11 Issues in the Adoption of an Inflation Targeting Framework in Brazil

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Since the 1980s there has been a growing consensus worldwide on the importance of price stability as the overriding long-term objective for monetary policy. This consensus stems in part from the fact that monetary policy can produce effects in the real economy only in the short run. Expansionary monetary policy may lead to higher levels of employment and economic activity, but only until businesses and workers start to react, adjusting their price and wage expectations accordingly. Thereafter the only result is higher inflation, with no output gains. More recently, empirical evidence has shown a negative correlation between high inflation and economic growth, suggesting that the best goal for monetary policy is to promote price stability.

Meanwhile the loss of public confidence in policy regimes that target monetary aggregates or the exchange rate has forced central banks to look for a more credible nominal anchor. Many have recently adopted explicit inflation targeting as their monetary policy regime. Now Brazil is joining the club: the Central Bank of Brazil intends to put in place a formal inflation targeting framework as rapidly as is feasible.

Macroeconomic Background

The stabilization program initiated in Brazil in mid-1994 successfully brought annual inflation down to single-digit figures in less than three years. This program included a wide range of economic reforms: many state enterprises were privatized; trade liberalization was deepened through reductions in import

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tariffs and elimination of nontariff trade barriers; prudential regulation of the financial system was updated; and unsound financial institutions were liquidated. Real output growth averaged 3.4 percent per year in 1994–98, although unemployment started to rise in 1997. Despite its success, the stabilization process involved a gradualist approach to many structural economic problems, which remained unsolved after several years. A much-needed definitive fiscal adjustment was continually postponed because a consensus on its urgency could not be reached in the congress.

Therefore Brazil remained vulnerable to a confidence crisis, which became a reality when the international financial turmoil that began in East Asia culminated in the Russian debt moratorium in August 1998. The resulting crisis of confidence generated massive capital flight from emerging markets. In response, Brazil raised short-term interest rates and announced strong fiscal tightening measures. At the same time, Brazil negotiated with the International Monetary Fund a preventive financial support package totaling $41.5 billion. The government was initially successful in implementing elements of the fiscal package, but market confidence continued to weaken in January 1999. This in part reflected concerns about the weak commitment of some large Brazilian states to adjusting their finances. Following strong pressures on foreign exchange reserves, on January 15 the Brazilian currency, the real, was allowed to float. The exchange rate averaged 1.52 reals to the dollar in January and 1.91 to the dollar in February, compared with 1.21 to the dollar before the change in regime. This led private analysts to foresee a huge deterioration in all macroeconomic fundamentals, but these projections were so exaggerated that they had to be reviewed less than two months later.

Inflation rose sharply until March. Wholesale prices (as measured by the IPA-DI/FGV) rose 7.0 percent in February, but only 2.8 percent in March; rates of consumer price inflation (as measured by the IPC-DI/FGV) were 1.4 percent and 0.9 percent in the same months. This deceleration in prices was mainly due to a reversal, at the beginning of March, of the exchange rate overshooting that had occurred during the crisis. After the initial excessive depreciation of the real, prices of tradable goods soared, but not in the same proportion. The pass-through to consumer prices was much less than could have been anticipated. Brazilian consumers had gotten used to stable prices, and when retail prices started to rise too quickly, the decline in demand was immediate. This reaction forced price negotiations between clients and suppliers, which resulted in a dilution of the devaluation effects throughout the production chain.

Economic activity in 1999 is now expected to recover sooner than projected a few months ago, with GDP declining by only 1–2 percent on average for the year. This reflects a pronounced downturn of activity in the second half of 1998,

and a likely further decline in domestic demand in the first half of 1999, which will be only partly offset by a recovery of net exports. The economic downturn is expected to bottom out around the second quarter, with a gradual recovery beginning thereafter and gathering momentum in 2000, as confidence recovers, external financing constraints are eased, and real interest rates decline.

The shift to a floating exchange rate will require a new nominal anchor for economic policy. Monetary policy, along with strengthened fiscal adjustment and a firm wage policy in the public sector, will be instrumental in preventing the recurrence of an inflationary spiral and ensuring a rapid deceleration of inflation. The consumer price index may still rise in the second quarter of 1999, but its rate of increase should then taper off, reflecting the firm stance of monetary policy and the absence of domestic demand pressures.

The depreciation of the real, through its impact on the external and foreign exchange–indexed domestic public debt, in particular, boosted the total public debt to 52 percent of GDP in March 1999. The government intends to steadily reduce the ratio of the public debt to GDP to less than 50 percent by the end of 1999, and to less than 46 percent by the end of 2001. This will be accomplished through higher-than-originally-targeted primary surpluses of the consolidated public sector in the next three years. The pursuit of this objective should also be helped by a decline of real interest rates, expected to result from the implementation of the inflation targeting framework, strengthened fiscal adjustment, and the move to a floating exchange rate regime. Projections of the debt-GDP ratio under plausible assumptions about GDP growth, real interest rates, and the real exchange rate suggest that primary surpluses of 3 percent of GDP in each year during the period 1999–2001 should be sufficient for this purpose.

Nevertheless, to build in a safety margin in the event the environment is less favorable than projected, the government has increased the targeted primary surplus to at least 3.1 percent of GDP in 1999, 3.2 percent of GDP in 2000, and 3.3 percent of GDP in 2001. The fiscal results for the consolidated public sector in the first two months of 1999—a primary surplus of 3.7 percent of GDP—far exceeded the objective.

Structural reforms will continue. Passage of the proposed Fiscal Responsibility Law will be given high priority. This law provides the backdrop for attaining the primary surpluses required to stabilize the debt-GDP ratio. The government also intends to accelerate and further broaden the scope of its privatization program, completing the privatization of the federal electric power generating companies and, beginning in 2000, the privatization of the transmission network. The legislative framework for the privatization or leasing of water and sewage utilities is being prepared.

Issues of Design and Implementation

Designing and implementing the inflation targeting regime requires addressing a number of technical issues, and several preconditions must be met if the regime is to be successful.

Defining Price Stability

Strictly speaking, price stability means that the *price level* remains constant, that is, that the inflation rate is zero. But this is not what economists and central bankers usually have in mind when they talk about price stability. Fischer (1996) argues that the government should pursue an average rate of annual inflation centered at 2 percent, with a tolerance interval of plus or minus 1 percent. Most of the industrial countries that have adopted inflation targeting aim at midpoints of 3 percent or less.

Inflation is socially undesirable, so why do central banks not pursue a zero inflation target? The main reason is the technical difficulty of measuring inflation with complete accuracy. Inflation rates calculated from consumer price indices are subject to an upward measurement bias, so that when measured inflation equals zero, actual inflation is negative. And because economists have well-justified fears of deflation, they typically consider it prudent to target a modestly positive rate of measured inflation. Theoretical reasons can also be found for erring on the positive side. When inflation is zero, real interest rates cannot be negative. But negative real interest rates can be a powerful instrument for economic recovery during a recession. Moreover, when nominal prices have downward rigidities, as is common with wages, a positive inflation rate allows real wages to decline after an unfavorable shock hits the economy, thus reducing the necessary adjustment costs.

Defining the Inflation Targeting Regime

An inflation targeting regime can be defined as a strategy for conducting monetary policy with the overriding and explicit objective of achieving and maintaining price stability, represented by an easily understandable, numerical target value for inflation. Given this target, the central bank is typically allowed flexibility to choose the combination of monetary policy instrument settings it judges most appropriate to achieve the objective, based on the most complete information available. These decisions are announced and explained to the public, thus increasing the transparency of monetary policy. As an obvious counterpart, the central bank is made accountable for attaining the inflation goal.

Preconditions for Inflation Targeting in Brazil

One of the crucial elements of a successful inflation targeting regime is the use of inflation forecasts as the main intermediate variable that guides decisions on instrument settings. In order to apply such a forward-looking procedure, the central bank must have adequate knowledge about the way the economy works. That is, it ought to be able to model the monetary policy transmission mechanism with, at least, a sufficient degree of accuracy to correctly assess inflationary pressures and the implications of consequent decisions for instrument setting. Therefore the central bank staff must have adequate technical skills to extract the correct signals from the available information.

However, the main challenges of inflation targeting are not technical, but rather relate to institutional and macroeconomic features. The basic precondition to implementing an inflation targeting regime is operational independence for the central bank in the conduct of monetary policy. Here, the word *independence* means that no factor other than inflation should condition monetary policy decisions. The presence of fiscal dominance, for example, is incompatible with instrument independence.

Brazil fulfills all the preconditions for adopting an inflation targeting regime. The Central Bank of Brazil already enjoys a high degree of operational autonomy. Since 1996 the Monetary Policy Committee, whose members are the central bank directors, has been solely responsible for setting basic short-term interest rates. This autonomy has been clearly confirmed at several critical moments. For example, after the Russian crisis in August 1998, the central bank did not hesitate to adjust interest rates upward, even though a presidential election campaign was under way. Fiscal policy had to be adjusted accordingly, given the immediate rise in interest payments on the public debt. This provided strong evidence of "monetary dominance" rather than fiscal dominance.

The government has a broad revenue base—total public sector receipts exceed 30 percent of GDP—and hence does not depend on seigniorage. Domestic financial markets are sophisticated and deep enough to finance the public debt on their own. Nonetheless, it is recognized that the nominal fiscal deficit should be reduced, and this is exactly what the fiscal adjustment program mentioned above intends to accomplish. The first results for 1999 have shown that the proposed fiscal targets are achievable and that the government's determination to achieve them is indisputable.

Today, Brazil has a floating exchange rate regime; therefore monetary policy can be used for the sole purpose of hitting the inflation targets. In addition, the change in the exchange rate regime proved to be less traumatic than initially expected. The exchange rate is already returning to a stable equilibrium,

and estimates of consumer price inflation for 1999 are below 10 percent, far less than previously expected.

A Proposal for Brazil

As there are presently no indications of an inflationary process in Brazil, a gradualist disinflation strategy is not recommended: consumer price inflation should return to its 1998 level (1.7 percent) as soon as the relative price realignment is complete. Thus it is not only possible but also desirable for the government to set a low inflation target to be achieved in 2000. The combination of very high domestic interest rates, fiscal tightening, and the floating of the currency may lead to negative output growth in 1999. Conditions are now very favorable for bringing down interest rates while at the same time achieving lower inflation and higher output growth.

Although Brazil is in a transition period toward a steady state, it should set either a target ceiling for inflation or a target that is surrounded by an asymmetric tolerance interval. Thus, for 1999, our estimates indicate that a reasonable target value is an inflation rate, in terms of the full consumer price index, of 10 percent, which is high enough to provide room for the realignment of relative prices. The target for 2000 should be around 5 percent, with a tolerance interval of plus or minus 2 percentage points. These are only tentative numbers, but they are in line with both the accumulated inflation already verified in 1999 and the official pronouncements of the finance minister since the floating of the real. Both targets should be announced simultaneously by mid-1999.

There is a near consensus that targets should be set in terms of the inflation rate, not in terms of the price level. The targets should be set by the finance minister in a first implementation scheme. The central bank will then be accountable to the finance ministry for hitting the target. Any failures will have to be publicly justified in an open letter.

There will initially be a tolerance interval of 2 percentage points around the established target. This range is justified by the forecasting ability of the different models during the initial inflation targeting period, and it accounts for uncertainties about the structural changes that will result from the new arrangements. An effective public communication process will be established so that Brazilian society will be able to understand and monitor the decisions of the central bank and know the reasons why forecast and accumulated inflation are deviating from the target, should that occur.

The central bank will consider a mix of models as it looks for an adequate reaction function and produces inflation forecasts and their probability distri-

butions. Decisions about monetary policy should be made on the basis of the broadest information set available, including indicators of private sector perceptions about the expected path of economic variables, information about variables outside the model, information about leading indicators, and any other judgmental knowledge that will help in predicting inflation.

As to the choice of a price index, there is no doubt that Brazil should target a rate of consumer price inflation, not only because it is a good measure of welfare, but also because it is already well known and easily understood by the public. There are, however, different consumer price indices regularly published in Brazil. A good choice might be the IPC-DI, published by the Fundação Getúlio Vargas, an independent institution whose credibility is unquestioned. Other indices, such as the IPCA and the INPC, would be even more appropriate, because they cover a wider range of cities and incomes. But they have some important disadvantages: they are calculated by a government institution (the Instituto Brasileiro de Geografia e Estatistica, the government's statistical institute), and they lack a regular publication schedule.

Another important issue is whether to target the full or "headline" inflation rate or some measure of core inflation. Technically, the best approach would be to purge some items from the full price index, to eliminate the effects of temporary and once-and-for-all shocks. Failure of the full index to abstract from these effects may worsen the medium-term inflation path, threatening the success of monetary policy. But reasons of credibility make adoption of a full index essential. Unfortunately, Brazilian society has witnessed several manipulations of price indices, both in the relatively distant past and more recently, and therefore would be suspicious about any suggestion to suppress items from the target index.

The Monetary Policy Committee will be responsible for setting values of monetary policy instruments, especially short-term interest rates. The formal arrangements will essentially remain unchanged. The committee will meet at regular five-week intervals, and decisions will be made by majority vote. These decisions will be announced immediately after the meeting, together with a press release explaining briefly the reasons for the decisions. The minutes of the meetings will be published 15 days thereafter.

Finally, an inflation report will be published quarterly, discussing the main issues related to the performance of the inflation targeting regime. The report will include detailed explanations of the results of past decisions as well as prospective analyses, with special emphasis on the assumptions made in the forecasting process that generated the monetary instrument decisions. Minutes of previous Monetary Policy Committee meetings will be included as well.

Reference

Fischer, Stanley, 1996, "Why Are Central Banks Pursuing Long-Run Price Stability?" in *Achieving Price Stability* (Kansas City, Missouri: Federal Reserve Bank of Kansas City).