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COMMENTARY

Brazil's *Real* Plan*

MANUEL A. R. DA FONSECA

Abstract. One of the main conclusions of this commentary is that the *Real* plan – the stabilisation programme introduced in Brazil in July 1994 which was quite successful in bringing inflation down from the extremely high levels that prevailed before that period – did not attack the main cause of the country's inflation, that is, the large financial imbalance in the public sector. Instead, inflation was reduced in an indirect way, by freezing government-controlled prices and wages. In mid-1998, the programme still relies on extremely high interest rates and a tight control of the exchange rate. The main weakness of the plan is that, with the overvalued currency, trade deficits are accumulating. Also, very high interest rates have brought the economy to a halt and caused a sharp increase in the government debt.

In recent decades, Brazil has probably been among the countries with the worst record in terms of inflation. On two occasions, the Brazilian economy was at the brink of experiencing a fully-fledged hyperinflation. Yet, this scenario seems to have changed completely with the introduction of the *Real* plan in 1994, raising hopes that a new period of prosperity and stability might be at hand after several years of stagnation.

Nevertheless, the success of the plan in its initial stages is puzzling to researchers and economists in general. The reason is that the *Real* plan is strikingly different from most, if not all, successful stabilisation programmes adopted so far. This raises questions about the evolution of the Brazilian economy in the near future.

This commentary has three main objectives: to put the Brazilian inflation in an historical perspective, to analyse the main aspects of the *Real* plan, and – based on these earlier analyses – to investigate possible developments in the near future.

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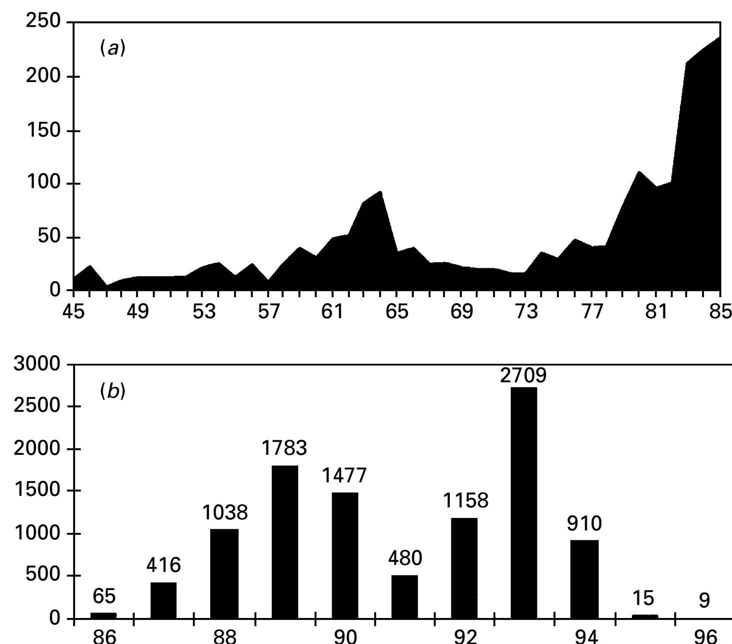

Fig. 1. *Two phases of Brazilian inflation, annual rates, %. Indice Geral de Preços – Fundação Getúlio Vargas*. (*a*) 1945–85 (*b*) 1986–96. *Sources*: IBGE, *Estatísticas Históricas do Brasil*, 2nd ed. (Rio de Janeiro, 1990); and *Conjuntura Econômica*, several issues.

Inflation in Brazil: an historical perspective

Considering the evolution of the Brazilian economy in the post-war period, one must conclude that one of its most important trends has been a dramatic and continuous increase in prices. Since the late 1940s, the rate of inflation has shown a strong tendency to accelerate. This trend has been reversed only a few times, most recently in the period after the *Real* plan (Fig. 1). The explanation for such a trend does not only rely on economic grounds – sociological and political factors also play a role. It seems accurate to say that inflationary pressures came to be seen as something normal – maybe unavoidable – by Brazilian society and, in particular, by the country's politicians.

Perhaps, the most important reason for downplaying the problems caused by inflation is that they have been perceived as some sort of price that had to be paid for rapid development. The fact is that, until the first half of the 1980s, a large segment of Brazil's society was satisfied with the country's high growth rates and did not care if prices were accelerating. It was as if they perceived the existence of a trade off between price stability and rapid growth. However, since the second half of the 1980s, extremely high inflation rates and the policies devised to reduce them have

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Table 1. *Average growth rates of Brazil's GDP* (%)

1948–62	7.6
1963–67	3.5
1968–80	9.0
1981–83	−2.1
1984–86	6.9
1987–95	1.7

Sources: IBGE, *Estatísticas Históricas do Brasil*, 2nd ed. (Rio de Janeiro, 1990); and IBGE, *Contas Nacionais*, several issues.

Table 2. *Growth rates* (*averages in the period*, %)

	7 richest countries	East Asia	Latin America†	Brazil
1974–79	2.8	6.9	4.9	6.7
1980–84	1.6	6.6	1.2	1.7
1985–89	2.8	7.7	2.5	4.4
1990–94	1.5	9.9*	2.7*	1.0

* 1990–3; † Includes Caribbean countries.
Source: Ministério do Planejamento e Orçamento, *Indicadores da Economia Mundial*, no. 6, Dec. 1995.

been major factors explaining the stagnation Brazil has endured. Therefore, more recently, inflation has finally been perceived as one of the country's major economic problems (Tables 1 and 2).

There is no question though that this concern about inflation is relatively new in Brazil. In recent decades, there has been very little concern, if any, about some basic elements of price stability – fiscal and monetary policy. Government projects and investment programmes were devised throughout these years without virtually any concern as to how they would be financed.[1] In terms of monetary policy, the most striking feature was the lack of a Central Bank in Brazil until 1964. Even after its creation, it was closely tied to the government.[2] Another unusual feature of Brazil's monetary system is that, until 1986, the largest state commercial bank – the Banco do Brasil – was entirely free to provide loans beyond its deposits, since any shortage of currency was automatically provided by

[1] The most striking of these projects was the building of a new capital, Brasília, in the country's heartland in the late 1950s and early 1960s. There is evidence that a large part of the construction was financed by the social security system, which contributed to financially impair Brazil's social security afterwards. See, on this point, Ib Teixeira, 'Como Brasília Arruinou a Previdência Social', *Conjuntura Econômica*, vol. 51, no. 3 (1997), pp. 43–4.

[2] The President of the Central Bank is, currently, one of the aides of the Finance Minister.

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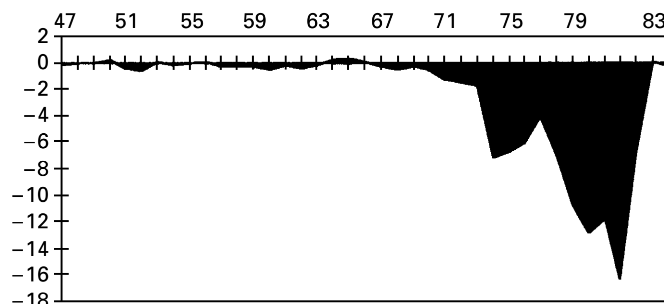

Fig. 2. *Current account's balance, 1947–85, billions of dollars. Sources*: IBGE, *Estatísticas Históricas do Brasil*, 2nd ed. (Rio de Janeiro, 1990); and Banco Central do Brasil, *Boletim Mensal*, several issues.

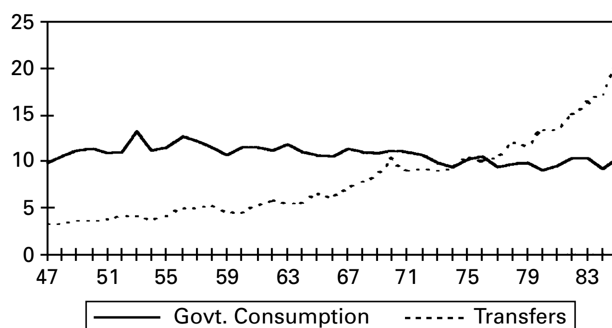

Fig. 3. *Main government spending items, 1947–85, % of GDP*. Transfers include interest payments on the public debt, subsidies and payments to the social security system. *Sources*: see Table 1.

the Central Bank.[3] All these elements led to large government deficits and significant increases in money supply.

In the second half of the 1970s and first half of the 1980s, these institutional practices combined with some developments abroad contributed to the rise of inflation to ever-higher levels. The oil shocks of 1973 and 1979 and the increase of international interest rates, culminating in Mexico's default of 1982, caused a large increase in Brazil's trade and current deficits (Fig. 2). This led to important changes in the economy since trade surpluses had to be generated in order to finance more costly oil imports and higher interest payments. Since the country was at the brink of default, several policies were adopted to implement such changes. Among their effects were large government deficits and more inflation (Fig. 3). In part, the latter was caused by exchange rate devaluations that helped to spur exports and to reduce imports.

[3] In reality, public financial institutions at the federal and state level have continued to create credit in a relatively free way, since their losses are ultimately covered by the Central Bank.

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Another major development in the 1980s was the increase in internal financing of government deficits, since international financial markets were closed to Third World countries. As a result, the internal government debt started to grow, and this tendency put strong pressure on the country's capital markets, which had historically been very small. Very little long-term capital was available to finance house construction and the acquisition of expensive durable goods (mainly automobiles), to buy stocks issued to finance private investments, and to buy government bonds.[4]

The weakness of Brazil's capital markets was partly due to high and unpredictable inflation rates which could inflict heavy losses on lenders in real terms. This deficiency was partly remedied in 1964 with the creation of a government bond that was automatically adjusted for previous inflation. Gradually, all financial instruments incorporated this inflation-correction mechanism. However, this innovation had a major disadvantage: a strong indexation mechanism had been created and, over the years, wages and prices were also adjusted for previous inflation. Also, the intervals between these adjustments were continuously shortened as inflation accelerated.[5] This created a self-perpetuating cycle.

By the mid 1980s, loose monetary and fiscal policies, coupled with the measures adopted to generate trade surpluses had pushed inflation to above 200 per cent a year.[6] Both external and internal government indebtedness rapidly increased but while the growth of the first was limited to the accumulation of interest, the latter was increasing virtually without limit. Interest rates were high in real terms mainly due to the government's financial needs, and there was widespread indexation of wages and prices. On the positive side, there were annual trade surpluses above $10 billion and the economy started to grow again. Although inflation was high by international standards, there did not at that time exist the risk of a hyperinflationary process. The dramatic acceleration of inflation that occurred later was due to other factors.

[4] This characteristic of the Brazilian economy has been summarised in the following way: '[In Brazil,] short-term banking credit is the most important form of financing'. F. C. Lima and M. A. R. da Fonseca, 'The Role of the Insurance Market in the Development of the Capital Markets in the Long Run: The Case of Brazil', unpublished working paper, Universidade Federal do Rio de Janeiro, 1996, p. 21.

[5] These developments are analysed in W. Baer, *The Brazilian Economy: Growth and Development*, 4th ed. (Westport-Connecticut, 1995), ch. 7. See also S. Morley, 'Inflation and Stagnation in Brazil', *Economic Development and Cultural Change*, vol. 19, no. 2 (1971).

[6] These measures consisted mainly in exchange rate devaluations, subsidised loans to promote exports and import substitutions, import restrictions and a reduction in public investments designed to reduce growth and imports.

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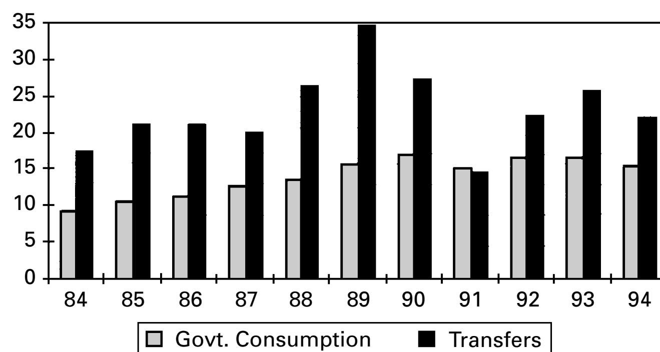

Fig. 4. *Government expenditures, 1984–94, percentage of GDP.* Transfers include interest payments on the public debt, subsidies and payments to the social security system. *Sources*: see Table 1.

*The Pre-*Real *Period*

In 1985, after 21 years of military rule, a new civilian government came to power that was widely viewed as opposing the policies of the military period. This opposition, though, was more apparent than real. In the first place, many prominent figures in the new government had supported the previous regime. Also, some important features of the earlier period were preserved and became even stronger: the complete disregard for fiscal and monetary policies necessary for price stability, the strong support for state controlled companies, the emphasis on protectionism leading to the loss of efficiency of Brazilian companies, and strong support for government interventions of all sorts.[7]

The main difference in relation to the military period was that the political basis of the government had increased from a relatively small group of people and institutions to a very large set that included political parties, public workers in the three areas of the federal government – Presidency, Congress and Justice –, workers in state companies and major government institutions (especially federal universities), and state and local governments. All these different groups lobbied to increase their share of revenues and benefits.[8] The result was a sharp increase in government spending which caused a growing deficit. Moreover, interest payments on the internal debt were also growing fast. Therefore, inflationary pressures started to accumulate (Figs 4 and 5).

[7] These trends are analysed in detail in Baer, *The Brazilian Economy*; see also M. A. R. da Fonseca, *O Processo Inflacionário: Análise da Experiência Brasileira* (Petrópolis-Rio de Janeiro, 1995), ch. 7.

[8] Some groups were more successful than others. Probably the most successful among them was the Justice system which became virtually a state within a state, with complete autonomy and unlimited resources.

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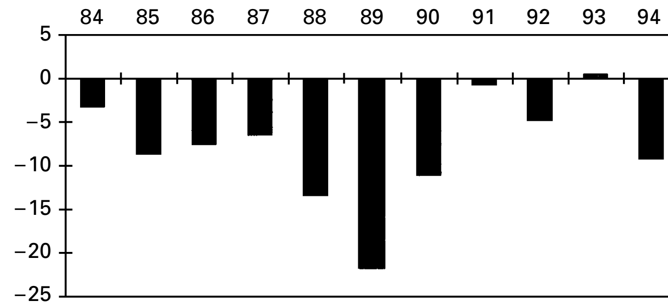

Fig. 5. *Government deficits, 1984–94, percentage of GDP. Sources*: see Table 1.

All these diverse interests were represented in a new Constitution, written in 1988, that contributed to an intensification of inflationary pressures. From an economic standpoint, the most important changes brought about by the 1988 Constitution were: (a) the transfer of tax funds from the federal government to state and county budgets;[9] (b) this reduction of the federal government's revenues was not matched by a transfer of obligations to states and municipalities, and this led to potentially larger deficits at the federal level of government that, in practice, were not compensated for by surpluses in subnational administrations; (c) the new Constitution guaranteed job security to a large part of civil servants at federal, state and local levels and, since the country's laws forbid lowering wages, a major share of government expenses cannot be reduced; (d) in 1988, Congress began to participate in the preparation of the budget, which previously was a sole prerogative of the Presidency, and this led, as a rule, to greater expenses and larger deficits; (e) the 1988 Constitution allowed public servants to join labour unions and guaranteed their right to strike, and this made more difficult the adoption of austerity measures affecting government workers.

In the second half of the 1980s, two ideas were dominant among Brazilian politicians. First, economic growth was viewed as a necessity in

[9] In 1985, the share in total tax revenues of different levels of government were: 46 per cent (federal government), 36 per cent (states) and 18 per cent (municipalities). In 1990, these shares were, respectively, 35, 42 and 23 per cent. These data appear in C. Longo, *Estado Brasileiro: Diagnóstico e Alternativas* (São Paulo, 1990), p. 24. A discussion of the effects of the 1988 Constitution also appears in J. G. P. Carneiro, 'Limites e Perspectivas da Reforma do Estado', in J. P. R. Velloso (ed.), *Brasil em Mudança* (São Paulo, 1991), pp. 49–63; and in F. Resende et al., 'A Questão Fiscal', in INPES-IPEA (Ministry of Planning), *Perspectivas da Economia Brasileira – 1989* (Rio de Janeiro, 1989), pp. 545–84.

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Table 3. *Unorthodox stabilisation plans*

	Month when it started
Cruzado	Mar. 86
Bresser	June 87
Verão	Jan. 89
Collor	Mar. 90
Collor II	Feb. 91

Source: W. Baer, *The Brazilian Economy: Growth and Development*, 4th ed. (Westport-Connecticut, 1995); P. Beckerman, 'Recent "Heterodox" Stabilization Experience: Argentina, Israel and Brazil, 1985–1989', in W. Baer et al. (eds.), *Latin America: the Crisis of the Eighties and the Opportunities of the Nineties* (Champaign–Illinois, 1991); and M. A. R. da Fonseca, *O Processo Inflacionário: Análise da Experiência Brasileira* (Petrópolis–Rio de Janeiro, 1995).

order to reduce poverty and promote development in a country plagued by social inequalities. Also, there was great resistance to any proposal perceived as *conservative*, especially those viewed as originating from international financial institutions, particularly the IMF. Therefore any initiative in the direction of reducing the deficit and promoting monetary discipline met strong opposition. With this background, a new line of economic thinking emerged that became very popular among Brazilian economists. It argued that fiscal and monetary policies were useless in promoting stability and that, in order to curb inflation, it was necessary only to eliminate its so called *inertial component* – that is, the indexation of wages and prices.[10] Based on ideas of this sort, several unorthodox stabilisation programmes were attempted from 1986 to 1991, which centred on wage and price freezes (Table 3). Their final result was to push price increases to hyperinflationary levels.

All these unorthodox programmes had the same basic elements, which had been first introduced in the *Cruzado* plan. Therefore, in the description that follows, emphasis will be given to this first experience with unorthodox economic policies in the country. The final result of these plans was, however, in total contradiction with their initial aim: as a rule, at the end of each plan, inflation rates were significantly higher than at the start (Fig. 6), reaching almost hyperinflationary levels in 1989 and again in 1993 (Fig. 1).

[10] These ideas are developed in F. Lopes, 'Inflação inercial, hiperinflação e desinflação', *Revista da ANPEC*, vol. 7, no. 8 (1984) and in L. Pereira and Y. Nakano, *Inflação e Recessão* (São Paulo, 1984).

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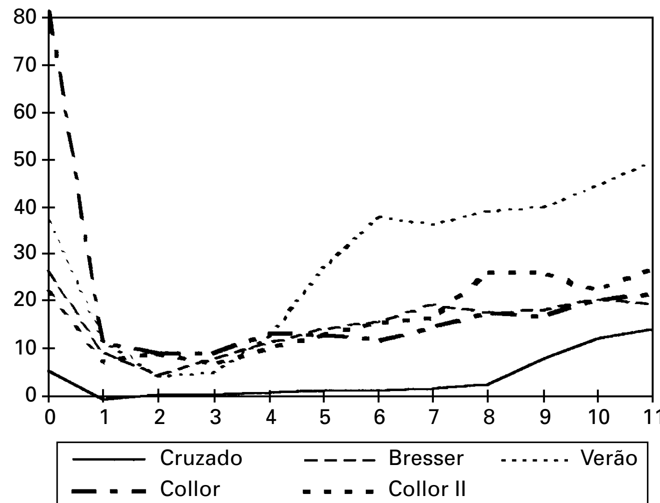

Fig. 6. *Inflation in the first 11 months of the unorthodox plans, monthly data*, %. *Sources*: *Conjuntura Econômica*, several issues.

The *Cruzado* plan was initiated on 28 February 1986 with the introduction, on that day, of several presidential decrees containing its main measures. There was no previous debate about these measures and, moreover, no previous discussion in Congress. Secrecy was an important aspect of the *Cruzado* and later unorthodox plans. This was in order to avoid major disruptions in the economy and, particularly, in financial markets. The main instruments of the plan were:

(*a*) A new currency was introduced – the *cruzado* – with the elimination of three zeros from the old one – the *cruzeiro*.

(*b*) All prices were legally fixed at the levels prevailing on 27 February 1986. The freeze also applied to the exchange rate.

(*c*) All contracts and payments due in the old currency were subject to rules of conversion to the new currency.[11] The justification was that these contracts contained an expectation of very high inflation that was no longer valid. Therefore, all payments due after the start of the plan were converted to the new currency with a discount. The discounting factors, varying according to the length of time until the due date, were set from above by the government.

(*d*) Wages were converted to *cruzados* based on the real value averaged for the previous six months. The rules were fixed by the government which also imposed an eight per cent increase for all workers on top of

[11] These conversion rules had previously been introduced in Argentina the year before.

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the real wages averages. House rents were also fixed in *cruzados* using this real average method.

(*e*) The government also tried to eliminate all indexation in prices and contracts. After the start of the plan, contracts could only be revised after a one-year period. Before the plan, this revision usually occurred on a monthly basis.

The *Cruzado* plan was, initially, very successful in keeping inflation under control (Fig. 6). However, with the exchange rate freeze and the increase in activity that occurred at the beginning of the plan, exports stagnated and imports rose sharply, leading to trade deficits by the end of 1996. The government was eventually forced to devalue the *cruzado* and this movement was an important factor behind the acceleration of inflation that happened afterwards. In April 1987, monthly inflation was again above 20 per cent. In May, a new economic team replaced the group that had designed the *Cruzado* plan and, one month later, another unorthodox shock was tried. This new stabilisation attempt came to be known as the Bresser plan, after the Finance Minister at the time. The plan introduced a three-month wage and price freeze and several measures were devised to reduce the fiscal deficit. However, those measures were not implemented and, at the same time, the *cruzado* was devalued by 10 per cent. As a result, prices rose sharply after the freeze period. By the end of 1987, it was clear that the Bresser plan had failed and the Finance Minister resigned.

The economic team that took office in December 1987 initially refused to introduce further wage and price controls but, since inflation kept accelerating, getting close to 30 per cent by the end of 1988, the government announced another unorthodox shock on 15 January 1989 – the so-called *Plano Verão*. Its main measures were another currency change – the *cruzado novo*, equivalent to 1000 *cruzados*, was introduced – and a new price and wage freeze. The basic goal of these measures was to avoid price increases reaching hyperinflationary levels but, again, government initiatives backfired: inflation declined at the beginning of the plan, but started to accelerate afterwards, rising to 38 per cent in July, 49 per cent in December, and 81 per cent in March 1990.

The major flaw of the *Cruzado* and the other unorthodox plans was that virtually no measure was taken to reduce government deficits and to control the money supply. At the time of the plans, government spending was increasing considerably and the fiscal deficit mounted (Figs 4 and 5). Greater spending was partially due to the payment of interest on ever-increasing internal public debt. This situation led, as part of the Collor plan, which was introduced in March 1990, to the confiscation of the major part of government bonds sold to the private sector, and the bank

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deposits that baked these bonds. These deposits were eventually returned 18 months later, in 12 monthly instalments.[12]

Essentially, the Collor plan contained the same elements of the previous unorthodox stabilisation attempts and its achievements match those of the former plans: after an initial decline, inflation soon accelerated. In February 1991, yet another wage and price freeze was adopted unsuccessfully – this came to be known as the Collor II plan. It is argued below that the *Real* plan can be viewed as the latest and a more elaborated version of these unorthodox plans. If correct, this interpretation raises greater concerns about future developments in the Brazilian economy.

The Real *Plan*[13]

After a long series of failed stabilisation attempts, all of them based on ideas proposed by Brazil's so-called *economistas heterodoxos*, monthly inflation reached almost 50 per cent in June 1994, immediately before the *Real* plan was launched. The plan implemented one of the ideas suggested a decade earlier by two exponents of the unorthodox school: the introduction of an indexed currency to curb high inflation rates.[14] This proposal was not really original, since it had been applied in Hungary immediately after World War II, with disastrous consequences.[15] What

[12] The economic policies pursued in Brazil in the second half of the 1980s and in the 1990s, and the ideas behind them, have been extensively analysed elsewhere. See, for example, P. Beckerman, 'Recent "Heterodox" Stabilization Experience: Argentina, Israel and Brazil, 1985–1989', in W. Baer et al. (eds.), *Latin America: the Crisis of the Eighties and the Opportunities of the Nineties* (Champaign-Illinois, 1991); Baer, *The Brazilian Economy*, especially chs. 7, 8 and 9; Fonseca, *O Processo Inflacionário*, especially ch. 7; F. H. Barbosa et al., 'O Reino Mágico do Choque Heterodoxo', in F. H. Barbosa and M. H. Simonsen (eds.), *Plano Cruzado: Inércia x Inépcia* (Rio de Janeiro, 1989), pp. 75–157; and Lourdes Sola, 'Heterodox Shock in Brazil: Técnicos, Politicians, and Democracy', *Journal of Latin American Studies*, vol. 23. 1 (February 1991), pp. 163–95.

[13] The material in this section is based on Fonseca, *O Processo Inflacionário*, ch. 7. See also R. Dornbusch, 'Brazil's Incomplete Stabilization and Reform', *Brookings Papers on Economic Activity*, no. 1, 1997, pp. 367–94.

[14] P. Arida and A. L. Resende, 'Inflação inercial e reforma monetária', in P. Arida (ed.), *Inflação Zero* (Rio de Janeiro, 1986).

[15] At the beginning of 1946, the Hungarian government, trying to curb a hyperinflation, introduced a financial asset that was adjusted daily according to the previous day's inflation rate. Soon afterwards, these bonds started to be used as currency. The experience was by no means successful since, in July 1946 – after this indexed currency had been introduced –, that country had the highest monthly inflation of all times: 4×10^{16} per cent. This number corresponds to a daily inflation rate of 258 per cent. See, on this subject, B. Nogaro, 'Hungary's recent monetary crisis and its theoretical meaning', *American Economic Review*, vol. 38, no. 4 (1948), pp. 526–42; W. Bomberger and G. Makinen, 'Indexation, Inflationary Finance, and Hyperinflation: the 1945–1946 Hungarian Experience', *Journal of Political Economy*, vol. 88, no. 3 (1980), pp. 550–60; and Fonseca, *O Processo Inflacionário*, ch. 2.

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was somewhat original was to use an indexed currency as the basis of a stabilisation programme 50 years after the Hungarians had tried it. The fact that this proposal was indeed adopted in Brazil, after so many failed unorthodox stabilisation programmes, is somewhat puzzling.

Taking into account the results of the *Real* plan three years after it started, it can be considered nothing less than a success: monthly inflation rates were reduced from 46.6 per cent in June 1994 to 0.88 per cent in December 1996. Annual inflation was 909.7 per cent in 1994, which greatly contrasts with the rate of 14.8 per cent verified in 1995, 9.3 per cent in 1996 and 4.3 per cent in 1997.

In spite of this initial success, there are major reasons for concern, especially when one keeps in mind that, before the beginning of the plan, the Brazilian economy was on the brink of a hyperinflation. Despite statements made by government officials that a balanced budget would have to be achieved, no substantial fiscal adjustment has been implemented. Therefore, as will be seen below, the strong inflationary pressures that existed before the plan were controlled solely by eliminating indexation and fixing prices in markets controlled by the government, especially the exchange rate. This is in sharp contrast with most, if not all, successful stabilisation programmes adopted so far.

The backbone of the plan was the elimination of indexation in the exchange market, the labour market, public utility prices – including oil and gasoline –, and some generally used contracts – especially those applying to rents, private schools and medical insurance. After July 1994,[16] wages, public utility prices, and prices settled by legal contracts could no longer be raised in reflection of previous inflation: any increase occurring before a one-year interval was prohibited. Another fundamental aspect of the plan was that the new currency that was created in July 1994 – the *real* – was initially pegged to the dollar. The Central Bank committed itself to a fixed maximum exchange rate.

There were some initiatives in the direction of reducing the government deficit, but those were very limited, and did not alter in any fundamental way the items of the 1988 Constitution that contributed to the increase of inflation. On the fiscal front, some measures were adopted to increase government revenues.[17] The rates of the main federal taxes were raised, especially income tax rates. Another measure that augmented the revenues at the federal level was the 15 per cent reduction, approved by Congress,

[16] The *Real* plan was launched on 1 July 1994.

[17] Brazil's recent initiatives in fiscal adjustment have systematically stressed increases in taxes rather than spending cuts. While Congress easily approves tax increases, spending cuts are seen as politically unfeasible.

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Table 4. *Dollar*–cruzeiro real *exchange rate and URV (figures for the last day of the month, CR$ per dollar)*

	Jan. 94	Feb. 94	Mar. 94	Apr. 94	May 94	June 94
Buying rate*	458.65	637.27	913.34	1302.26	1875.25	2612.50
Selling rate*	458.66	637.28	913.35	1302.28	1875.27	2750.00
URV†	458.16	637.64	931.05	1323.92	1875.82	2750.00

* Average of the day's trade; † Fixed by the Central Bank.
Source: Data Analysis Consultores Associados, *Síntese Econômica*, vol. 3, no. 6 (1994).

of the funds transferred by the federal government to states and municipalities. This measure alters the 1988 Constitution, but only for a limited period of time.

A few months before the start of the *Real* plan, an official price index was introduced – the *Unidade Real de Valor*, or URV for short – which was used compulsorily to adjust prices in government controlled markets, especially the labour market. This index was, in reality, the official dollar exchange rate, and was fixed daily by the Central Bank. The practical effect of this measure was to set prices that followed the URV change according to the dollar exchange rate. The strategy of the government was to make most internal prices vary according to the exchange rate, using the URV device. Once most prices were following the URV, this would be transformed into a new currency – the *real* – and it was hoped that the latter would keep a constant rate in relation to the dollar. Consequently, inflation in the new currency would be reduced to near zero. The essence of this idea was that, although the old currency – the *cruzeiro real* – was depreciating very fast due to high inflation rates, the new currency that was going to be created could remain stable, at least for some time. The challenge, as had happened in Hungary in the 1940s, was to keep the new currency free from inflationary pressures. To accomplish that, a major fiscal and monetary restructuring was needed, but this did not happen.

Contrary to government expectations, the use of the URV in the private sector as a basis for determining price changes remained very limited. Nevertheless, the plan was set in motion and on 1 July 1994 the new currency was introduced and it was determined that the conversion rate between the *real* and the former currency would be R$1 = CR$2,750.[18] That is, all prices would have to be divided by 2,750 to get the prices in the new currency. The URV and the dollar were rated at CR$2,750 on 30 June 1994 (Table 4). Therefore the initial exchange rate of the new currency in relation to the dollar was 1 to 1.

[18] One *real* was equalled to 2,750 *cruzeiros reais*.

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Table 5. *Dollar*–real *exchange rate* (*figures for the last day of the month*, R$ *per dollar*)

	June 94	July 94	Aug. 94	Sep. 94	Oct. 94	Nov. 94	Dec. 94
Selling rate*	1.000	0.940	0.889	0.854	0.846	0.845	0.846
	Jan. 95	Feb. 95	Mar. 95	Apr. 95	May 95	June 95	July 95
Selling rate*	0.842	0.852	0.896	0.913	0.906	0.922	0.936

* Average of the day's trade.
Source: Data Analysis Consultores Associados, *Síntese Econômica*, vol. 4, no. 7 (1995).

This currency change created a complex logistical problem since all the bills and coins used in a very large country like Brazil were exchanged in a few days. In comparison, in all of the many currency changes that had previously occurred in the country, the old bills did not immediately disappear. They only received a stamp to indicate that a new currency had come into existence. The main purpose of changing the bills immediately was to make a major psychological impact that – it was hoped – would help to convince Brazilians that inflation had indeed been wiped out together with the old bills. Also, in another initiative aimed at improving expectations of the new currency, government officials declared that the *real* would be exchanged freely for dollars. This statement, however, proved to be false. The emphasis on changing expectations about inflation were clearly justified since, by the time the *real* was introduced, annual inflation had reached the significant level of 9,754 per cent a year.

The new currency was initially pegged to the dollar, which helped to convince Brazilians that it was actually a strong currency, different from the long series of currencies that had been previously introduced and that were rapidly eroded by inflation. In fact, in the first months of the plan, the Central Bank allowed the real to float and it actually *appreciated* in relation to the dollar, due to the large influx of foreign capital (Table 5). This tendency was mainly the result of the very high levels of internal interest rates, as compared to rates in the international market. By the end of September 1994, the exchange rate had *risen* 15 per cent in relation to the 1 July rate for the dollar. In the same period, the country's most followed price index increased by 31 per cent given that inflation did not fall instantaneously. The new currency thus became heavily overvalued.

After the start of the *Real* plan, inflation fell, mainly due to the stability imposed on the labour market, the exchange market, on government controlled prices and on prices determined by contracts. Prices in these markets were varying according to the URV, and they were no longer allowed to rise once the URV was converted to the *real*. This was, in fact,

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a subtle form of price freeze, although one that applied only to *some* segments of the economy. These, however, were vital ones.

At this point, it seems appropriate, given the succession of so many failed stabilisation programmes in Brazil, to investigate what other factors contributed to the *Real*'s success. In fact, several structural changes that were initiated years before the start of the plan were decisive in bringing about a strong reduction of inflation. Probably the most important of these changes was the process of opening the Brazilian economy to foreign competition – the so-called *abertura* – that started in 1990. The intention behind this initiative was to promote modernisation of the country's productive structure by exposing virtually all industrial sectors to the competition of foreign products. The main instrument used was the gradual, but significant, reduction of import tariffs from 1990 to 1994.[19] Other changes in foreign trade policy were: that, 'the redundancy of import tariffs was reduced, taxes on foreign purchases were unified…, special import regimes were partially removed, and the number of products subject to previous licensing for exports was reduced'.[20]

Another structural factor that contributed to the reduction of inflation was the agreement reached in 1992 with international creditors on the country's foreign debt, which made it possible for large Brazilian companies to raise money in international financial markets. Until 1992, the country was in default on its debt payments and this made it practically impossible to raise money abroad. This agreement, together with the abundant availability of credit in the international market that existed since the end of the 1980s, contributed decisively to the inflow of foreign capital that financed the larger deficits in the country's current accounts and, therefore, was vital to the success of the *Real* plan.

Another structural change that also contributed to stabilisation was the reduction of state intervention in the process of resource allocation, especially through the sale of state-owned enterprises. This privatisation programme was introduced at the beginning of 1990, shortly after former president Collor took office, and it 'was viewed as being an integral part of a programme that was meant to modernise the Brazilian economy through a general liberalisation process'.[21] As part of the programme, a Privatisation Committee was created, and the formal procedures for the selling of the companies were defined by specific legislation. Since the

[19] From 1989 to 1994, the average import tariff was: 41.0 per cent (1989), 32.2 per cent (1990), 25.3 per cent (1991), 21.2 per cent (1992), 17.1 per cent (1993), and 14.2 per cent (1994). These figures appear in S. D. Silber, 'The External Sector of the Brazilian Economy', in M. J. F. Willumsen and E. G. da Fonseca (eds.), *The Brazilian Economy: Structure and Performance in Recent Decades* (Miami, 1997), p. 130.

[20] *Ibid*. p. 127.

[21] Baer, *The Brazilian Economy*, p. 262.

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Table 6. *M4 and its components* (Millions of *reais*)

	June 94	Dec. 94	June 95	Dec. 95	Dec. 96
M1	7,466	23,081	18,269	29,078	30,636
Federal govt. securities	32,680	29,935	32,359	57,738	102,855
State & municipal sects.	14,861	7,040	7,048	7,828	11,193
Private securities	41,552	57,654	70,272	79,799	83,429
Savings accounts	29,593	44,945	55,489	63,635	72,024
Investment funds	7,923	9,446	14,203	13,200	22,832
Other	2,575	3,345	2,697	0	0
M4	136,661	175,445	200,356	251,278	322,968

Source: F. C. Lima and M. A. R. da Fonseca, 'The Role of the Insurance Market in the Development of the Capital Markets in the Long Run: The Case of Brazil', unpublished working paper, Universidade Federal do Rio de Janeiro, 1996.

start of the *Real* plan, the whole process accelerated and, from July 1994 to June 1997, 26 state-owned companies were sold to the private sector generating revenue of R$8.6 billions from a total of R$13.1 billion obtained since the start of the programme.[22]

During the first months of the plan, money supply increased considerably, even taking into account that money demand would necessarily be greater due to the fall of inflation rates. By September 1994, the monetary base had expanded by 303 per cent in relation to June of that year. In the same period, M1 increased 113 per cent. It was clear that the Central Bank did not have a firm control of money supply, despite some harsh measures that were adopted to avoid credit expansion and that pushed interest rates to even higher levels.[23] This happened mainly because government bonds had a very short maturity period – less than three months, on average – and when part of these bonds were not renewed, which often happened after the start of the plan, since money demand had increased, the Central Bank was forced to finance the government by putting more money into the economy (Table 6).

Summing up, the *Real* plan did not attack the main underlying cause of Brazil's inflation, that is, the large imbalance in the government budget

[22] These figures appear in F. G. de Almeida, 'A Privatização na era do Real', *Conjuntura Econômica*, vol. 51, no. 7 (1997), pp. 16–20.

[23] In July 1994, the Central Bank created a compulsory reserve of 100 per cent on new bank check deposits. In October of that year, it created a compulsory reserve of 30 per cent on all time deposits and a compulsory reserve of 15 per cent on any credit provided by banks. See A. C. Pastore, 'Porque a Política Monetária Perde a Eficácia?', *Revista Brasileira de Economia*, vol. 50, no. 3 (1996), p. 309 n.; and F. C. Lima, 'A Política Monetária e o Plano Real', unpublished working paper, Universidade Federal do Rio de Janeiro, 1995, p. 2.

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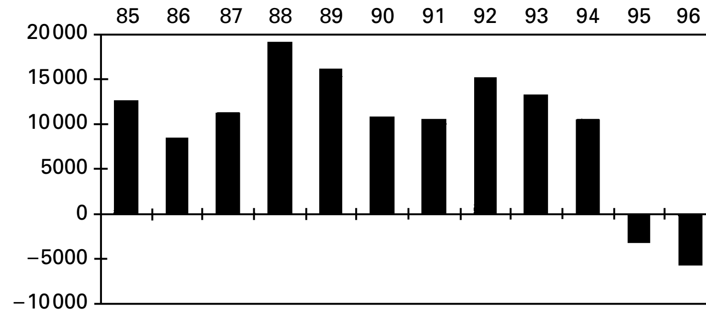

Fig. 7. *Trade balance, 1985–96, millions of dollars. Sources*: see Fig. 2.

caused by numerous factors, but aggravated considerably by the 1988 Constitution. Also, monetary policy remained extremely loose due to government deficits, to the inflow of external capital and to the large internal debt whose bonds have a short maturity. The plan was originally little more than a device conceived indirectly to freeze wages, the exchange rate, public prices and prices determined by contracts. The control of inflation depends on these prices remaining stable. The main weakness of the plan is that, with the overvalued currency, trade deficits have accumulated and the government needed to maintain an inflow of capital to avoid a depreciation of the *real* (Fig. 7). This scenario is very much like the one that existed in Mexico prior to the 1994–95 crisis. To maintain capital inflows and reduce credit expansion, the Central Bank has kept interest rates at extremely high levels, even by Brazilian standards. This has impeded economic growth and has caused a sharp increase of the government debt.

Later developments[24]

Three developments affected the *Real* plan after its initial stage: the Mexican crisis at the end of 1994 and beginning of 1995, which led to a capital flight from countries, like Brazil, seen as prone to suffer a major exchange devaluation;[25] and a drastic bank crisis that led the fourth and the sixth largest private banks – the latter was also the oldest Brazilian private bank – into receivership. They were later merged with healthier banks in operations sponsored by the Central Bank, which took over most of the non-performing assets with heavy costs to taxpayers.[26] Then, at the

[24] This section is based on Lima, 'A Política Monetária e o Plano Real'; and on Lima and Fonseca, 'The Role of the Insurance Market…', section 4.

[25] In Latin America, Argentina also felt intensely the effects of this international crisis.

[26] The details of these operations were not disclosed but its cost is estimated to be over $20 billion – about 3 per cent of Brazil's GDP.

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Table 7. *Real interest* (annual rates, %)

	1989	1990	1991	1992	1993	1994	1995
Short-run private bonds	44.3	23.9	26.8	29.7	16.9	25.3	29.8
Consumer loans	193.9	138.2	231.4	165.3	104.0	175.1	207.1

Source: Data Analysis Consultores Associados, *Síntese Econômica*, several issues.

Table 8. *Outstanding debt of the federal government* (Billions of *reais*)

	March	June	Sep.	Dec.
1994	50.5	61.3	62.5	61.8
1995	65.3	69.5	98.5	108.5
1996	133.6	154.3	162.5	176.2

Source: Banco Central do Brasil, *Boletim Mensal*, several issues.

end of 1997, Brazil was affected by the financial turmoil in East Asia, and was forced to raise interest rates dramatically, in order to protect the exchange rate.

By the end of 1994, the unusually severe measures adopted by the Central Bank to restrict credit had pushed interest rates to very high levels (Table 7). Nevertheless, they had succeeded in avoiding devaluation against the dollar, which certainly would have created strong inflationary pressures. Since the fiscal situation had not improved in relation to the period before the *Real* plan, the high-interest and the exchange-rate policies were the only instruments used by the government to avoid the resurgence of inflation. The policy of pegging the real to the dollar was put in check by the Mexican crisis and the capital flight that followed. The scenario became even worse since, due to the *real*'s overvaluation, trade deficits had been mounting and contributed to a sharp deterioration of the current account deficit. Foreign reserves, which were widely perceived as one of the pillars of stability, started to fall.

In March 1995, Brazilian authorities pushed interest rates to even higher levels and, at the same time, devalued the *real*. Soon afterwards, foreign reserves began rising again. This policy of keeping interest rates at stratospheric levels and accumulating foreign reserves had two important side effects. First, there was a sharp increase in government debt, due to the accumulation of interest and also to the selling of new government bonds to reduce the monetary expansion caused by the inflow of dollars (Table 8). Moreover, the banking system was particularly hurt, given that business firms and individuals were having increasing difficulties in repaying their debts. The consequence was that nonper-

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Table 9. *Loans to the private sector: total and non-performing* (millions of *reais*)

	Dec. 93	June 94	Dec. 94	June 95	Dec. 95
Bank loans (a)	94,162	74,299	103,964	120,560	126,784
In arrears & non-performing (b)	6,716	7,964	10,708	19,205	26,189
(b)/(a)	7.13%	10.71%	10.30%	15.93%	20.66%

Loans in arrears refer to operations of more than 60 days overdue. Non-performing loans refer to operations of more than 180 days overdue, with insufficient guaranties, and to operations of more than 360 days overdue, with sufficient guaranties.

Source: see Table 6.

forming loans reached unprecedented levels (Table 9). Another cause of the bank crisis was that, with the rise of interest rates, a mismatch arose between the cost of banks' liabilities – usually very short-run time deposits – and the earnings they were getting from their assets – which often had a longer maturity than their liabilities. A banking confidence crisis followed and, besides the larger banks mentioned above, several smaller ones went broke. Despite heavy criticism, mainly due to the heavy costs and the authorities' secretive ways, the Central Bank's bailing out of the banking system apparently worked. However, many banks are still facing difficulties.

More recently, the Central Bank began to promote frequent and small exchange rate devaluations, repeating a procedure widely adopted in the 1970s and the 1980s. The idea is to make the dollar vary according to previous or expected inflation. Currently, the monetary authority buys all the excess supply of dollars and, to avoid monetary expansion, sells government bonds to the public. This policy is also helping to keep high interest rates. Finally, Brazil underwent a further squeeze in response to the collapse of various east Asian currencies. Interest rates were abruptly doubled in November 1997, and an emergency tax package was introduced causing the economy to slow sharply. Although interest rates were gradually lowered from their stratospheric levels in early 1988 they remain punishingly high compared to the very low levels of price increase available to producers.

Concluding remarks

In the last decades, Brazil has undergone a process of chronic inflation, which was in large part caused by loose fiscal and monetary policies. Inflationary pressures were aggravated by the oil crisis of the 1970s and, in the first half of the 1980s, by changes in the country's external relations – especially the reduction of inflows of foreign capital and the sharp increase of interest rates in international financial markets. After the

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political changes that occurred in the second half of the 1980s, inflationary pressures increased considerably. The most important of these changes was that the Constitution elaborated in 1988, as a rule, increased expenses and made it more difficult to reduce them. Also, the unorthodox stabilisation programmes that were introduced from 1986 to 1991 contributed to push inflation to extremely high levels.

Through the years, government deficits have been financed through money and credit creation by the Central Bank. In Brazil, the monetary authority is the financial agent of the Treasury: it supplies credits to the federal government whenever needed and, afterwards, sells bonds to the public to reduce the monetary expansion of government financing. Since the Brazilian capital market is incipient, this procedure has caused interest rates to be very high in real terms. Also the average maturity of these bonds is extremely short.

The growing imbalance between the government's need of resources and the availability of credit from the private sector has certainly been one of the main factors behind the continuous increase in prices. This process reached hyperinflationary levels in 1989 and again in 1994, just before the *Real* plan was launched. One of the main flaws of the plan is that it did not in any fundamental way alter this financial imbalance in the public sector. That is, no significant fiscal and monetary adjustment was made. The acute inflationary pressures that existed just before the start of the plan were diffused basically by – in an indirect way – freezing wages and some prices controlled by the government, especially the exchange rate. Two of the main side-effects of the plan have been the extremely high interest rates – that have impaired many financial institutions and non-financial companies as well, besides being the main factor behind the dramatic increase of the public debt – and the overvaluation of the exchange rate, which has caused major deficits in Brazil's trade balance and current accounts.

In relation to the *Real* plan, the main question that arises is whether such increases in the government debt and the external deficit can be maintained for very long. This unstable scenario could be changed if a major restructuring of the Brazilian public sector were accomplished. However, it is unlikely that this will happen during the Cardoso government, since it has not shown signs of a strong commitment to this goal.[27] Another factor that could contribute to improve the financial imbalance of the public sector was the privatisation of state-controlled companies. The revenues obtained by the selling of government's shares

[27] Mr Cardoso's government was inaugurated in January 1995 and it will end in December 1998. Presidential elections will take place in October 1998 and he may be reelected.

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of those companies could be used to reduce the public debt. But, again, the initiatives in these areas have been very limited.

The deterioration of the external accounts might lead to a major exchange rate devaluation. In this case, a development similar to the Mexican crisis of 1995, marked by a strong capital flight movement, is one possibility that cannot be discarded. On the other hand, the sharp increase of the public debt raises the possibility that the government might become unable to afford the interest payments, which are by now one of the major items of government expenditures. In relation to this point, one has to keep in mind the confiscation of government bonds and of bank deposits that backed these bonds, which occurred in 1990. Public securities have a short maturity, and if part of that debt could not be rolled over due to a loss of confidence in the government, this would imply major increases in the money supply – that is, more inflation.

Although the important achievements so far of the *Real* plan on the inflation front can hardly be neglected, serious concerns remain over the evolution of the Brazilian economy in the near future.

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