

Inflation Targeting in Brazil: Evaluation and Policy Lessons for Latin American Countries

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1. Introduction

This paper reviews the experience of Brazil as an inflation targeter. It starts by evaluating the general experience of emerging markets that have turned to inflation targeting. Then, it describes the Brazilian experience. An evaluation of the Brazilian experience with IT is undertaken, and its lessons for Latin-American countries are outlined. Finally, the remaining challenges for Brazil to achieve sustained growth with low inflation are discussed.

2. Inflation Targeting in Emerging Markets

Inflation targeting (IT) has no unanimous definition. Mishkin [2004] formally defines IT as comprising five components:

- 1) *the public announcement of medium-term numerical targets for inflation;*
- 2) *an institutional commitment to price stability as the primary goal of monetary policy, to which other goals are subordinated;*
- 3) *an information inclusive strategy in which many variables, and not just monetary aggregates or the exchange rate, are used for deciding the setting of policy instruments;*
- 4) *increased transparency of the monetary policy strategy through communication with the public and the markets about the plans, objectives, and decisions of the monetary authorities; and*
- 5) *increased accountability of the central bank for attaining its inflation objectives.*

According to the *World Economic Outlook* report (IMF [2005]), the key distinctions between IT other regimes are the following two.

- 1) *The central bank is mandated, and commits to, a unique numerical target in the form of a level or a range for annual inflation. A single target for inflation emphasizes the fact that price stabilization is the primary focus of the strategy and the numeric specification provides a guide to what the authorities intend as price stability.*
- 2) *The inflation forecast over some horizon is the de facto intermediate target of policy. For this reason inflation targeting is sometimes referred to as “inflation forecast targeting” (Svensson, 1998). Since inflation is partially predetermined in the short term because of existing price and wage contracts and/or indexation to past inflation, monetary policy can only influence expected future inflation. By altering monetary conditions in response to new information, central banks influence expected inflation and bring it in line over time with the inflation target, which eventually leads actual inflation to the target.*

A synthesis of these two definitions of IT may be found in John Taylor's remark that the main difference between IT and other monetary policy regimes, e.g. money or exchange rate targeting, was that IT used all the information contained in the macro variables to set the basic interest rate, while other regimes used only part of the information available to determine the interest rate. In a seminal paper (Taylor [1999]), where he analyzed the monetary policy rules implied by the different US monetary policy regimes since 1880, he showed the properties that good monetary policy rules in the US must have, e.g., to respond ... *to inflation and real output more aggressively than during the 1960s and 1970s or than during the international gold standard—and more like the late 1980s and 1990s.* That seems to be the key to successful monetary policy strategies, use of all information to appropriately set interest rates to guide inflation expectations. IT is a way to achieve this.

As of September 2005, there were 21 countries that adopted IT as their monetary policy strategy: eight industrial countries and 13 emerging markets (EMs) (IMF [2005]). Table 1, which is reproduction of Table 4.1 of the original IMF report, lists the inflation targeters, as well as other relevant information on how IT is implemented in those countries.

TABLE 1: COUNTRIES THAT ADOPT INFLATION TARGETING

	Inflation Targeting Adoption Date ¹	Unique Numeric Target = Inflation	Current Inflation Target (percent)	Forecast Process	Publish Forecast
Emerging market countries					
Israel	1997:Q2	Y	1-3	Y	Y
Czech Republic	1998:Q1	Y	3 (+/-1)	Y	Y
Korea	1998:Q2	Y	2.5-3.5	Y	Y
Poland	1999:Q1	Y	2.5 (+/-1)	Y	Y
Brazil	1999:Q2	Y	4.5 (+/-2.5)	Y	Y
Chile	1999:Q3	Y	2-4	Y	Y
Colombia	1999:Q3	Y	5 (+/-0.5)	Y	Y
South Africa	2000:Q1	Y	3-6	Y	Y
Thailand	2000:Q2	Y	0-3.5	Y	Y
Mexico	2001:Q1	Y	3 (+/-1)	Y	N
Hungary	2001:Q3	Y	3.5 (+/-1)	Y	Y
Peru	2002:Q1	Y	2.5 (+/-1)	Y	Y
Philippines	2002:Q1	Y	5-6	Y	Y
Industrial countries					
New Zealand	1990:Q1	Y	1-3	Y	Y
Canada	1991:Q1	Y	1-3	Y	Y
United Kingdom	1992:Q4	Y	2	Y	Y
Australia	1993:Q1	Y	2-3	Y	Y
Sweden	1993:Q1	Y	2 (+/-1)	Y	Y
Switzerland	2000:Q1	Y	<2	Y	Y
Iceland	2001:Q1	Y	2.5	Y	Y
Norway	2001:Q1	Y	2.5	Y	Y

Source: National authorities.

¹This date indicates when countries de facto adopted inflation targeting as defined at the beginning of this chapter. Official adoption dates may vary.

Source: Table 4.1, *World Economic Outlook*, chapter 4, IMF [2005].

IT is claimed to be more difficult to implement in EMs basically because of five factors (Mishkin [2004], Fraga, Golfajn and Minella [2003]).

- 1) EMs generally have weak fiscal institutions, which leads to **fiscal dominance**, i.e., the lack of the ability to freely raise the interest rate because of the negative fiscal impact.
- 2) EMs generally have weak financial institutions, which leads to **financial dominance**, i.e., the lack of the ability to freely raise the interest rate because of the fear of general bankruptcy of financial

institutions. This also includes poor prudential regulation and supervision.

- 3) EMs' monetary institutions lack credibility, which may require too high an interest rate to achieve the inflation target, with negative impacts on output growth.
- 4) Many EMs suffer from currency substitution and liability dollarization, which may seriously hamper the ability to let the exchange rate float. Fear of floating (Calvo and Reinhart [2002]) may arise.
- 5) EMs are very vulnerable to the reversal of capital flows. Large external shocks cause large damages to the EMs, a phenomenon known as sudden stop (Calvo and Reinhart [2000], Calvo, Izquierdo and Mejia [2004]). This is termed by Fraga, Goldfajn and Minella [2003] **external dominance**.

Even though some of all the factors above may be true for a given EM, the appraisal of the experience of the EMs that have opted for IT seem to run favorably to IT. Although the time since the adoption of IT by EMs is short, the IMF report was able to draw a few conclusions regarding the comparative performance of IT and non-IT EMs: *Inflation targeting appears to have been associated with lower inflation, lower inflation expectations, and lower inflation volatility relative to countries that have not adopted it. There have been no visible adverse effects on output, and performance along other dimensions—such as the volatility of interest rates, exchange rates, and international reserves—has also been favorable* (IMF [2005]).

We now turn to the Brazilian experience with IT.

3. Description of the Brazilian Experience

3.1. 1999 – A difficult Birth

Brazil adopted IT in May, 1999, as a way to cope with the inflationary shock originated from the collapse of the exchange rate peg (crawling peg) that existed from 1995 to January 13, 1999. Chart 1 shows that in January 1999, the nominal exchange rate jumped from 1,21 BRL/USD to 1,98 BRL/USD. At the time, it was widely feared that an inflationary surge could reignite indexation and inflation. IT was regarded as the only option to monetary policy. A famous and humorous economist remarked at the time that apart from IT there was only the NIKE™ approach left¹. After all, the exchange rate had just been floated after several speculative attacks, and monetary targeting had lost much of its former glory all over the world given the instability of money demand caused by financial innovations. Furthermore, in a country with a hyperinflation history, monetary targeting had never been tried successfully and would be even less credible than IT.

¹ “Just do it”!

The Brazilian Central Bank (BCB) decided to implement inflation targeting with all the bells and whistles that characterized the working of IT in the UK, including the publication of a quarterly “Inflation Report”. This early phase of the Brazilian IT experience is well documented by the BCB director and staff members directly involved (Bogdanski, Tombini and Werlang [2000]). Among other things, the launching of IT required the BCB to create a research department that has been very active ever since. Later on, the BCB started to collect market forecasts of the main economic variables, as a way to gauge the impact of monetary policy on expectations. These forecasts (we shall call them consensus forecasts) are a very good way for the BCB to check whether or not its actions are indeed affecting expectations. The introduction of IT certainly improved remarkably the technical skills of the BCB.

The law that created the IT system in Brazil requires the National Monetary Council² (CMN) to set in the middle of each year the targets to the following two years. Therefore, in June 30, 1999, the CMN decided to set a sliding scale of inflation targets: 8% for 1999, 6% for 2000 and 4% 2001, with a 2% band to each side. In the first year, the active action of the BCB—see the high nominal and real interest rates in Chart 2—delivered CPI inflation just below 9%, below the upper limit of 10%, but above the central target of 8%. Unlike the large recessions that occurred in the countries that devalued after the Asian crisis, Brazilian GDP growth was positive in the immediate aftermath, 0.79%. Table 2 summarizes the performance of IT regarding inflation and GDP growth. The first year of IT ended quite well if one takes into account the fears of high inflation and recession that were entertained immediately after the collapse of the exchange rate peg.

3.2. 2000 – High hopes

2000 has been the best year of IT so far. Surfing the end of the world bull market, inflation was for the only time below target (5.97%, see Table 2), and GDP growth reached 4.36%. The BCB was able to repeatedly lower the Selic interest rate throughout the entire year (see Chart 2), and the real exchange rate was kept fairly stable (see Chart 1). Hopes were high that Brazil had solved the inflation problem and would enter a period of sustained growth with low inflation.

² The CMN is composed by the Finance Minister, the Planning Minister and the Central Bank Governor.

TABLE 2: BRAZILIAN PERFORMANCE WITH INFLATION TARGETING

Year	Setting Date	Target	CPI Inflation	GDP Growth
1999	30/6/1999	8,00% ± 2,00%	8,94%	0,79%
2000	30/6/1999	6,00% ± 2,00%	5,97%	4,36%
2001	30/6/1999	4,00% ± 2,00%	7,67%	1,31%
2002	28/6/2000	3,50% ± 2,00%	12,53%	1,93%
2003	28/6/2001	3,25% ± 2,00%	-	-
2003*	27/6/2002	4,00% ± 2,50%	-	-
2003*	21/1/2003	8,50% ± 2,50%	9,30%	0,54%
2004	27/6/2002	3,75% ± 2,50%	-	-
2004*	25/6/2003	5,50% ± 2,50%	7,60%	4,94%
2005	25/6/2003	4,50% ± 2,50%	-	-
2005**	23/9/2004	5,10% -	5,69%	2,41%***
2006	30/6/2004	4,50% ± 2,00%	4,54%***	3,44%***
2007	22/6/2005	4,50% ± 2,00%	4,55%***	3,62%***

* - Revised Targets.

** - Objective.

*** - Consensus forecasts (means) on January 6, 2006

3.3. 2001 – First Domestic and International Obstacles

Unfortunately, a sequence of domestic and international events stalled the resumption of economic growth. On the domestic side there were the energy crisis and the political disarray inside the government coalition. On the international side, it became clear that the US economy entered a recession and the Argentina crisis worsened considerably, bringing contagion to Brazil. After March 2001, it became clear that the good times were gone. The country-risk, as measured by the EMBI+ Brazil spread³ (see Chart 3), started trending upwards. The domestic interest rates also reacted, after reaching a brief trough of 15.25% in January 2001. The Selic was increased several times, and the yield curve steepened drastically. Until September 2001, the exchange rate depreciated continually.

After the terrorist attacks of September 11, 2001, the US Federal Reserve (Fed) injected an immense amount of liquidity to avoid a financial crisis. This action provided the Brazilian economy respite from the external negative shock, thereby improving the financial indicators until the first quarter of 2002. The EMBI + Brazil spread fell to its previous level (see Chart 3), while the exchange rate appreciated (see Chart 1). Interest rates fell (see Chart 2), and the yield curve flattened.

Despite the improvement in last quarter of 2001, the picture for the entire year was not good. Inflation rose to 7.67%, breaching for the first time the upper limit of 6%.⁴

³ The EMBI + Brazil is an index computed by JP Morgan of the prices of Brazilian bonds floated in foreign markets. The difference between its yield in the secondary market and the yield of a US Treasury bond of same duration (a measure of average maturity) is considered a good measure of the Brazilian country risk.

⁴ Accordingly to the Brazilian IT law, breaching the limit requires the BCB Governor to write an open letter to the Finance Minister, explaining the reasons for the breaching and what will be done to timely

GDP growth was a mere 1.31%, thereby killing the hopes of sustained growth entertained one year before. According to the BCB Governor, Arminio Fraga, 2001 looked like a difficult crisis, although, *a posteriori*, in comparison to 2002, it seemed quite a mild one.

3.4. 2002 – The Perfect Storm: High International Risk Aversion and Electoral Crisis

The respite provided by the FED ended in the first quarter of 2002. By the end of March 2002, all financial indicators started to deteriorate. The country risk started to grow substantially, as measured by the EMBI+ Brazil in Chart 3. Chart 3 also shows that the same upward movement occurred with the EMBI+, which measures the country risk of a large set of emerging markets. This shows that the shock was global, and not only restricted to Brazil. Indeed, it is commonly agreed that by 2002 global risk aversion shot up, starting a movement called “flight to quality”, i.e., redeeming risky assets, as emerging market bonds, and shifting the funds to safe US Treasury bonds. This shift in worldwide portfolios caused the price of emerging market bonds to fall and, equivalently, their yields to increase.

Chart 3 also makes clear that the increase in Brazil country risk was much more intense than the general movement in emerging markets. This is because 2002 was a presidential election year in Brazil, and the leftist candidate (currently President) Lula became the front runner in the public opinion surveys. At the time, and contrarily to what eventually happened, it was widely feared that Lula would embrace a populist economic policy, including a default on public debt. This aggravated the flight away from Brazilian bonds, both by international and domestic investors. This unfortunate combination of increase of global risk aversion with fears of a Brazilian default on the debt is what made the country risk to explode after April 2002.

An important caveat was raised by the BCB Governor Arminio Fraga. He calls attention to the fact that econometric interpretations of the increase in country risk will not find public finances as one of the explanations, since the actual primary balance was always kept at a high level (see Chart 4). However, what geared expectations was the fear that the policy of fiscal and monetary restraint would be reversed, which did not happen. Therefore, one would not find in the actual statistics the reasons for the increase in the Brazilian country risk.⁵

As during the 2001 crisis, the one-year interest rate rose along with the increase in the country-risk, signaling that markets expected the BCB to react to the increase in the country risk by hiking the basic interest rate, Selic. Nevertheless, the COPOM⁶

bring inflation back to the target. This letter may be downloaded from the BCB web site at <http://www.bcb.gov.br/htms/relinf/carta.pdf>. Two interesting points of this open letter are: 1) it is outlined a procedure to measure the impact of negative shocks on inflation; and 2) there was no presumption of what was to come next: “... Na medida que não se vislumbra a repetição dos choques na magnitude observada do ano passado [2000], a tendência da inflação é declinante” (Insofar as no repetition of the shocks of similar magnitude as last years’ is foreseen, inflation should exhibit a falling trend).

⁵ This topic is a subject of great political upheaval.

⁶ COPOM is the acronym in Portuguese for monetary policy committee (Comitê de Política Monetária). The COPOM pre-existed IT in Brazil.

decided to keep the downward movement in the Selic rate, justifying this move with the ensuing recession and a low pass-through from exchange rate depreciation to inflation. The Selic target was raised by 300 basis points (bps), from 18% to 21%, only on October 14, 2002. For the entire year, the exchange rate overshot, depreciating 70%, before closing the year around 50%.⁷ The real exchange rate was at the most depreciated level in the last three decades, a period that included several depreciation episodes and international financial crises.

Inflation reached 12.53% in 2002, while GDP crawled at 1.93%. Again, with the breaching of the upper limit (5.5%), the BCB Governor had to write another open letter to the Finance Minister.

3.5. 2003 – Starting over

This time, the open letter (<http://www.bcb.gov.br/htms/relinf/carta2003.pdf>) was written by the new governor of the BCB, Henrique Meirelles, appointed by the new President, Lula. Despite the change in the governor, the team at the helm of the BCB had not changed much, providing a smooth transition. Nevertheless, the situation was quite similar to 1999, since a large inflationary shock created by the depreciation occurred in 2002 was expected. 2003 looked very much as a “back to square one” play.

The methodology outlined in the previous open letter was used to compute what the new “target” would have to be once the shocks were appropriately accounted for. With this methodology, the new target for 2003 was set at 8.5%. Table 3 shows how the BCB dealt with the large external shocks that hit the Brazilian economy in 2002, and its effects for the following years.

TABLE 3: FLEXIBILITY IN FACE OF LARGE EXTERNAL SHOCKS

Line	Item	2003	2004
(a)	Inflation Target Determined by the N.M.C.	4,0	3,75
(b)	Shock of the Managed and Monitored Prices	1,7	1,1
(c)	Inertia To be Fought in the Following Years	2,8	0,6
	Inherited Inertia of the Previous Year (Total)	4,2	1,0
	On the Managed Prices	1,4	0,4
	On the Free Prices	2,8	0,6
(d)	Adjusted Target (= (a) + (b) + (c))	8,5	5,5

Obs: 1) For the calculation of the shock, the effect of inertia and exchange on the inflation of the managed and monitored ones leaves.

2) Inertia to be fought in the following years is equivalent the 2/3 of the inherited inertia of the previous year.

⁷ In terms of the USD/BRL exchange rate, the dollar appreciation at the overshooting peak was 42%, ending the year with an appreciation of 35%.

Despite wide mistrust in the new target, BCB was able to deliver a yearly inflation quite close to the new target: 9.30%. GDP growth was again quite low: 0.54%. The rebirth of the IT regime in Brazil was considered a success. Of course, all would depend on the future results.

3.6. 2004 – Surprise: “Civilized” Real Interest Rates can not keep Inflation at bay

In 2004, as in 2001, the general hope was that Brazil would be able to grow strongly with “civilized” interest rates and low inflation. While growth resumed at a reasonable pace, inflation expectations began to rise.

Chart 5 shows that while inflation expectations had reasonably converged to the target since late 2003, they began to diverge by May 2004. This came to be quite a novelty, since previous raises in the interest rate were undertaken to fight capital flight. This time, however, an interest rate hike was due in “peace” time.

Charts 6 and 7 show the decomposition of CPI inflation in the two subcategories: monitored and “free” prices. The former are prices, like utilities, that are fixed by the government according to an indexation rule. It is clear from Charts 6 and 7 that monitored prices were the main culprits for the inflation revival. Nevertheless, “free” prices also began to increase, showing that the supply shocks that affected the economy in 2002 and 2003, and were transmitted by the indexation rule to the monitored prices in 2004, were being passed through the free prices.

The BCB, however, did not think twice about fulfilling its role as the guardian of price stability. By September, 2004, it began to raise the Selic rate to deter inflation. This movement was extremely successful in bringing inflation expectations back to target. The BCB announced a target revision based on a methodology similar to the previous revisions that raised the center of the target from 4.5% to a new “objective” of 5.1%. While this new “objective” was firstly seen with great mistrust, the ensuing BCB actions would prove that it decided to live up to its promises.

2004 ended with mixed feelings. Although growth was quite good (almost 5%, see Table 2), and inflation was within bounds (7.60%), the perspectives for the future were not as good, since the BCB had started a process of monetary tightening.

3.7. 2005 – A bad Growth x Inflation Tradeoff; Can IT succeed?

2005 continued the trend of a high-world-growth with lax financial conditions, thereby fostering growth in emerging markets. Chart 3 shows that the country risk has steadily declined along 2005. It also shows that the decline in risk premia was a general phenomenon. At the same time commodity prices remained quite high, providing Brazil with the best export performance ever.

The BCB continued to tighten monetary policy until May, 2005 (see Chart 2), when the Selic rate reached 19.75%. In September, it started to loosen monetary policy. At the end of the year, the Selic rate was still at the very high level of 18%.

Despite the superb international conditions, several factors like the lack of further growth-promoting-economic reforms, the political crisis ignited by corruption in the government and the BCB monetary restraint did not allow Brazil to fully profit from the world trend as far as growth is concerned. GDP should grow around 2 to 2.5% (see Table 2), while CPI inflation ended at 5.69%, above the revised objective of 5.1%, whilst still below the upper limit of 7%. While fulfilling the inflation target is a good thing, the difficulty of the Brazilian economy to grow strongly even in the best international scenario without reigniting inflation is the main problem to be tackled. We now turn to this issue.

4. The difficulties faced by IT in a country with fiscal dominance and subject to international financial liquidity crises

The extremely high real interest rates in Brazil needed to keep inflation at bay are seen as a paradox. With similar rates, most economies would fall in a deep recession and probably exhibit very low inflation, or even deflation. Brazilian inflation, however, is not too low,⁸ and growth rates, although mediocre, do not configure a recession.

4.1. The duality of monetary policy—tranquil x crises periods: Why are real interest rates so high in Brazil?

Since the end of hyperinflation in Brazil (July, 1994), the setting of the basic interest rate (Selic) by the BCB has followed a dual character, depending on foreign conditions regarding capital flows. During the period of managed exchange rate, 1995-98, Salgado, Garcia and Medeiros (2005) showed econometrically this dual character of the BCB reaction function. During international financial crises, the BCB set the interest rate at the required level to prevent massive capital flight. This level was set by the covered interest parity condition plus the country risk, as measured by the EMBI + Brazil Spread (see Chart 3).

When international financial markets were in tranquil periods, the interest rate was kept at a level higher than it was required by the covered interest parity condition plus country risk, in an attempt to keep inflation falling. Since the interest rate in tranquil periods was set at this high level, capital inflows occurred, pressuring the domestic currency to appreciate. To avoid the appreciation (the exchange rate was managed), the BCB performed sterilized interventions while, at the same time, imposed controls on capital inflows aimed at deterring the (excessive) inflows of short term portfolio capital.

⁸ Table 1 shows that only Colombia had the inflation target for 2005 originally higher than the Brazilian one (5% vs. 4.5%). Accounting for the band around the target, the Brazilian upper limit, 7%, was the highest one among all inflation targeters. The final figure for 2005 CPI inflation was 5.69%, quite a high number.

Since 1999, two key changes on the macroeconomic fundamentals occurred: the exchange rate was floated and the public sector started generating significant primary surpluses. During this period, the duality of monetary policy persisted. The increases in interest rates during the 2002 crisis were aimed at mitigating the capital outflows that were causing massive exchange rate depreciation.

On the other hand, as already noted, the successive increases in the Selic rate during the period September-2004 to May-2005 had nothing to do with fear of capital flight and excessive exchange rate depreciation. Much on the contrary, during this period of monetary tightening there was a substantial exchange rate appreciation, caused mainly by the strong export sector performance, but also aided by the attraction of speculative foreign capital that performed “carry-trade arbitrages”.⁹

The extremely high Selic rate that currently prevails in Brazil is aimed at fulfilling the inflation target. If the goal were to avoid capital flight, the Selic would be much lower, and the inflation rate higher.

Fiscal policy intervenes decisively in both regimes. During international financial crises, the main risk factor is a possible public debt default. To lower this risk, the government increases the primary surplus, as the Lula administration did right upon entrance.

In tranquil times (in international financial markets), as in 2004-2005, fiscal sustainability seldom appears in the press. Nevertheless, fiscal policy plays another fundamental role, that of keeping aggregate demand at a high level. Since primary expenditures are too high (except public investments) in Brazil, and are immune to monetary policy, inflation shows a very stubborn behavior, resisting the high interest rate set by the BCB.

The low impact of interest rates on inflation is also explained by other weaknesses of the Brazilian economy. The credit to the private sector (as a fraction of GDP) is very low by international standards. This clogs a main transmission channel of monetary policy. Furthermore, a large percentage of the credit in the Brazilian economy is given at subsidized rates that are not affected by the Selic rate. The Brazilian economy is quite closed, with high import tariffs that deter foreign competition and allow several sectors to implement pricing policies that hinder the BCB actions to fight inflation. To pay for the very high public outlays, an extremely high tax burden was created. The excessive tax burden jeopardizes productive investment. With less supply, inflation becomes harder to fight.

Therefore, the BCB has to practice extremely high interest rates to keep inflation at bay. While the interest rate is a weak instrument to fight inflation in Brazil, it retains full power to harm the fiscal accounts and the public debt. Therefore, when the BCB keeps the Selic very high in tranquil times to fight inflation, it also contributes to the increase of the public debt, which will raise the risk in crises times, in a vicious circle.

⁹ The basic carry-trade operation is performed by getting a loan in the low-interest-rate currency, e.g. the US Dollar, and investing in fixed income in the high-interest-rate currency, e.g., the Brazilian Real. The same result would be achieved by purchasing a Non-Deliverable Forward Contract of the Brazilian Real in the US. There is evidence that this second strategy was preferred by foreign investors in the recent period.

The way out of this conundrum is to tackle the deficiencies of the Brazilian economy cited above. The most important measure, however, is to cut public expenditures.

Although the Brazilian economy has improved remarkably since the hyperinflation years, its fragility still lies in the fiscal side. The extreme large amount of government expenditures and transfers, which are contracted to increase substantially in the future, pose a large threat for those who consider investing in Brazil. To be able to solve the conundrum of the very high real interest rates in Brazil, government must tackle this old issue.

5. Lessons for other LA Countries

Brazil has embraced IT as a last resort to avoid the return of very high inflation. IT helped to obtain other important institutional achievements, as the fiscal responsibility law. Therefore, IT was for Brazil an important advance in order to build a virtuous cycle that will eventually (hopefully) lead to sustained growth.

The Brazilian experience is also important for Latin-American countries for the several technical aspects that were developed. In the forefront of those lies the transparent procedure to adjust the inflation target in the face of large external shocks.

6. Conclusion

This paper has reviewed the Brazilian experience with inflation targeting (1999-today). It showed that the experience was highly successful at the start. Then, it suffered during the crises caused by the increase in global risk aversion (2001-2002). Surprisingly, IT performed quite well in the face of crises, if a more lax (albeit adequate) standard is used to gauge performance.

It was in the recent good times that IT revealed the weaknesses of the Brazilian economy. Abnormally high real interest rates seem to be required to keep inflation at bay. These high rates have unequivocal detrimental effects on government finances and on growth. The main challenge for Brazil lies on making the reforms that will ease the trade-off of economic policy, launching the growth possibilities of the Brazilian economy.

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**CHART 1
NOMINAL AND REAL EXCHANGE RATES AND CPI INFLATION**

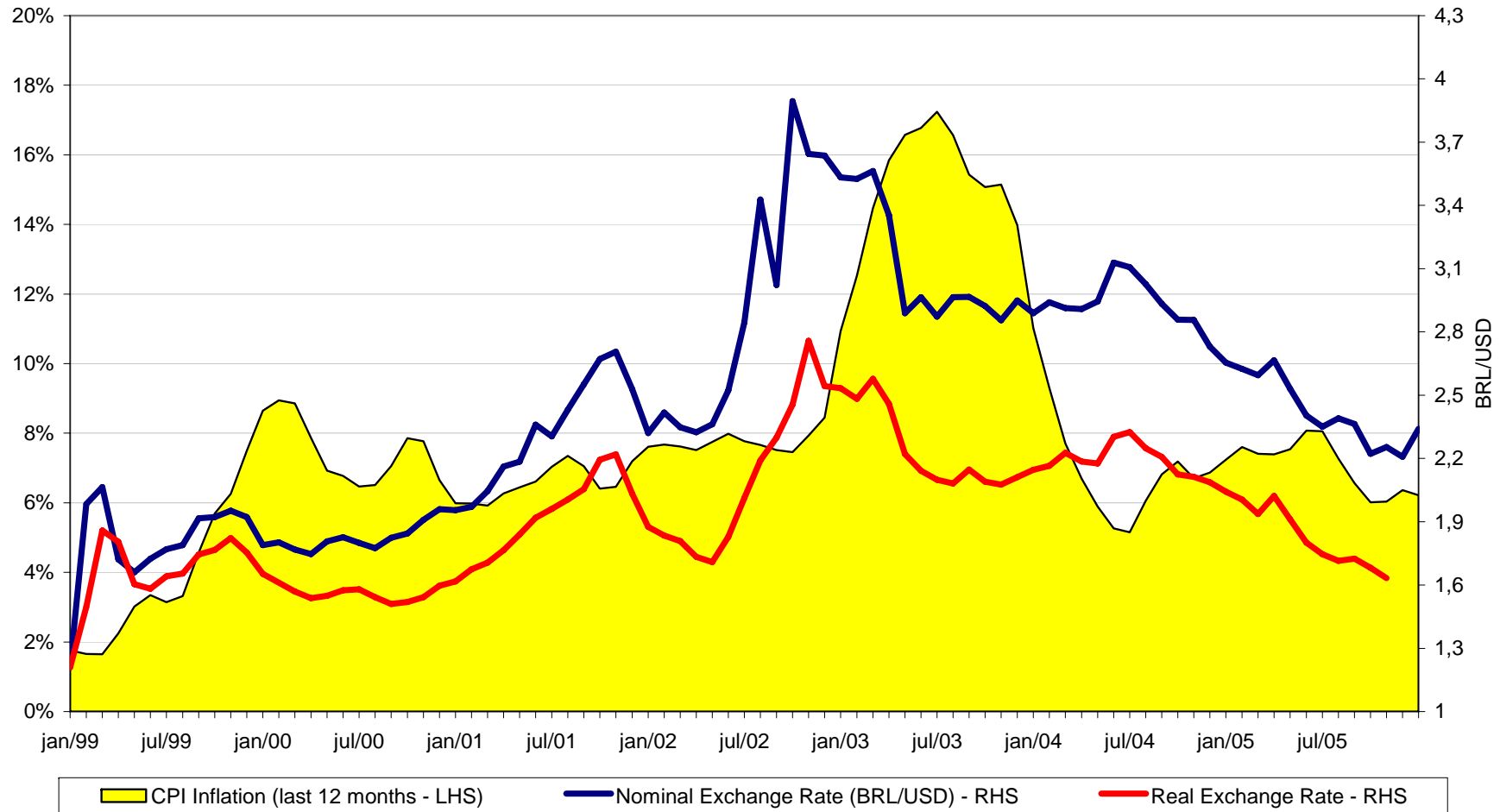


CHART 2 NOMINAL AND REAL INTEREST RATES AND CPI INFLATION

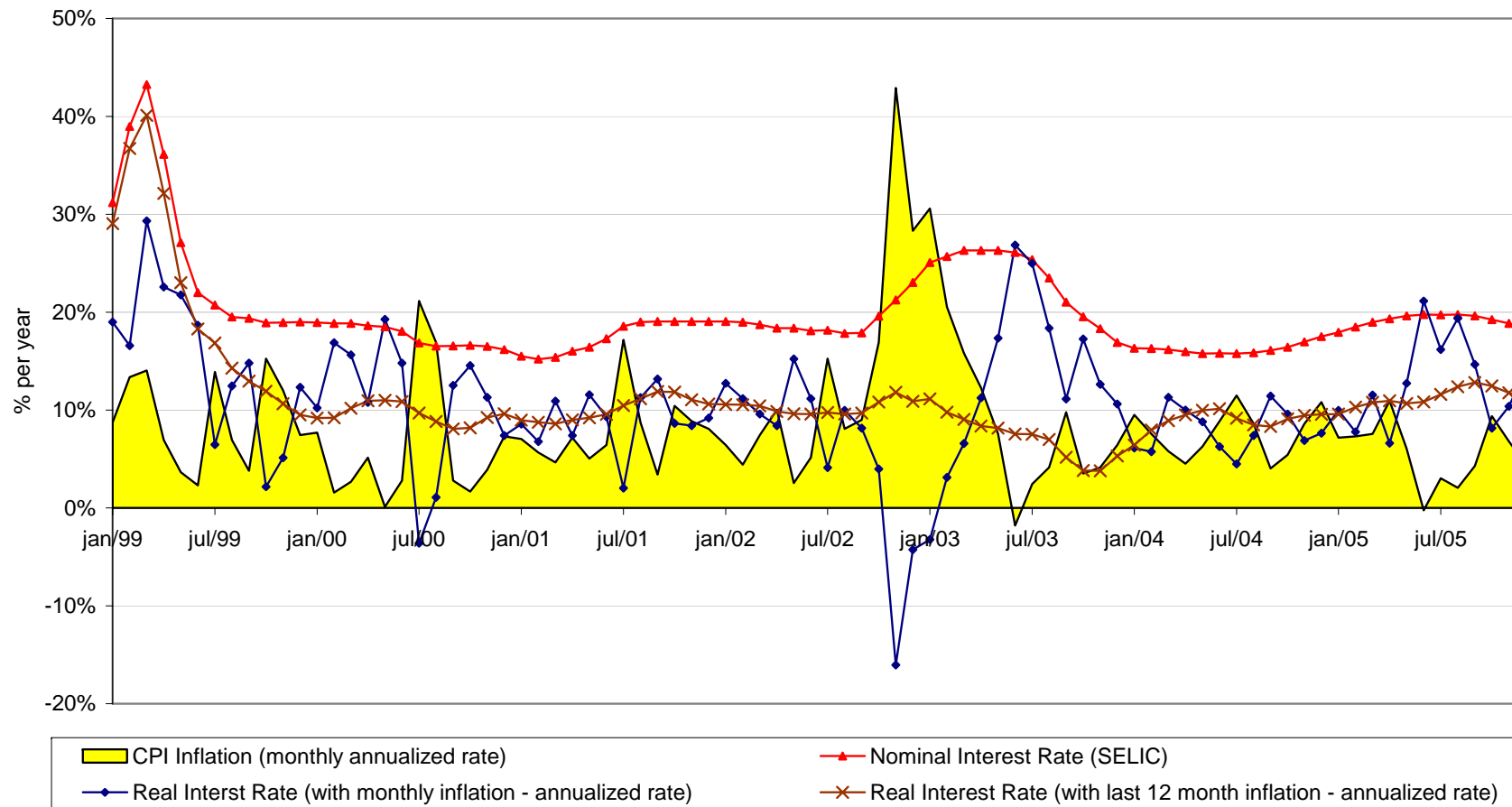


CHART 3
COUNTRY RISK : EMBI+ AND EMBI+ BRAZIL

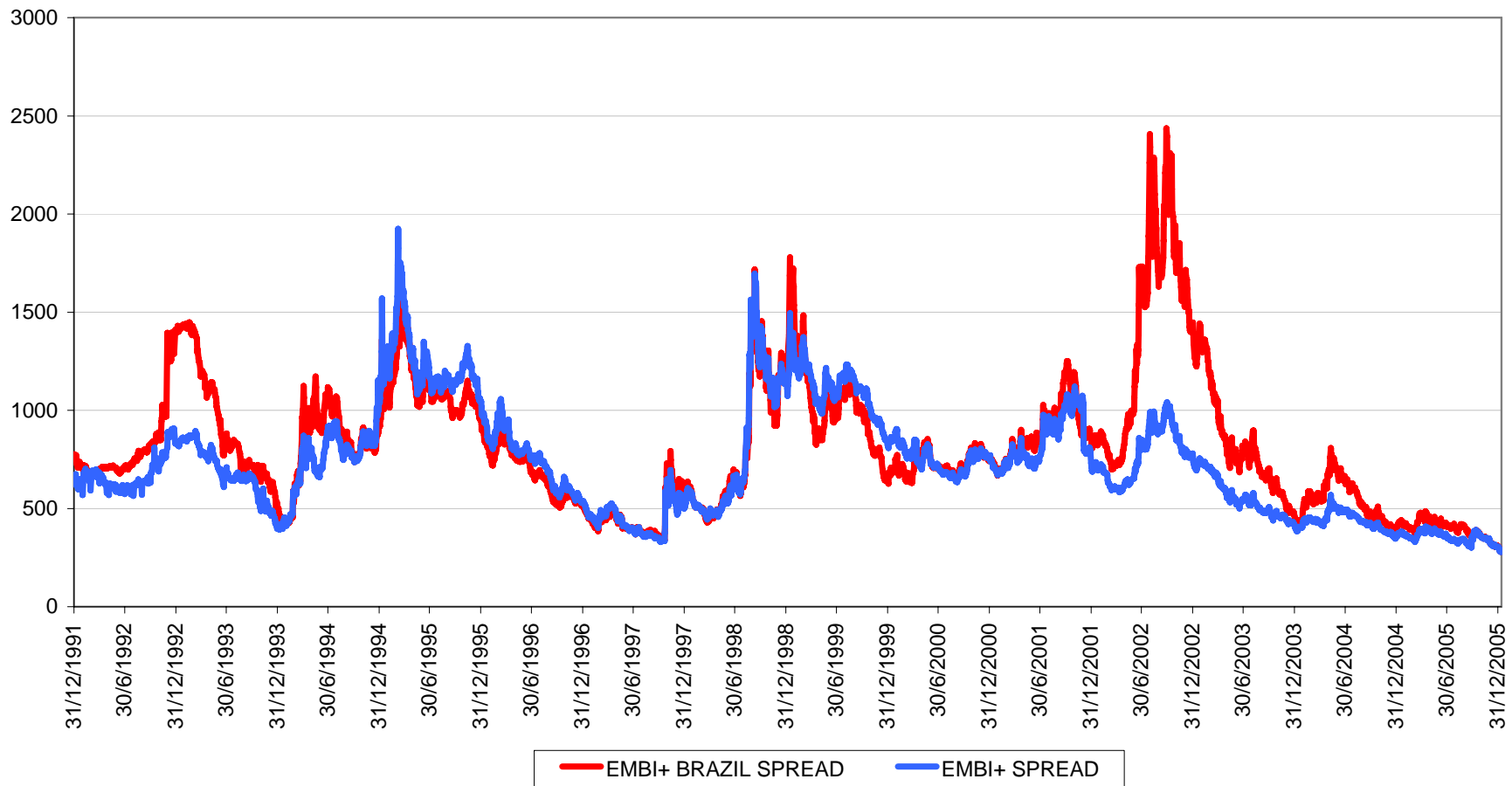


CHART 4
PRIMARY FISCAL BALANCE (% OF GDP)

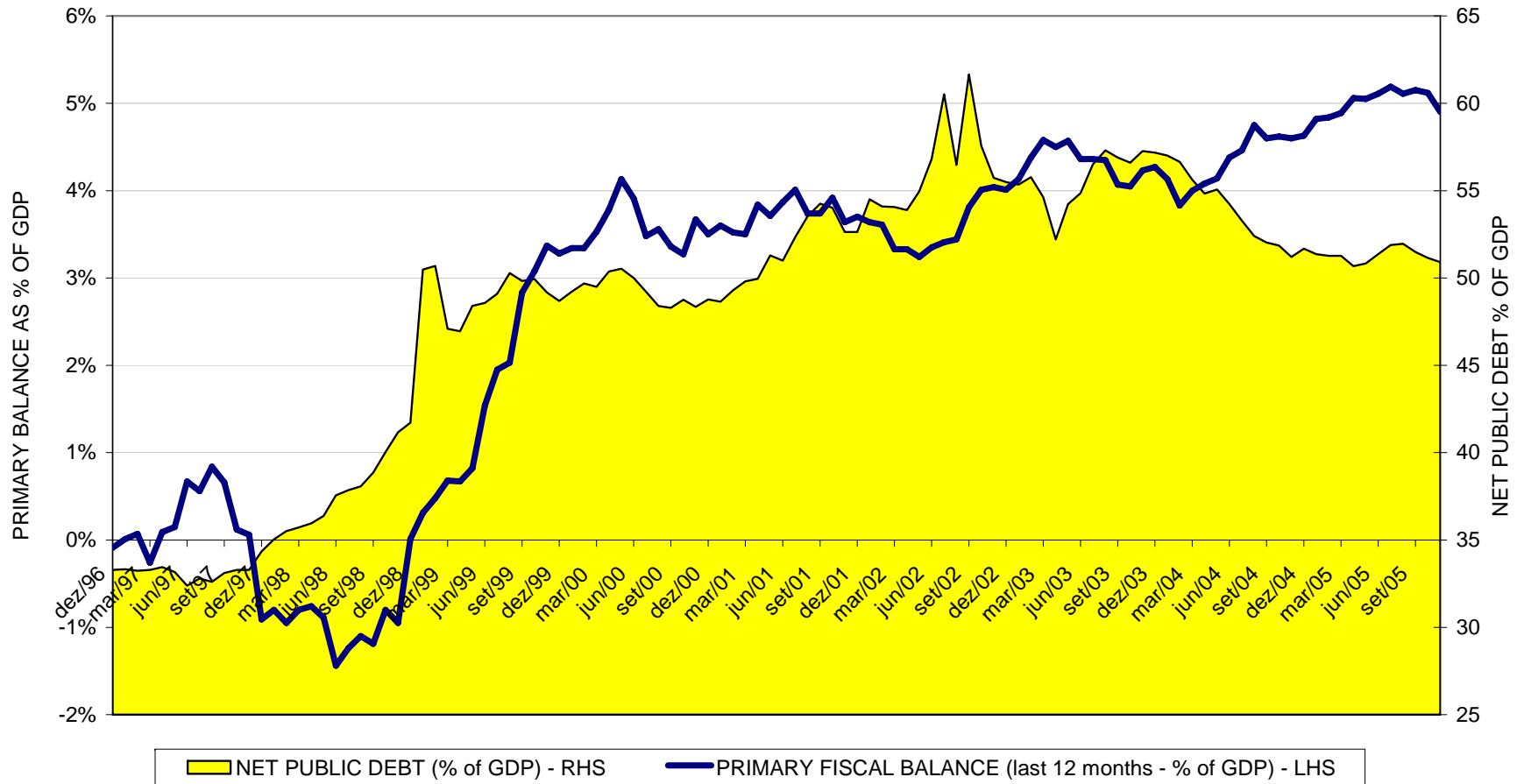


CHART 5 INFLATION EXPECTATIONS, TARGET AND INTEREST RATES

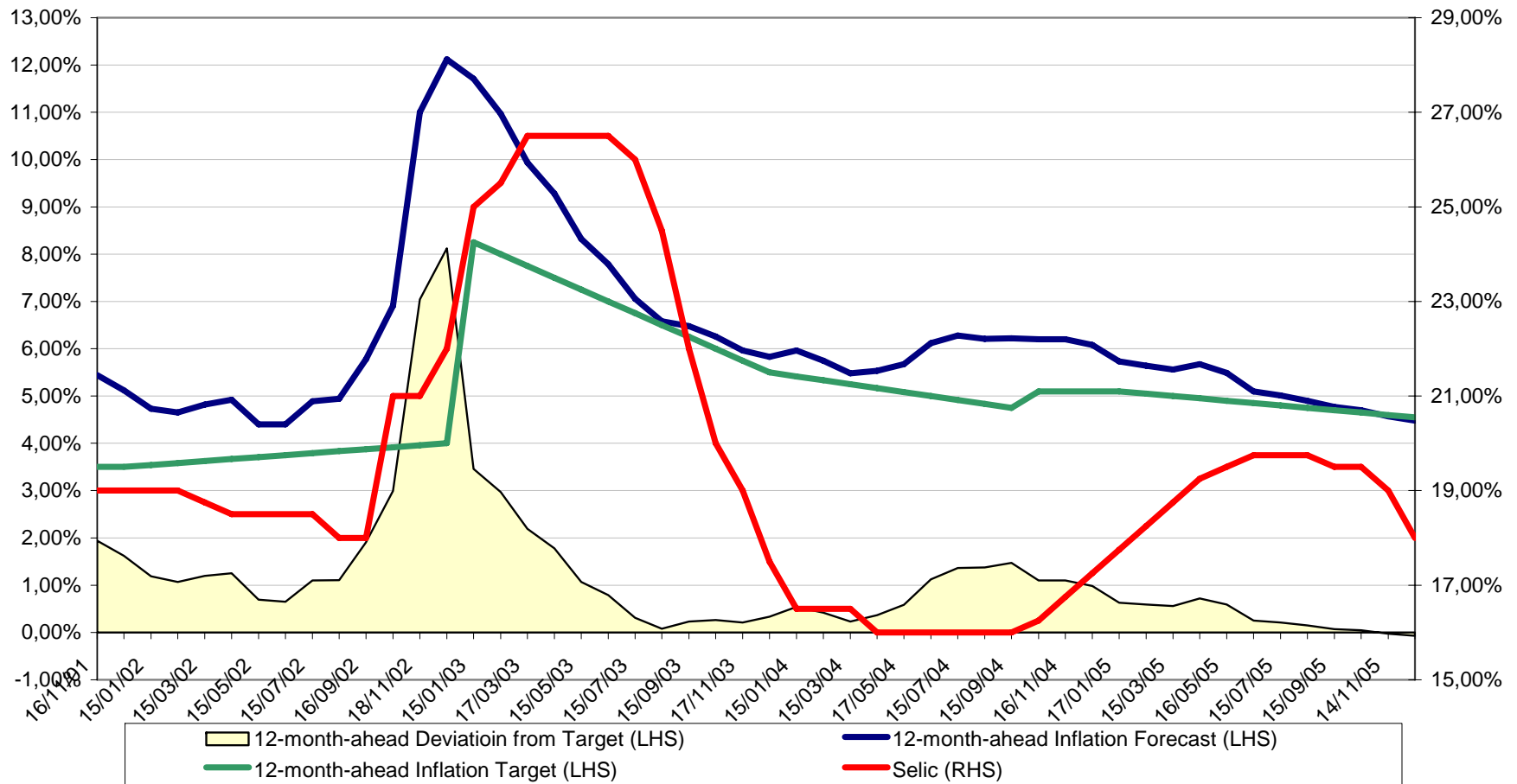
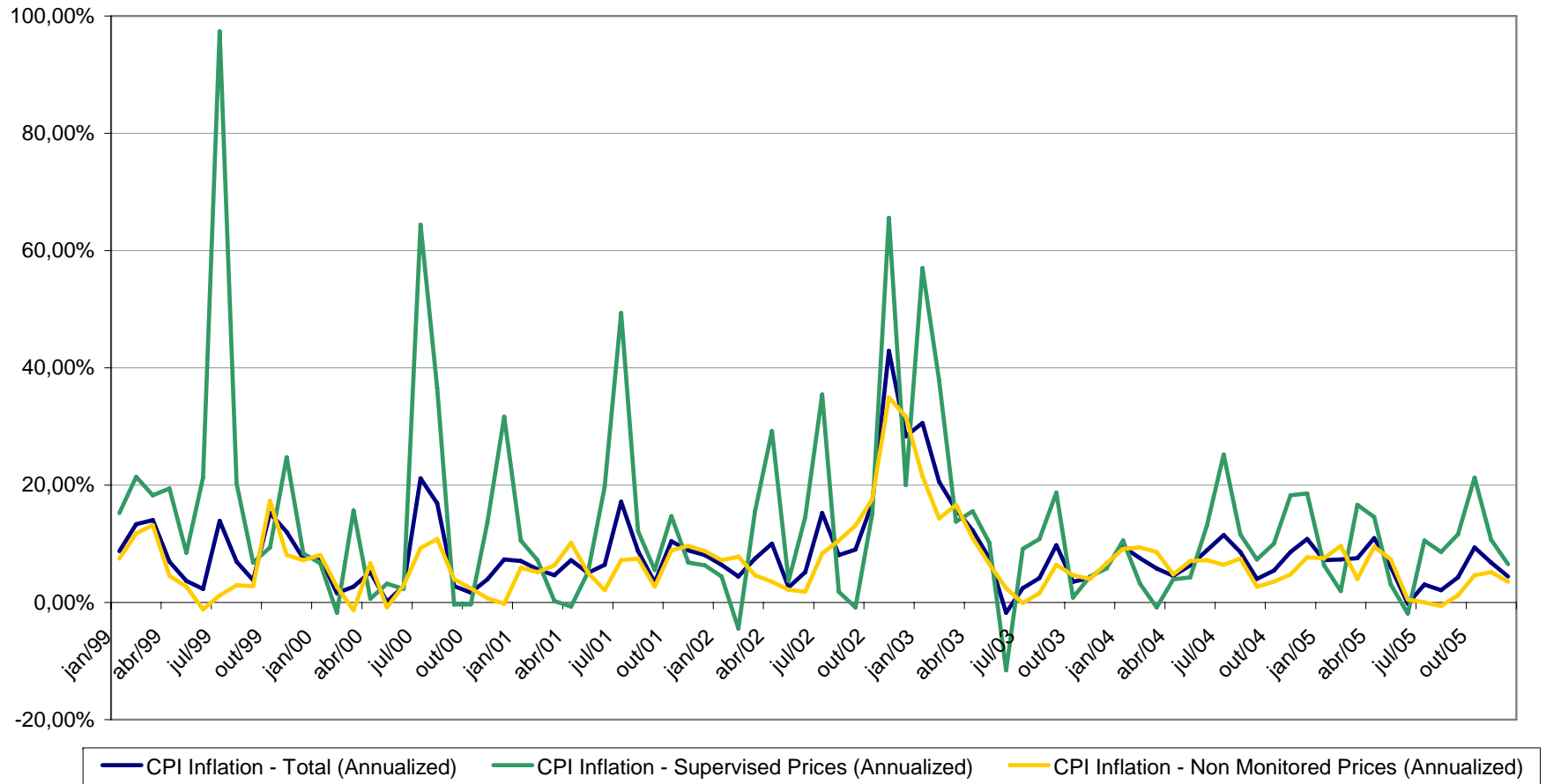


CHART 6
DECOMPOSITION OF MONTHLY CPI INFLATION ANNUALIZED RATES



**CHART 7
DECOMPOSITION OF 12-MONTH CPI INFLATION RATES**

