11. Inflation targeting in Brazil: a Keynesian approach

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INTRODUCTION

Since the beginning of 1999, when the flotation of the real implied the abandonment of the exchange rate anchor, monetary authorities have adopted inflation targeting (IT) as the new nominal anchor, as if Brazil could not dispense with an anchor. Usually seen as a successful policy in so far as the inflation rate has been kept reasonably under control, IT policy has shown problems related to the achievement of its objectives and, principally, to the high fiscal and development costs involved. These problems are due to two main reasons. On one side, the Taylor rule – the simple model relating the target with the interest rate given the product gap – can only be accepted if it is combined with the consideration of other variables such as exchange rate and employment rate. The argument that the central bank can only have one target because monetary authorities have only one instrument is neither reasonable nor realistic. In practice, central banks do not work in this way.

The second one is related to a grave inconsistency dilemma. An IT policy is designed to 'manage' monetary policy, not to 'change' the 'monetary policy regime': it orients the policy maker to define the interest rate within a limited range, not to face an interest/exchange rate trap, characterized by an extremely high interest rate and an overvalued real prevailing in Brazil for many years.[1] An IT system implies in itself a monetary regime, and so it could be viewed as a 'regime', but we reserve the expression to designate inflation, interest rate and exchange rate patterns and the correspondent policies used to control such variables that possess a reasonable internal consistency. Monetary policy regimes persist for some time, but, in given moments, must undergo changes in order to deal with internal problems,

or because new structural facts impose changes. The IT system was adopted in Brazil, in 1999, ignoring that a previous reform of the monetary policy regime was required involving the end of indexation of public services and the de-linkage between the short- and the long-term interest rate. The result is that the government does not have any clear strategy to reduce the interest rate and it is far from starting a serious reform package and a deep fiscal adjustment.

Several works have analyzed the IT framework in Brazil. For instance, Bogdanski et al. (2000) wrote about the phase prior to implementing the plan itself and its first steps. Minella et al. (2003) studied the Brazilian inflation targeting policy and argued that emerging market economies may show high volatility in their main economic variables (exchange and interest rates, output growth rate and inflation rate), which brings problems to the system as a whole. As a result, conducting monetary policy in these countries is closely related to challenges such as trust building, reduction of the inflation rate, and resolution of fiscal, external and financial dominances. As inflation in 1999, after the exchange rate flotation, was smaller than many predicted, the quoted authors conclude that 'the Brazilian experience has been a successful stress test for the inflation targeting framework'. It means that they credited to the IT policy adopted in July (when the inflationary effects of the depreciation had already worked out) an outcome that was not due to the IT being implemented. This practice of overestimating the outcomes of the IT policy has been usual among conventional–orthodox economists. But, actually, the countries that adopted IT systems achieved neither better nor worse outcomes than the countries that do not use such a tool (Ball and Sheridan, 2003; Arestis et al., 2006).

The aim of this chapter is to offer a brief overview of the conduct of monetary policy in Brazil under IT and to show that it was adopted at an inappropriate moment. Second, we shall criticize the IT framework and show that it has been misused by the monetary authorities. It is not the aim of this chapter to pursue a theoretical discussion of the IT system. From a Keynesian point of view, IT will be acceptable if we see the equilibrium interest rate as just a 'changing convention', that is, if we see it theoretically as an empirical generalization of the way central banks work, and, in practical terms, if we combine the inflation target with either an exchange rate or an employment target – in the case of a small country like Brazil,[2] an exchange rate parameter might work better. In other words, in the framework of a pragmatic IT policy, the central bank is supposed to have a double mandate.[3]

Although IT was able to keep inflation relatively low, our claim is that it did that with extremely high fiscal and development opportunity costs.[4] Nowadays, inflation could be smaller and growth rates much higher in Brazil if the government had not hastened to import a monetary policy

institution before the appropriate conditions had materialized. Thus, we shall not explore what is usually discussed in relation to IT: how ambitious should the targets be, which inflation index to use, which period to take into consideration, and so on. These are management problems. Here, we shall argue against the timing chosen for the adoption of the IT policy, and which are the preconditions for its success. We shall also be offering some indications of how to escape from the interest/exchange rate trap in which the Brazilian economy remains immersed.

INFLATION TARGETING POLICY

After a decade of frustrating attempts to adopt a monetary rule to control inflation, central banks in rich countries realized that a more practical policy had to be adopted in order to control directly the basic interest rate aiming at a low rate of inflation. This practical policy was IT. A number of countries started to adopt the system at the beginning of the 1990s. New Zealand was the first inflation targeter, in 1990, followed by Canada (1991), the UK (1992), Sweden and Finland (1993), and Australia and Spain (1994). Subsequently, many other nations implemented the policy, including Brazil in 1999. Although IT was adopted for pragmatic reasons, the theoretical approach often argued by orthodox economists for its justification is new classical 'credibility theory' (Kydland and Prescott, 1977; Barro and Gordon, 1983). Under this theory, if monetary authorities neglect the observation of rules, there will be a lack of credibility in their decisions and, therefore, higher inflation rates. Consequently, a reliable central bank is needed in order to eliminate the so-called 'inflationary bias' found in the conduct of monetary policy. Yet, this theory does not correspond to the practice of central banks. Adopting a historical instead of a hypothetical approach, Le Heron (2003) sees in the Canadian case the foundation of a new consensus on monetary policy – a Keynesian one. According to Le Heron, IT is in conflict with the credibility literature because it is actually based on confidence. There is an opposition between 'credibility' and 'confidence'. The credibility approach needs the full independence of the central bank, while IT requires just an operational independence, with the inflation target determined by elected politicians. Instead of emphasizing 'rules versus discretion', confidence emphasizes the anticipations of the economic agents, the behavior of financial markets and the price of assets. In a second paper (Le Heron and Carré, 2006), the authors emphasize that central bankers do not just follow rules assuming that they, and all economic agents, know the true model. Instead, central bankers gain confidence in so far as they act reasonably, sometimes just following the rule, sometimes

changing it and offering justifications that economic agents understand, but always considering that structural shocks may require changes. In the whole process, communication and understanding are crucial to achieve confidence. Alan Greenspan was an example of a central banker who thought and acted according to the 'confidence' and not the 'credibility' principle (Aglietta and Borgy, 2005; Blinder and Reis, 2005).

Regarding both the optimal inflation and interest rates, what is commonplace nowadays is to analyze a central bank following Taylor's (1993) original formulation – the pragmatic equation known as the Taylor rule. In a more general form, the Taylor rule can be the following:

$$i_t - \pi_t = \bar{r} + b(\pi_t - \pi^*) + c(\ln Y_t - \ln \overline{Y_t}),$$

where i_t is the nominal interest rate, π_t is the inflation, $\ln Y_t - \ln \overline{Y_t}$ is the output gap and π^* is the target for inflation. In this case, $\bar{r}_t$ is the real interest rate that prevails when $Y_t = \overline{Y_t}$; thus, it is the equilibrium interest rate that is by assumption considered constant. Thus, this interest rate rule says that the central bank should raise the interest rate above its long-run equilibrium level when inflation exceeds its target and when output exceeds its natural rate. Some argue that a monetary policy rule under IT can be jointly attached to targets for other variables, such as the exchange rate, as long as they have a long-run consistency with the inflation target. The reason for such concern is that an appreciation of the exchange rate, just like an increase in the interest rate, reduces the interest rate but dampens economic activity (Romer, 2001).

IT theory was not the outcome of a concern for credibility, or of a neoclassical hypothetical-deductive reasoning about inflation, but it is the generalization of historical experience: how central banks are behaving in order to control inflation after they gave up monetary targets. Good macroeconomics adopts a method that is dominantly historical (Bresser-Pereira, 2006). The Taylor rule clearly has this historical and pragmatic origin. Central banks' behavior is also pragmatically based on a combination of several inflation theories and findings, among which is included the Phillips curve and an obvious confidence or credibility requirement.[5]

INFLATION TARGETING IN BRAZIL: AN OVERVIEW

The Brazilian economy changed abruptly when the 'Real Plan' started in 1994. Keeping a quasi-fixed exchange rate from the middle of 1994 up to the beginning of 1999 made the country run high current account deficits and, consequently it was, highly dependent on the inflow of international

capital and extremely vulnerable to external shocks. Such weakness was confirmed when several crises hit the country, causing a rapid outflow of capital as a result of a chain reaction in the international market. The continuous loss of reserves forced the Brazilian government to float and accept the depreciation of its exchange rate, in January 1999.

The flotation of the real led policy makers to fear the return of high inflation. They raised the interest rate sharply, despite it being very high.[6] The fear of inflation was not confirmed by the facts. Indeed, the increase of the inflation rate after the flotation was much smaller than conventional economists expected. Nevertheless, the Brazilian monetary authorities started to work on achieving two goals: (i) a severe control of inflation in order to calm down financial market expectations and create credibility; and (ii) the implementation of an IT framework as a new nominal anchor for the economy.

Thus, six months after the adoption of a flexible exchange rate, the Central Bank of Brazil (CBB) put into operation a formal IT framework and set the targets for 1999 (8 percent), 2000 (6 percent) and 2001 (4 percent) (Figure 11.1). The broad consumer price index (IPCA)[7] was selected as the reference measure for the targets because it could be affected by seasonal factors as well as by temporary shocks. The overnight Selic rate (or short-term interest rate) was chosen as the policy instrument. Tolerance intervals of 2 percentage points[8] were allowed to take into account the
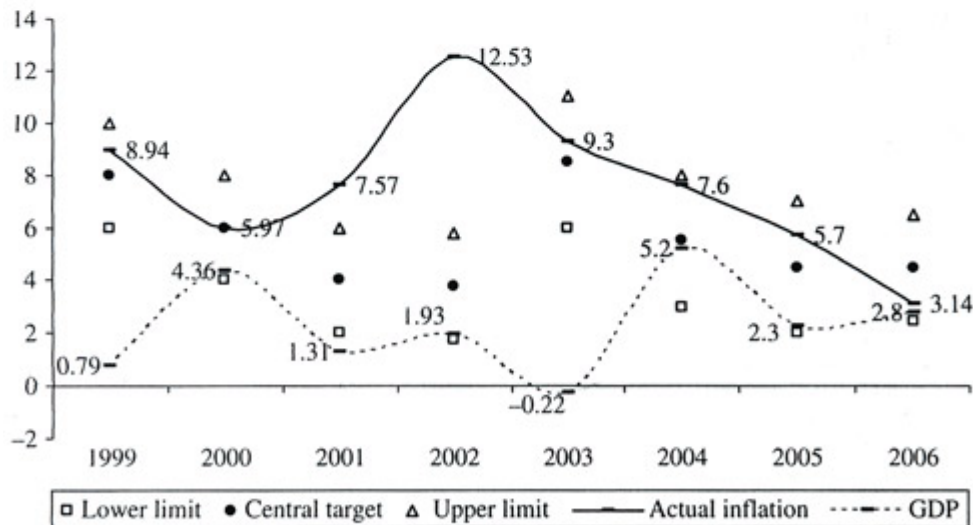
Source: Ipeadata.

Figure 11.1 Actual inflation rates, targets, tolerance intervals and GDP growth (1999–2006)
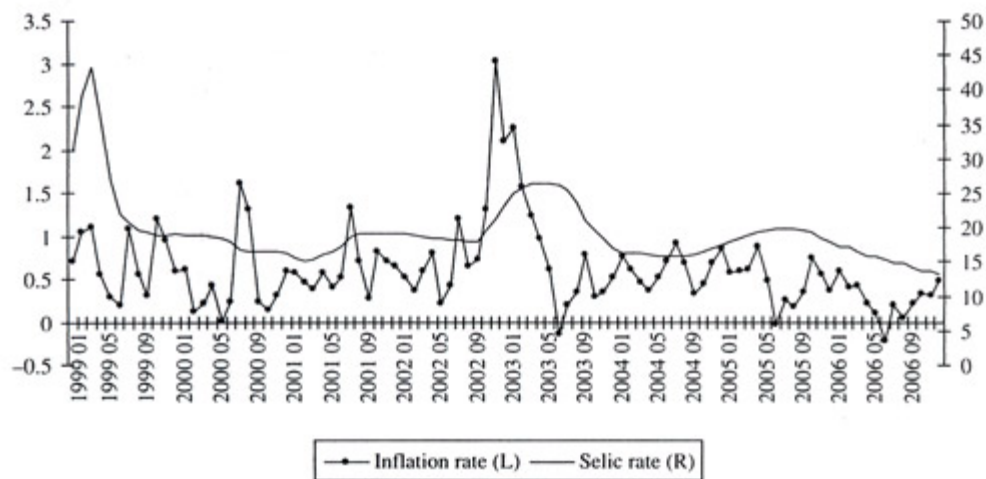
Source: Ipeadata.

Figure 11.2   Short-term nominal interest rate (Selic rate) and inflation rate (CPI)

importance of uncertainty about the inflationary process and also some unexpected temporary shocks and/or seasonal factors.

The exchange rate devaluation coincided with a period of slow economic growth, and this partially explains the behavior of inflation (Figure 11.2). The fact that indexation had been eliminated in 1994 is the main explanation. On the other hand, a reasonable control of government expenditures, and an increase in taxes led to a rapid growth of the primary surplus, which achieved 3.2 percent of GDP in 1999. This was combined with a strict monetary policy conduct. These facts, together with other important indicators, resulted in an inflation rate of just 8.9 percent in 1999 (Pinheiro et al., 2001). The year 2000 was more favorable to the Brazilian economy, despite the concerns regarding external factors. As a result, the 6 percent target was reached successfully even though there was a continuous realignment of monitored prices by the government (Figure 11.5) and some economic growth (Figure 11.1).

In 2001, the Brazilian economy was hit by a series of unfavorable shocks, such as the energy crisis, the end of the speculative bubble in stock markets throughout the world, Argentina's crisis and the terrorist attacks in the USA. These shocks made a great impact on international market expectations and, despite the high interest rates, it was difficult to attract foreign capital. On the other hand, the balance-of-payments deficit was even magnified by the outflow of capital, which was larger than foreign direct investment. At this point, the central bank, which had correctly been lowering the interest rate since 1999, made the mistake of increasing it, even though it was around

9 percent in real terms. Thus, the monetary authorities proved to be weak as they acknowledged a greater external vulnerability of the Brazilian economy than was actually the case, attracted the attention of foreign creditors, and passed the way for the balance-of-payments crisis that eventually occurred at the end of 2001. The inflation rate reached a yearly percentage of 7.7 percent (Figure 11.2), which meant that the target was breached. This rise in the consumer price index (CPI) was not the outcome of excess demand. Directly, it was related to the exchange rate pass-through to the prices, and indirectly, to the rise of administered prices. The fiscal side of the economy deteriorated in 2001, despite the government's primary surplus (3.75 percent of GDP).

In 2002, it was clear that the Workers' Party candidate, Luiz Inácio Lula da Silva, would be elected president. But there were some problems. First, the market did not know his real intentions. Second, there was the fiscal dominance problem related to the new increase in the interest rate. Third, there was a persistence of a high external vulnerability expressed in a high foreign debt/exports ratio. Together, these led to a greater likelihood of the probability of default on foreign debt.[9] As a result, there was a sharp increase in the interest rate on Brazilian government dollar-denominated debt. The real depreciated considerably against the dollar, which led to more inflation.

The fiscal dominance phenomenon was due to Brazil's great dependence on foreign capital, which tends to flow into emerging market economies when the interest rate is high. None the less, as real interest rates continue to rise, even those investors who trust the country's fundamentals start thinking twice. Consequently, new exchange rate depreciation can materialize. For that reason, an attempt to appreciate the exchange rate has an opposite effect, and this is characterized by the so-called 'fiscal dominance' (Bresser-Pereira and Nakano, 2002; Gomes and Aidar, 2004). According to Favero and Giavazzi (2005), Brazil's experience has shown how default risk may have a deleterious effect on the IT framework once the economy can move from a regime of monetary dominance to one of fiscal dominance. Under that condition, responding to higher inflation with real interest rate increases leads to a real exchange rate depreciation and, consequently, to a further increase in inflation. If this is the case, the right instrument to decrease inflation is fiscal (not monetary) policy.

After Lula's election, in October 2002, the government decided to maintain and deepen the previous monetary and fiscal policies, and also to continue microeconomic institutional reforms. As the market assessed that there would not be any significant policy change, there was a decrease in the probability of default, an appreciation of the real, and a decrease in inflation (Blanchard, 2005).

In 2003, with the new government in power and the orthodox conduct of monetary policy, Brazil's creditors started to calm down. By mid-year, the

improvement of the country's foreign accounts and the recovery of confidence in public authorities opened an opportunity to the administration to engage in a strategy of lowering the short-term interest rate. Yet, the inverse decision was taken. The only concern was to signal to the financial markets that the priority continued to be the control of inflation. The interest rate continued at its absurdly high level, and the economy stagnated, despite the extremely favorable international conditions. The inflation targets in 2003 were changed from 4 to 8.5 percent, and, in 2004, from 3.75 to 5.5 percent (Figure 11.1). In addition to that, the tolerance intervals were modified from 2 to 2.5 percent.

In 2004, the Brazilian economy grew considerably (Figure 11.1), which was again attributed by the economic authorities to the 'correct' economic policies. In fact, it was the outcome of a major external adjustment that the economy underwent between 1998 and 2004 due to the joint effects of the depreciation of the real as a consequence of the 1998 and 2002 balance-of-payments crises, and of a great increase in the prices of Brazilian exported goods. The economy transited from a current account deficit of 5 percent of GDP in 1998 to a 1 percent surplus in 2004, while the investment rate was kept constant around 19 percent. Thus, there was an extraordinary substitution of domestic for foreign savings.[10]

The monetary authorities started 2005 with a similar monetary policy to the previous year, and the target was achieved. The inflation target was defined by the National Monetary Council up to 2008: 4.5 percent yearly, and this will probably be achieved. It is an inflation rate a little higher than the average of other similar medium-income countries. Administered prices are the main factor responsible for the inflation above international levels. According to Figure 11.4 (see below), between 1999 and 2003 these prices increased more than inflation, and after that they stabilized.[11] In 2005 and 2006, the inflation rate fell, and the target was achieved (Figure 11.1). By the end of 2006 the inflation rate was around 3 percent a year, and this rate was commemorated by conventional orthodoxy as its 'victory' against inflation. Actually, this low rate was the result of 'exchange rate populism', since it was achieved by a substantial appreciation of the real which artificially increased wages and consumption Figure 11.3. Given the fall in the inflation rate, the nominal interest rate fell, but the real interest rate remained above 10 percent at the beginning of 2007.

THE HIGH INTEREST RATE

The previous overview of IT in Brazil gives us the tools necessary to make an analysis of the Brazilian economy in the period. We shall discuss two
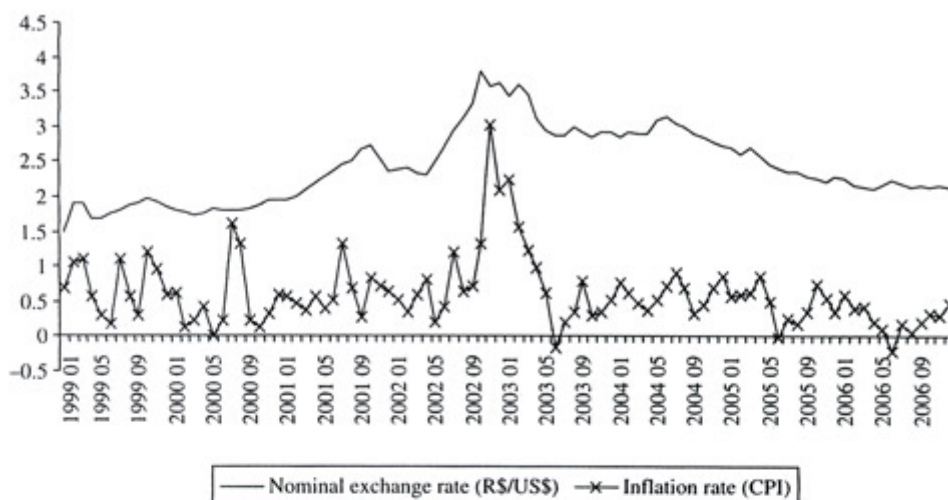
Figure 11.3   *Inflation rate (CPI) and nominal exchange rate (R$/US$)*

Table 11.1   *Selic interest rate, in real terms (a.a.)*

Year	Nominal Selic rate (%)	Inflation (broad CPI)	Real Selic rate
1999	19.00	8.94	10.06
2000	15.76	5.97	9.79
2001	19.05	7.67	11.38
2002	24.90	12.53	12.37
2003	16.32	9.30	7.02
2004	17.74	7.60	10.14
2005	18.00	5.69	12.31
2006	13.25	3.14	10.11

main issues: (i) the interest rate/exchange rate trap; (ii) the reasons why the interest rate is so high.

In simple terms, 'the interest/exchange rate trap' that has characterized the Brazilian economy since the 1994 Real Plan means that the short-term basic real interest rate does not go down below 9 percent a year in real terms (Table 11.1).[12] It means, additionally, that long-term interest on federal bonds pays the same Selic interest rate in so far as the National Treasury Bonds (LTNs) are indexed by the Selic rate and are often substantially higher than the interest paid by Brazilian bonds abroad.[13] Third, it means that the capital inflows, stirred up by this high rate, cause the overvaluation of the

real. The process is stopped by a balance-of-payments crisis which provokes a sharp exchange rate depreciation, as occurred in the 1998 and 2002 balance-of-payments crises, but as soon as the crisis is over, the real appreciates again as has been happening in Brazil since 2002.[14] It is a trap because the monetary authorities fear lowering the interest rate below a given threshold. The IT policy reinforced the trap the moment when it defined the equilibrium interest rate in its model as being around 9 percent a year in real terms, thus formalizing the threshold. When the monetary authorities begin to reduce the interest rate, the exchange rate starts depreciating and inflation rises. It increases well before the lower interest rates could cause demand pressures, but, nevertheless, the CBB stops reducing the interest rate.

Why is the interest rate so high in Brazil? Essentially because the interest/exchange rate trap prevents it from being reduced. A secondary cause is the high level of state expenditures compared to the level of income per capita of the country. Third, the monetary authorities increase the Selic rate, trying (unsuccessfully) to lengthen the debt maturity (to build a long-term domestic credit market). Fourth, and this is probably the key reason, the Selic indexes most of the public debt as it links the short-term interest rate, the Selic, to the federal Treasury bonds (Barbosa, 2006). This is a legacy from the times of high inflation when policy makers kept the short-term interest rate high for fear of not being able to roll over the debt. In behaving in this way, they ignore that the players in the market – particularly the banks – have no alternative but to invest their short-term resources in government bonds. As Keynes showed in Volume 2 of his *Treatise on Money*, for monetary policy to work properly, an adequate yield curve must exist, so that policy decisions related to short-term interest rates can be transmitted to the interest rates that actually influence private agents' behavior. In Brazil, however, the Selic rate directly defines the long-run interest rate, that is, the rate that Brazilian Treasury bonds pay, which is the same as saying that there is no long-term interest rate. There is, however, a proxy: the interest rate paid by first-class Brazilian corporations abroad equals the Brazilian risk plus the interest rate on US Treasury bonds. In 2006, this rate is about half (that is, 5 percent) of the real Selic interest rate (10 percent). Fifth, the Selic rate is high because the CBB uses it as a tool to solve other sorts of problems, besides controlling inflation. For instance, it is used to: (i) attract foreign capital; (ii) reduce the current account deficit when it is increasing continuously; and (iii) increase public savings. Sixth, political economy plays a major role in explaining the abusive short-term interest rate in Brazil. The Selic rate is high because, since the end of the 1980s, the CBB has been 'captured' by rentiers who profit from high interest rates, by the financial sector which makes a living out of commissions/bonuses coming from rentiers, and by multinationals which increase their profit remittances with an overvalued real.

Seventh, there is an ideological hegemony cause: Washington, and specifically the International Monetary Fund (IMF), strongly supports the current Brazilian monetary policy – which is not surprising: the conventional orthodoxy that this agency and the international financial markets use to pressure medium-income developing countries is essentially a tool to neutralize their growth (Bresser-Pereira, 2005, Bresser and Gala, 2007).

However, government authorities should be making the term structure of interest rates the consequence of credit flows due to responsible macroeconomic policies. Some of these are: (i) a rigid inflation control (which they are implementing); (ii) a more competitive exchange rate; (iii) no current account deficit; (iv) reduction of the debt to exports ratio; (v) an interest rate cut; (vi) reduction of the public deficit with consequent reduction of the public debt to GDP ratio; and, principally (vii) de-linking the Brazilian Treasury bonds from Selic through a financial reform. These issues will be discussed more thoroughly in the fourth section.

There are other explanations. Economists offer a series of arguments, usually related to financial markets, for the high interest rate that recall the fable of the wolf and the lamb. The classical explanation for the high inflation rate was that Brazil's country risk was too high. Yet, Bresser and Nakano (2002) showed that since 1992, this was false: countries with the same or worse risk classification had much lower interest rates. In 2006 after the fall in Brazil's country risk, which has been taking place since the beginning of 2003, the short-term interest rate paid by the CBB, which indexes the whole public debt, is higher than the long-term interest rate paid by Brazilian enterprises. A second argument is that the interest rate is high because the country has a large public debt. But such public debt is not particularly high by international standards. It is extremely high only if we calculate the debt of the other countries discounting their nominal value by the Brazilian interest rate, and in this case we fall back into the interest rate trap. A third argument is that the interest rate is high because of the high budget deficit, which is not high by international standards. Another explanation is that a high interest rate is necessary to fight inflation. There is no doubt that the interest rate is the right instrument to do that. But the Selic rate does not fluctuate between 0 and 3 percent in real terms, as it does in rich countries, and not even between 2 and 5 percent, as it does in countries with similar risk classifications. Table 11.1 shows the real Selic rate for Brazil and Table 11.2 reports some basic interest rates of selected countries, which confirms what has been said.

A fifth explanation was offered by Arida et al. (2005). As justification for the high 'natural' rate in Brazil, or for the 'bad equilibrium', they cite the non-existence of long-term domestic credit, which is due to what they call 'jurisdictional uncertainty': the judiciary branch would not protect

Table 11.2   Selected countries: basic interest rates (2005)

Country	Real interest rates	Country	Real interest rates
Brazil	11.53	Mexico	4.42
Argentina	−3.36	Peru	1.66
Chile	1.22	Philippines	0.71
China	0.29	Poland	3.64
Colombia	1.49	Russia	1.10
Czech Republic	−0.16	Saudi Arabia	4.22
Egypt	5.00	Singapore	2.01
Hong Kong	2.13	South Africa	3.55
Hungary	2.86	South Korea	1.40
India	1.07	Taiwan	−0.55
Indonesia	−3.03	Thailand	−1.30
Israel	2.51	Turkey	7.01
Malaysia	−0.22	Venezuela	−1.77

Note: Real interest rates are short-term nominal interest rates minus consumer prices indices.

Source: *The Economist* (Emerging Market Indicators), February 2006.

creditors effectively and such action would bring negative consequences to private savings and investment. It is also misinterpreted as a consequence of market failures deriving from restrictions to currency convertibility, artificial term lengthening of public debt, compulsory saving funds, and forced savings through inflation. Thus, the country would have to live with a short-run real interest rate above 9 percent a year until a series of institutional reforms solve these problems and create 'jurisdictional certainty'. There is no doubt that a country like Brazil needs reforms. None the less, their absence cannot be blamed for mistakes in the country's macroeconomic policy, especially for the extremely high basic interest rate. In the past, Brazilian institutions were less developed, but the interest rate was much lower. Besides, the country's institutions are quite similar to, if not better than, those found in countries with equivalent (or worse) risk classification but with much lower interest rates. In fact, the 'jurisdictional uncertainty' argument makes no sense and nor is it sustained empirically.

Holland et al. (2006) formulate a methodology based on Arida et al.'s proposal and their results are highly unfavorable to the jurisdiction uncertainty argument. Their findings indicate that 'traditional monetary and fiscal factors are far more relevant to explain the level of short-term real interest rates than the binomial jurisdictional uncertainty/currency inconvertibility is'.

THE INTEREST–EXCHANGE RATE TRAP

Despite its high level, the movements in the basic interest rate in Brazil are quite similar to what is observed in other countries, that is, it increases in booms and decreases in downturns. However, the monetary authorities have not been able to consistently reduce this rate – and the result is the 'interest rate trap'. Our argument is that the Brazilian economy was not in a position to adopt an IT framework as a nominal anchor. And, as it ignored such a restriction, the trap became stronger.

The interest rate trap can be observed in many ways. First, whenever the CBB starts a process of interest rate reduction, the exchange rate depreciates, and the consequent changes in relative prices cause a rise in inflation. This is a threat to the IT framework, and the CBB reacts, increasing the interest rate again. Thus, paradoxically, a supply-side inflation is fought with a policy aiming at demand contraction. Every time the interest rate is reduced and there is some sign of economic growth, as the current account deficit increases,[15] the government authorities try to avoid a depreciation of the exchange rate by raising the Selic rate and, consequently, increasing unemployment rates. Raising interest rates makes both public deficit and public debt to GDP ratios increase (see Figure 11.3) and, accordingly, reduces the country's international credit, unless the primary surplus is correspondingly increased, usually through an increase in the tax burden.

This trap puts the country's economy in a short-term vicious cycle. At the beginning of 2003, for instance, the government decided to continue with the same macroeconomic policy adopted by the previous administration. As a consequence, credit flowed in again, the country risk lowered, and the exchange rate appreciated once more. But, at the same time, the financial market started to notice that there was no economic growth, that there were some social and political disturbances, and that the primary surplus began to decrease again.

The exchange rate is a particularly strategic macroeconomic price and it is the other side of the coin of the interest rate trap. Exchange rate depreciations can have a deleterious impact on inflation, whereas appreciations can affect negatively the national accounts via levels of exports and imports. A real appreciation can make domestic industry less competitive and, therefore, cause deficit in the current account. According to the conventional theory underlying IT, exchange rate targeting is likely to worsen the performance of monetary policy. Nevertheless, this does not mean that central banks should neglect the effects of the exchange rate movements on inflation and aggregate demand. In this case, the best solution is a transparent explanation of the exchange rate intervention as a way of mitigating

potentially destabilizing effects of abrupt price changes (Mishkin and Schmidt-Hebbel, 2001).

MONETARY POLICY REGIME

Despite the low inflation rate that prevails in Brazil, our view is that the IT system is problematic because it contributes to maintaining a quasi-stagnant, economy and because the low growth rates are directly related to the fact that price stability is not the same as macroeconomic stability. Unemployment remains high in Brazil, the basic interest rate is absurdly high, and the exchange rate is overvalued. In addition, it co-exists with a high interest rate and keeps the exchange rate non-competitive. The economic policy that conventional orthodoxy proposes to medium-income countries and that the CBB faithfully adopts implies the overvaluation of the exchange rate. The Dutch disease and the growth under the foreign savings policy push up the exchange rate, overvaluing it. A competent macroeconomic policy must look at such tendencies, keeping the exchange rate competitive. Yet, as conventional orthodoxy defines macroeconomic stabilization as price stabilization, it uses the appreciation of the local currency to control inflation. It is impressive how the inflation rate accompanies the exchange rate in the Brazilian economy (see Figure 11.3).

The Brazilian economy was not really prepared for an IT framework, given the fact that such policy is designed to manage monetary policy, not to change the monetary policy regime. An IT policy will not apply if a country needs to change the monetary policy regime due, for instance, to its high and inertial inflation, as Brazil had between 1980 and 1994, or due to an absurdly high real basic interest rate and an overvalued exchange rate, as the country has been experiencing since 1994.[16] It must first address these problems that IT has not adequately solved. In fact, as argued in the paragraphs above, Brazil has been facing a high interest rate/overvalued exchange rate trap since 1994, which has kept the country out of its macroeconomic equilibrium. If the economic authorities believed that IT was a good route to be followed, they had to first face this trap.

In order to put the country on the right track again, several changes must be made. Indeed, a full strategy must be put into action. The aim is to reduce the basic interest rate (the Selic rate) so that it oscillates between 1 and 3 percent in real terms instead of between 9 and 15 percent. This reduction will only be possible with the end of the linkage of the long- to the short-term interest rate, that is, with the end of the indexation of the federal bonds by the short-term Selic rate. This practice is peculiar to Brazil (a legacy of high inflation) and it is the main institutional explanation for the high

interest rate used to pay the servicing of the public debt. While the short-
and the long-term interest rates remained, in 2006, around 12 percent a year
in real terms, a proxy of the long-term interest rate (interest on US Treasury
bonds plus Brazil risk) was around 5 percent a year. Instead of conducting
reforms to end such distortions, in 1999 the administration adopted IT, and
limited itself to managing it within the framework of an interest rate trap.

The government will also have to start a serious fiscal adjustment. The
country has been obtaining considerable primary surpluses via tax
increases – and not via public spending cuts – but this is not enough. While
the interest rate is getting out of the trap, the authorities will have to reduce
expenditures and, perhaps, generate a surplus. With this adjustment, not
only will the government signal its rejection to any sort of populism but it
will also control possible inflationary processes coming from a possible
demand shock.

The reduction of the interest rate from its minimum 9 percent level, and
of inflation from its 5 to 6 percent level will only be achieved with another
important reform: the end of indexation of public services and, more
broadly, the end of any indexation of contracts and administered prices in
which the administration is involved as a provider or as a regulator.[17] As
already mentioned, the broad CPI is the price index used for the definition
of inflation, and the basket of administered prices amounts to 30 percent of
the index. In terms of economic policy action, what is clear is that policy
makers' actions affect considerably the price index variability because of
monitored prices. As a consequence, the targets can be reached but there are
high social costs involved, low economic growth as well as high interest rates.
Monitored prices vary independently of demand factors and, as Figure 11.5
reports, the accumulated inflation related to the monitored prices increased
much more than the other two indices (Gomes and Aidar, 2004).

Of course, when we say that administered prices should not be indexed,
it does not mean that regulating agencies should neglect inflation processes
in their price revisions. Like their counterparts in other countries, the
Brazilian agencies will take inflation into consideration but without refer-
ring to a predetermined price index. Nor does it mean that the government
would break existing contracts: it would just be strongly motivated to rene-
gotiate them, and institutionally prohibited to make new indexed contracts.

Finally, government authorities should always bear in mind that these
policies are aimed at bringing economic growth and, as consequence, less
unemployment and fewer social disparities. Monetary policy rules should
be seen as a guideline for decision making and not as a rigid rule. For unem-
ployment specifically, the relationship between this variable and monetary
policy is very important. Contrary to what is argued by some conventional
theorists, monetary policy usually has positive and long-lasting effects on
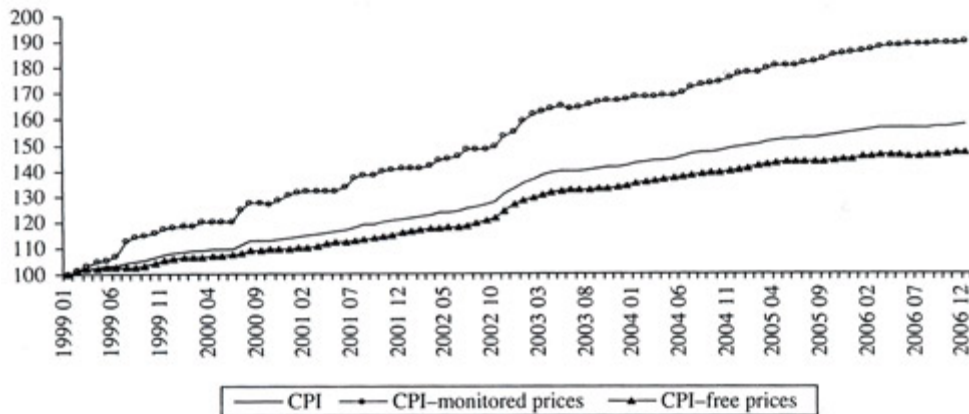
Source: Ipeadata.

Figure 11.4 Accumulated inflation rate (1999:01 = 100)

real interest rates and, consequently, on economic activity and unemployment. In other words, it influences unemployment rates, more than has been discussed in the current debate (Gomes and Aidar, 2005).

CONCLUSION

This chapter discussed the current inflation targeting policy adopted in Brazil and the interest rate/exchange rate trap the country is facing due to its high basic interest rate. First, we briefly reviewed the monetary policy in Brazil under inflation targeting, from the date of its implementation until the end of 2005. Second, we analyzed the problems faced by the Brazilian monetary authorities under the argument that the inflation targeting system faces some important theoretical problems and, more importantly, it has faced an inconsistency dilemma since it was designed to be used for purposes of 'management' of monetary policy, and not for 'changing' the monetary policy regime.

The 1994 Real Plan was a successful reform that de-indexed the Brazilian economy, thus neutralizing inflationary inertia. Yet, it was left incomplete in so far as administered prices and the public debt remained indexed. However, instead of working toward this objective, the Brazilian monetary authorities accepted the IMF recommendation and adopted an exchange rate anchor between 1995 and 1998. The outcome was catastrophic. Nevertheless, an inflation targeting policy was introduced in 1999 as a substitute for an exchange rate anchor. This monetary reform ought to have been preceded by reforms that ended all forms of indexation. Yet, instead

of developing a strategy to reduce the interest rate, involving such reforms and deepening the fiscal adjustment, the government continued to define inflation as the main problem to be faced, and adopted a formal inflation targeting policy. The consequence was that, since 1999, the real interest rate has remained incredibly high: the Brazilian economy has been unable to escape the interest rate trap.

Perhaps, the best strategy should have been the search for a long-term convergence of inflation. For instance, Chile and Mexico acted similarly to Brazil before introducing their respective inflation targeting policies. They first pursued the equilibrium of their economies and began releasing inflation projections with long-term aims. In other words, they allowed inflation to converge smoothly and the result was a much smaller social cost, when compared to Brazil. In the case of Chile, which is a model of competent macroeconomic policy, the entire strategy started to be analyzed back in 1991. However, the full adoption of a mild form inflation target policy occurred only in 2000, when they started to release their inflation reports. For the Mexican case, the strategy was similar but in different periods.

In the Brazilian case, there was no proper preparation of the economy prior to the adoption of the system. In order to adopt the IT policy, authorities should have prepared the key variables of the economy in order for them to converge more smoothly. If they had first concentrated on getting rid of the interest rate/exchange rate trap in which the economy was immersed, they could, then have adopted an IT policy. Instead, excessively concerned with inflation, the authorities hastened to adopt a new nominal anchor. In consequence, the exchange rate remained highly unstable for several years and the economy failed to achieve its inflation target. Worse, the burden of interest on the public debt remained abnormally high – which involved high fiscal and development costs. Therefore, Brazil needs an urgent change in its priorities with regard to monetary policy: the high interest rate, not inflation, is the main problem to be faced. By just solving this problem, and lowering the interest rate to levels consistent with its countries risk, Brazil will be able to achieve international levels of inflation, instead of keeping it around 5 percent a year. To perform this action successfully, however, it will be necessary to involve not only the government but also the whole of society.

NOTES

1. An overvalued or non-competitive currency is a strong obstacle to growth since it hinders the export-oriented investment opportunities.
2. Small, as it represents around 1 percent of the world GDP.
3. We are speaking of a 'parameter', not a target, because it would not be explicit, but conventionally followed by the central bank and acknowledged by the financial market. Just

to include explicitly the exchange rate in the model and opt for a long-term inflation target, as proposed by Ball (2000), counting that, in this time, the movements of the exchange rate will be offset, is not enough.

4. The GDP growth rate of Brazil between 1999 and 2006 was just 2.3 percent on average – a rate substantially smaller than the one achieved by similar medium-income countries.

5. Credibility theory is either obvious or wrong. It is wrong when policy makers offer the 'credibility' of their policies as a substitute for economic fundamentals. This was what happened, for instance, in the classical Latin American Southern Cone stabilization experiments of the late 1970s (Diaz-Alejandro, 1981), or in the 1992 IMF-sponsored stabilization program in Brazil.

6. After the implementation of the IT regime there was a reduction of the real interest rate, but in 2001, when its real level continued very high, it was increased again.

7. The selected price index – IPCA – covers a sample of families with personal income between 1 and 40 minimum wages units and has a broad geographical basis (Bogdanski et al., 2000).

8. The tolerance intervals were widened to 2.5 percentage points after 2003.

9. The increase in exports and the improvement of the national accounts was beginning in this year but only became clear to creditors in 2003.

10. When a country follows the growth *cum* foreign savings strategy, large inflows of foreign capital takes place, the exchange rate appreciates, and (if the investment opportunities are not particularly favorable), the rate of substitution of foreign for domestic savings is high (Bresser-Pereira, 2004; Bresser-Pereira and Gala, 2007). In this case, given the depreciation of the real, the opposite occurred.

11. This behavior (high increase and stabilization) was mainly due to the use of the general price index (IGP), instead of the consumer price index, to define prices administered by contracts. Part of the IGP comes from wholesale price changes, which is closely related to exchange rate fluctuations.

12. Only in 2003 did it go down, averaging 7.02 percent. This was a recession year that followed the 2002 balance-of-payments crisis. The interest rate fell not due to but despite the central bank monetary policy.

13. In other words, they are often higher than the interest rate on Treasury bonds plus the Brazil risk, plus the difference between the American and the Brazilian interest rates.

14. In the worst moment of the crisis, the exchange rate was R$4.00 per dollar; in June 2007 it was below R$2.00 per dollar.

15. Since 1994, the current account deficit was close to zero on only one occasion – in 2002. This happened due to the exchange rate depreciation and a strong economic recession. However, this depreciation did not occur because of economic policies but because of a confidence crisis. In the first half of 2003, the exchange rate started to appreciate again, which might make the current account deficit reappear.

16. Actually, the real interest rate was high before 1994, but unstable, depending on the variations of inflation. Since inflation was incredibly high, all attention was directed towards it.

17. Administered (monitored) prices are those determined or influenced by government, either directly or through a government agency regardless of market forces. Some products which are part of the basket of administered prices are: water, electricity and sanitary fees, public transport, telephone calls, petrol, public transport, motor licenses and registration, health plans, and postage.

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