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# Fear of Floating in Brazil: Did Inflation Targeting matter?

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ABSTRACT

Brazil implemented Inflation Targeting (IT) after the breakdown of a managed floating regime, showing a similar pattern to most of the emerging markets that adopted this framework. This unplanned policy change has led to some disbelief regarding the country's commitment to its inflation objective and to a floating exchange rate. In this paper we analyse whether the adoption of IT has led to an actual shift in the country's approach to the exchange rate. We find greater exchange rate flexibility and milder interventions in the foreign exchange market after IT. We conclude that possible interventions should not be seen as Fear of Floating, but as a required policy for the attainment of the inflation targets.



## 1. Introduction

The majority of emerging markets that adopted Inflation Targeting (IT) in the 1990's had previously pegged their nominal exchange rate to a stable low-inflation currency in order to achieve price stability. Nonetheless, in a world with high capital mobility, conventional pegged exchange rates have proven to be very fragile (see, for e.g., Calvo & Mishkin, 2003; Fischer, 2001). In this sense, the adoption of IT by those countries was much more a response to the collapse of their exchange rate regimes, than a conscious policy shift.

Brazil is a straightforward example of the pattern mentioned above, as IT was adopted after a dramatic exchange rate regime change. The country was severely hit by the late-1990's financial crises,

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and as the market lost confidence in the economy, large capital out-flows forced the government to tighten the fiscal policy and raise interest rates to very high levels. At the same time a financial support package was negotiated with the International Monetary Fund. Following strong pressures on foreign exchange reserves the Central Bank was forced to abandon the managed floating regime and let the currency float in January 1999.

In the absence of a well-defined anchor for policy the currency depreciated sharply and economists foresaw a substantial increase in inflation. Under those circumstances IT was announced as a guide for monetary policy. This choice was based on the view that with a floating exchange rate the inflation target would play the role of a new nominal anchor for the economy. In the following months the Central Bank acted according to the price stability goal, and the exchange rate pass-through (ERPT) was much smaller than expected.[1]

The case of Brazil is rather important as it is one of the largest emerging markets in the world and shows a drastic change in monetary policy implementation towards an IT strategy. Moreover, the study of the Brazilian experience helps understanding the degree of commitment of a Central Bank in an emerging market to IT when the adoption of this regime was a response to an exchange rate crisis. In particular, the literature acknowledges that implementing an IT framework requires the definition of low and stable inflation as the primary goal of monetary policy. It means that there should not be any commitment to a particular value of the exchange rate. However, it has been argued that some emerging markets kept intervening in the foreign exchange market after adopting IT. Those interventions have been taken as a symptom of what is known in the literature as Fear of Floating (FF), following Calvo and Reinhart (2002).

A problem with the FF critique is that it implicitly assumes that the optimal policy is always a free-floating regime, and that any intervention in the foreign exchange market would lead to a sub-optimal result. However, this is not necessarily the case, as for emerging markets the optimal policy may be one in which Central Banks occasionally intervene (Edwards, 2002). In particular, with high ERPT some intervention in the exchange rate may be needed so the inflation targets can be attained (see, for e.g., Mishkin, 2004; Reyes, 2007).

Several studies have analysed the IT adoption in Brazil (for e.g., Bogdanski et al., 2002; Fraga et al., 2003; Minella et al., 2003), and have generally concluded that inflation targets have indeed played an important role in anchoring market's expectations. Moreover, the Central Bank seems to react strongly to changes in inflation. However, there is also some evidence of exchange rate smoothing, which, as argued before, may be a symptom of FF "disguised" as IT (Ball & Reyes, 2004). The objective of this paper is to present empirical evidence regarding ERPT and FF practices in Brazil. Our sample also includes the period before IT was introduced, hence helping understanding the impact of this switch in monetary policy regime in an emerging market.

We use a dynamic inflation model in the line of those of Gagnon and Ihrig (2004) and Choudhri and Hakura (2006) to estimate ERPT before and after the regime change. We then use a structural VAR model to test for the reaction of international reserves and interest rates to changes in the exchange rate to show how IT has affected the foreign exchange market intervention suggested in the FF literature. The structural VAR model allows us to isolate primitive shocks to exchange rate and inflation and, hence, analyse the response of monetary policy to inflation and exchange rate shocks before and after IT. We also compare our results with those obtained from applying the methodologies developed by Calvo and Reinhart (2002) and Ball and Reyes (2004, 2008) to distinguish "true-floaters" from "dirty-floaters".

We conclude that ERPT has decreased substantially after IT. However, we argue that the Central Bank may still choose to smooth short-run exchange rate movements to attain its inflation target. This does not mean that the Central Bank does not allow the currency to adjust to a new long-run equilibrium following a shock, but that it will not let this movement interfere with the attainment of their inflation objectives. Furthermore, we show that interventions in the exchange are much milder than before IT. In fact, the results suggest that the adoption of IT meant a strong movement towards greater exchange rate flexibility for Brazil. Following this, we argue that possible interventions in the

[1] The accumulated depreciation in the first quarter of 1999 reached 42%. However, the inflation target set for the year was 8% (after an inflation rate of less than 2% in 1998), and the realised inflation was just around 9%.