Determinants of Monetary Policy Committee Decisions:

Fraga *vs.* Meirelles

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Abstract

The aim of this paper is to assess the stability of the suboptimal Taylor-type monetary policy framework in the decisions made by the Brazilian central bank after the adoption of the inflation targeting system. Comparisons of the rules followed by two central bank chairmen between 1999 and 2006 demonstrate that the determinants of the decision-making process underwent some changes. Despite this body of evidence, all functional structures proved to be compatible with an inflation targeting system, indicating continuity in the conduct of such regime in Brazil.

Key words: Monetary Policy; Taylor Rule; Inflation Targeting System.

JEL classification: E4, G1

1. Introduction

A function that is able to represent the behavior of monetary authorities in establishing an interest rate that secures price stability without jeopardizing the behavior of economic activity has aroused the interest of economists for quite a while. Taylor (1993) postulated that a simple linear equation can explain the behavior of the benchmark interest rate defined by central bankers, which became to be known as Taylor rule. Quite recently, the literature that underpins the new Keynesian theoretical framework shows that it is possible to obtain optimal monetary policy rules, as in Woodford (2003). However, the empirical investigation was carried out using a Taylor-type model.

Currently, as several central banks have been using the benchmark interest rate as their major monetary policy instrument, the literature on the empirical estimation of these functions has grown considerably with every passing year. Works such as those by Clarida, Galí and Gertler (1998), which estimate reaction functions for France, Germany, Italy, Japan, the United Kingdom and the USA, and by Judd and Rudebusch (1998), which assesses U.S. monetary policies between 1970 and 1997, are constantly mentioned. More recently, Robert Tchaidze (2004) has estimated a reaction function for the Federal Reserve.

Although monetary authorities often do not officially disclose a systematic rule for their decision-making process, the fact that economic agents can capture orderly

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relationships between decisions and the behavior of some observed variables implies the formation of a more stable economic environment. When seen by agents as a follower of some kind of rule, the central bank is given enhanced credibility. Since central bankers make their decisions amid uncertainty, rendering their actions relatively coherent with the behavior of some indicators improves society's perception of their commitment towards price stability and minimizes the perverse effects of uncertainty.

These issues rise in importance when one is faced with the fact that the link between the incumbency of the executive and monetary authorities is never severed in countries like Brazil. Uncertainty over the continuance in power of a country's central bank board of directors whenever new executive authorities take place exacerbates the uncertainty over the stability of the adopted regime over time. Consequently, for the monetary regime to be looked upon as a medium-term project, it is necessary that economic agents be reassured that the decision-making process will be carried through, and that so will the medium- and long-term commitments, regardless of who is put in charge of the central bank.

In the case of Brazil, the central bank had two chairmen and 21 voting members in the Monetary Policy Committee (MPC) between July 1999 and late 2006. Armínio Fraga steered the central bank at the time when the targeting system was implemented, and left office in late 2002, when Henrique Meirelles took over. This change in chairmanship occurred due to the victory of the opposition party (PT) in the elections; the same party that had been constantly criticizing the economic policy adopted by the former government, including the monetary regime itself. However, in practice, the Brazilian economic model was maintained, resting on a triad formed by the inflation targeting system, the floating exchange rate regime, and the establishment of primary surplus targets for the consolidated public sector.

The targeting system followed the same pattern as the previous one, with benchmark (Selic) interest rate variability as its key monetary policy instrument. Nevertheless, the lack of independence of the Brazilian central bank brought about the replacement of virtually all board members with voting rights at the MPC meetings. More specifically, 10 months after Henrique Meirelles took over, only one of the seven directors stayed in office, which reveals the institutional fragility still in place in Brazil due to the unbroken link between monetary authority and political cycles.

As shown in Graph 1, the average nominal benchmark interest rate was very close in both periods, amounting to 18.18% p.a. between July 1999[3] and December 2002, and to 18.4% p.a. between January 2003 and December 2006. Even though these figures say too little about the economic situation in each period, they can trigger an investigation into the way monetary policy was conducted under both chairmanships, since the average benchmark rate was similar in different economic contexts and different persons were in charge of Brazilian monetary policies.

In this context, the major aim of the present study is to estimate the stability of reaction functions for the Brazilian central bank in two periods, in order to check whether there was continuity in the decision-making process of the monetary authority during the

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[3] Although the inflation targeting system was adopted in Brazil in July 1999, the focus of this paper will be on January 2000 onwards, due to the restriction of some series used.

targeting regime, taking into account the replacement of the central bank chairman. The results obtained show maintenance of the technical aspects regarding decisions that could be specified by suboptimal Taylor (1993) rules, which is an excellent sign of stability and commitment towards the regime. Despite this important finding, changes in the significance of some variables in the estimated rules indicate remarkable marginal changes in the decision-taking process involving the level of the benchmark interest rate.

Graph 1
Behavior of the Benchmark (Selic) Interest Rate in Brazil (01/2000 to 12/2006)
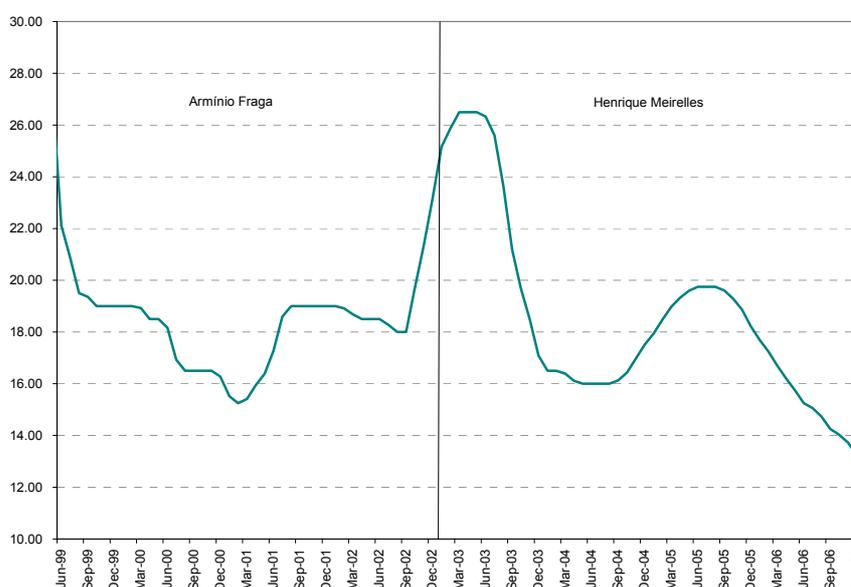
Source: Brazilian Central Bank

The exchange rate was the major variable with a change in the functional structure, suggesting that specification during Fraga's term of office did not take into account the effect of exchange rate movements on the decision-making process. On the other hand, the exchange rate variability was significant in the specification during Meirelles' administration, although this result was conditional on the type of behavior taken by the central bank with regard to the deviations of expected inflation from annual target levels.

This paper is organized into four sections, in addition to the introduction. Section 2 analyzes some different behaviors of the central bank in the macroeconomic context. Section 3 sets out the theoretical background, focusing on the equation suggested by Taylor (1993) and its wide use in the economic literature. Section 4 compares the reaction function estimates for the Brazilian central bank within the first 7 years of the targeting system. Section 5 concludes.

2. Macroeconomic Context and Monetary Policy between 1999 and 2006

The domestic and foreign economic scenario differed considerably across Armínio Fraga's and Henrique Meirelles' terms of office as central bank chairmen. Nevertheless, despite the different economic scenarios, the central bank met the same initial challenge in both administrations: to deflate the economy after a strong exchange rate shock with future inflationary pressures. The first shock, in 1999, was caused by the abandonment of the exchange rate band regime, and the second one, in 2002, derived mainly from the uncertainties fueled by the electoral process in Brazil. But Fraga's and Meirelles' administrations differed as to the timing chosen for the disinflationary process.

The magnitude of uncertainty over the conduct of monetary arrangements can be gauged by comparing the behavior of *ex ante* versus *ex post* inflation expectations by economic agents.[4] In stable and consolidated monetary arrangements, the forecast error is expected to be small and inflation is expected to fall within the defined target level. However, this did not apply to Brazil in the first years of the targeting system.

Graph 2 shows the comparison of inflation expectations and the forecast error. The mean absolute error during Armínio Fraga's administration was estimated at 8.7 percentage points – a very high level that may be seen separately as a problem with the conduct of monetary policy or be related to impaired credibility. Nonetheless, the direction of the error was favorable to the central bank most of the time, as *ex post* inflation was higher than *ex ante* inflation. Thus, the behavior of expectations actually served to make the conduct of monetary policy during Fraga's administration easier.

On the other hand, from 2003 onwards, inflation expectations behaved differently, having been pushed above the rate of inflation often observed during Meirelles' administration. This behavior certainly prevented sharper decreases in the benchmark interest rate, since the monetary authority makes its decisions in an environment marked by uncertainty over the future, eventually showing a better forecast than that for the *ex ante* inflation. However, caution should be exercised when ascribing this behavior to a lack of credibility or lack of commitment of the central bank's new board of directors towards inflation targets. First, because the agents probably wound up negatively adjusting their expectations in response to previous shocks and, secondly, because the Brazilian currency had an unexpected, strong and continuous appreciation vis-à-vis the U.S. dollar from early 2003 onwards.

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[4] The Brazilian central bank conducts a survey in the major departments of the Brazilian economy and collects the forecasts for the main variables of interest regarding the conduct of monetary policy. The historical series, which commence in November 2001, can be obtained at www4.bcb.gov.br/?FOCUSERIES.

Graph 2
Twelve-month Average Inflation Expectation and Effective Inflation
(11/2001 to 03/2006)
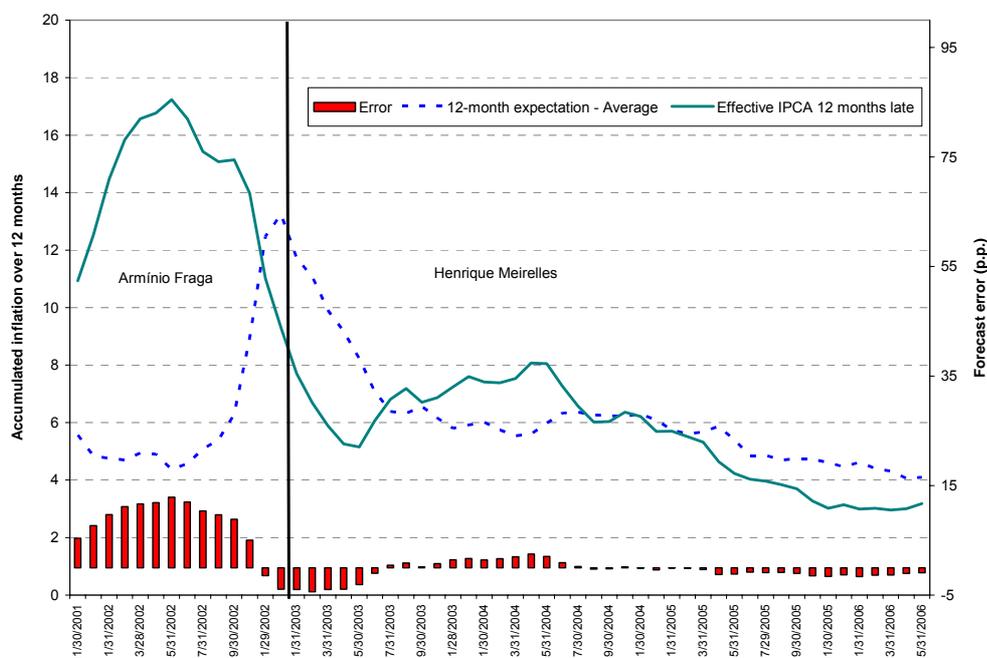
Source: Brazilian Central Bank

Improved knowledge about the behavior of agents' expectations can be gained from analyzing the central bankers' options throughout their administrations, in addition to the macroeconomic context in which they occurred. In July 1999, when the inflation targeting system was introduced in Brazil, the accumulated inflation rate over the last 12 months corresponded to 5.7% and the target for that year was set at 8%. At that time, part of the inflationary impact of the negative exchange rate shock at the beginning of the year was believed not to have taken shape yet. Therefore, it was feared that a too tight monetary policy could hinder the level of activity. The central bank sought to make a long-term commitment towards inflation control by reducing the target for the subsequent years to 6% and 4% in 2000 and 2001, respectively.

On the other hand, Meirelles opted for a quicker disinflationary process at the beginning of his administration. In January 2003, the consumer price inflation accumulated over the last 12 months amounted to 14.5% and the adjusted inflation target was set at 8.5% for that year. In June, when the 12-month inflation rate reached 17.24%, the targets for 2004 and 2005 were established at 5.5% and 4.5%, respectively. The government's explicit decision to quickly deflate the economy (the cold turkey approach) resulted in relatively higher interest rates than those which could have been

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adopted under gradual approach to inflation reduction.[5] In June 2004 and 2005, however, the government kept the 4.5% target for 2006 and 2007, indicating its return to a gradual approach ever since.

Besides the different timing of the disinflationary process at the beginning of each administration, the foreign and domestic scenario was radically different in both cases and also contributed to the creation of discrepant expectations. During Fraga's administration, the world economy experienced a strong downswing as a result of the U.S. level of activity in late 2000, whereas electric power rationing in Brazil caused a supply shock leading to a hike in the price of electric power in the subsequent year. Moreover, in 2001, Argentina, Brazil's main trade partner, would endure the strongest economic crisis in its history, generating a fear of contagion. Finally, after the election of Luis Inácio Lula da Silva as president in 2002, there was a lot of speculation about the economic policy that would be adopted in the future and also about the actual commitment of the government towards stability. In this context, Brazil's capital inflow was remarkably reduced on account of the country risk and due to overall unfavorable conditions. Fly to quality became the major determinant of international capital inflows.

During Meirelles' administration, the continuous growth of the world economy increased the terms of trade of Brazilian exports, and trade balances rose continually, pushing up the current account surplus and exerting some strong pressure in favor of the appreciation of the Real vis-à-vis the U.S. dollar. This exchange rate appreciation produced quite favorable effects on the rate of inflation, restricting the dynamics of the benchmark interest rate and of the exchange rate as well. As a matter of fact, in late 2003, the behavior of the exchange rate began to show a disinflationary impact that had never been observed during Fraga's administration, which is another remarkable difference across both administrations.

As outlined, the different economic contexts of the two analyzed periods serve as a stimulus for assessing the monetary policy decision-making process adopted during the study period. Therefore, estimates herein were made with intent to determine possible changes in the behavior of the Brazilian monetary authority regarding the decision-making process by assessing the changes in the functional structure of the reaction function.

3. Empirical Reaction Functions

Taylor (1993) advocates that monetary policy should be guided by transparent and feasible rules by arguing that this is the most efficient way to achieve the best joint performance results – measured by the stable rate of inflation and the variation in economic growth around its potential. Although this argument serves as basis for the adoption of regimes such as the inflation targeting system, his paper is more commonly referenced in the literature for the use of a reaction function for the behavior of domestic

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[5] Actually, the target for 2005 was so strict that the central bank itself later announced that the target for the year would be 5.1% instead of 4.5%, being slightly off the target level established by the inflation targeting system.

interest rates in the USA between 1987 and 1992. The author's proposition takes for granted that the behavior of U.S. interest rates may be well represented by a linear relationship with the rate of inflation (π), an equilibrium interest rate (r*) plus a weighted sum between two deviations: the difference between the rate of inflation (gauged by the GDP deflator) and the inflation target, and the percentage deviation of GDP from potential GDP. Thus, the Taylor rule relies upon two exogenous variables: the inflation target and potential GDP. Thus, the relationship between these variables can be defined as follows:

$$i_t = \pi_t + r * + 0.5(\pi_t - \pi*) + 0.5(y_t) \tag{1}$$

where,

i = interest rates of U.S. Federal Funds*;*

*r** = equilibrium real interest rate;

π = rate of inflation (measured by the GDP deflator);

$\pi*$ = inflation target;

y = percentage deviation of real output from potential output.[6]

Several estimates of empirical reaction functions were based on Taylor's paper. Clarida, Galí and Gertler (1998) estimated a reaction function for France, Germany, Italy, Japan, the United Kingdom, and the USA. By using a more sophisticated version that contemplates the expectations of economic agents and lagged explanatory variables, the authors concluded that inflation targets are implied in the decisions of the U.S., German, and Japanese central banks. Furthermore, this method led the authors to explicitly defend that one targeting system is better than a fixed exchange rate system, in terms of joint performance of inflation and economic growth, considering the sampled data.

The most renowned work on the replacement of central bank management is that by Judd and Rudebusch (1998), which assesses a reaction function for the U.S. economy between 1970 and 1997. The authors arrived at results that correlate interest rate movements with a monetary policy that seeks to curtail inflation in the long run and to promote economic growth near its short-term potential. However, as in other papers, the results differ from Taylor's original specification in two important aspects. First, the interest rates seem to react more strongly to GDP deviations than was believed in the original paper and, secondly, the speed of adjustment appears to be lower than that supposed by Taylor. The authors found supporting evidence that the rule for the full sample is perfectly suitable for the period in which FED decisions used to be made by Alan Greenspan.

Still with regard to the USA, the paper by Robert Tchaidze (2004), an International Monetary Fund (IMF) economist, is of note, since it estimates a reaction function that contemplates the forecasts made by the FED staff before each meeting,

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[6] Taylor (1993) used a log-linear trend for potential output between the first quarter of 1984 and the third quarter of 1992. As we discuss later, in this paper, we are going to use Hodrick-Prescott filter residuals as proxy for the output gap.

with the aim of deriving a reaction function in an environment of uncertainty, where current decisions are based on expectations about the future behavior of variables. The results show that the forward-looking reaction function is more robust than the estimate based on the backward-looking behavior of dependent variables. Thus, the paper advocates the idea that a Taylor-type functional structure should contemplate the existing expectations at the time of each decision, which is in line with the theoretical premises of an optimal monetary policy rule with rational expectations.

In Brazil, some works have tried to estimate the behavior of monetary authorities. Müssnich (2003) performs several estimates of reaction functions for the Brazilian central bank, but her results do not conclusively identify a single functional form that could represent the MPC decisions between July 1999 and December 2003. The paper by Minella, Freitas, Goldfajn and Muinhos (2002), the most widely referenced among the empirical studies that apply to Brazil, deals with the development of a forward-looking reaction function for Brazil. The approach to the problem with annualized targets is also worth of note, and will be described in the subsequent section for being one of the alternatives provided by the estimated models.

4. Presentation of Data

Amongst the explanatory variables for the behavior of the Selic rate, some require further clarification, as they turned out to be significant and were included in the structures that will be dealt with ahead.

The first variable is the future inflation expectation and its form of insertion into the model. Due to the intertemporal behavior of central bank decisions, the annual target intended by the monetary authority may be that of the current year or of the subsequent year, or a combination of both, resulting in different interpretations of the time horizon stipulated so as to bring inflation close to its target. This problem is minimized in some countries through the implementation of smoothed targets, which is not the case at issue, since the Brazilian central bank pursues an annual target. Even though it is very likely that the monetary authority will take its decisions in the first month of a given year in an attempt to reach the annual target, this is not a trivial issue when attempting to explain how the central bank is expected to behave in the last months of such year. Lagged effects of monetary policy make the influence of monetary decisions on price behavior in the current year quite limited.

To get around this problem, two slightly different series were built. The first one, known as *De*, was built based on the difference of the median of IPCA[7] expectations for the market – described by market analysts and consultancy firms in the survey requested by the monetary authority – regarding the inflation target for year *t* in the respective month of the MPC meeting. The difference is measured in year *t* up to the month of June. Then, the value to be considered is the difference between inflation

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[7] The broad consumer price index (IPCA) is the official price index for the inflation targeting system and is calculated by the Brazilian Institute of Geography and Statistics.

expectation for the subsequent year and the respective inflation target. In other words, this rule establishes that the monetary authority "relinquishes" the goal of reaching the current year's target after July, when it starts to pursue the target for the subsequent year. This means:

$De_{t,a} = E(\pi)_{t,a} - \pi^*_a$, for (1≤ t ≤ 6); or

$De_{t,a} = E(\pi)_{t,a+1} - \pi^*_{a+1}$, for (7≤ t ≤ 12);   (2)

Where

$E_t(\pi)$: median inflation expectations (IPCA) in month t for year a or $a+1$;

π^*: midpoint of the inflation target range for year a or $a + 1$;

      The second series employed to deal with the "calendar" issue was based on the suggestion made by Minella, Freitas, Goldfajn and Muinhos (2002), who calculated the weighted average of the deviations of current and future inflation expectations from the targets. In other words, as months go by, the weight of the deviations of the inflation expectation from the current year's target is overshadowed by the weight of the subsequent year's deviations, characterizing a monetary policy that intercalates the objectives.

$$Dj = \left(\frac{12-j}{12}\right)(E_t\pi_a - \pi_a{}^*) + \left(\frac{j}{12}\right)(E_t\pi_{a+1} - \pi^*_{a+1})$$ (3)

Where,

D_j: weighted deviation of inflation expectation from the inflation target;

$E_t\pi_a$: expectation of month t for the IPCA of year a;

π_a^*: midpoint of the inflation target range for year a;

$E_t\pi_{a+1}$: expectation of month t for IPCA of year $a+1$;

π_{a+1}^*: midpoint of the inflation target range for year $a+1$;

      Another noteworthy series consists of the output gap measurement. Since this is an unobserved variable, there is a lot of uncertainty over predicting the monetary authority's view on the actual level of activity at the moment of each decision. Besides the limitations of the methods for measuring growth potential, the lack of information in central bank communications on the use of some kind of coincident series for the level of activity renders this task subjective. In this paper, the monthly series for the physical output of the Brazilian industry was used as proxy for the level of activity, which has been a characteristic of empirical studies, such as in Minella, Freitas, Goldfajn and Muinhos (2002). The potential level was obtained by using the Hodrick and Prescott (HP) filter. Finally, the exchange rate variable was used for the monthly trend of the Brazilian currency vis-à-vis the U.S. dollar.

5. Estimates

The estimated functional specification followed the structure outlined in equation 1, with some adaptations to the Brazilian context, capturing changes in behavior between the two study periods. To accomplish that, we included multiplicative dummy variables with a unit value only in the second period (January 2003 to December 2006). Thus, the level of acceptance of these variables will indicate any change in behavior between the two periods. The lack of significance of these coefficients will indicate continuity and maintenance of the weight of explanatory power of the variable on the Selic rate.

The models with favorable results were structured as follows:

$$i_t = \beta_1 i_{t-j} + \beta_2 De_t + \beta_3 y_{t-2} + \beta_4 c_{t-1} + \beta_5 D_1 De_t + \beta_6 D_1 y_{t-2} + \beta_7 D_1 c_{t-1} + \beta_8 Dout2002 \,,$$

or, similarly,

$$i_t = \beta_1 i_{t-j} + \beta_2 Dj_t + \beta_3 y_{t-2} + \beta_4 c_{t-1} + \beta_5 D_1 Dj_t + \beta_6 D_1 y_{t-2} + \beta_7 D_1 c_{t-1} + \beta_8 Dout2002 \qquad (4)$$

Where,

i_t : average monthly Selic rate (p.a.);

i_{t-j} : average monthly Selic rate lagged t-j, for j=1 and 2;

De_t: moving range of the IPCA expected by the market in relation to the inflation target;

D_j: weighted deviation of inflation expectation from the inflation target;

y_{t-2}: output gap in relation to potential output lagged two-periods;

c_{t-1} = exchange rate (R$/US$) lagged one period;

D_1= dummy variable, with unit value for the January 2003-December 2006 period and zero, otherwise; and,

$Dout2002$= dummy variable, with unit value in October 2002 and zero in the remaining months.[8]

The results shown in Table 1 reveal the continuity of monetary policy between Fraga's and Meirelles' administrations, with a positive impact on the stability of the targeting system in Brazil. This sign of continuity is characterized by a high level of adjustment of models with maintenance of explanatory series and by the rejection of some estimated coefficients of the variables that capture changes in behavior between the two periods.

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[8] This variable was used as October 2002 was the only period in which there were two MPC meetings in the same sampling period. An extraordinary meeting had to be held due to the strong crisis experienced by the country at the time.

Table 1
Compared reaction function (01/2000 - 12/2006)

	Model 1	Model 2
Selic$_{t-1}$	1.19 ***	1.31 ***
	(0.116)	(0.08)
Selic$_{t-2}$	-0.22**	-0.33***
	(0.115)	(0.08)
De$_t$	0.33***	
	(0.081)	
Dj$_t$		0.54***
		(0.128)
Output Gap$_{-2}$	0.11***	0.14***
	(0.029)	(0.034)
Exchange Rate$_{-1}$	0.074	-0.14
	(0.100)	(0.168)
De$_t$Dummy	-0.13	
	(0.113)	
Dj$_t$Dummy		-0.38***
		(0.133)
Output GapDummy$_{t-2}$	0.06	0.02
	(0.048)	(0.047)
Exchange RateDummy$_{t-1}$	0.035	0.18***
	(0.053)	(0.08)
October 2002 Dummy	2.71***	2.60***
	(0.178)	(0.471)
R^2	0.985	0.983
Adjusted R^2	0.984	0.981
Akaike	1.05	1.19
LM test (p)	0.80*** (2 *lags*)	0.82*** (2 *lags*)
White test (p)	Corrected by White	0.013**
ARCH test (p)	0.31*** (5 *lags*)	0.72*** (5 *lags*)
Jarque-Bera (p)	0.353***	0.163***

*** significance at 1%, ** significance at 5% and * significance at 10%.
Note: in the case of tests, asterisks mean absence of problem at the respective significance level.

The Selic rate was used with two lags in both models so as to prevent serial autocorrelation. The high significance of the lagged coefficients of the Selic rate demonstrates that a smoothing and dependence process was maintained in the decision-making process. Output gap was significant and stable in both specifications, indicating maintenance of the perceived role of excess demand in price behavior in both administrations.

Nonetheless, the results exhibit important differences, which arise from the different treatment given to the deviations of expectations from the inflation targets. When a non-smoothed behavior is tested for the deviations of expectations from inflation targets (model 1), no coefficient changes across administrations, since all of the coefficients of the dummy variables are rejected. Another important finding in this context is the lack of statistical significance of the exchange rate variable. This may be attributed to some hypotheses, such as the period used for this estimate, in which the exchange rate showed high volatility, or by the assumption of a monetary authority that

does not react at all to exchange rate movements in a floating exchange rate regime. The latter hypothesis, however, does not hold when we change the way of inserting expectations' deviations into the estimates, smoothing the process of convergence of estimated inflation to its targets, a hypothesis that is commonly accepted for the Brazilian case.

The first interesting result in model 2, which contemplates the replacement of *De* by *Dj,* concerns the reduction in the weight imposed by the smoothed deviations of expectations from the targets. According to the results, whereas the Selic rate increased by 0.54 percentage points in Armínio Fraga's administration for every percentage point increase in the deviation of expectations, this increase amounted to only 0.16 percentage points (0.54-0.38) in Meirelles' administration. This reduction in weight is probably related to the significance of the exchange rate as explanatory variable for the determination of interest rates in Henrique Meirelles' administration.

As shown by the results obtained in model 2, there is strong evidence that the Brazilian monetary authority took into account this variable in its decisions during Meirelles' administration. Albeit significant, the individual effect of the change in exchange rate level on the Selic rate was low, since the rate fell 0.18 percentage points for every R$/US$ 1.00 of appreciation. This effect may be controlled by the deviation of inflation expectations. When economic agents perceive an ongoing exchange rate appreciation, both in the past and in their forecasts, the future estimates of inflation are likely reduced, having a favorable impact on the variable that measures the deviations of inflation expectations from the targets. Therefore, the effect perceived from the dynamics of the exchange rate on monetary policy decisions in Meirelle's[9] administration were classified into direct, according to the significance of the variable in the model, and indirect, by the expected effect on the agents' inflation forecasts.

3. Conclusion

The adoption of the inflation targeting system in Brazil occurred in some very unstable economic scenarios. The background context encompassed the exchange rate crisis of 1999 and the lagged effects on inflation that needed to be controlled by the new regime. Less than 2 years after its adoption, the regime was put to test due to several domestic and foreign economic crises. In addition, the central bank management staff was replaced soon after the new executive board took charge.

The lack of formal independence of the Brazilian monetary authority fuels the uncertainty over the stability of central bank decisions and commitments in the medium run. Since decisions about the conduct of monetary policy produce economic effects

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[9] It should be borne in mind that inserting the exchange rate into a long-term reaction function is not free from criticism, since it casts some doubt on the ultimate monetary policy instrument, as the relationship between exchange rate and the Selic rate encourages the monetary authority to exert some kind of control, although veiled, over the exchange rate in order to meet the inflation target.

and spark off debate among civil society representatives, it is impossible to completely dissociate MPC decisions from government projects. As the influential power of these decisions plays an important role in the economy, even if in the short run, an unbroken link in this case haunts economic agents with uncertainty over the use of permanent space for misuse of available instruments to meet short-term interests.

For societies in general, a monetary policy that secures price stability over time and averts the distorted effects of inflation is of paramount importance. However, price stability is not something trivial that can be naturally attained and maintained over time in capitalist economies. Unexpected supply shocks, such as upsurges in oil price or liquidity crises that affect the exchange rate behavior and build up the pressure on future prices, require permanent surveillance and restrictive action from central banks so that such effects will not occur on a permanent basis.

In Brazil, for the commitment assumed by the central bank towards keeping inflation near the target to be seen as feasible by society, it is necessary that the regime be looked upon as a State project that is unfettered by governments and central bank chairmen. In only 7 and a half years, since the targeting regime was implemented, the central bank had two chairmen and 21 voting members in the MPC. Given this picture, the aim of the present study was to assess whether there is continuity and predictability in the decision-making process regarding the behavior of the benchmark interest rate and the commitment to inflation targets, regardless of who used to be or still is in charge of the Brazilian central bank.

The results obtained from the estimates underscore that, despite these replacements on the MPC, there exists strong evidence of continuity and commitment to the targeting system in Brazil since its implementation. This information was gathered from the maintenance of suboptimal policy rules in central bank decisions during Armínio Fraga's and Henrique Meirelles' administrations. Even though the structure remained compatible with a Taylor-type reaction function, some important changes were detected.

Among the most remarkable differences, the exchange rate is of special interest. This variable was not significant in neither of the models during Fraga's administration, whereas in Meirelles' administration, one of the models signaled that this variable influenced the MPC decisions. However, this effect of the exchange rate on the Selic rate, when analyzed separately, turned out to be moderate, which must be related to the indirect influence of this variable on other pieces of information used in the models.

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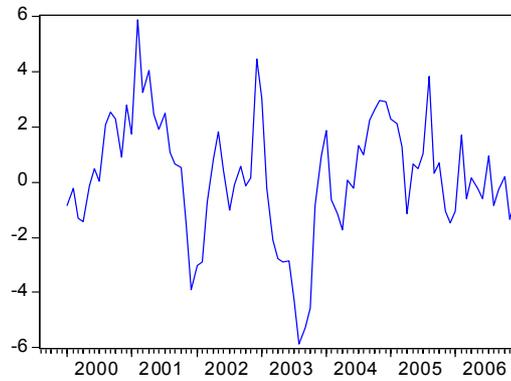
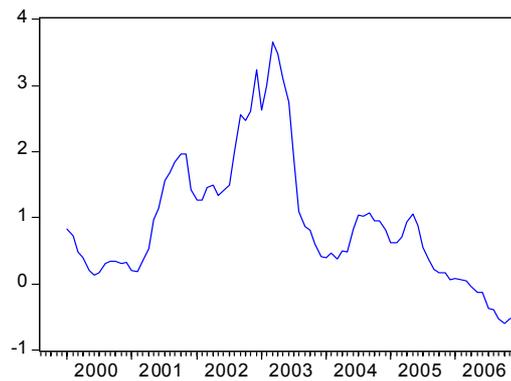# APPENDIX

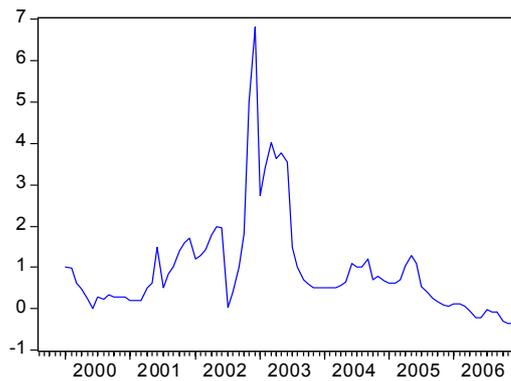Exchange rate (R$/US$) at the end of the period
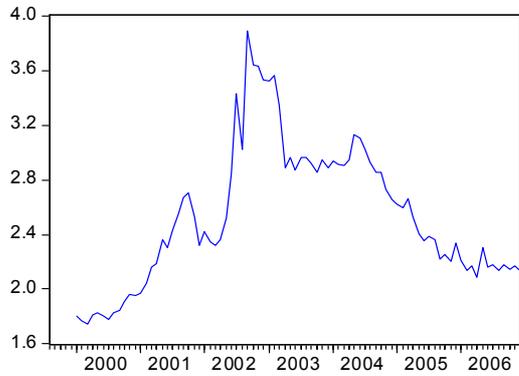
Output gap - Monthly Industrial Productivity

De

Dj

ADF Unit Root Test

Series	Level			1st difference		
	τ	τ_μ	τ_τ	τ	τ_μ	τ_τ
Selic	0.69	-3.23**	-3.34*	-3.46***	-3.46***	-3.50**
Output gap	-3.46***	-3.45***	-3.48***	-10.2***	-10.1***	-10.3***
De	-2.24***	-2.73**	-2.84	-8.17***	-8.12***	-8.10***
Dj	-1.32	-1.54	-1.87	-6.03***	-6.00**	-6.05***
Exchange rate	-0.09	-1.88	-1.66	-5.36***	-5.34***	-11.6***

Where, τ, τ_μ, τ_τ for ADF test critical values without constant, with constant, and with constant and trend, respectively. *** significance at 1%, ** significance at 5% and * significance at 10%.