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**Tax Structure and Tax Burden in Brazil: 1980-2004**

*José Teófilo Oliveria and Ana Carolina Giuberti*

**Tax**

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## **Tax Structure and Tax Burden in Brazil: 1980-2004**

**José Teófilo Oliveira<sup>1</sup>**  
**Economist, Econos Consulting**

**Ana Carolina Giuberti**  
**Assistant Professor, Federal University of Espírito Santo**

This paper is an attempt to describe and exhibit the main features of the Brazilian tax system from 1980 to 2004. In the selected period, the Brazilian economy experienced a faulty economic growth process in the presence of very high rates of inflation.

In essence, what is shown here is significant upward movement of the total tax revenue in the country from a level of 25 percent of GDP to an all time high of 32.8 percent in 2004. In addition it is argued that this effort to raise additional revenue occurred in the 1990s and is primarily explained by social security expenditures and by interest payments on public debt.

The data collected also indicate that the tax system is dominated by indirect forms of taxation. The use of taxes on goods and services represented near 50 percent of the total tax revenue for most of the period.

The paper identifies the key changes in the tax laws in the period and the current problems of design and administration of the tax system.

Finally the macroeconomic context is presented and an attempt is made to relate the ups and down in the rates of economic activity and inflation to tax revenues and internal and external debt.

### **Tax Structure**

The twenty-five years that elapsed from 1980 to 2004 were characterized by significant changes in the Brazilian tax structure and in the amount of money that the three levels of government diverted from private use through taxation.

The tax system that had been in place in the early 1980s was designed in a tax reform implemented from 1965-67<sup>2</sup>. This reform promoted major changes, the most important being the introduction of value-added taxation. This new mode of taxation came to replace two cumulative taxes: the IVC, which was the backbone of the states' revenue, and the misnamed federal "consumption" tax which in reality taxed all sales within the industrial sector and imports in general. In addition, the 1965-67 tax reform revitalized, or perhaps more appropriately, truly instituted income taxation in Brazil with the implementation of modern tax administration procedures.<sup>3</sup>

During the late 1960s, the Brazilian public sector raised revenues equivalent to 25 percent of GDP with the use of a dozen taxes and three contributions.<sup>4</sup> This picture changed as time progressed, however. The tax system of the 1980s had essentially remained unchanged from the system implemented in the late 1960s. New demands for expenditures, mainly in the social area, however, brought forth a new federal contribution, FINSOCIAL, in 1982. In addition, a new state tax (IPVA) was created in 1986, based on ownership of automobiles and other means of transportation.<sup>5</sup>

In 1988, the picture shifted even further, as Brazil enacted a new constitution. Despite the fact that the Constitution was successful in terms of the construction of democratic values and institutions, it failed to construct an effective tax system. It should be recognized, however, that the Constitution improved the taxation of goods and

services by eliminating federal excises on fuel, electricity, minerals, communications and interstate transportation, and by incorporating the corresponding tax bases in the ICMS (a VAT which is the main source of revenue of the states).

To summarize briefly, the new constitution reinstated the tax structure that existed in 1988<sup>6</sup> and added four new taxes and contributions: a local tax on the retail sale of fuel, a state personal income tax, a federal wealth tax, and a federal social contribution on profits (CSLL). With the exception of CSLL, the other new taxes were abandoned in a few years for a variety of reasons.

In 2002, the Brazilian government implemented a federal fuel tax (a contribution earmarked for road maintenance and construction) and a (provisional) bank debit tax for the fiscal year of 1994 (IPMF), which later was transformed in contribution (CPMF) to finance health care.

The main taxes and contributions collected in 2004 by the federal government, states, and municipalities are shown in Table 7.1.

**Table 7.1. Main Taxes and Contributions in Brazil, 2004**

Level of Government and Taxes	R\$ million	% GDP	% Total
<b>FEDERAL GOVERNMENT</b>	<b>442,280</b>	<b>22.78</b>	<b>69.72</b>
<b><i>FISCAL BUDGET</i></b>	<b>155,855</b>	<b>8.03</b>	<b>24.57</b>
Income Tax	110,308	5.68	17.39
IPI (VAT Industry)	22,538	1.16	3.55
Import Tax	9,181	0.47	1.45
IOF (Loans, foreign exchange, and insurance tax)	5,209	0.27	0.82
ITR (Rural Property)	245	0.01	0.04
CIDE (Fuel Tax)	7,816	0.40	1.23
Others	558	0.03	0.09
<b><i>SOCIAL SECURITY BUDGET</i></b>	<b>246,466</b>	<b>12.69</b>	<b>38.85</b>

Social Security Contribution	93,765	4.83	14.78
COFINS (VAT)	77,593	4.00	12.23
PIS/PASEP (VAT)	19,417	1.00	3.06
CPMF (Financial Transactions)	26,340	1.36	4.15
CSLL (Contribution on Net Profits)	19,575	1.01	3.09
Others	9,776	0.50	1.54
<b>NON CLASSIFIED</b>	<b>39,959</b>	<b>2.06</b>	<b>6.30</b>
FGTS (Workers' Retirement Fund) payroll	28,269	1.46	4.46
Others	11,690	0.60	1.84
<b>STATES GOVERNMENTS</b>	<b>165,324</b>	<b>8.52</b>	<b>26.06</b>
ICMS (VAT)	138,275	7.12	21.80
IPVA (Vehicles)	8,910	0.46	1.40
ITCD (Inheritance Tax)	710	0.04	0.11
Others	17,429	0.90	2.75
<b>MUNICIPALITIES GOVERNMENTS</b>	<b>26,786</b>	<b>1.38</b>	<b>4.22</b>
ISS (Services)	9,682	0.50	1.53
IPTU (Urban Property)	8,965	0.46	1.41
ITBI (Property Transfer)	1,851	0.10	0.29
Others	6,288	0.32	0.99
<b>TOTAL</b>	<b>634,390</b>	<b>32.77</b>	<b>100.00</b>

Source: IBGE/FRS.

Note: GDP (2004): R\$ 1.9 trillion = US\$ 663.6 billion.

The data reveal that the federal government raised 69.72 percent of Brazil's total revenue, while the states collected 26.06 percent and the municipalities raised the smallest fraction, 4.22 percent.

Taxes and contributions collected by the federal government are divided to finance two independent budgets: the fiscal and the social security budgets.<sup>7</sup> The fiscal budget's main source of revenue is the income tax (personal and business). Other major sources of revenue include IPI, a value added tax centered in the industrial sectors, import

tax, IOF (a tax on loans, the purchase of foreign exchange, and insurance premiums) and CIDE (a recently created federal fuel contribution tied to road repair and construction).

The social security budget<sup>8</sup> is fed by five contributions: (1) contribution of employee and employers, a 30 percent rate on payroll (20 percent paid by employers and 10 percent by employees); (2) COFINS, a turnover tax created in 1982 that was converted in 2004 to a VAT; (3) PIS, a contribution on turnover created in 1970 that was converted to a VAT in 2002; (4) CPMF, a contribution created in 1994 to finance health care (its rate of 0.38 percent to be applied to bank debit entries of current and savings accounts and other similar transactions); and (5) CSLL (contribution on net profits).

This brief description reveals that Brazil has not one, but four VAT. The states have one and the federal government has three. All considered, this mode of taxation raised 13.3 percent of GDP in 2004.

The primary source of revenue for the states is the ICMS – a broad-based consumption-type VAT that produced revenue of 7.81 percent of GDP in 2004 and is the most important tax collected in the country.

The states also raise revenues with two other levies: a tax on ownership of vehicles (IPVA) and an inheritance and donation tax (ITCD). The municipalities tax certain services (ISS) and urban property (IPTU).

The FGTS contribution (workers' retirement fund) is not an item of revenue of the federal treasury. Created in 1996 to reduce labor market rigidities, its proceeds are deposited in individuals' accounts and can be withdrawn in the case of unmotivated dismissal, retirement, or death of the beneficiary.

## BOX 7.1. Tax Bases and Tax Rates

### FEDERAL TAXES AND CONTRIBUTIONS

#### PERSONAL INCOME TAX

Annual Taxable Income

Under R\$ 12,696 - exempted

From R\$ 12,696 to R\$ 25,000 - rate of 15.0% (-) R\$ 1,904

Above R\$ 25,380 - rate of 27.5% (-) R\$ 5,076

#### BUSINESS INCOME TAX

Annual Taxable Income (profits)

Basic rate: 15%

Additional rate (annual profits above R\$ 240,000): 10%

#### IPI - Tax on industrialized products

A value added tax with differentiated rates in the industrial sector, wholesale and imports. 54% of the tax revenue is derived from the sales of liquor & beverages, automobiles, tobacco, and imports by industry.

#### SOCIAL SECURITY CONTRIBUTIONS

(a levy based on payroll)

Employees pay a 10% rate

Employers pay a 20% rate

#### SOCIAL CONTRIBUTION ON PROFITS

The tax base is the same as the one used in the business income taxes. The rate is 9%.

#### PIS AND COFINS

Pis and Cofins are earmarked taxes and have the same tax base. For small firms the common base is gross revenue and the rates are, 0,65% and 3,0% respectively. For large firms the common base is value added (computed using the subtraction method) with rates of 1,65% and 7,6% respectively.

CPMF. Taxes debit entries of current & saving accounts at a rate of 0,38%.

FGTS. The tax base is payroll and the tax rate is 8%.

CIDE is a specific tax on fuel.

### STATE TAXES

#### ICMS

Rates on value added, computed using the tax-credit method:

Internal rates (within the State): 17% - 18% - 25%

Interstate commerce: 7% - 12%

Exports: Non-taxable (zero debit rate and creditation in full).

IPVA. Taxes the market value of vehicles at a rate of 2% to 4% depending on the state.

ITBI. A inheritance tax based on the value of bequest at a rate of (frequently) 4%.

### MUNICIPALITIES

TAX ON SERVICES. A tax based on the value of a well defined (nationally) list of services with a flat tax rate of 2% and a maximum rate of 5%.

URBAN PROPERTY TAX. Modal rates are: 0.25% on buildings and 2.0% on bare land.

Sources: Elaborated by the authors from different sources.

### **The Evolution of the Tax Burden (Central Government, States and Municipalities)**

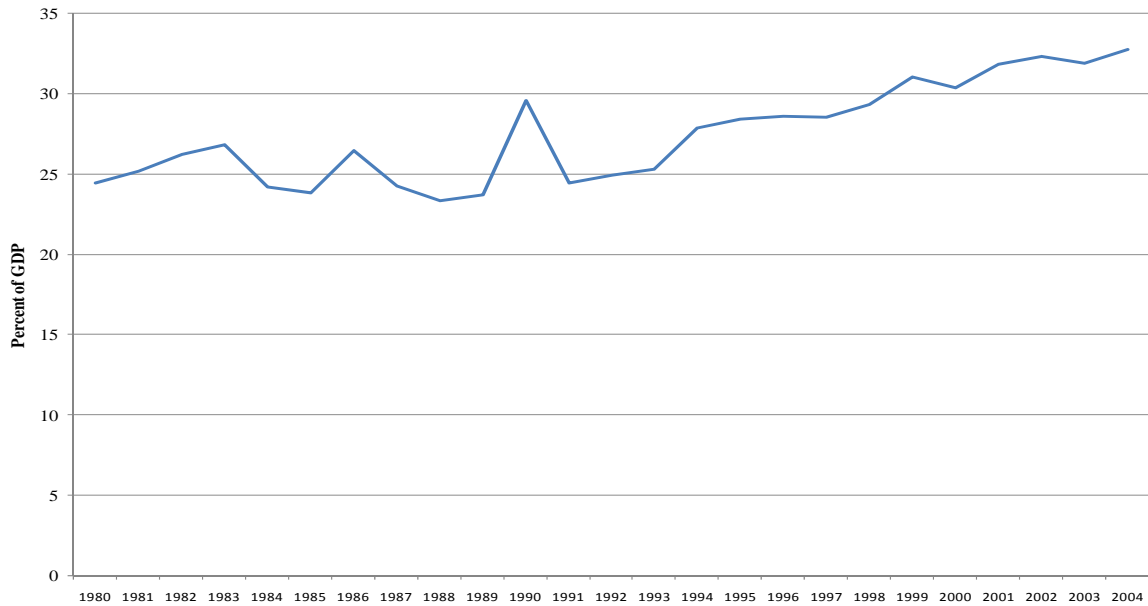
In 1947, when the first national account statistics were published in Brazil, the overall tax burden corresponded to 13.8 percent of GDP. In the late 1960s, the ratio was pushed to 25 percent, as a result of a comprehensive tax reform. The 25 percent ratio, with some fluctuations, prevailed through the 1970s and even until 1989, as shown in Graph 7.1. In the troubled years of 1990 to 1993, however, the ratio reached a record level of 29.6 percent in the presence of very high rates of inflation and a stagnant economy. The ratio was subsequently restored to its historical level of 25 percent in the following years.

A new benchmark was established in 1994 when the tax burden corresponded to 27.9 percent of GDP. In that year, inflation was brought down to manageable levels as a result of a successful set of policies known as the Real Plan.



## Graph 7.1. Total Tax Revenue

(As a percentage of GDP)



Source: IBGE. Data available at IpeaData, elaborated by the authors.

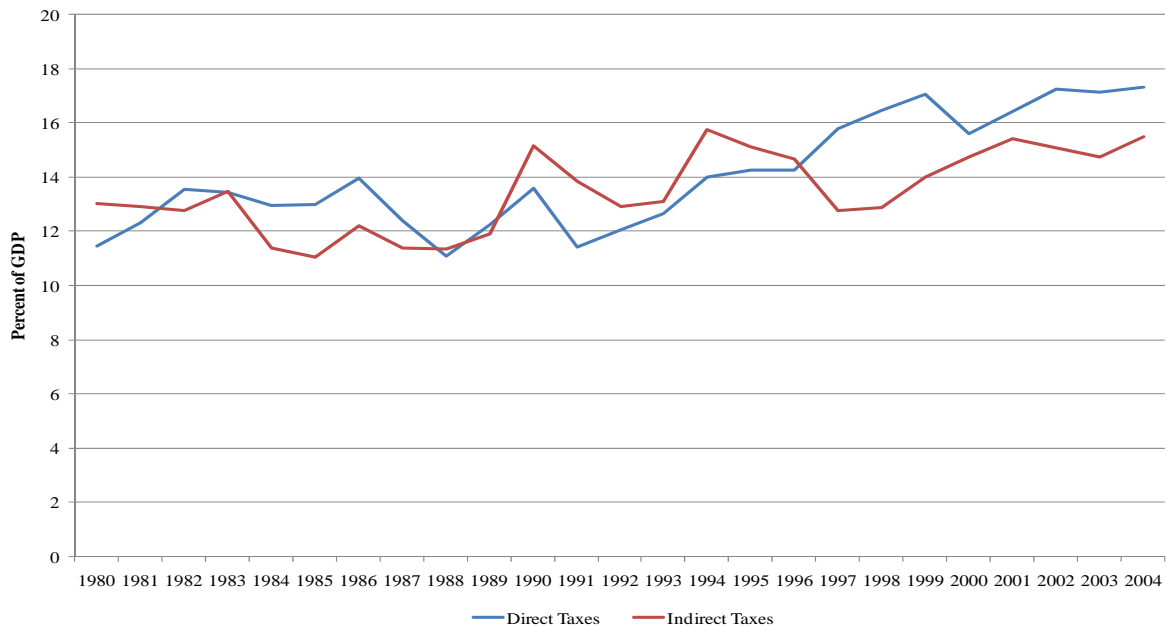
What is remarkable is that in the period from 1993 to 2004, the ratio increased eight percentage points, moving from a 25 percent ratio in 1993 to its present level of 33 percent.

At this juncture, it is natural to ask why such an effort was made and how it was made. The short answer to the first question is that additional revenue was needed to sustain social expenditures (primarily pensions and health care), as determined by the new constitution, and to bring public deficit under control. The mechanisms used were the traditional ones: rate increases and new taxes.

## Direct and Indirect Taxes

Table 7.A.1, which can be found in the Appendix to this chapter, shows the several levies collected under the usual titles of direct and indirect taxes; Graph 7.2 exhibits some of the results.

**Graph 7.2. Direct and Indirect Taxes, 1980-2004**



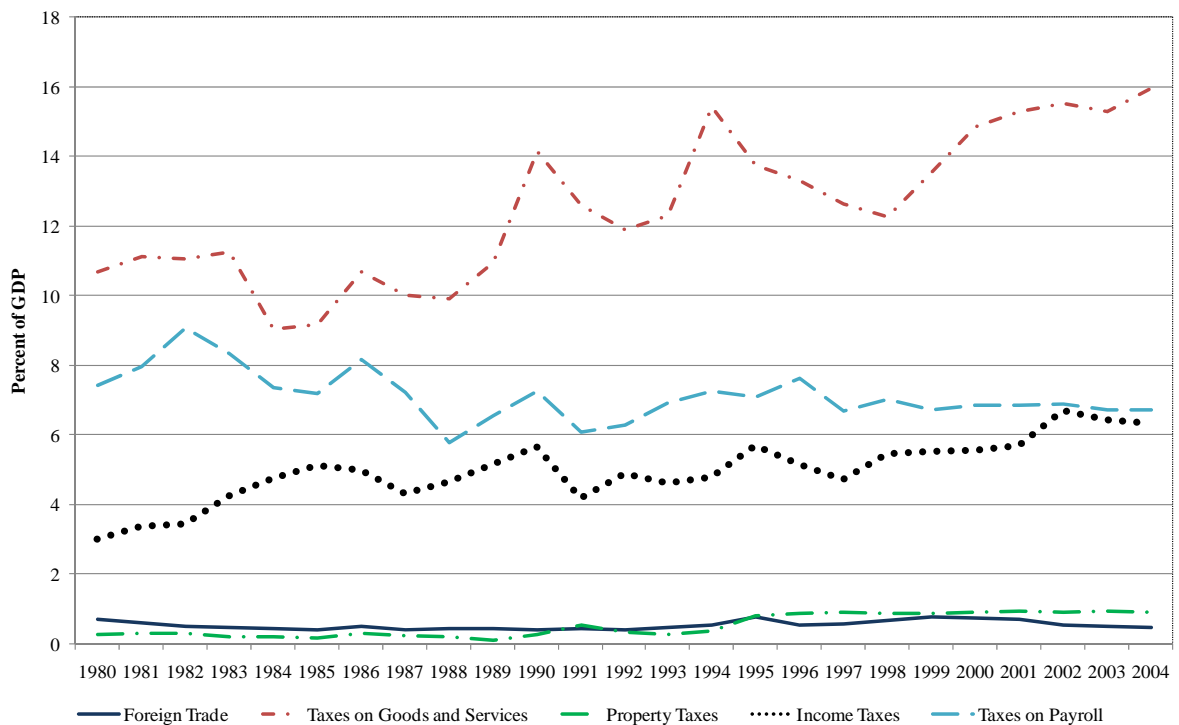
Source: IBGE and Varsano and Others (1998), elaborated by the authors.

It can be seen that for most of the 1980s, an almost fifty-fifty partition prevailed between direct and indirect taxes.<sup>9</sup> In the 1990s, indirect modes of taxation dominated, due to the creation and rate increases of social contributions (FINSOCIAL, PIS, and CPMF). More recently, since 1997, the old parity has been restored, with the direct taxes prevailing.

## Tax Categories

To shed further light on the evolution of the tax system in Brazil, we can break down the tax burden into five categories, as presented in Table 7.A.3 of the Appendix. We classify taxes into the categories of taxes on foreign trade, goods and services, property, income, and payroll. As shown in Graph 7.3, taxes on goods and services dominate the picture. Contributions based on payroll occupied a distant second place during all the period, though income taxes approach them recently.

**Graph 7.3. Tax Categories, 1980-2004**



Source: IBGE and Varsano and Others (1998), elaborated by the authors.

As shown above, property and import taxes have not been important in the formation of total revenue of the public sector in Brazil. More specifically, import taxes, which raised 50 percent of the federal government's revenue in the 1920s have lost ground since the 1940s and continue to decline.

From 1980 to 2004, the total tax burden in proportion to GNP grew eight percentage points. Of this increase, almost five percentage points were the result of increases in taxes on goods and services – mostly contributions to finance social security. The remaining increase of three percentage points was due to an increase in income taxation.

The data reveal how social security expenditures have increased in the last fifteen years. In 1989, the revenues that sustained the fiscal and social budgets as a percent of GDP were 7.4 percent and 5.2 percent respectively. In 2004, the proportions changed significantly – 12.7 percent of GDP was allocated to social security versus 8.0 percent to the fiscal budget.

Contributions on payroll listed on Table 7.A.3 do not represent the only economic impact resulting from governmental intervention in labor markets in Brazil. Other legal provisions, associated with the hiring (and firing) of workers, are also relevant for economic analysis. In fact, payroll taxes represent only 35 percent of the total burden imposed by legal obligation on hiring workers. The wedge that exists between take-home pay and the wage paid by employers is around 100 percent. It seems that Brazil is, by far, the country that imposes the heaviest load on hiring workers in the world (Table 7.2). Most analysts agree that this fact has contributed to an increase in informal labor relations and unemployment.

**Table 7.2. Hiring Costs: Social Security and Other Costs (Selected Countries)**  
*(As a percentage of total payroll)*

Brazil	103.46
France	79.70
Argentina	70.27
Germany	60.00
England	58.30
Italy	51.30
Netherlands	51.00
Uruguay	48.06
Belgium	45.40
Paraguay	41.00
Japan	11.80
Denmark	11.60
Asian Tigers (average)	11.50
USA	9.03

Source: Pastore (2005) p. 49.

### **International Comparisons**

Table 7.3, based on the work of Tanzi & Zee (2000), indicates that Brazil has a tax revenue to GDP ratio equivalent to that of a developed country and a tax structure that combines elements found in the tax structures of both developing and developed countries.

One can conclude from Table 7.3 that Brazil has the biggest tax burden among developing countries (the block “other countries” in the lower right hand side in the table). The data seem to indicate that tax revenue in OECD countries rests on three pillars of almost equal size: income (14.2 percent), consumption (11.4 percent), and social security (9.5 percent). The proportion of income to consumption taxes in OECD countries

is close to 1.2 while in Brazil, the ratio is about 0.6. With respect to social security taxes, Brazil exhibits a GDP ratio very similar to the ratio of OECD countries and well above other developing countries.

**Table 7.3. Composition of Tax Revenue by Regions, 1985-1997**

*(As a percentage of GDP)*

	1985 - 1987								1995-1997							
	Income			Taxes on Consumption				Social Security	Income			Taxes on Consumption				Social Security
	Total	Of which:		Total	Of which:				Total	Of which:		Total	Of which:			
		Business	Personal		General	Selective	International Trade			Business	Personal		General	Selective	International Trade	
OECD Countries <sup>1</sup>	13.9	2.8	11.3	11.3	6.0	3.8	0.7	8.8	14.2	3.1	10.8	11.4	6.6	3.6	0.3	9.5
America	14.0	2.5	11.4	7.6	3.4	2.2	0.6	5.8	15.4	3.0	12.3	7.0	3.7	2.0	0.3	6.1
Pacific	17.1	3.9	13.2	7.5	2.3	3.7	0.8	2.8	16.3	4.3	11.4	8.4	4.3	2.6	0.6	3.5
Europe	13.3	2.7	11.0	12.4	6.8	4.0	0.7	10.1	13.7	2.9	10.6	12.4	7.3	4.0	0.3	10.8
Other Countries <sup>2</sup>	4.9	2.8	1.7	10.3	2.3	2.6	4.2	1.2	5.2	2.6	2.2	10.5	3.6	2.4	3.5	1.3
Africa	6.3	2.9	3.1	11.7	3.2	2.3	5.7	0.4	6.9	2.4	3.9	11.6	3.8	2.3	5.1	0.5
Asia	5.7	3.6	2.1	9.5	1.9	2.5	3.6	0.1	6.2	3.0	3.0	9.7	3.1	2.2	2.7	0.3
Middle East	4.7	4.3	1.0	9.1	1.5	2.4	4.4	1.2	5.0	3.2	1.3	10.3	1.5	3.0	4.3	1.1
Western Countries	3.7	1.8	10	106	2.6	3.0	3.7	2.4	3.7	2.3	1.0	10.6	4.8	2.3	2.6	2.5
<b>Brazil</b>	<b>5.2</b>	<b>2.0</b>	<b>3.2</b>	<b>8.8<sup>3</sup></b>	<b>7.4</b>	<b>0.9</b>	<b>0.5</b>	<b>8.3</b>	<b>5.2</b>	<b>2.2</b>	<b>3.0</b>	<b>9.4</b>	<b>8.1</b>	<b>0.7</b>	<b>0.6</b>	<b>9.2</b>

	Income/Taxes on Consumption		Business Income/ Personal Income		Fiscal Extraction - % of GDP		
	1985-1987	1995-1997	1985-1987	1995-1997		1985-1987	1995 – 1997
OECD Countries <sup>1</sup>	1.2	1.2	0.2	0.3	OECD Countries <sup>1</sup>	36.6	37.9
America	1.8	2.2	0.2	0.2	America	30.6	32.6
Pacific	2.3	1.9	0.3	0.4	Pacific	30.7	31.6
Europe	1.1	1.1	0.2	0.3	Europe	38.2	39.4
Other Countries <sup>2</sup>	0.5	0.5	1.6	1.2	Other Countries <sup>2</sup>	17.5	18.2
Africa	0.5	0.6	0.9	0.6	Africa	19.6	19.8
Asia	0.6	0.6	1.6	1	Asia	16.1	17.4
Middle East	0.5	0.5	4.3	2.5	Middle East	16.5	18.1
Western Countries	0.4	0.4	1.8	2.3	Western Countries	17.6	18
<b>Brazil</b>	<b>0.6</b>	<b>0.6</b>	<b>0.6</b>	<b>0.7</b>	<b>Brazil</b>	<b>23.45</b>	<b>29.03</b>

Source: Tanzi, V and Zee H. H. *Tax Policy for Emerging Markets: Developing Countries*. IMF Working Paper, March 2000.

<sup>1</sup>Excluding Czech Republic, Hungary, Korea, Mexico and Poland.

<sup>2</sup>A sample of 8 African Countries, 9 Asian Countries, 7 of Middle East and 14 Western Countries.

<sup>3</sup>Considers only ICMS and IPI.

## **Revenue Sharing**

To understand how revenue sharing is carried out in Brazil, one must consider Brazil's institutional organization. Brazil is composed of twenty-six states, one federal district and nearly 5,600 municipalities. Together, these entities collect 35 percent of total revenue and incur a similar percentage of public sector expenditures. The regional governments have an equal legal footing with the central government, and they form a decentralized federation.<sup>10</sup> From the early days of the republic (1889) and more intensively since the

1930s, there have been increased calls for the decentralization of expenditure capacity through mandated revenue-sharing mechanisms.

The Constitution determines that 21.5 percent of the revenue of IPI and income tax (personal and business) must be distributed in favor of the states and 22.5 percent of the same sources in favor of local governments. Another proviso says that an additional 3 percent of those taxes must be reserved for regional development programs. This implies that almost half (47 percent) of the total revenue of IPI and income tax are allocated to regional governments. Constitutional rules also mandate that 25 percent of ICMS revenue, the states' VAT and 50 percent of IPVA (vehicles tax) be given to their respective local governments.

Table 7.4 indicates that mandated revenue-sharing has increased the share of states and local governments of total disposable tax revenue since 1980, while the federal government has had its share reduced to 58.9 percent. In terms of revenue raised, the federal government has been losing ground – 75.1 percent in 1980 compared with 67.9 percent in 2004.

**Table 7.4. Revenue by Level of Government: The Role of Revenue Sharing, 1980 – 2004**

	% of GDP				% of Total			
	Federal	States	Local	Total	Federal	States	Local	Total
<b><i>Revenue Raised</i></b>								
1980	18.50	5.40	0.70	24.60	75.1	22.0	2.9	100.0
1988	15.81	5.94	0.65	22.40	70.6	26.5	2.9	100.0
2004	24.96	9.81	1.99	36.76	67.9	26.7	5.4	100.0
<b><i>Disposable Revenue (after transfers)</i></b>								
1980	17.00	5.50	2.10	24.60	69.2	22.2	8.6	100.0



1988	14.00	6.00	2.40	22.40	62.3	26.9	10.8	100.0
2004	21.56	9.03	6.05	36.64	58.9	24.6	16.5	100.0

Source : Khair et al. (2005).

### **Earmarking and other Budgetary Constraints**

Brazil uses revenue earmarking extensively, particularly at the federal level. It has been estimated that about 80 percent of federal tax revenues were earmarked in 2003 against less than 60 percent in 1988.<sup>11</sup> This includes mandated revenue sharing in favor of states and municipalities, as well as special-purpose funds. Revenue sharing accounts for about 15 percent of federal tax revenues and is concentrated on the income tax and IPI, which are the federal government's most income-elastic taxes.

Efforts to increase federal revenue net of mandated transfers to the regional governments have resulted in greater reliance on contributions whose revenues are earmarked to social security but not shared with regional governments.

To mitigate this problem, a provisional arrangement to withhold federal earmarked revenues has been in place since 2000. A constitutional amendment now permits that 20 percent of all federal revenues (net of intergovernmental transfers), be withheld by the federal government, thereby reducing the extent of *de facto* revenue earmarking at the federal level.

In addition, there are significant expenditure rigidities at the federal and regional government levels. All levels of government are required by the Constitution to earmark a share of revenue (18 percent for the federal government and 25 percent for state and municipal governments) to finance education. Moreover, the states and municipalities are

required to earmark 12 percent and 15 percent of their revenues, respectively, to finance health care.

### **Key Changes in the Tax Laws**

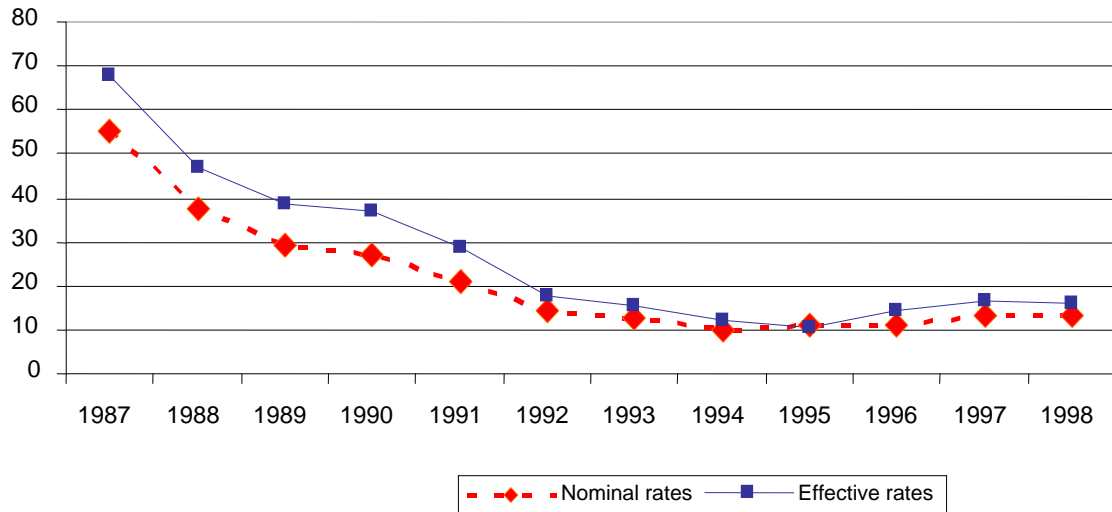
#### **Opening Up to International Trade**

Brazil has a long history of utilizing tariff and non-tariff barriers to promote its industrialization and growth. This policy can be considered successful, given the creation of a broad and diversified industrial sector in the second half of the twentieth century and the growth rates of GDP observed for more than fifty years up to 1980.

Despite these results, based on short and long run considerations, in the late 1970s, the social costs of protection appeared excessive to analysts and government officials. Consequently, legal (nominal) and effective tariff rates have been substantially reduced since 1988. Average nominal tariff rates were brought down from 55 percent in 1987 to 13.4 percent in 1998. The same path was followed by the effective rate, which were reduced from 67.8 percent in 1987 to its present level of 15 percent as shown in Graph 7.4.

The process of eliminating trade barriers may be considered successful. The levels of imports and exports observed in 1987 (US \$15 and US \$26.2 billion respectively) increased fourfold by 2004 (US \$62.7 billion and US \$96.4 billion), and there are strong indications that imports of capital goods contributed to the modernization and productivity gains in the economy as a whole.

**Graph 7.4. Nominal and Effective Tax Rates<sup>1</sup>**



Source: Kume et al. (2003).

<sup>1</sup>Weighted by value added.

## **Transformation of Turnover Taxes in Value Added Taxes**

### ***Taxation of Small Businesses (SIMPLES)***

In 1996, the federal government enacted a law to meet the recurring demands of small businesses for lower taxes, simplification, and reduced compliance costs.<sup>12</sup>

For this segment, tax rates on sales vary from 3 percent to 7 percent, progressively, and this payment substitutes for the payment of six federal taxes and contributions: the business income tax, social contribution on profits, PIS, COFINS, IPI, and the employer contribution to social security.

### ***Taxation of Capital Goods under ICMS***

Until 1996, capital goods were taxed under ICMS without the benefit of a tax credit. ICMS was then a gross-income VAT. With new national legislation (LC 87/1996), however, a tax credit is permitted in forty-eight monthly installments thus correcting, at least partially, an important distortion of the tax.

### ***Taxation of Exports***

The legislators tax on Industrialized Products and ICMS (the State VAT) distinguish two types of non-taxed products: the exempted/zero rated and the immune. The former is a tax status that can be changed by ordinary legislation (laws and decrees) while the latter is a constitutional provision.

Typically, to an exempted/zero rated transaction made in the domestic market, both in the case of IPI and ICMS, corresponds a situation in which no tax credit can be taken by the seller. In other words, since the tax is not due, no tax credit is taken by the exempted seller. Of course this proviso has negative consequences when the zero rates occur in the intermediate stages of the productive process, in the form of cascading effects in the later stages.

Since 1988, industrial exports were exempted from taxation while exports of primary/semi-processed goods could be and, were, in many cases, taxed. An awkward situation persisted, however: industrial exporters had a zero tax rate for their sales abroad

but did not have the benefit of a full tax credit for the tax paid on the acquisition of raw materials and other inputs.

Again, LC 87/1996 corrected the problem by granting tax immunity to all exports and the benefit of full tax credit. This was an important reform since it reduced the supply price of capital goods and at the same time enhanced the competitive position of Brazilian exports in general.

### ***Transformation of Federal Turnover Taxes in Value Added Taxes***

Beginning in January 2002, the federal contribution known as PIS was tentatively converted in a VAT. As a turnover tax, it had a 0.36 percent rate and was replaced by a 1.65 percent VAT rate. Subsequently, in 2004, the federal government transformed COFINS, also a turnover tax, in a sort of VAT with a 7.6 percent rate.

PIS and COFINS are earmarked taxes (to social security) and have the same tax base. For small firms the common base is gross revenue and the rates are, 0,65% and 3,0% respectively. For large firms the common base is value added (computed using the subtraction method) with rates of 1,65% and 7,6% respectively.

The conversion of PIS and COFINS in VAT cannot be seen as a definite improvement in the direction of eliminating cascading effects. Indeed, the option of taxing value added is only open to large firms (mainly exporters). These firms pay the tax computing value added using the subtraction method (sales –value of inputs and materials used). Small

and middle size firms collect the tax based on their monthly turnover. On both counts, it can be said that, the cumulative or cascading effects are still present.

### ***The Creation of CPMF in 1994***

CPMF (Provisional Contribution on Financial Transactions), a tax earmarked for health expenditures, is a tax on certain financial transactions levied on withdrawals from and other debits to bank accounts.

According to Coelho (2001), a bank-debit tax was first introduced in Argentina in 1983 and was later implemented in Peru (1989), Brazil (1994), Venezuela (1994), Colombia (1998), Australia (1998), and Ecuador (1999). In all cases, the tax was introduced on a temporary basis, though in the case of Brazil, successive extensions have given it a permanent status. At present, only Brazil, Colombia, and Ecuador continue to enforce the tax while the other countries have abandoned the experiment.

Overall, CPMF was considered by Coelho (2001) the most successful example of this mode of taxation in Latin America and has been generating revenue of 1.5 percent of GDP, a level that has been sustained for several years (see Table 7.A.2).

Coelho (2001) points out that there is evidence that CPMF altered financial and investment behavior, especially in the wake of its reintroduction at the end of January 1997. In summarizing their analysis, the authors recommended that such taxes should be avoided; if they are to be used, they should only be levied at low rates and the base should be defined so as to exclude, among other things, transactions in securities markets.

## **Taxation of Mineral Resources**

Brazil is a rich country in natural resources and a big exporter of iron ore, aluminum, nickel, stones and a self-sufficient producer of petroleum.

The industry has been preserved from the federal tax on industrialized products (IPI) but is taxed by the states' VAT (ICMS). In addition it pays a financial compensation (royalties) to the federal government and to the state and municipality where the extraction process takes place.

By far, oil production financial compensations are more significant compared to other minerals. On this account, in 2004, oil producers paid R\$ 11.1 billion (0,63% of GDP) to the federal government, states and municipalities<sup>13</sup>. In the same year the financial compensations paid by non-oil mineral producers amounted to R\$ 326.0 million.

## **Current Problems of Design and Administration of the Tax System.**

The construction of a better tax system in Brazil will demand a profound revision of certain expenditure patterns that have developed during the last fifteen years. Ultimately, it was this upward surge in public expenditures that created the demand for new resources.

Most analysts consider a 33 percent tax burden oppressive and some even consider it abusive. Regardless of which description is more accurate, the percentage attained in 2004 is high for a developing country, according to international standards.

What makes matters worse is that this increase in the tax burden has been followed by a deterioration of public services at the federal and regional levels.

The underlying cause for the deterioration of public services can be traced to the increase in current expenditures since the early 1990s. Such increases are due to social security concessions and interest payments on public debt which have increased twofold since 1994 (interest payments in 2004 represented 6.4 percent of GDP). In other words, the necessary fiscal adjustment has been accomplished primarily through tax increases and by compressing public investment. The greatest challenge now is to reconcile the need for continued fiscal consolidation with that of alleviating a high tax burden.

In the short run, progress can be made if interest rates could be reduced at a pace more rapid than that intended by the monetary authorities. In the long run, progress will demand more reforms of Brazil's public pension system. Currently, the public pension system costs 9 percent of GDP (above the OECD average) and is unjust, expensive, and drains resources away from other strategic areas such as health, education, and infrastructure.

### **Complexity**

The most common criticisms of the Brazilian tax system are that there are too many types of taxes and that the tax laws and regulations in effect are overly complex and difficult to control and comply with. Both criticisms are accurate.

### ***Regressive Distribution of Tax Burden***



A study by Vianna et al. (2000) reported incidence estimates for the Brazilian tax system. The results indicated that the tax system is highly regressive. Despite the fact that direct taxes are progressive, the final result is dominated by highly regressive indirect taxes.

### ***Earmarking***

There is a great amount of earmarking embedded in the different taxes and contributions. In the case of the federal government, as noted earlier, earmarking is an especially serious problem. The obvious consequences of phenomenon are the loss of budget flexibility, as well as the inefficient use of public money.

### ***Tax on Payroll***

Regulation of the labor market and taxation of payroll more than double the private cost of hiring labor. This fact seems to explain a significant part of the informal economy, which is a manifestation of disguised unemployment (Box 7.2).

### **The Move to Reform ICMS**

After an unsuccessful attempt to create a single VAT that would consolidate most of the indirect taxes in Brazil, the call for simplification of the tax system was directed toward the creation of a single VAT legislation for all states. At present, Congress has set the

basic rules of the VAT and the states have a high degree of autonomy in setting internal rates. Congress also has been discussing new legislation with far reaching implications, the most important being a provision that subtracts from the states the prerogative to legislate and regulate the tax.

### **BOX 7.2 - The Informal Economy in Brazil**

The Brazilian Institute of Geography and Statistics (IBGE) conducted two surveys of the urban informal sector, known as ECINF 1997 and ECINF 2003. Based on the 2003 survey, IBGE reported that the informal sector in urban areas was comprised of 10.5 million small businesses, half of which had no legal registration.

According to the 2003 survey, the annual revenue of those firms was R\$ 217.5 billion, which corresponded to 14% of GDP. The investments they made were R\$ 7.2 billion, equivalent to 2.3% of total investment registered in the national accounts. The most common economic activities in the informal economy were retail trade and repair (33%), construction (17%), and manufacturing and extraction (16%). The survey also registered that 31% of the owners of informal firms declared that they opened the business because they could not find any job and 17.6% because they needed to improve their family's income.

IBGE has estimated that between 1997 and 2003, employment in the formal sector increased 4% while the urban informal sector increased by 8% (from 12.9 to 13.9

million workers). This last figure corresponded to 26% of the labor force and, of the total employed, only 6% had social security registration.

Concern with the informal sector in Brazil is important because of job precariousness and its social consequences (e.g., lack of unemployment compensations, retirement income, access to financial services, etc). A substantial share of Brazil's workers is without legal registration (60%) and approximately the same percentage (62%) of private sector workers have not been contributing to social security.

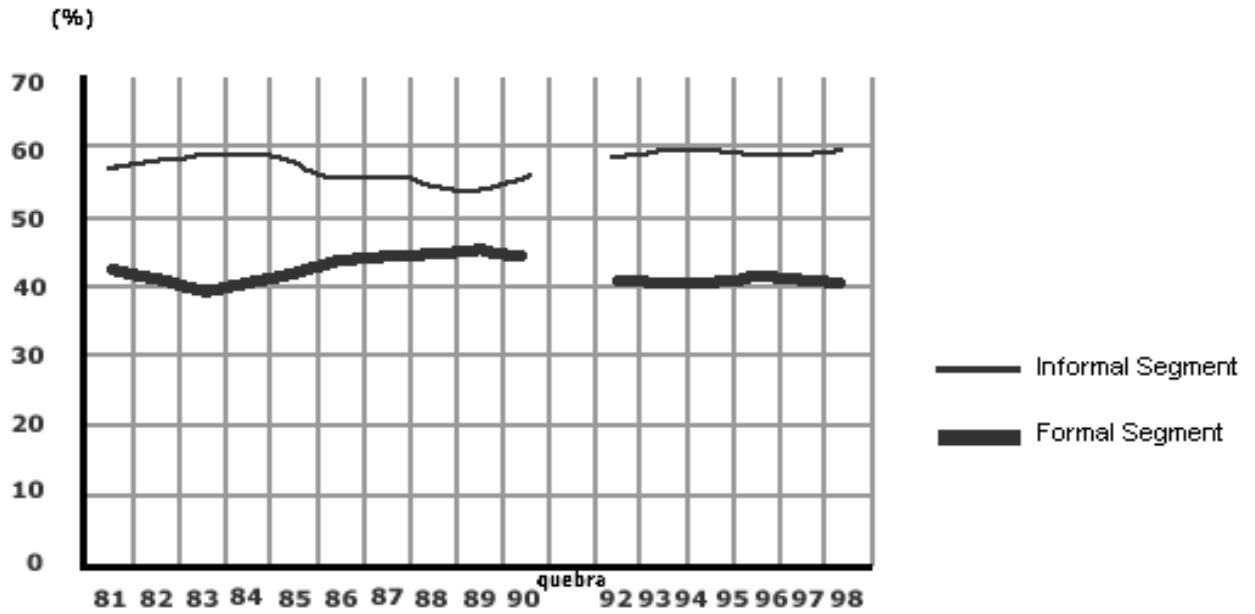
The figure below contains data collected by Cardoso Jr & Fernandes (2000) in which occupied workers are classified according to legal status in the 1980s and 1990s.

The formal segment of the labor market is comprised of workers with legal registration in the private sector and public employees (civil and military). The second group is comprised of those workers without legal registration, the self employed, and workers without pay.

The data indicate the dominance of informal labor relations in both periods. In addition, the data show an increase in informality in the 1990s, which seems to be independent of GDP cyclical behavior in contraposition to the (cyclical) behavior observed in the 1980s.

Barros (1993) and Amadeo & Camargo (1996) provide empirical results supporting the hypothesis that labor market regulations and payroll taxes are the main factors behind the high degree of informality in the Brazilian labor market.

**Graph 7.5. Occupied Workers According to Legal Status, 1981-1998**



Source: Cardoso Jr. & Fernandes (2000).

**Tax Administration: Methods and Experiences**

In the last decade or so, Brazil has made significant progress in tax administration, both in terms of reducing tax evasion and, more importantly, by abandoning the traditional mentality of taxpayers as tax evaders in favor one that considers taxpayers as clients. These developments deserve additional attention and are presented below.

***Technological Advances***

Most of Brazilian taxes and contribution are self-assessed, with the exception of property taxes and CPMF (tax on financial transactions). For this reason, tax administrators in

Brazil try to monitor physical transactions among taxpayers by tracking invoices and accounting books. Such activities are increasingly accomplished through the use of information technology.

### ***Internet Tax Filings***

According to Bill Gates,<sup>14</sup> several countries, including the United States and Australia, allow people to file taxes electronically. Brazil, however, was the first country to enable large-scale tax filings electronically. This solution was implemented on March 30, 1997, and was made available to the public during the month of April, the last month required for an individual's income tax filing (business filings are due at the end of May). In 2002, 100 percent of businesses and 95 percent of individual taxpayers filed electronic returns in Brazil.

### ***SISCOMEX***

Another important development in tax administration was the creation of SISCOMEX in 1993. The system integrates the activities of registration, follow-up, and control of foreign trade in such a way that all federal agencies that play a role (including taxation) in the control of imports and exports operate exclusively using the data source provided by SISCOMEX. The benefits of such a system are represented by a paperless environment, the reduction of red tape, and the sharing of information among agencies and the private sector.

## ***SINTEGRA***

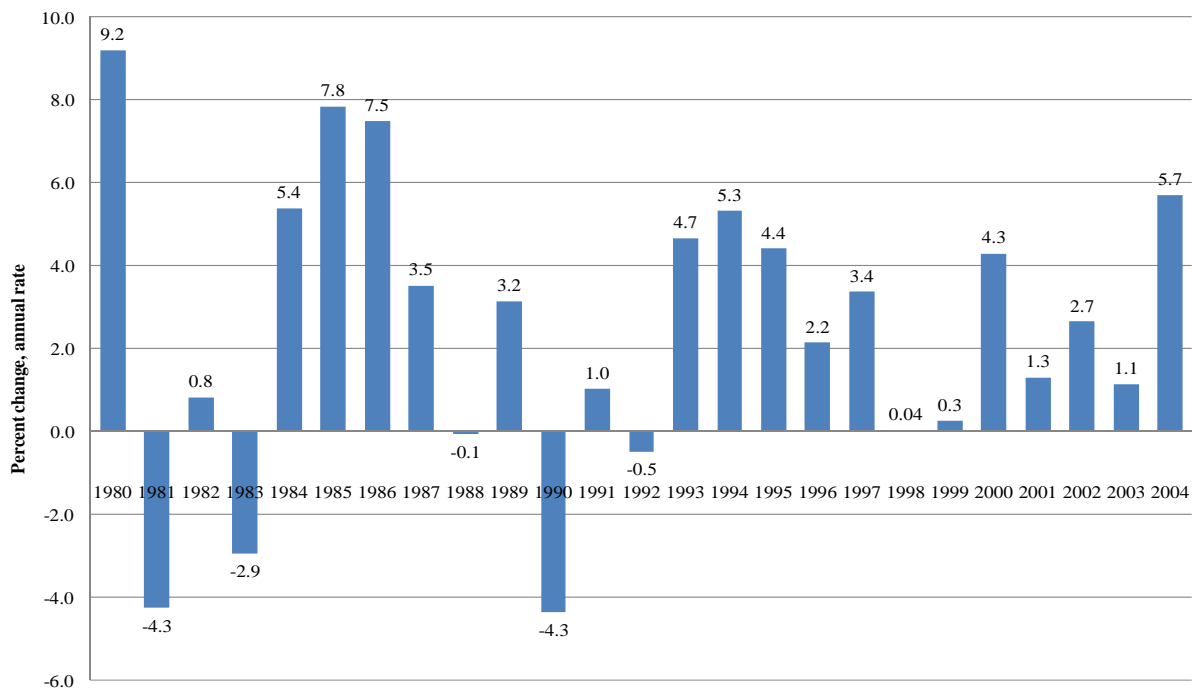
In the area of control, the creation of SINTEGRA in 2000 deserves attention. SINTEGRA is a system that allows for the electronic exchange of information of the states' VAT (ICMS), linking databases of the states as a mean to control interstate trade and to standardize procedures. The system also contains a portal where taxpayers can check data on suppliers, assuring that they are active taxpayers in the cadastres of each state. This is important because the amount of ICMS due is the result of a debit/credit calculation on multiple stages of the economic chain. SINTEGRA is based on the experience of the European VIES–VAT information exchange system (see [http://europa.eu.int/comm/taxation\\_customs/databases/viesen.htm](http://europa.eu.int/comm/taxation_customs/databases/viesen.htm)), and it has resulted in gains of scale due to the shared collection, treatment and storage of information.

## Appendix

### The Macroeconomic Setting: 1980-2004

The story of the Brazilian economy during the last twenty-five years can be deduced from the GDP growth rates, as exhibited in Graph 7.A.1. The fluctuation of these rates resembles that of a faulty engine. After fifty years of steady growth, averaging 6.5 percent per year, GDP growth has almost ground to a halt, averaging only 2.4 percent a year from 1980 to 2004.

**Graph 7.A.1. Real GDP Growth 1980-2004**



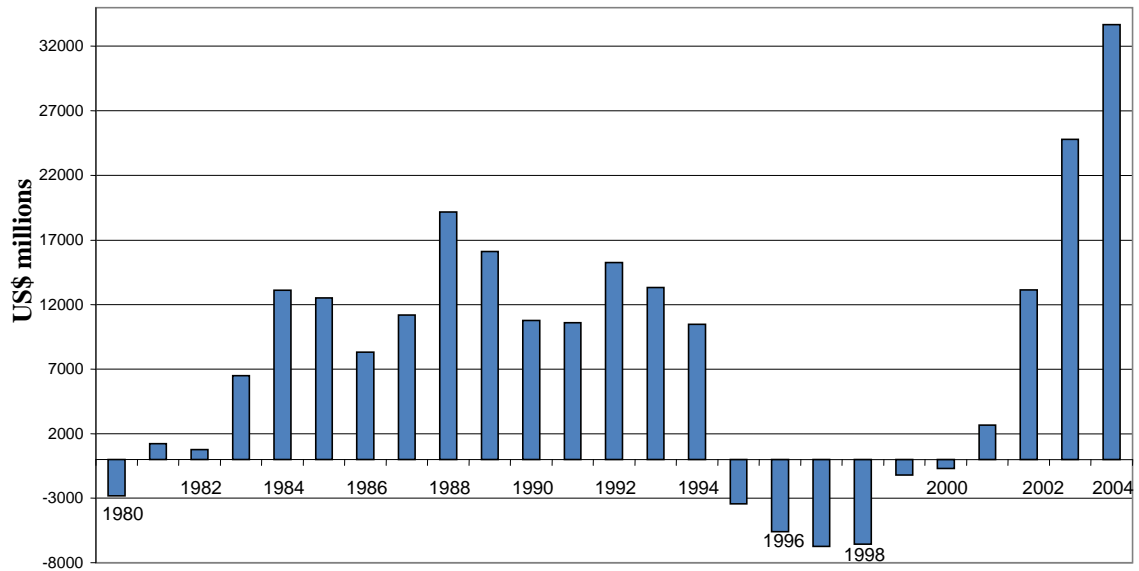
Source: IBGE. Data available at IpeaData, elaborated by the authors.

Brazil entered 1980 facing a macroeconomic situation that combined high inflation rates, high external debt, and a critical situation in its external accounts. In 1980 the inflow of external resources (US \$9.6 billion) was insufficient to cover the current account deficit of US \$12.7 billion. This figure was the result of the trade balance deficit (US \$2.8 billion) and, more importantly, of resources sent abroad to service of external debts.<sup>15</sup> In 1980, the country's gross external debt was US \$64.3 billion (27 percent of GDP) and the annual inflation rate was 110.2 percent.

From 1981 to 1983, Brazil faced a period of contraction in its economy, with GDP growth dropping to an average rate of 2.16 percent per year. This situation was the result of a restrictive monetary policy (high real interest rates) aimed at two objectives: redirect internal production to exports by reducing of internal demand and to attract foreign capital to overcome the balance of payments (BP) imbalance. The initial results of this policy came in the form of small trade surpluses in 1982 and 1983, however, these surpluses were not sufficient to cover the balance of payments deficit. In 1982, after a significant loss of international reserves, Brazil signed an agreement with the International Monetary Fund and raised US \$4.2 billion in loans.<sup>16</sup> In 1983, the government promoted another 30 percent devaluation of the exchange rate and obtained good results. The restrictive monetary policy, assisted by the maturation of investments carried through the II National Development Plan,<sup>17</sup> resulted in an increase of the trade balance and a BP surplus in 1984. Also, in 1984, a promising recovery of economic activity was observed with a real growth in GDP of 5.4 percent.

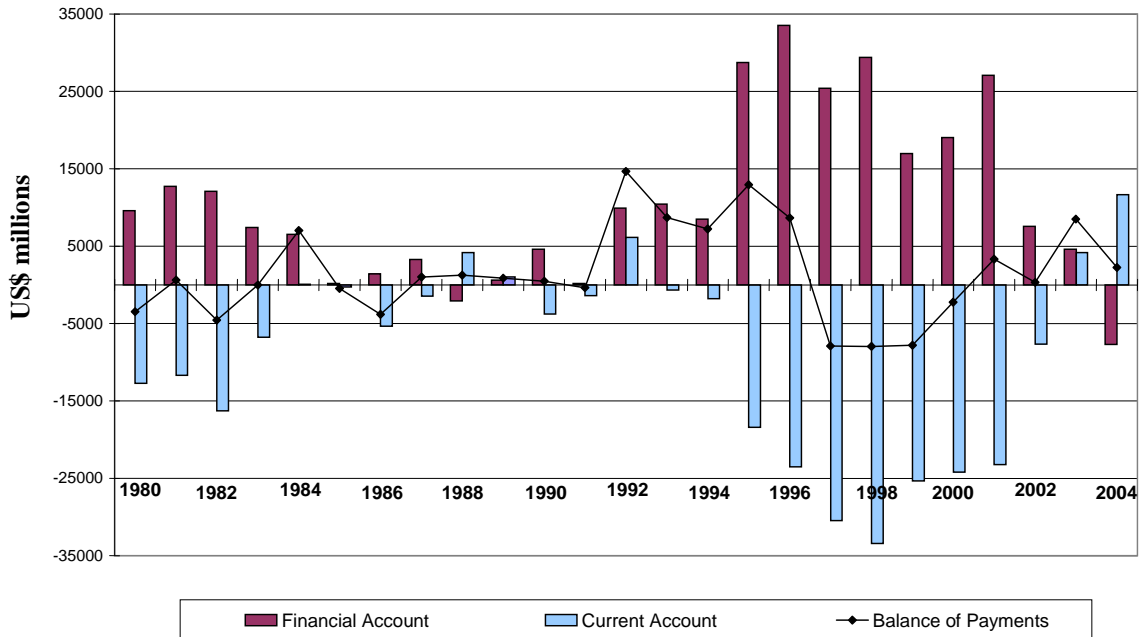


**Graph 7.A.2. Trade Balance, 1980-2004**



Source: BCB. Elaborated by the authors.

**Graph 7.A.3. Balance of Payments, 1980-2004**

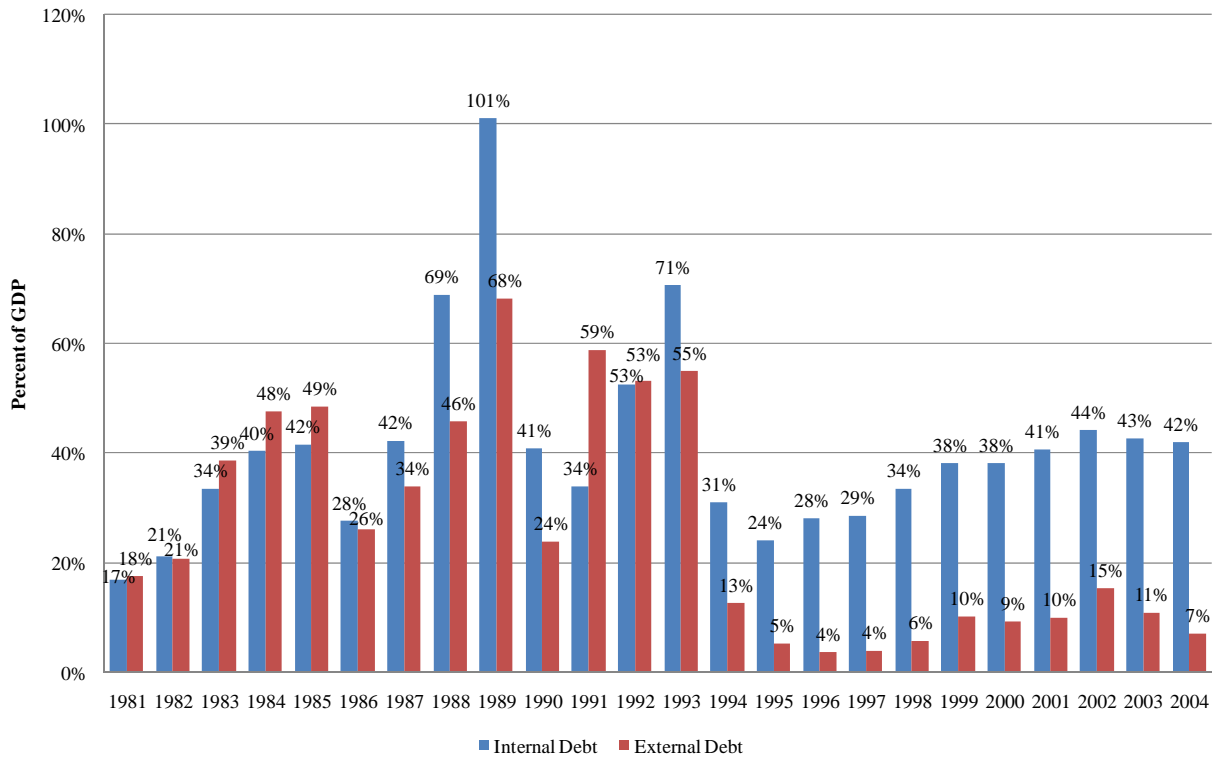


Source: BCB, elaborated by the authors.

The adjustment of external accounts was painful and the ratio of external debt to GDP increased in the early 1980s and reached its highest level in 1984, representing 54 percent of GDP (Graph 7.A.6). Brazil was confronted with the fact that the external debt was predominantly public, but the commercial surplus was private.<sup>18</sup> This worsened the internal fiscal problem, resulting in a higher public deficit, since the government was unable to obtain sufficient tax revenue to pay the costs of this indebtedness. However, it is worth noting that the public external debt was not only the result of budget deficits accumulated over the years, but also the outcome of a process carried out by the government which converted a significant share of the external private debt into internal public debt.<sup>19</sup>

During the 1980s and first half of the 1990s, the external debt played an important role in the formation of the net public debt.<sup>20</sup> With the renegotiation of external debt and the implementation of the Real Plan, internal debt took the dominant position (Graph 7.A.4). This development was related to monetary policy. High interest rates attracted foreign capital that was converted into domestic currency, expanding the monetary base. At the same time the government, concerned with inflation, issued public bonds to sterilize the monetary base increase.

**Graph 7.A.4. Net Public Debt - Consolidated Public Sector 1981-2004**



Source: BCB. Data available at IpeaData, elaborated by the authors.

The price level throughout the 1981-1984 period increased at an accelerated pace. In 1981, annual inflation was 95.2 percent, followed by 99.7 percent in 1982, 221 percent in 1983, and 223.8 percent in 1984 (Graph 7.A.5).

In 1985, democratic elections were restored after two decades of military dictatorship. At that time inflation – its causes and cures – was at the center of the national economic debate.<sup>21</sup>

In 1985, the inflation rate was 235.1 percent and the trade balance registered a surplus (US \$12.5 billion). However, this result, though aided by the inflow of foreign capital, was unable to cover the current account deficit. Interest payments alone

represented a diversion of resources of US \$11.6 billion. Remarkably GDP grew 7.8 percent in 1985.

In 1986, the government implemented the first of five stabilization plans designed to bring inflation under control. The Cruzado (1986) along with other plans – Bresser (1987), Verão (1989), Collor I (1990), and Collor II (1991) – identified the generalized indexation of contracts – a process in which contracts are adjusted according to past inflation in an attempt to recover real income lost with the rise of the price level<sup>22</sup> – as the main cause of inflation. The principal instrument adopted to solve the inflationary problem was the use of price control mechanisms. In all cases, the results were very poor.

Table 7.A.1 indicates the period that price control lasted in each stabilization plan, as well as its results. Looking at Graph 7.A.5, one can observe that price controls generally were not effective. The only exception was the Collor I plan which managed to reduce inflation from a rate of 81.3 percent in March 1990 to levels around 20 percent per month until the adoption of the Collor II plan (April 1991).

**Table 7.A.1. Price Control Effectiveness**

Stabilization Plan	Begin	End	Duration (in months)	Accumulated Inflation (%)		
				Before	During	After
Cruzado	March 1986	November 1986	9	11.1	10.3	14.5
Bresser	June 1987	August 1987	3	15.4	21.6	16.5
Verão	January 1989	May 1989	5	27.3	100.8	37.6
Collor I	March 1990	June 1990	4	72.8	71.1	18.3
Collor II	January 1991	April 1991	4	18.3	41.1	21.1
		<b>Mean</b>	<b>5</b>	<b>28.8</b>	<b>44.4</b>	<b>21.6</b>

Source: Franco (2005).

Note: “Before” refers to the last month before the price control was introduced. “After” means the sixth month after the end of price controls. The mean for “during” considers the duration of the price control.

Under the Cruzado and Bresser plans, the economy continued to grow; 7.5 percent in 1986 and 3.5 percent in 1987. However, the use of restrictive fiscal and monetary policies reduced GDP growth to -0.1 percent in 1987. In 1989, with the Verão (summer) plan, the economy grew 3.2 percent, but in 1990, GDP contracted 4.3 percent. This was the result of a severe monetary base reduction promoted by the Collor I plan, which seized, for a period, all financial funds over 50,000 Cruzados Novos (approximately US \$1,310).

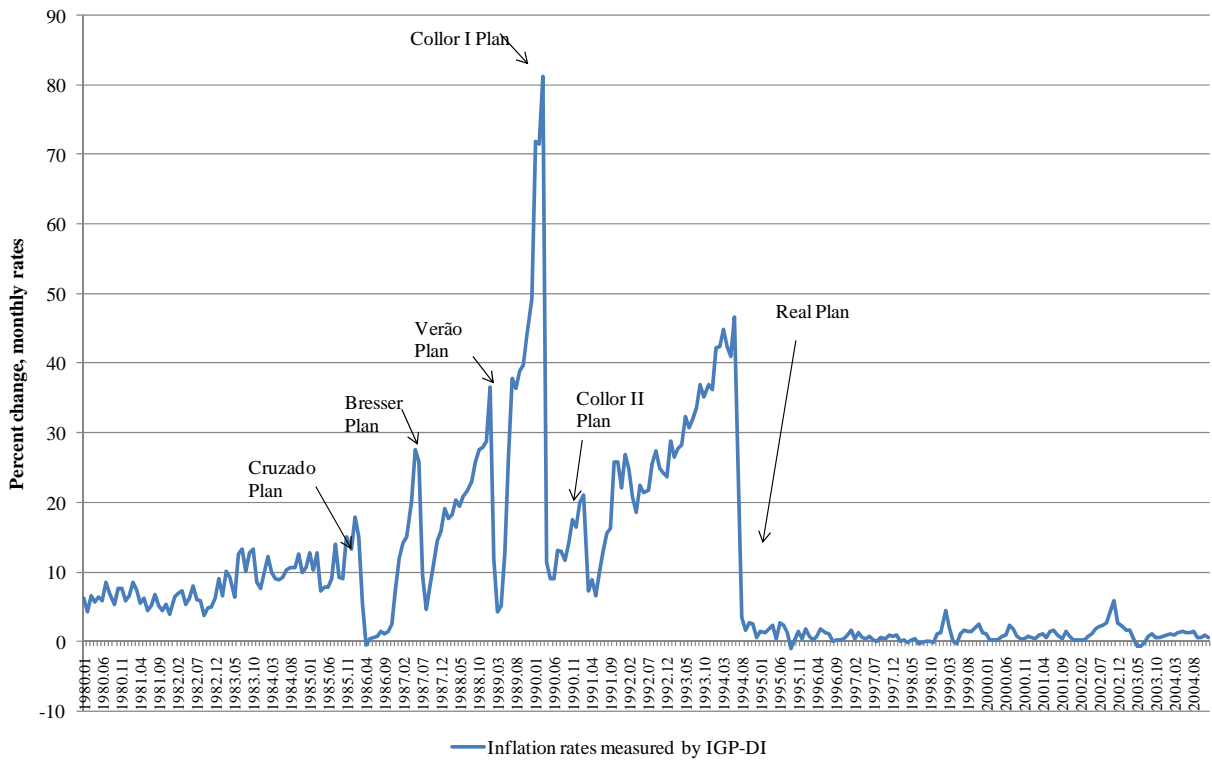
The crawling-peg exchange rate system that had been in effect since 1968 was also affected by the stabilization plans.<sup>23</sup> The Cruzado Plan established a monetary reform which substituted the old currency Cruzeiro (Cr\$) for the Cruzado (Cz\$) at the rate of Cr\$ 1,000.00 for Cz\$ 1.00. The exchange rate was fixed at the value prevailing the day before the adoption of the plan and the crawling-peg system was abandoned. However, new inflationary pressures provoked the overvaluation of the domestic currency and led the government to reinstitute the crawling-peg mechanism. In 1987, the Bresser Plan devaluated the domestic currency by 9.5 percent and kept the crawling-peg mechanism. The Verão Plan, in 1989, also promoted a devaluation of the exchange rate of almost 18 percent and a monetary reform that replaced the Cruzado with a new currency called Cruzado Novo. The value of the Cruzado Novo was fixed against the dollar at the rate of one to one. In 1990, the Collor I plan adopted a floating exchange rate regime following the opening up of the Brazilian economy to external competition.

However this was a “dirty” floating since the Central Bank frequently interfered to reduce exchange rate volatility.

The Cruzado Plan was also characterized by a default on foreign debt. In 1986, a BP deficit of US \$3.8 billion and the low level of foreign reserves (US \$6.7 billion) forced the government to suspend payment on external debts as of January 1987.<sup>24</sup> In January of the following year, this anomalous situation ceased but the thorny issue was only solved in 1992 with the Brady Plan.<sup>25</sup>

The small GDP growth (1 percent) in 1991 was not even repeated in the next year. In 1992, Brazil suffered a political crisis which ended with the impeachment of President Fernando Collor. Although the balance of payments registered a surplus of US \$14.7 billion, high interest rates and the political crisis led to a fall of 0.5 percent in GDP. The country's economy recovered only in 1993, when the GDP growth was 4.7 percent. Inflation accelerated again after the failure of the Collor I and II plans, reaching 480.2 percent in 1991, 1157.8 percent in 1992, and 2708.2 percent in 1993. Of course, this state of affairs was unsustainable and, at last, the government implemented in 1994 an extraordinary set of policies entitled Real Plan.

**Graph 7.A.5. Inflation Rate, 1980-2004**



Source: FGV. Data available at IpeaData, elaborated by the authors.

This time, inflation was brought down rapidly and remained low. In contrast with previous plans, price controls were not applied. Inertial inflation was eliminated through the complete indexation of the economy, followed by a monetary reform that created a new currency – the Real. At first, the stabilized prices were guaranteed by a combination of overvalued exchange rate and high interest rates. The former allowed the use of imported goods to prevent local producers from raising their prices and the latter attracted short-term resources to assure a balanced BP.<sup>26</sup>

The results of those policies were immediately evident. Along with lower inflation rates, there was a reversal in the trade balance results (Graph 7.A.2). After successive

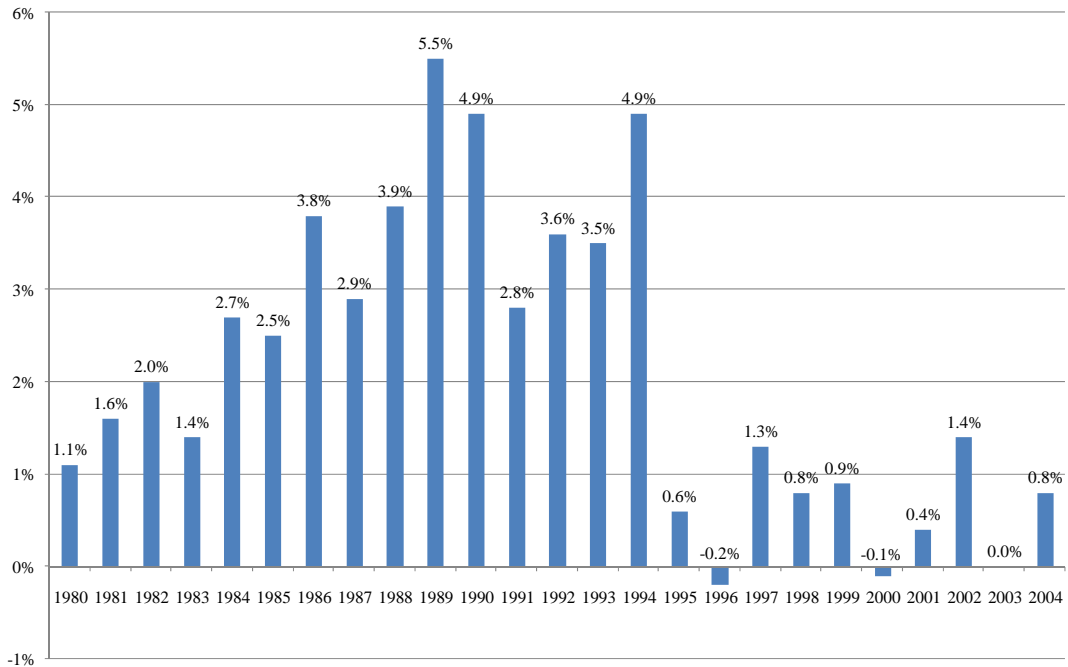
surpluses from 1981 until 1994, the economy suffered consecutive deficits during the period when the exchange rates anchor was in effect. The deficit in current account was compensated by the inflow of foreign capital, mainly short-term resources. In 1995, from the resulting US \$28.7 billion in the financial account, US \$9.2 billion were portfolio investments and US \$8.2 billion were short-term commercial credits. In 1996, the amount of foreign capital used to buy stocks and bonds increased: with a US \$33.5 billion financial account surplus, US \$21.6 billion were portfolio investment and only US \$11.3 billion were represented by direct investment.

### **BOX 7.3 - Seignorage**

Given the very high rates of inflation observed in the 1980s and early 1990s, one should note the behavior of seignorage revenue<sup>1</sup> during this period. Following Rocha & Saldanha (1992), seignorage as a percent of GDP was calculated and the results shown below.<sup>2</sup>



### Seignorage Revenue as % of GDP (1980 -2004)



Source: Data available at IpeaData, elaborated by the authors.

As it should be expected, seignorage revenues were significant during the period 1988-1994 when annual inflation rates were above 1000% (in 1993 it reached 2708%). After the Real Plan (1994), when inflation was brought under control, seignorage as a percent of GDP was reduced significantly.

<sup>1</sup>"The amount of real purchasing power that [a] government can extract from the public by printing money." (Cukierman, 1992)

<sup>2</sup> Seignorage as % of GDP ( $S_t$ ) was calculated using following definition:

$$S_t = \frac{H_t - H_{t-1}}{Y_t} = \frac{\pi_t H_{t-1}}{Y_t} + \frac{H_t - (1 + \pi_t)H_{t-1}}{Y_t} . \text{ Where:}$$

$H_t$  = monetary base at the end of  $t$ ,  $\pi_t$  = rate of inflation between  $t-1$  and  $t$  and  $Y_t$  = nominal GDP in  $t$ .

In the first three months of the Plano Real, the exchange rate followed a free floating system; however, negative results in the trade balance and the valuation of the exchange rate led the government to intervene. In March 1995, the government adopted a crawling band system, in which the Central Bank established a minimum and maximum value for the floatation of the exchange rate. For the brief period between March and June of 1995, these limiting values remained fixed.

In the late nineties, the Asian financial crisis and the Russian default caused a drop in the inflow of foreign resources to Brazil. This led to a deficit in the balance of payments (Graph 7.A.3) and difficulties in financing the successive current account deficits that reached US \$33.4 billion in 1998. Thus, in January of 1999, despite some desperate measures and a US \$42 billion loan from the IMF, the Brazilian government was unable to defend the currency and a new devaluation took place. As a result, the government boldly reoriented its monetary policy through the adoption of inflation targeting and implemented a floating exchange rate regime.<sup>27</sup>

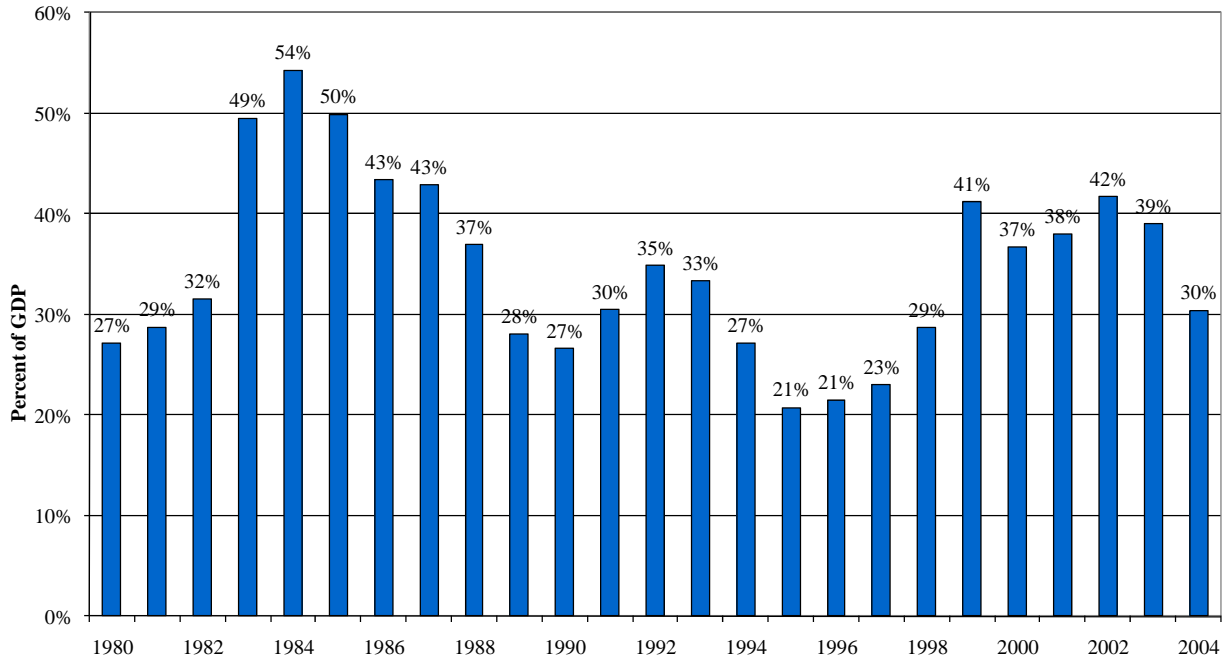
GDP behavior since the Real Plan has been frustrating. Initially, price stability enabled growth, due to gains in real purchasing power of the poor. In 1994, GDP grew 5.3 percent and in 1995, 4.4 percent. However, the government's attempt to attract foreign capital through the adoption of high interest rates adversely affected GDP growth, which was 2.2 percent in 1996, 3.4 percent in 1997, and only 0.04 percent in 1998, a year in which the basic interest rate (Selic) reached 40 percent per year. Again, in 1999, high interest rates resulted in a GDP growth of only 0.3 percent. Despite the GDP growth of 4.3 percent in 2000, the next two years exhibited low rates of growth – 1.3 percent in 2001 and 2.7 percent in 2002 – due to conservative interest rate policies.

Two-thousand and two saw the election that brought a leftist party to the presidency. The fact that candidate Luiz Inácio Lula da Silva was leading in the polls caused instability in the financial markets, which provoked a new devaluation of the Real and entrance into a new agreement with the IMF. In 2002, the annual inflation rate reached 26.4 percent against 10.4 percent in 2001. To assure stability of the price level and to affirm to the financial markets a commitment to low inflation rates, the newly elected president tightened monetary and fiscal policies. The result was a small GDP growth of 1.1 percent in 2003 and an inflation rate of 7.7 percent.

One very important development in the Brazilian economy after the adoption of a flexible exchange regime in 1999 has been the continuous improvement in the trade balance and in the balance of payments.

In 2004, the excellent performance of the trade balance, due to a 32 percent growth in exports compared to 2003, surpassed the deficit in the financial account and guaranteed a BP surplus of US \$2.2 billion. The expansion of the exporting sector stimulated GDP growth (5.7 percent) and the annual inflation rate was 12.1 percent.

**Graph 7.A.6. Gross External Debt, 1980-2004**  
(As a percentage of GDP)



Source: BCB. Data available at IpeaData, elaborated by the authors.

Since 1980, Brazil has endured great economic difficulty. As a result, the country continues to search for a new paradigm that will enable a new path of sustained economic growth. The result of this search has been a transition from a model that relied heavily on public investments and initiatives favoring import substitution to a more liberal approach with less government intervention.

Economic liberalization began in 1990 with the Collor reduction of tariffs and non-tariffs barriers and the privatization of state-owned companies. The government of Fernando Henrique Cardoso continued this trend toward liberalization by eliminating the state monopoly in telecommunications and oil and by privatizing utilities and public

service state-owned companies.<sup>28</sup> Most recently, it appears that the Lula administration has kept things on track.

Still, there continues to be intense debate on the best means of using newly conquered price stability and a comfortable position in Brazil's external accounts to achieve sustained economic growth.

**Table 7.A.2. Direct and Indirect Taxes, 1980-2004**  
(% do PIB)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
<b>Total Tax Revenue</b>	24.51	25.26	26.32	26.96	24.35	24.06	26.18	23.77	22.43	24.13	28.78	25.25	25	25.78	29.77	29.39	28.92	28.58	29.33	31.07	30.36	31.87	32.35	31.90	32.77
<b>Direct Taxes</b>	11.47	12.33	13.55	13.45	12.93	12.99	13.96	12.37	11.08	12.22	13.6	11.4	12.05	12.65	14	14.24	14.24	15.80	16.44	17.06	15.60	16.42	17.26	17.14	17.32
Income tax	3.01	3.37	3.46	4.24	4.76	5.13	5.01	4.31	4.67	4.94	5.13	3.9	4.18	3.85	3.83	4.78	4.3	3.89	4.68	4.84	4.78	4.98	5.81	5.47	5.30
ITR (Federal rural land tax)	0.02	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	-	-	0.02	-	0.01	-	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02
Social Security Contributions	4.66	4.99	6.05	5.45	4.91	4.73	5.18	4.74	4.4	4.63	5.11	4.37	4.41	5.19	4.82	4.89	5.13	4.70	4.76	4.52	4.72	4.69	4.81	4.75	4.83
FGTS (Workers' retirement fund)	2.32	2.49	2.52	2.4	2.01	1.92	2.46	1.94	0.86	1.41	1.46	1.29	1.28	1.25	1.78	1.51	1.5	1.38	1.71	1.63	1.59	1.62	1.52	1.47	1.30
Contributions for	0.22	0.26	0.25	0.22	0.2	0.26	0.23	0.24	0.22	0.21	0.32	0.08	0.26	0.15	0.27	0.36	0.38	0.32	0.27	0.24	0.21	0.24	0.24	0.22	0.19

education																										
IPVA (Vehicles tax)	-	-	-	-	-	-	0.14	0.1	0.06	0.05	0.09	0.15	0.13	0.11	0.18	0.37	0.4	0.48	0.45	0.42	0.45	0.48	0.47	0.46	0.46	
IPTU (Urban property)	0.25	0.29	0.29	0.22	0.2	0.16	0.17	0.13	0.14	0.07	0.18	0.37	0.22	0.15	0.21	0.41	0.45	0.38	0.39	0.43	0.44	0.42	0.42	0.46	0.43	
CPMF (Financial transactions)	-	-	-	-	-	-	-	-	-	-	-	-	-	0.07	1.06	-	-	0.74	0.83	0.75	1.23	1.32	1.38	1.36	1.36	
Contribution on Net Profits	-	-	-	-	-	-	-	-	-	0.21	0.54	0.28	0.73	0.79	0.97	0.91	0.85	0.82	0.79	0.69	0.79	0.72	0.90	0.99	1.05	
Others	0.99	0.90	0.95	0.91	0.84	0.78	0.76	0.9	0.72	0.7	0.77	0.94	0.84	1.08	0.88	0.99	1.2	3.07	2.54	3.52	1.36	1.93	1.69	1.96	2.38	
<b>Indirect Taxes</b>	13.04	12.93	12.77	13.51	11.42	11.07	12.22	11.4	11.35	11.91	15.18	13.85	12.95	13.13	15.77	15.15	14.68	12.78	12.89	14.01	14.77	15.44	15.09	14.76	15.50	
Import tax	0.7	0.59	0.49	0.45	0.41	0.4	0.48	0.4	0.43	0.43	0.39	0.42	0.4	0.45	0.52	0.76	0.54	0.55	0.67	0.74	0.72	0.70	0.54	0.48	0.47	
IPI (Vat industry)	2.19	2.2	2.2	2.11	1.4	1.84	2.17	2.43	2.17	2.21	2.4	2.14	2.32	2.44	2.22	2.07	1.96	1.79	1.67	1.55	1.60	1.49	1.34	1.16	1.18	
IOF (Loans tax)	0.94	1.16	1.14	0.72	0.86	0.55	0.67	0.57	0.35	0.16	1.3	0.59	0.62	0.8	0.69	0.5	0.37	0.40	0.36	0.46	0.27	0.28	0.27	0.26	0.27	
Federal excise on fuel	2.12	2.16	1.87	2.11	0.29	0.16	0.14	0.31	0.31	0.04	0.02	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	
Federal excise on energy	0.21	0.25	0.26	0.25	0.23	0.21	0.22	0.18	0.16	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Federal excise on minerals	0.08	0.08	0.08	0.08	0.11	0.09	0.09	0.07	0.07	0.01	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
COFINS	-	-	0.27	0.61	0.57	0.62	0.71	0.67	0.77	1.1	1.54	1.55	1	1.37	2.56	2.43	2.3	2.04	1.91	3.02	3.38	3.56	3.54	3.50	4.08	

(VAT)																										
PIS (VAT)	-	-	-	-	-	-	-	-	0.4	0.64	1.14	1.05	1.08	1.16	1.07	0.91	0.95	0.81	0.77	0.92	0.85	0.88	0.87	1.02	1.03	
Fed. contributions on maritime freight	0.14	0.16	0.13	0.17	0.24	0.19	0.19	0.17	-	0.10	0.14	-	-	-	-	-	0.06	-	-	-	-	-	-	-	-	
ICMS (VAT)	4.87	4.95	5.08	5.03	5.29	5.44	6.35	5.49	5.34	6.41	7.24	6.76	6.42	6.04	7.33	7.3	7.15	6.35	6.22	6.37	6.98	7.24	7.13	7.02	7.10	
ISS (Services)	0.26	0.32	0.14	0.36	0.29	0.28	0.32	0.31	0.33	0.33	0.43	0.44	0.41	0.35	0.43	0.51	0.56	0.51	0.50	0.47	0.53	0.53	0.50	0.54	0.54	
IVVC (Retail sale of fuel)	-	-	-	-	-	-	-	-	-	0.03	0.06	0.06	0.06	0.06	0.07	0.03	-	-	-	-	-	-	-	-	-	
CIDE (Federal fuel tax)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49	0.44	0.39	
Others	1.53	1.06	1.11	1.62	1.73	1.29	0.88	0.8	1.02	0.43	0.52	0.82	0.64	0.46	0.88	0.64	0.79	0.33	0.78	0.47	0.44	0.77	0.41	0.34	0.44	

Source: IBGE, elaborated by Varsano and Others (1998) from 1980-96 and by the authors from 1997-2004.





Excises <sup>1</sup>																										
CIDE (Fuel Tax)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.49	0.44	0.39
<b>Property Taxes</b>	0.27	0.32	0.32	0.23	0.21	0.17	0.32	0.24	0.21	0.12	0.27	0.54	0.35	0.27	0.39	0.8	0.88	0.89	0.86	0.88	0.91	0.93	0.91	0.93	0.91	
IPTU (Urban property)	0.25	0.29	0.29	0.22	0.2	0.16	0.17	0.13	0.14	0.07	0.18	0.37	0.22	0.15	0.21	0.41	0.45	0.38	0.39	0.43	0.44	0.42	0.42	0.46	0.43	
IPVA (Vehicles tax)	-	-	-	-	-	-	0.14	0.1	0.06	0.05	0.09	0.15	0.13	0.11	0.18	0.37	0.4	0.48	0.45	0.42	0.45	0.48	0.47	0.46	0.46	
ITR (Rural Land)	0.02	0.03	0.03	0.01	0.01	0.01	0.01	0.01	0.01	-	-	0.02	-	0.01	-	0.02	0.03	0.03	0.02	0.03	0.02	0.02	0.02	0.02	0.02	
<b>Income Taxes</b>	3.01	3.37	3.46	4.24	4.76	5.13	5.01	4.31	4.67	5.15	5.67	4.18	4.91	4.64	4.8	5.69	5.15	4.71	5.47	5.52	5.57	5.70	6.71	6.46	6.36	
Personal and Business	3.01	3.37	3.46	4.24	4.76	5.13	5.01	4.31	4.67	4.94	5.13	3.9	4.18	3.85	3.83	4.78	4.3	3.89	4.68	4.84	4.78	4.98	5.81	5.47	5.30	
Contribution on Net Profits	-	-	-	-	-	-	-	-	-	0.21	0.54	0.28	0.73	0.79	0.97	0.91	0.85	0.82	0.79	0.69	0.79	0.72	0.90	0.99	1.05	
<b>Taxes on Payroll</b>	7.44	7.98	9.09	8.36	7.37	7.18	8.16	7.21	5.77	6.56	7.25	6.07	6.28	6.93	7.27	7.1	7.62	6.70	7.01	6.72	6.85	6.86	6.90	6.72	6.73	
Social Security Contribution	4.66	4.99	6.05	5.45	4.91	4.73	5.18	4.74	4.4	4.63	5.11	4.37	4.41	5.19	4.82	4.89	5.13	4.70	4.76	4.52	4.72	4.69	4.81	4.75	4.83	
FGTS (workers retirement fund)	2.32	2.49	2.52	2.4	2.01	1.92	2.46	1.94	0.86	1.41	1.46	1.29	1.28	1.25	1.78	1.51	1.5	1.38	1.71	1.63	1.59	1.62	1.52	1.47	1.30	
	0.22	0.26	0.25	0.22	0.2	0.26	0.23	0.24	0.22	0.21	0.32	0.08	0.26	0.15	0.27	0.36	0.38	0.32	0.27	0.24	0.21	0.24	0.24	0.22	0.19	

Contributio

n for																									
education																									
Public servants	0.24	0.24	0.27	0.29	0.25	0.27	0.29	0.29	0.29	0.31	0.36	0.33	0.33	0.34	0.4	0.34	0.61	0.3	0.27	0.33	0.33	0.32	0.33	0.29	0.41
<b>Others</b>	2.43	1.87	1.89	2.39	2.55	1.98	1.52	1.59	1.46	0.93	1.02	1.43	1.14	1.18	1.31	1.22	1.38	3.4	3.3	4.0	1.8	2.7	2.1	2.3	2.8
Others direct	0.76	0.65	0.65	0.6	0.59	0.51	0.45	0.62	0.44	0.4	0.36	0.61	0.5	0.72	0.43	0.58	0.53	3.1	2.5	3.5	1.4	1.9	1.7	2.0	2.4
Others indirect	1.67	1.22	1.24	1.79	1.96	1.47	1.07	0.97	1.02	0.53	0.66	0.82	0.64	0.46	0.88	0.64	0.85	0.33	0.78	0.47	0.44	0.77	0.41	0.34	0.44

Source: IBGE and Varsano and Others (1998), elaborated by the authors.

**Table 7.A.4. Tax Burden, 1980-2004**  
(As a percentage of GDP)

<b>YEAR</b>	<b>RATIO (%)</b>	<b>YEAR</b>	<b>RATIO (%)</b>
1980	24.45	1993	25.30
1981	25.18	1994	27.90
1982	26.24	1995	28.44
1983	26.84	1996	28.63
1984	24.19	1997	28.58
1985	23.83	1998	29.33
1986	26.50	1999	31.07
1987	24.25	2000	30.36
1988	23.36	2001	31.87
1989	23.74	2002	32.35
1990	29.60	2003	31.90
1991	24.43	2004	32.77
1992	24.96		

Source: IBGE. Data available at IpeaData, elaborated by the authors.

**Table 7.A.5. Gross Domestic Product in Brazil, 1980-2004**

<b>Year</b>	<b>Real billion</b>	<b>US\$ billion</b>
1980	4.55E-09	237.3
1981	8.73E-09	257.9
1982	1.77E-08	271.2
1983	3.98E-08	189.6
1984	1.27E-07	188.2
1985	4.76E-07	210.9
1986	1.27E-06	256.5
1987	4.04E-06	283.0
1988	2.94E-05	307.9
1989	4.26E-04	413.0
1990	1.15E-02	465.0
1991	6.03E-02	407.7
1992	6.41E-01	390.6
1993	14.1	438.3
1994	349.2	546.2
1995	705.6	769.0
1996	844.0	839.7

1997	939.1	871.2
1998	979.3	843.8
1999	1065.0	586.9
2000	1179.5	644.5
2001	1302.1	554.0
2002	1477.8	505.9
2003	1699.9	552.2
2004	1941.5	663.6

Source: IBGE. Data available at IpeaData, elaborated by the authors.

## Notes

<sup>1</sup> The authors would like to thank Professor Roger Gordon and an anonymous reviewer for very useful comments. We are thankful also to Bernardo Dietze for compiling the tax revenue data used in the paper. Also we owe a special thanks to Luciana Lima for her assistance.

<sup>2</sup> Detailed information regarding the 1965-67 tax reform can be found in Giambiagi and Além (2000) p. 242-246.

<sup>3</sup> Formally, income taxation was introduced in Brazil in 1923.

<sup>4</sup> In the Brazilian tax system, contributions are a type of federal tax; the revenue raised from these has a specific destination, i.e. toward a particular public spending project.

<sup>5</sup> The Brazilian Constitution authorizes governments to impose three types of levies: taxes, contributions (social and others), and user charges. The legal distinction between a contribution and a tax is that the former is raised to finance a specific governmental activity (mostly social security), while the proceeds of taxes are used for general purposes. In other words, contributions are simply earmarked taxes.

<sup>6</sup> The 1967 law that established the new tax system was modified over the subsequent years so that by 1988 the tax structure had changed.

<sup>7</sup> Public budgets in Brazil are submitted to the legislature annually, in a single piece, containing all expenditures and sources of revenue. It also contains the investment projects of state enterprises which also need to be approved by the legislators.

<sup>8</sup> Social security in Brazil encompasses pensions, health care, unemployment insurance, and social assistance. Private pension schemes are very limited and the public sector is the main provider of pensions and of health care in the country.

<sup>9</sup> In the table direct taxes are those based on income, property, payroll, and inheritance taxes, and indirect taxes are those based on transactions of goods and services.

<sup>10</sup> For a detailed explanation and analysis of fiscal federalism in Brazil, see Afonso and Mello (2000), Serra and Afonso (1999), and Shah (1990) and (1994).

<sup>11</sup> Ministry of Planning and Budget (2003).

<sup>12</sup> In 2004 “small” businesses were defined to be those businesses with annual sales up to R\$ 1.2 million.

<sup>13</sup> Financial compensations in the oil industry have two main components: royalties – up to 10% of the gross value of production and an additional compensation in the case of good-quality high productivity oil wells which are charged a percentage of net income (profits) varying from 10% to 40%. Detailed information regarding financial compensation in the oil industry can be found in <http://www.anp.gov.br>.

<sup>14</sup> From the site:

<http://www.microsoft.com/billgates/speedofthought/additional/brazil.asp>.

<sup>15</sup> The balance of payments data are from Banco Central do Brasil (Brazilian Central Bank), available at [www.bcb.gov.br](http://www.bcb.gov.br).

<sup>16</sup> Hermann (2005), p.110.

<sup>17</sup> An analysis of the II PND's roll in the 1983-1984 external adjustment can be found in Castro e Souza (1985).

<sup>18</sup> Giambiagi and Além (2000), p.136.

<sup>19</sup> Ibid.

<sup>20</sup> Brazil adopts in its official statistics the concept of net public debt, which is the result of comparing the financial public sector plus Central Bank's liabilities with its assets. In this concept the monetary base is included.

<sup>21</sup> A characterization of the inflation debate can be found in Castro (2005).

<sup>22</sup> For the theory of inertial inflation, see Lopes (1986).

<sup>23</sup> A discussion of the crawling-peg exchange rate system can be found in Zini Jr (1992).

<sup>24</sup> Source Brazilian Central Bank. Available at [www.bcb.gov.br](http://www.bcb.gov.br).

<sup>25</sup> A detailed analysis of the Brady Plan conditions for Brazil can be found in Portella Filho (1994).

<sup>26</sup> For a description of Real Plan see Castro (2005). An analysis of the origins of Real Plan can be found in Franco (1995).

<sup>27</sup> An analysis of the inflation-targeting system and its results can be found in Fachada (2001) and Fraga, Goldfajn and Minella (2003).

<sup>28</sup> For an analysis of the reform of the state and the privatization of state-owned companies see Giambiagi and Além (2000).

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