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Fiscal Rules and Debt Sustainability in Brazil

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Foreword

The institutionalization of the Banco Central do Brasil Technical Notes, conducted by the Department of Economics, promotes the dissemination of works featuring economic content, attracting both theoretical and methodological interest, giving a view of the short-term developments of the economy and reflecting the work of the Bank's employees in all areas of action. Besides, other works, though external to the Banco Central, may be included in this series provided the Bank has afforded institutional support to their preparation.

Fiscal Rules and Debt Sustainability in Brazil

ILAN GOLDFAJN

EDUARDO REFINETTI GUARDIA

Abstract: This paper discusses the sustainability problem in Brazil and describes the recent experience with fiscal rules, considered as a permanent constraint on fiscal policy, emphasizing the main macroeconomic and institutional aspects of fiscal adjustment in the Brazilian economy since 1998. We will argue that the adoption of fiscal rules, especially the Fiscal Responsibility Law, is an outstanding feature of the fiscal consolidation process, reinforcing the credibility of monetary stability and economic growth.

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Fiscal Rules and Debt Sustainability in Brazil¹

ILAN GOLDFAJN²

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1. Introduction

Assessing fiscal sustainability in a real economy involves a degree of subjectivity. The numerous future possibilities for the relevant variables – real GDP growth, real interest rates, and real exchange rates – may lead to different assessments. Debt sustainability exercises should focus on medium- and long-run scenarios, but transitory adverse market swings commonly result in biased assessments. In general, neutral assessments are more common in tranquil times.

Fiscal sustainability discussions should depend on probabilities. What is the probability of a further real depreciation of the exchange rate in Brazil over the next 5-10 years? What are the chances that equilibrium real interest rates will remain as high as they are currently? Both questions are relevant, given the sensitivity of the Brazilian public debt to these variables. We will argue in this paper that both probabilities are small when we consider a time frame of 5-10 years. The current real exchange rate is probably undervalued, and real interest rates are very high and on a declining trend.

Some analysts tend to extrapolate the past behavior of the debt-GDP ratio in Brazil into the future. We argue that this is incorrect because the factors that have contributed to the increase in the debt ratio are nonrecurrent. These factors are:

- a) a weak institutional framework for controlling public finance at the three levels of government;
- b) a recognition of already existing hidden liabilities (the so-called skeletons) of about 10% of GDP;
- c) weak public sector primary results until 1998;
- d) significant real depreciation since 1999;
- e) high real interest rates.

All of the factors above should be excluded in a forward-looking analysis of fiscal sustainability in Brazil. The fiscal stance has improved considerably since the introduction of a rules-based fiscal policy system in 1998, and there is reason to expect that this policy will continue to be followed; the real exchange rate has adjusted under

1/ We would like to thank Amaury Bier, Arminio Fraga, Katherine Hennings, George Kopits, Joaquim Levy, Helio Mori, Pedro Malan, Roberto Pires Messenberg, Daniel Sonder, and the Economic Department at the Central Bank of Brazil for valuable comments and suggestions. All remaining errors are the authors' responsibility.

2/ Deputy Governor for Economic Policy, Central Bank of Brazil.

3/ Finance Secretary of the State of São Paulo.

the new floating exchange regime; and most of the hidden liabilities have already been identified and are factored into our analysis.

Assessing fiscal sustainability also requires analyzing the current institutional framework. Such an analysis reveals whether current primary surpluses are sustainable and whether there is scope for further adjustment, if conditions so require. In this respect, a few important points are worth considering. First, although a tax reform would increase efficiency, there are no structural difficulties in generating revenues in Brazil; on the contrary, the overall government tax revenue amounts to about 35% of GDP. Second, fiscal discipline has been achieved at all levels of government due to successful agreements between the federal government and subnational governments currently generating structural primary surpluses. Third, the Fiscal Responsibility Law ensures a sound, permanent fiscal regime. There are borrowing limits and no government can spend beyond its means; furthermore, the borrowing capacity of state and local governments was significantly constrained by the closure of most state banks. Fourth, there is a constitutional ban on any law that modifies existing financial contracts or that can be interpreted as forced restructuring. The constitution establishes that “the law shall not injure the vested right, the perfect juridical act and the *res judicat*”⁴. Nonetheless, there is recognition that further reforms are still needed to increase flexibility in spending and reduce the social security deficit.

The importance of institutions in explaining the differences in fiscal outcomes among countries received growing interest in economic literature. Although empirical evidence is still sparse, studies have emphasized that the characteristics of the fiscal organization, the budgetary process, the political system, the balanced-budget laws, and the procedural rules of a country are examples of institutions affecting fiscal performance. As a matter of fact, empirical evidence suggesting that institutions matter is stronger than the evidence on the mechanisms by which these institutions matter (POTERBA and HAGEN, 1999).

Even though there is a consensus that “institutions matter”, the adoption of fiscal rules as an alternative to imposing fiscal discipline is still controversial. This debate becomes even more complex considering that a fiscal rule can be designed in various ways with quite different effects.

A fiscal rule can be broadly defined as a permanent constraint on fiscal policy. The experience of developed and emerging market economies has emphasized four major types of fiscal rules: debt ceilings; targets for selected fiscal variables, usually the nominal and/or the primary balance; limitations on payroll or on expenditures growth; and the use of a broader law of public finance frequently defined as the Fiscal Responsibility Law.

4/ Article 5, Item XXXVI, Constitution of the Federative Republic of Brazil. Additionally, Article 1 of Constitutional Amendment 32, of September 11, 2001, that changes Article 62 of the Constitution, establishes that the issuance of Provisory Measures by the President of the Republic is forbidden when it targets the arrestment of goods, of private savings, or any other financial assets.

This paper discusses the sustainability problem in Brazil and describes the recent experience with fiscal rules, emphasizing the main macroeconomic and institutional aspects of fiscal adjustment in the Brazilian economy since 1998. We will argue that the adoption of fiscal rules, especially the Fiscal Responsibility Law, is an outstanding feature of the fiscal consolidation process, reinforcing the credibility of monetary stability and economic growth.

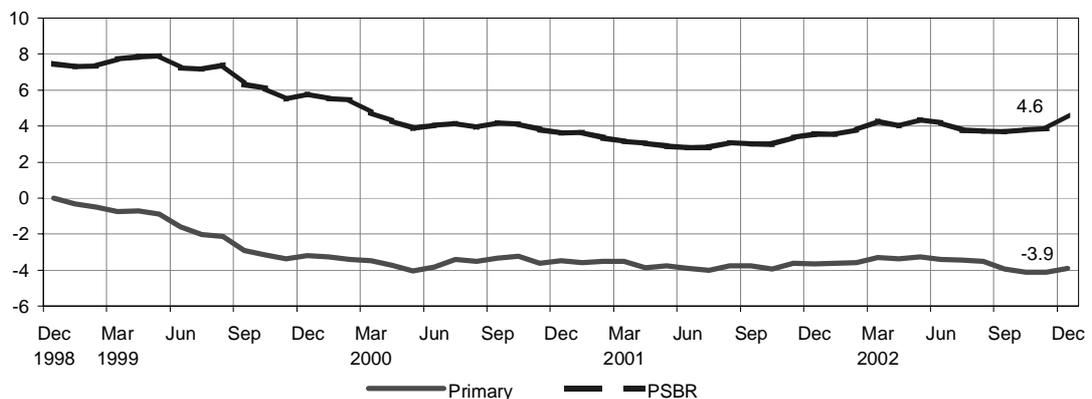
The paper has five sections. After an introduction, the second section analyzes the recent fiscal performance in Brazil. The third describes the Brazilian experience with fiscal rules, emphasizing their importance for the federal government and subnational governments. The fourth section discusses the solvency and sustainability of the public sector in Brazil. The last section summarizes the main findings and conclusions.

2. Recent fiscal performance in Brazil

The fiscal results in Brazil have improved significantly in the recent past. The nominal deficit or the public sector borrowing requirements (PSBR), which had reached about 7% of GDP in the twelve months up to the end of 1995, improved to 4.61% of GDP in December 2002 (Graph 1).

The primary fiscal results, which include total revenues and expenditures excluding interest payments, show positive developments, with the surplus increasing from 0.36% in December 1995 to 3.91% in December 2002. The operational fiscal results – defined as the primary surplus minus real interest rate payments – evolved from a deficit of 4.89% in 1995 to a surplus of 2.60% in December 2002.

Graph 1 – Public Sector – PSBR and Primary Results
(% of GDP) – Accumulated 12 months – valorized
(-) surplus; (+) deficit



The net federal government debt, which includes the National Treasury and the social security system, amounted to R\$566.7 billion in December 2002, or 36.4% of GDP. Adding the central bank's net debt, the resulting net central government debt reached R\$560.8 billion, or 36% of GDP.

If one considers the three levels of government – federal, state, and local – the net general government debt was R\$859.7 billion in December 2002 (55.2% of GDP). This amount added to the net debt of the central bank and the public enterprises results in a net public sector debt of R\$881.1 billion, or 56.5% of GDP (Table 1).

Table 1 – Net public sector debt, December 2002

Itemization	R\$ million			
	Domestic	External	Total	% of the GDP
Net Consolidated Public Debt (A + B + C + D)	654 312	226 796	881 108	56.5
Net General Government Debt (A + B)	581 673	278 040	859 713	55.2
Federal Government (A)	310 003	256 732	566 735	36.4
States and Local Government Debt (B)	271 670	21 308	292 978	18.8
Central Bank (C)	53 235	-59 141	-5 906	-0.4
Net Public Enterprises Debt (D)	19 404	7 897	27 301	1.8

Source: Fiscal Policy Press Release, January, 30 2003

While the net general government debt stood at 55.2% of GDP, the general government debt in gross terms reached R\$1,132.9 billion in December 2002, or 72.7% of GDP. This figure includes the total external debt of R\$284.3 billion, and domestic debt of R\$848.6 billion, for the federal, state, and local governments.

We argue that, while the concept of federal gross debt is more frequently used for exercises of debt dynamics because the figures on regional government are difficult to collect and the quality of the assets of the government difficult to measure, the net debt concept is quite appropriate in the case of Brazil. The concept of net public sector debt includes the three levels of government, the central bank, and the public enterprises. Intergovernmental debt has been consolidated on a sound footing and the nature of the government assets is quite clear.

The net debt concept takes into account that assets can be used to redeem gross debt. Running out assets without affecting the gross debt level can always finance deficits. In this respect, the net public debt concept is closer to the true measure of a public sector's net worth, because it deducts total liabilities from all assets. Incidentally, this is the direction taken by the IMF's 2001 *Government Finance Statistics Yearbook*, which proposes a set of statistics that attempt to reflect the true net worth of the public sector⁵.

5/ Although the concept of net debt is closer to the definition of net worth than gross debt, by no means does it substitute the need for the development of a more appropriate net worth concept.

Liquid assets are particularly suitable for redeeming debt at short notice. However, from a medium-term perspective, less liquid assets clearly ought to be taken into consideration (in symmetry with the accounting of less liquid liabilities, that is, government debt that does not mature in the short term). In the case of Brazil, the assets owed to the government, included in the net government debt calculations, are effectively available for payment of fiscal expenses (Table 2). In particular, the deposits of the social security system, the tax collected by all government levels but not yet transferred to the treasuries, the demand deposits of all levels of government – including the treasury deposits at the central bank – total almost 7% of GDP and are very liquid. Of course, the investments of several constitutional public funds, the resources of the Labor Assistance Fund (FAT), other government credits, and credit to public enterprises are less liquid, but not necessarily of lower quality.

Table 2 – Gross and net general government debt, December 2002

Itemization	R\$ million	% of GDP
Net Consolidated Public Debt	881 108	56.5
Net General Government Debt	859 712	55.2
Gross General Government Debt	1132 894	72.7
General Government Credits (assets)	272 683	17.5
Deposits of the Social Security System	876	0.1
Tax collected (not transferred – float –, all government levels)	1 144	0.1
Deposits (all government levels)	102 493	6.6
Investments of Financial Funds and Programs	38 847	2.5
Labor Assistance Fund (FAT)	67 133	4.3
Other government credit	23 293	1.5
Credit with public enterprises	32 613	2.1
Federal government external credits (collateral)	6 284	0.4

Source: Fiscal Policy Press Release, January, 30 2003

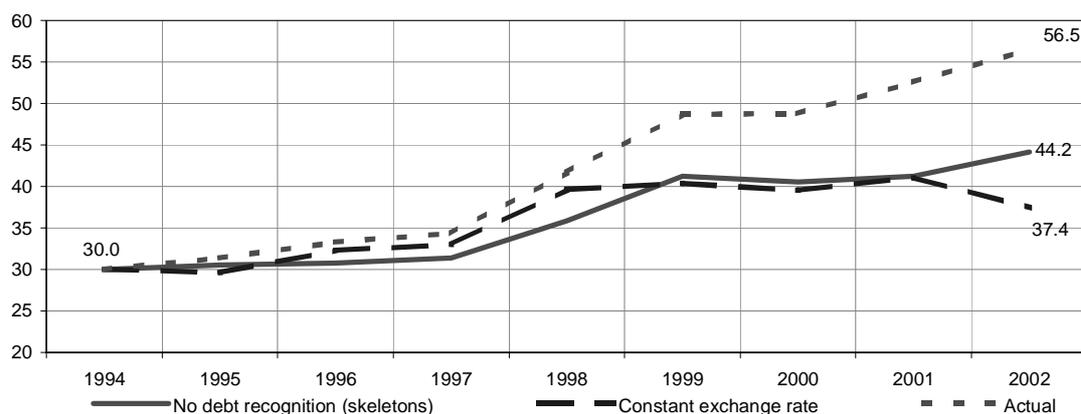
The debt ratio increased 26.5 percentage points from 1994 to 2002. During this period substantial reforms were implemented, leading to inflation stabilization, increased transparency and debt recognition, and adjustments in the real exchange rate in the last three years to improve external accounts. These factors significantly influenced the rise in the debt ratio. For example, the exchange rate depreciation was responsible for an increase equivalent to about 19% of GDP, and the recognition of hidden liabilities (“skeletons”) to another 12% of the GDP rise. The key point is that these factors are nonrecurrent, because the adjustment in the real exchange rate has occurred (the real exchange rate is now probably undervalued) and a large share of “skeletons” has been recognized (the rest are factored into our basic scenario).

Some hypothetical calculations illustrate the impact of these factors on the debt ratio path. If the exchange rate had been kept stable from the end of 1994, and other factors had remained as actually observed, the debt ratio would have reached 37.8% in 2002, instead of 56.5% (Graph 2). Since the effect of the depreciation is

calculated on accrual basis, part of this effect might actually reverse itself if the exchange rate were to appreciate to its earlier level.

Similarly, Graph 2 shows the evolution of debt ratio without recognizing the “skeletons”. Recognizing no “skeletons”, the debt ratio would have reached 44.7% of GDP.

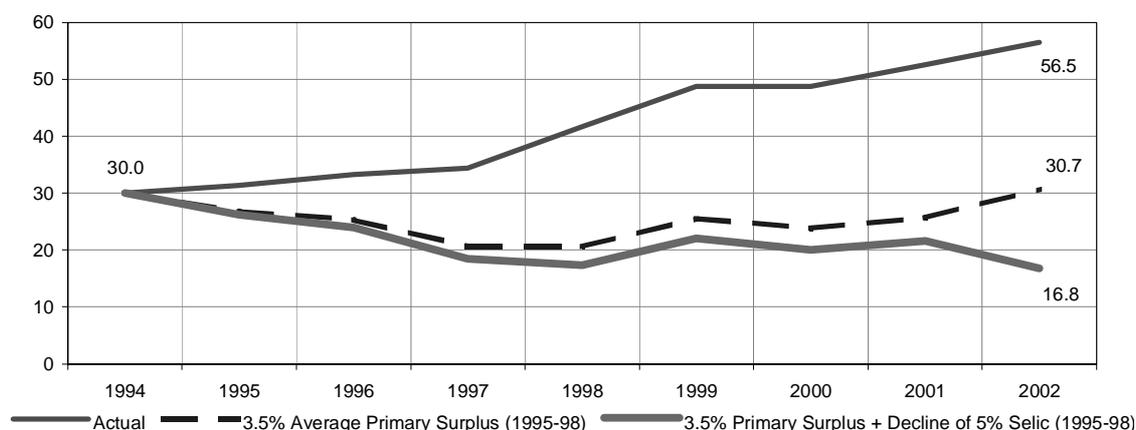
Graph 2 – Actual evolution of net public sector debt and counter-factual constant exchange rate and no-skeletons exercise (% of GDP)



Since 1999, Brazil has produced significant and consistent primary surpluses. One can ask whether adopting the current policy earlier would have prevented the recent increase in the debt ratio. A positive answer implies that current fiscal policy could have stabilized the debt, even under adverse conditions, as the period 1994-2002 was characterized. Under a policy of generating primary surpluses of 3.5% of GDP (remarkably lower than today’s 4.25%) since 1995 and maintaining other factors as observed, the debt ratio would have declined, reaching 30.7% of GDP in 2002 (Graph 3). In fact, in such a virtuous context, one would have expected lower interest rates. Under the same fiscal policy and a reduction of 5% in the basic interest rates in the period 1995-98, the debt ratio would have declined more steeply. The debt ratio would have reached 26.8% in December 2002, a reduction of 3.5% of GDP compared to the 1995 level. This path would have reflected the incidence of a lower interest rate on the lower stock of outstanding debt.

The change in the debt ratio curve due to the persistence of an appropriate sequence of primary surpluses is significant. The primary surplus would have produced an initial reduction in the debt amount, and then this reduction would have become steeper with smaller payments of interest and the sequencing of new surpluses. This favorable dynamics would have allowed a considerable decline in the debt ratio over the period.

Graph 3 – Actual evolution of net public debt and counter-factual fiscal exercises



If the past is any indication of the future, these exercises suggest that in the absence of major adjustments in the real exchange rate, or the need to recognize hidden liabilities of about 10% of GDP, and with the current policy of generating a sizable fiscal surplus, the debt ratio is likely to decline in the future.

3. Fiscal rules in Brazil

Important institutional reforms have been implemented in the last few years so as to maintain the primary fiscal surpluses at appropriate levels and ensure the sustainability of the debt.

A comprehensive view of the consolidated public sector performance in Brazil requires an understanding of the state and local government finances and their important role in terms of fiscal policy. The 27 existing states and over 5,500 municipalities are responsible for approximately 50% of public expenditure and have a major role in providing essential public goods such as basic education, health, and public security. In December 2002, states and local governments' net debt amounted to 18.8% of GDP, representing 33% of the consolidated public net debt in Brazil (Table 3).

The federal constitution guarantees financial and administrative autonomy to subnational governments and clearly defines their tax base and legal transfers from the federal government, resulting in a significant degree of decentralization of public expenditure in Brazil. Although Brazil is organized under a federal system with a high degree of autonomy for subnational governments, the Senate regulates public sector indebtedness. Since 1968, the Senate has issued several resolutions to control public debt. In addition to the Senate control on the demand for credit, there are also restrictions for its supply. National Monetary Council Resolutions authorize the central bank to control the supply of domestic bank credit to subnational governments. Under Resolution

2,827, outstanding loans to the public sector (the three levels, including public enterprises) may not exceed 45% of any bank's (private and public) net worth.

Last but not least, the federal constitution forbids the Central Bank of Brazil from financing the national treasury. The Central Bank of Brazil cannot grant loans to the treasury or to any other nonfinancial public entity, nor is it authorized to buy primary issues of government securities⁶.

Table 3 – Public Sector Net Debt (% of GDP)

	1994	1995	1996	1997	1998	1999	2000	2001
Federal Government	13.1	13.4	15.9	18.7	25.0	30.1	32.8	36.0
State and Local Governments	10.1	10.7	11.6	12.9	14.1	16.3	18.3	18.8
Public Enterprises	7.2	6.7	5.9	2.8	2.6	2.8	1.6	1.8
TOTAL	30.4	30.8	33.4	34.4	41.7	49.2	52.6	56.5

Despite Brazil's extensive and complex legislation for controlling subnational government debt, up to 1998 state and local government debt presented a troublesome growth pattern (Table 3)⁷. Two major aspects explain the debt growth and the failure of the existing system. First, the rules were extremely permissive in terms of debt rollover. During some periods Senate resolutions authorized the states to roll over up to 100% of the debt service (interest plus principal). In the context of high real interest rates existing in Brazil, this permissive rule led to the rapid growth in debt due to the capitalization of interest, even with no new borrowing.

Second, the federal government had been accustomed to bailing out insolvent state and local governments. From 1987 to 1997, the federal government implemented at least four major programs to refinance subnational governments and their enterprises. Furthermore, the fast growth of the state debt during the nineties, especially the debt in securities, forced the federal government to exchange state bonds for federal bonds to make the debt rollover viable, as the states were not able to finance their debts in the market. These procedures artificially reduced the subnational government cost of borrowing, created an incentive for indebtedness, and introduced a dangerous moral hazard into Brazil's fiscal federalism.

State banks and state public companies were also a major source of imbalance until the late nineties. State banks routinely provided financing for state governments and nonfinancial public enterprises increased their debts to support quasi-fiscal

6/ However, the treasury is authorized to roll over existing liabilities held by the Central Bank of Brazil.

7/ The debt growth observed in 2001 was mainly associated with the impact of the exchange rate depreciation.

operations. Although few states have borrowed directly from their commercial banks, the banks have facilitated state borrowing by underwriting state bond issues. It is worth mentioning that a significant stock of liabilities of state enterprises was assumed by the respective states and renegotiated with the federal government at a lower cost.

The growth of state and local government debt was also caused by a deterioration of the federal government's fiscal performance after Brazil's Real Plan in 1994. The combination of high real interest rates and low (or even negative) primary surpluses resulted in a significant growth of the net federal debt as a percentage of the GDP. This situation was also worsened after the Asian and Russian crises, which required a strong reaction in terms of monetary policy, reversing the interest rate reduction initiated in 1995.

An inefficient budgetary process at the three levels of government also characterized Brazilian fiscal policy up to 1998. Until 1994, this inefficiency resulted from the impact of inflation on budget execution. All the major revenues had some sort of formal or informal indexation, but high inflation existed without indexation mechanisms on the expenditure side. In this context, cash management policy affected the allocation of resources and the real level of expenditure (CARDOSO, 1998). As a result, the budget was almost a fictitious instrument, with very little influence over expenditure allocation and fiscal performance.

In sum, any consistent attempt to improve fiscal policy in Brazil in the late 1990s had to deal with the following issues: the stabilization of the debt ratio; the need for new instruments to control state and local government debt; the creation of conditions for avoiding future bailouts of state and local governments; the restructuring of the budgetary process and the introduction of a medium-term macrobudgetary framework; and the increase in the transparency of fiscal reporting.

The approach towards fiscal policy dramatically changed in 1998, when the federal government's Fiscal Stabilization Program was announced. This comprised four initiatives:

- a) a front-loaded fiscal adjustment aiming to increase the primary surplus of the consolidated public sector;
- b) institutional reforms, notably the social security system and administrative reform;
- c) redesign of the fiscal federalism based on a comprehensive debt refinancing agreement with states and local governments;
- d) reform of the budgetary process and the introduction of fiscal rules.

Recent achievements in the consolidated public sector primary result show the effectiveness of the reforms. Starting from a primary deficit in 1997 and virtually zero primary surplus in 1998, the consolidated public sector has shown primary surpluses superior to 3.5% of GDP since 2000⁸. The important aspect is that the reforms adopted since 1998 have resulted in a structural primary surplus for the consolidated public sector, consistent with a sustainable path for the existing debt.

To explain this adjustment, we must examine the impact of two sets of reforms mentioned later: the debt refinancing agreement signed with state and local governments and the introduction of fiscal rules, in the context of the Fiscal Responsibility Law enacted May 2000. These reforms were the two most important changes in the Brazilian fiscal regime since the 1988 Constitution: they substantively changed public sector fiscal behavior.

Twenty-five of Brazil's 27 states signed debt-restructuring agreements⁹. According to these agreements, states refinanced their debts for 30 years with a fixed real interest rate of 6%. The federal government issued federal securities to redeem the existing state debts and became creditor to the states. The cost assumed by the federal government is reflected in the differential between the interest rate paid by the states to the federal government and the latter to the financial markets. According to estimates of the National Treasury Secretariat, this cost reached approximately US\$22 billion by July 2001.

Two important aspects of this program require emphasis. One is that for the first time in the relationship between federal and state governments, the bailout was followed by an explicit obligation for the states to commit themselves to an agreed-upon fiscal adjustment program, including an accorded path for the state debt. The fiscal program, approved by the Senate on a case-by-case basis, also sets targets for revenue and expenditures, and determines the use of privatization proceeds to redeem public debt.

Second, to receive the benefits of the debt-restructuring agreement, the states had to offer their own revenue and the legal revenue transfers from the federal government as a guarantee. In the case of a default, the contracts authorize the federal government to retain the legal transfers or, if this is not enough, to withdraw the amount due from the state's own bank account. This kind of guarantee has proved to be very effective: it is a zero default program. Furthermore, states failing to comply can be denied federal guarantee on new state borrowing and, under the original terms of the agreement, violations incur interest penalties on the rescheduled debt and an increase in debt service ceilings.

8/ As already mentioned, fiscal accounts in Brazil are defined comprehensively. The PSBR (released on a monthly basis by the Central Bank of Brazil) comprises the three levels of government (including the central bank and the social security system at the federal level) and the nonfinancial public enterprises (federal, state, and municipal). This is particularly important for the purpose of international comparisons.

9/ Only two small states, Tocantins and Amapá, with virtually no debts, did not sign agreements.

The fiscal program signed by each state contains, as a general rule, the obligation of a minimum debt payment to the federal government equivalent to 13% of the state net revenue. This is the reason for the highly significant change in the states' fiscal performance since 1998¹⁰. This program introduced a major structural change in state financing, imposing a substantial fiscal adjustment effort at the state level. The most important aspect is the reduction of payroll expenditures. Total state personnel expenditure represented more than 70% of their net revenue in 1987; in 2001, this expenditure was reduced to less than 60%.

Following state models, the federal government also restructured the local government debt incurred before May 2000. This program was approved by law and benefited 183 municipalities responsible for more than 95% of the existing local government debt. In this case, the federal government also took the municipalities own revenue (including state and federal transfers) as a guarantee and required a monthly payment equivalent to 13% of the municipality net current revenue.

By December 2001 the total debt restructured by the federal government amounted to more than US\$100 billion, resulting in an annual flow of payment (principal plus interest) of US\$6 billion. This obligation resulted in a structural change in subnational government fiscal performance.

The top-down approach used to deal with the subnational governments in Brazil can be characterized as a *coordinated approach* (KOPITS, 2001). The goal was to establish collective credibility for overall macroeconomic policy, therefore creating conditions for a sound fiscal policy at the subnational level. The debt-restructuring agreement with states and local governments is the basis for the change in the subnational governments' fiscal performances after 1998. The improvements were also intensified after the approval of the May 2000 Fiscal Responsibility Law.

The Fiscal Responsibility Law sets a general framework for budgetary planning, execution, and reporting for the three levels of government. (As a complementary law, its modification requires a qualified majority of Congress.) The law calls for sustaining the structural adjustment of public finances and constraining public indebtedness. It comprises three types of fiscal rules: general targets and limits for selected fiscal indicators; corrective institutional mechanisms in case of noncompliance; and institutional sanctions for noncompliance¹¹.

The Fiscal Responsibility Law promoted several important changes in the Brazilian fiscal regime, but certainly the most important innovation was the prohibition of the federal government from financing state and local governments. The importance

10/ The State of São Paulo, the most important state of the federation, signed the first contract December 1997. The last contract was signed May 2000.

11/ IMF, 2001.

of this restriction is that it not only regulates the future behavior of states and local governments, avoiding the risk of intergovernmental bailouts, but that it also preserves the existing contracts. In other words, the Fiscal Responsibility Law prohibits any changes in the financial clauses of the existing debt-restructuring agreement, therefore enforcing the maintenance of the existing sound fiscal policy at the subnational level.

An important innovation of the fiscal rules introduced by the Fiscal Responsibility Law is the definition of debt ceilings for each level of government. These ceilings have to be approved by Senate resolution (based on an executive branch proposal) and are defined as a percentage of the net current revenue of each government. In case of economic instability or drastic changes in monetary or exchange rate policy, the federal government can submit to the Senate a proposal for changing these limits.

Any excesses have to be eliminated within one year. While the excess persists, new financing and discretionary transfers from the federal government are prohibited. A list of the governments that exceed the limit has to be published by the finance ministry on a monthly basis.

Although the debt–net revenue ratio varies significantly among subnational governments, the Fiscal Responsibility Law requires the same ceiling for each state and each municipality. To enforce the limits immediately, Senate Resolution 40, approved December 2001, authorizes state and local governments to adjust to the limits within 15 years, requiring an annual adjustment equivalent to 1/15 of the difference. In other words, although each state and local government will have to achieve the same limit, each subnational government will have its own path, based on the existing debt on December 2001. All the sanctions and penalties established by the Fiscal Responsibility Law for noncompliance with the debt ceiling will refer to these specific limits calculated for each subnational government.

The Fiscal Responsibility Law also introduced limits and procedural rules for the three levels of government:

- new, recurrent expenditure commitments have to be matched by instruments ensuring their full funding for the year in which they become effective and for the two consecutive years;
- public financial institutions at all levels of government are not allowed to lend to their main shareholders;
- payroll spending (widely defined as expenditures on personnel and pensions) is capped at 50% of net revenues for the federal government and at 60% for subnational governments. Several restrictions for personal management apply as long as expenditures are above the limits;
- spending commitments that exceed one budgetary period during the last year of a political term of office are prohibited;
- tax benefits should be included in the annual budget together with the instruments to offset their impact on the budget for two consecutive years;

- changes in monetary or exchange rate policy affecting fiscal performance will trigger an extension in the time limit for debt adjustment;
- sanctions for misbehavior range from withholding federal voluntary transfers to denial of credit guarantees or banning of new debt;
- personal responsibility applies to all public officials. A Fiscal Crime Law details penalties for mismanagement, ranging from fines to loss of job and ineligibility for public office for a maximum of 5 years, to imprisonment.

The new institutional framework also improves the transparency of fiscal reports, through comprehensive, timely, frequent, and detailed government reporting. Fiscal statistics have improved significantly, providing greater transparency and accuracy. The efforts made by the Brazilian government were recognized in 2001 in the International Monetary Fund's *Brazil: Report on Observance of Standards and Codes (ROSC) – Fiscal Transparency Module*:

Brazil attained high standards with respect to main indicators of fiscal management and transparency. ... The coverage of fiscal targets and fiscal statistics is commendably broad. Recent reforms in the budget and planning process have substantially improved the realism and transparency of the federal budget, and its consistency with macroeconomic constraints, as well as its effectiveness in resource allocation. Mechanisms of internal and external control are generally well developed, and increasingly aim to access not only formal compliance with legal requirement, but also the quality and cost-effectiveness of public spending. Fiscal statistics at the federal level are of high quality, timeliness, and detail. Brazil is at the forefront of countries at comparable level of development in the use of electronic means for the dissemination of fiscal statistics, legislation, and administrative regulation on tax and budgetary matters, and for delivery of government services, as well as to facilitate civil society's scrutiny of government activities and programs.

Another important change adopted in the context of a rules-based system has been the introduction of a legal target for the primary surplus. The legal target was first used in 1998, as part of the measures adopted during the Russian crisis. Since then, a more comprehensive legal target for the central government – including social security, the central bank and federal enterprises – has been defined every year in the Budget Guideline Law.

The objective of the Budget Guideline Law, applicable to the three levels of government, is to set the rules and guidelines for budget preparation. This law is prepared

by the executive branch, and sent to Congress four months before the executive's deadline for submitting the budget proposal for the next year. According to the Fiscal Responsibility Law, the Budget Guideline Law should fix a target for the primary surplus for the upcoming year and a reference for the next two years. Given the macroeconomic assumptions, also specified in the Budget Guideline Law, the established primary surplus must be consistent with the debt caps fixed by a Senate resolution.

One important feature of the rules-based system introduced after 1998 is that the adoption of a legal target for the primary surplus imposed the need of more realistic assumptions for budget preparation, resulting in an improvement in the budgetary process. The deficiency of the budgetary process in Brazil up to 1998 can be seen by the difference between the investment (Table 4) and the fiscal result (Table 5) approved in the budget law and the results obtained after budget execution. The numbers indicate that the budget was neither relevant for defining the budget constraint nor the allocation of public expenditure.

Table 4 – Federal Budget, 1995-2000

	R\$ billion			
Investment expenditures	1995	1996	1997	1998
Budget Approved	13.3	11.7	12.5	13.2
Executed	6.3	6.9	9.2	11.9
Executed / Approved	46.3%	59.0%	73.6%	90.2%

Source: Ministry of Budget and Planning and National Treasury Secretariat

Table 5 – Federal Government Primary Surplus (% of GDP)

	1996	1997	1998
1. Budget Approved	0.39	0.99	0.80
2. Effective Result			
– "above the line"	0.01	0.20	0.58
– "Below the line"	0.38	-0.26	0.57

Source: Ministry of Budget and Planning and Central Bank of Brazil

The situation was exactly the opposite after the introduction of a ruled-based system, and the definition of a legal target for the primary surplus: more realistic assumptions for revenue and nondiscretionary expenditure increased the consistency between the primary surplus considered in the budget proposal and the result observed. Since September 1998 all the quarterly fiscal targets set for the primary result of the consolidated public sector have been met.

In sum, besides all the improvements in terms of fiscal transparency, the new rules-based system was based on two fundamental issues: the design of a new

fiscal federalism, aiming at maintaining fiscal discipline at the subnational level and prohibiting future bailouts; and the maintenance of public sector solvency through the definition of a legal target for the primary surplus consistent with the debt sustainability.

4. Debt sustainability in Brazil

The government is considered to be **solvent** if the present discounted value of its current and future primary expenditure is no greater than the present discounted value of its current and future path of revenue, net of any initial indebtedness. A government's debt position is considered to be **sustainable** if it satisfies the present value budget constraint (that is, it is solvent) without any major correction in the future that would be unfeasible or undesirable for economic or political reasons (IMF, 2002).

The solvency condition derived under constant values for growth, interest rates, and primary surplus is also a condition for sustainability since, by construction, it does not require a major change in future variables to satisfy the intertemporal public sector budget constraint.

The institutional framework implemented in recent years has contributed to preserving the solvency of the public sector. Indeed the framework currently in place discourages excesses at any level of government by means of instruments to preserve fiscal discipline. Additionally, the Fiscal Responsibility Law has created a set of constraints – borrowing limits and ceilings for expenses with personnel – preventing fiscal irresponsibility.

Analyzing debt sustainability requires devising a basic scenario. The hypotheses in our basic scenario are conservative:

- a) an annual growth rate of 3.5%, less than the potential output growth for Brazil, currently estimated at about 4.5% with recent data on productivity and labor force growth;
- b) a high and conservative real interest rate of 9%;
- c) a nominal (but not real) currency depreciation;
- d) a stable primary surplus of 4.25% of GDP;
- e) the recognition of “skeletons” (including all FCVS accounts), estimated at 0.63% of GDP in 2003 and approximately 0.65% of GDP between 2004 and 2007.

The nominal and real interest rates are defined by the implicit internal public debt interest rate. This implies that a 9% real interest rate assumes an even higher value – at about 10% – for the real interest rate based on a Selic rate. This is conservative since a lower rate is warranted by the current fundamentals – a healthy banking system, floating exchange regime, and fiscal framework. The assumption regarding the

“skeletons” – recognition of 0.65% of GDP until 2006 – provides a faster decline in the debt ratio after 2006.

Under these hypotheses, the net debt to GDP ratio declines substantially and reaches 40% of GDP in 2011 (Table 6). Alternative scenarios for GDP growth and real interest rates may produce different outcomes. Table 7 shows the required primary surplus to stabilize the debt to GDP ratio over the next decade. The results show that maintaining the primary surplus close to 4.0% of GDP, the debt ratio should start declining over the next few years. This result is valid even if there are negative outcomes from both variables.

Table 6 – Baseline scenario

Discrimination	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Inflation GDP deflator (average)	8.47	18.03	7.35	4.75	4.00	4.00	4.00	4.00	4.00	4.00
Inflation GDP deflator (dec/dec)	10.88	9.21	5.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00
GDP real growth	1.52	2.20	3.50	3.50	3.50	3.50	3.50	3.50	3.50	3.50
Interest rate ^{1/}	17.54	23.09	14.99	13.36	13.36	13.36	13.36	13.36	13.36	13.36
Real interest rate	6.00	12.71	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Nominal currency depreciation	52.29	-3.75	3.94	2.46	2.46	2.46	2.46	2.46	2.46	2.46
Primary (% of GDP)	-3.96	-4.25	-4.25	-4.25	-4.25	-4.25	-4.25	-4.25	-4.25	-4.25
"Skeletons" ^{2/}	0.81	0.63	0.65	0.64	0.63	0.63	0	0	0	0
Net debt (% of GDP)	56.53	56.74	55.30	53.78	52.17	50.48	48.10	45.60	42.97	40.22

1/ Implicit interest rate of internal net debt .

2/ Net of privatization proceeds (% of GDP).

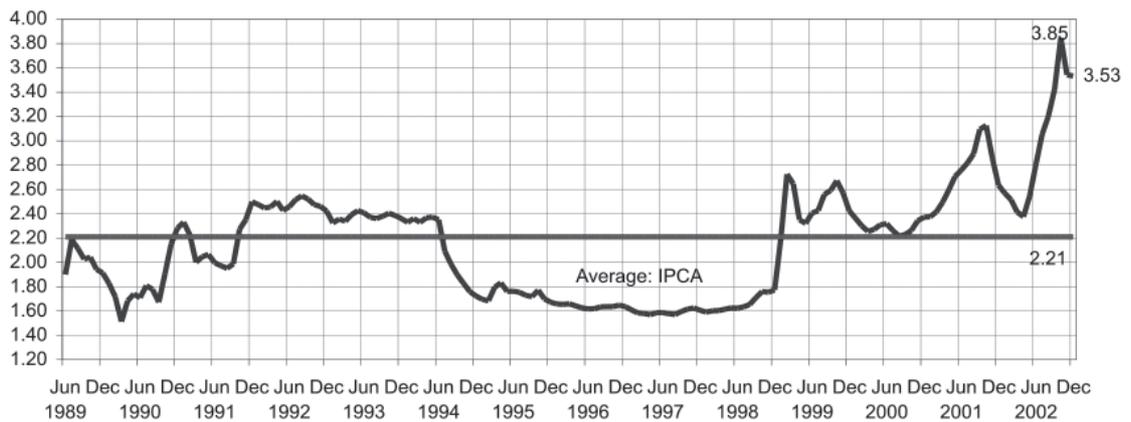
Table 7 – Primary Surplus Required to Stabilize Debt/GDP Ratio

GDP growth	Real Interest Rates				
	6	8	9	10	12
1.50	2.50	3.20	3.60	4.00	4.80
2.50	2.00	2.70	3.00	3.40	4.20
3.50	1.40	2.10	2.40	2.80	3.60
4.50	0.90	1.60	1.80	2.30	3.10
5.50	0.40	1.10	1.30	1.80	2.50

But, what if the exchange rate continues to depreciate over the coming years? First, it is important to realize that it is the real exchange rate that matters in sustainability calculations. The path of the nominal exchange rate depreciation only affects the debt ratio insofar it exceeds inflation (measured by the GDP deflator). If the nominal rate path generates a consistent depreciation, it will eventually lead to a higher inflation rate.

Second, the probability of real exchange rate depreciation from current levels in the coming years is low. Indeed, Graph 4 shows that the real exchange rate is undervalued and well above the average level recorded over the last 15 years¹². Under an inflation-targeting regime, monetary policy is geared towards avoiding this inflationary outcome, increasing the likelihood of a nominal exchange rate appreciation. This outcome is more likely when the longer-term trend of the real exchange rate is more appreciated than the current levels.

Graph 4 – Effective real exchange rates – Prices of December 2002^{1/}



1/ Basket of currencies.

On balance, the likelihood of any of the worse-case scenarios is small. Moreover, if such contingencies occur, reasonable corrections in the future fiscal efforts are feasible, as was the case with the increasing targets that were set from 1999 until 2003. In fact, the key necessity is to maintain the current primary surplus.

5. Conclusions

The institutional reforms introduced since 1998, particularly the Fiscal Responsibility Law, have brought about a major improvement in the fiscal stance in Brazil. The main arguments raised in the paper are as follows:

- Fiscal rules do not compensate for bad fiscal management or eliminate structural imbalances, but they do contribute to restoring credibility, increasing transparency, and improving fiscal management practices. The rules-based fiscal policy in Brazil has played an important role in redeeming fiscal and monetary policy confidence and credibility. The clear definition of targets for the primary surplus and the achievement of all targets since 1998 have restored the authorities' credibility and reinforced the

^{12/} Graph 4 is constructed with real appreciation indicating downward movements.

effectiveness of inflation-targeting framework.

- The important reforms since 1998, notably the Social Security Reform and the debt-restructuring agreement with states and local governments, have been instrumental in promoting fiscal discipline and improving fiscal behavior. The contracts signed with the federal government as part of the debt-restructuring agreements played a decisive role. A few states, with the state of São Paulo undoubtedly the best example, made efforts to adjust their finances on a voluntary basis. The present rules-based policy has entirely changed the scenario of the eighties and nineties, when recurrent bailouts represented powerful incentives for politicians to avoid the inevitable political cost of the fiscal adjustment. The subnational governments had to deal with the adjustment of the primary flows, but not with the debt problem that was transferred to the federal government. In this context, top-down fiscal rules became very effective.
- Under reasonable and even conservative hypotheses the debt ratio should start declining over the next few years. This result is valid even if there are negative outcomes from any of the relevant determinants – real interest rate, GDP growth, real exchange rate, or contingent liabilities. The key necessity is to maintain the primary surplus close to 4.0% of GDP.
- It is possible to construct sufficiently negative scenarios in which the debt ratio does not stabilize. However, the likelihood of such scenarios is small. More specifically, further permanent real exchange depreciation is unlikely, given that the currency is substantially weaker than its 15 year average; real interest rates are on a declining trend, but still very high compared to other emerging markets. Further decline seems to be the natural path over the medium run. Finally, a recovery in the world economy will push GDP growth rates closer to the potential output growth—about the 4.4% observed in 2000.
- Nonetheless, if an unlikely negative scenario does materialize, further corrections in the balance of revenues and expenditures are feasible, as shown in the recent past. The comfort arises from the recent institutional progress in the fiscal regime in Brazil, in particular the Fiscal Responsibility Law and the agreements with states and municipalities.
- The recent debt ratio increase should not be used as an indication of future performance. Nonrecurrent events explain almost all of the past behavior. The recognition of hidden liabilities amounting almost 10% of GDP explains a good proportion of the increase. In addition, the required adjustment in Brazilian external accounts has led to the corrective adjustment that has already taken place in the real exchange rate. Also, the shift to consistent primary surpluses since 1998 has changed the fiscal outlook in Brazil. Finally, one should not expect real interest rates averaging 20% a year to be recurrent. In summary, if the past is to be used as an indication of the future, our analysis suggests that with no major adjustments in the real exchange rate, and with the current policy of generating a sizable fiscal surplus, the debt ratio is likely to decline in the future.

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