and Fuel Retail Sales Tax) are counterbalanced by the Service Tax, an almost fully indirect tax and a quite significant one for the budgets of large cities. In any case, the share of municipal revenues in the whole system is not supposed to exceed 6%, if we include Social Security Tax in the overall account.[40]

From an international perspective, the regressiveness of the Brazilian tax system is also explained by the negligible importance of wealth taxes and, to a greater extent, by the unprogressive character of income tax. An excessively restricted range of income tax payers and of personal incomes taxed narrows a source of revenue which, in many countries, is of the utmost importance and adds some progressivity to the fiscal system.[41] The extremely high share of the Value Added Tax (including the Industrial Products Tax) plus Finsocial in the total revenue is, in a way, a consequence of the low level of income tax receipts in Brazil.

Only a more aggressive approach to wealth taxes and to income tax would allow Brazilian governments to reduce tax yields from regressive (or at least non-progressive) Value Added Tax and Services Tax, as well as to alleviate the high burden of the numerous wage-bill based taxes. The reduction of Value Added Tax rates and a revision in the extremely high incidence of payroll taxes seem to be general demands; however, such changes have to be counterbalanced by an increase in direct and progressive taxation, and this has so far been a taboo theme.

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[39] The social security system deserves special treatment, when equity is the main concern. However, the analysis would necessarily have to encompass expenses (social security pensions and medical expenses), because the main redistributive problems are located on this side. This task goes well beyond my purpose in this paper.

[40] In the period 1991-1992 the figure was 5.6%. This share was calculated from aggregate information on the gross burden of taxes (Union, states, municipalities, contributions) as percentage of GDP. According to the same criteria, the share of the state revenues would be 33% (ICMS: 28%). However, these results should be treated with caution, because they were not gathered from monthly deflated time series; for the same reason, they are not necessarily consistent with data presented in this paper.

[41] Taxes on income and profits as a percentage of total taxation (including social security) in OECD countries in 1992 varied from 17.3% (France) to 59.5% (Denmark), with the average being 37.0%. Source: *Revenue Statistics of OECD Member Countries* (OECD, 1994).

The insistence on the importance of wealth taxes, although they perform a secondary role in almost all countries, results from a sceptical approach to the possibilities of increasing the progressiveness of income tax. Income tax is mainly a wage tax in Brazil, and progressiveness seems to have been pushed to a limit within these boundaries. The difficulties in changing this picture become clear when we realise that an important (but impossible to be measured) part of personal incomes is not made up of explicit wage incomes. I do not refer to the fringe benefits for high salary earners, but to the large amount of unassessable personal incomes, inherent in the so-called 'informal economy', and, to a greater but unmeasurable extent, to the confused personal/entrepreneurial income entanglements that characterise small and medium-size business. Many small firms owners evade income tax, by disguising their personal incomes as entrepreneurial revenues, or simply hiding considerable amounts of their firm's revenues, later transferred to personal use, by means of false accounting records. As in any country, an effective inspection would necessarily have to include a thorough control of money flows, financial assets and personal properties in general, a task systematically undermined by the Brazilian judiciary.[42] Income tax enforcement is highly dependent on property value estimates connected to wealth tax records and financial controls in general.

It is easy to find other evidence on the unfairness of the Brazilian tax system; since it is difficult to increase the tax yield by exploiting the same taxpayers and taxing mechanisms, Brazil's unfair tax system has an obvious macroeconomic impact, in addition to its impact on equity. Nonetheless, I will not insist on classical equity issues, partly due to the lack of solid empirical evidence, and partly because some considerations on allocative effects may prove to be more helpful for an eventual construction of a framework to analyse equity.

First, it is important to consider the impact of inflation. It has already been pointed out that inflation distorts pricing mechanisms to such an extent that it becomes impossible to predict relative prices. The same *rationale* applies to all incomes, making it in consequence extremely tricky to think of relative incomes (and taxes) and equity. Furthermore, since prices cannot contribute much to inter-firm competition under inflationary conditions, supply and demand elasticities, which are supposed to determine the relation between taxes, prices and final burdens, lose a clear-cut meaning.

Secondly – and returning to tax evasion – a more authoritative conclusion about vertical equity (and progressivity) always takes acceptable patterns of

[42] This is another taboo theme. For obvious reasons, there is only anecdotal evidence about evasion, but no one denies it is widespread. Some newspapers have reported that inspection of imported cars, carried out in 1994, proved a great proportion of owners had not paid income tax or filled in the forms, which means they either ignore their fiscal responsibilities or do not admit to earn the minimum taxable threshold. The relevance of the story stands out when we match the minimum tax threshold (much less than US$ 1,000 monthly) with the price of imported cars (not less than US$ 20,000).

horizontal equity for granted. Taxpayers are supposed to pay taxes in accordance with the letter of the law, given their economic situation. With current levels of fiscal evasion, however, no one can be sure that taxpayers under similar economic conditions or participating in similar economic activities pay taxes on an even basis. Few taxes are enforced in accordance with the underlying economic values and in the Brazilian case this does not mean an excess of legal loopholes, but simply evasion. Most probably, only that part of income tax deducted at source, the part of the Social Security Tax paid by wage-earners (also deducted at source), Vehicle Tax and Fuel Retail Sales Tax are efficiently enforced. The first two are usually wage-subtracted taxes and the other two are examples of easily enforceable taxes.

Because of its importance, Value Added Tax is a strong case of lack of horizontal equity. Thanks to generalised cheating in the issuance of receipts, inspection routines are ineffective, and a large inequality in cost conditions is to be expected, since the taxpayers in this case are firms. Inter-firm competition is strongly affected by the variance between sale prices and tax costs, which adds strong allocative considerations to a subject that was primarily one of equity. Some firms pay Value Added Tax, while their competitors do not. Tax evasion reinforces different capabilities within the same markets, and provides a protective cushion for inefficient firms.

The same conclusion applies to an important range of much evaded taxes, e.g. Service Tax, Finsocial, Social Security Tax (partly paid by the employers), and income tax (except for the wage-deducted part), to such an extent as to make difficult any conclusion about fairness. That is, owing to evasion, taxation exerts an uneven and unpredictable impact over the whole income and price system. The consequences are not only damaging to overall economic performance and to tax revenue efficacy, but to transparency and equality before the law in general. Since these provide the very basis of a democratic system, it is not difficult to conclude that the symbolic contribution of the Brazilian tax system to public standards of life has been very low.

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