Monetary Regimes and Inflation Targeting

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Inflation targeting—a framework for monetary policy that commits the central bank to achieving low inflation—has enjoyed considerable success among industrial countries in helping to maintain price stability. Developing countries may also benefit from this approach, which enhances transparency and compels policymakers to deepen reforms.

BACKED BY experience and strong empirical support, academics and policymakers alike agree that high inflation (and its associated high variability) distorts decisions private agents make about investment, saving, and production and ultimately leads to slower economic growth. As a consequence, during the last 15 years or so, a growing number of countries have granted institutional independence to central banks and statutorily committed them to aim monetary policy primarily at achieving some form of price stability.

Rules versus discretion

After years of high inflation, the world entered a period of price stability in the 1990s, not only in the industrial world but also in developing countries. Central banks have helped this favorable trend by moving increasingly toward announcing the future course of key nominal variables as a way to influence inflationary expectations. Such *announced* intermediate targets (or rules) help improve policy credibility by limiting the central bank's incentive to exploit short-run trade-offs between output movements and inflation, which could otherwise give rise to an inflationary bias. Operationally, the relevance of these intermediate targets is twofold: they prevent domestic or external shocks from leading to permanently higher inflation; and they make the long-term commitment to price stability more concrete. In short, these targets act as nominal anchors, committing central banks to implement consistent policies, while providing a transparent yardstick the public can use to monitor policy implementation.

Targeting the exchange rate or monetary aggregates?

Traditionally, intermediate targeting has involved a preannounced exchange rate rule or targets for a specific monetary aggregate. Under the exchange rate rule, monetary policy is severely limited, because it is directed only at the exchange rate, thus constraining the ability of the central bank to respond to domestic or external shocks. By contrast, for countries with flexible exchange rate arrangements, monetary aggregates become the intermediate target for monetary policy. This type of regime is commonly referred to

as *monetary targeting*. Under this system, the central bank moves its instruments (for instance, interest rates) to control monetary aggregates, which are considered the main determinants of inflation in the long run. Thus, controlling monetary aggregates would be equivalent to stabilizing the inflation rate around the target value. Obviously, the ability of monetary aggregates to function effectively as intermediate targets is based both on the stability of their empirical relationship to the goal variable (the inflation rate) and on their relationship to the instruments of monetary policy.

While most developing countries adopted some form of exchange rate targeting following the breakdown of the Bretton Woods arrangement in the mid-1970s, two-thirds of these countries currently follow more flexible exchange rate arrangements. Nevertheless, a number of developing and transition countries continue to maintain fixed or quasi-fixed exchange rates, and some previously high-inflation economies (for example, Argentina since 1991 and Brazil during 1994–98) have effectively used pegged rates to reduce inflation quickly. However, with the growing integration of world capital markets over the past two decades and the increased volatility of capital flows since the 1992 European Monetary System (EMS) crisis, and especially after the more recent financial crises in Asia and Latin America, the conditions for maintaining a fixed exchange rate system have become much more demanding. As a consequence, developing and transition economies that still maintain a fixed exchange rate as a nominal anchor for monetary policy are coming under mounting pressure to move either toward more flexible arrangements or to the other extreme of the spectrum, such as currency boards or full-fledged dollarization.

Industrial countries—with the notable exception of EMS members in their arrangements with each other—have traditionally favored more flexible exchange rate arrangements in the post–Bretton Woods era, with the majority opting for some kind of monetary targeting regime. However, during the 1980s, countries' experience with monetary targeting became unsatisfactory. As financial institutions developed money substitutes, the demand for money became increasingly unstable, and it became apparent that, although highly correlated in the long run, money and inflation were not sufficiently correlated in the short run. As a result, in the early 1990s, several Organization for Economic Cooperation and Development countries—first New Zealand, then Canada, Israel, the United Kingdom, Australia, Finland, Spain, and Sweden—adopted explicit *inflation targeting* as a strategy for conducting monetary policy.

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Operational aspects of inflation targeting

Inflation targeting is a monetary policy framework that commits the central bank to achieving low inflation. The process usually starts with a joint public announcement by the central bank and the government (usually the ministry of finance) of an explicit quantitative target for inflation to be achieved during a specified time horizon—for example, 2 percent inflation a year during the following two years. Then, the central bank—which must be free to choose how it will set its instruments ("instrument independence")—is responsible for achieving this target and should provide regular public information about its strategy and decisions. This commitment to transparency helps reduce uncertainty about the future course of monetary policy while enhancing central bank credibility and accountability.

Inflation targeting has been described in the literature as a "framework for conducting monetary policy under constrained discretion." It relies on rules, since the adoption of explicit targets requires a commitment by the central bank to policy consistency. At the same time, it leaves at the central bank's discretion the decision about how to deploy its instruments, which allows for some flexibility in responding to unforeseen domestic and external shocks.

A typical inflation-targeting central bank sets its instruments—say, interest rates—today at a level that will bring inflation forecasts—for, say, inflation one or two years ahead—close to the inflation target at that future time. Inflation forecasts act as an intermediate target; the discrepancy between the forecast and the inflation target prompts policy choices to close the gap. This forward-looking approach is obviously desirable, given the long and variable lags between changes in the monetary instruments and their impact on the ultimate policy goal. By contrast, responding to past or current inflation would imply that policy is always reacting too late, increasing the likelihood of greater variability of inflation and output.

In practice, the central bank usually decides on the future course of monetary policy after assessing the information provided by a number of indicators, such as inflation forecasts provided by structural macroeconomic models, forecasts produced by more mechanical approaches—like vector autoregressive models—and surveys of market-based inflation expectations. The monetary authorities also consider developments in key monetary and financial variables, such as money and credit, the term structure of interest rates, asset prices, and labor market conditions. To the extent that more than one of these indicators suggest that future inflation is likely to exceed the

target, the need to activate instruments becomes more evident.

Transparency under inflation targeting

Monetary policy is more efficient when markets understand policy objectives and the links between monetary policy measures and these objectives. Also, transparency plays a key role in conveying to market participants the idea that central banks are accountable for their results, which, in turn, has the potential of increasing discipline in policy design and implementation. To the extent that policy objectives, including intermediate targets, are publicly announced, transparency is also present under monetary targeting. However, proponents of inflation targeting claim that their approach maximizes transparency and open communication. For one thing, it is easier for the general public to understand the explicit announcement of inflation targets than the growth rate of particular monetary aggregates. Also, since the costs of inflation arise not only from its level but also from its variability, explicit inflation targets, by reducing uncertainty about the future course of inflation, improve saving and investment decisions, thus enhancing overall productivity. In addition, clarifying the central bank's intentions may help reduce volatility in financial markets, with the attendant beneficial effects of lowering risk and exchange rate premiums.

Obviously, central banks can build credibility when they establish a good track record by hitting the announced inflation targets. In this context, all central banks engaged in inflation targeting release periodic monetary policy reports, or *inflation reports*, indicating central banks' intentions for the future course of monetary policy, as well as explaining discrepancies between actual and targeted inflation rates. To improve the public's understanding of the central bank's reasoning, these reports also contain a description of how inflation forecasts are generated (including an assessment of upside and downside risks), as well as an indication of how the central bank would react to a relevant set of contingencies. This advance notice reduces the likelihood that the central bank's reaction to these contingencies will be misunderstood.

Additional implementation issues

Implementing inflation targeting requires the authorities to make several key decisions. First, they need to establish which *measure of inflation* to use. The two natural options are the consumer price index (CPI) and the GDP deflator. Although the latter measure is appealing because it more fully reflects the notion of "domestic" inflation, the CPI has clear operational advantages: it is the index most familiar to the public; it is usually available on a monthly basis and in timely fashion (and thus can be monitored regularly); and it is seldom revised. An additional and important issue is whether monetary policy should target all movements in inflation, or whether short-term fluctuations that are considered exogenous should be excluded. Most inflation targeters focus on the underlying or core inflation. This measure excludes from the CPI items subject to idiosyncratic price changes arising from supply shocks, such as energy and food (a few countries have also excluded onetime price changes originating from increases in administrative prices and in indirect taxes). Adopting a target for core inflation implies that monetary policy would accommodate only the first impact of these price increases, but not second-round effects resulting from the wage-price spiral.

The second issue is to decide on the *target level* of inflation. Most low-inflation industrial countries have chosen inflation targets of 1–3 percent. It is generally recognized that higher inflation rates have adverse effects on growth and may generate welfare and efficiency costs as well. But an inflation target of zero is not desirable either. For one thing, the presence of downward rigidities in nominal wages and prices would call for a positive rate of inflation to allow for needed changes in real wages and other relative prices. Zero inflation targets would also leave no room for real interest rates to become negative during the business cycle, if this were required. Indeed, the recent Japanese experience indicates the need for achieving negative real interest rates to stimulate aggregate demand. Certainly, one of the advantages of inflation targeting is that it can prevent deflation by offsetting the effect of systematic, negative shocks to aggregate demand. In this sense, this regime treats inflation and deflation symmetrically: monetary policy should become more restrictive (expansionary) if actual inflation is systematically above (below) the inflation target.

A third issue is whether to adopt an *inflation target point* or *target ranges*—that is, inflation targets with predetermined ranges or tolerance bands. Owing to the difficulties in predicting inflation, as well as the uncertainty surrounding the precise time frame of the monetary transmission lag, point targets are more likely to be missed, with the attendant cost to credibility. Also, point targets may require greater fine-tuning of monetary policy to minimize the probability of their being missed.

Target ranges, on the other hand, require a decision about the band width. Bands that are too narrow suffer from the same drawbacks as target points. But bands should not be too wide either, because as the probability of compliance increases with the band width, the usefulness of the targets to affect expectations decreases. Despite these problems with target ranges, however, with only a few exceptions, central banks using inflation targeting have selected them over target points.

The fourth issue is the choice of *policy horizon*—that is, how fast the decline of the target path should be. In practice, if the initial level of inflation is much greater than desired, then the speed with which policy moves inflation toward the target depends on an assessment of the transition costs of disinflation. A gradual approach to disinflation may be preferable in the presence of long-term contracts, lagged adjustment of inflation expectations, and lack of full credibility. At the same time, the need to break up the inertia of inflation expectations and build up credibility would suggest

a more rapid disinflation. Naturally, if the inflation rate is already near optimal levels, the policy framework should aim at maintaining it indefinitely.

The record of inflation targeting so far

To date, the inflation performance of inflation targeters among industrial countries appears promising. Indeed, the focus on price stability has contributed to a remarkable convergence of inflation rates among these countries. To be fair, the generally benign international economic environment in recent years and the process of international integration have contributed, in part, to this convergence. It is not clear whether these developments, by themselves, will continue to ensure a continued low inflation trend, and some observers say that inflation targeting has not yet been tested over a full business cycle. However, inflation targeters have had to deal with many disturbances, including the Asian crisis and large current account deficits. The recent increase in oil prices is another hurdle that these countries appear to be addressing effectively.

Issues relevant to developing countries

The promising experience of inflation-targeting pioneers, as well as a number of failed experiences with exchange rate anchors in Asia and Latin America, has persuaded some developing countries to adopt a similar strategy to tame inflation, enhance credibility, and anchor expectations. In Latin America, Brazil, Chile, Colombia, and Mexico have all abandoned their exchange rate targets or bands and moved to a floating exchange rate regime. Each of these countries—along with other emerging economies, including the Czech Republic, Poland, South Africa, and, more recently, Thailand—conducts monetary policy through a more or less formal process of inflation targeting. Although most of these countries have been under the framework for a short time, the record is encouraging so far, as emphasized by participants attending a recent high-level seminar on implementing inflation targets (for details, visit the IMF's website at ***www.imf.org/external/pubs/ft/seminar/2000/targets/index.htm***). For example, after a huge depreciation of its exchange rate at the beginning of 1999, Brazil's inflation was less than 9 percent for the year and is projected at about 8 percent in 2000. Chile and Israel had similar experiences; both countries adopted the inflation-targeting framework in the early 1990s when their annual inflation rates were nearly 20 percent. The scheme was implemented gradually and flexibly in both countries, helping to reduce inflation to international levels without incurring substantial output costs.

Inflation targeting can benefit developing countries in many ways, by providing a coordination device for inflation expectations as well as a yardstick of accountability for central banks. But developing countries have specific problems that can make inflation targeting more difficult for them to implement than it is for industrial countries. First, because many developing countries still have relatively high rates of

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inflation, it is more difficult to predict future inflation accurately. As a consequence, the likelihood of missing inflation targets is higher than in more developed countries. Second, the degree of pass-through from exchange rate changes to prices (which tends to be higher in developing countries) and widespread explicit or even implicit indexation mechanisms lead to considerable inflation inertia. Third, one of the prerequisites for inflation targeting is commitment to no other nominal target. Because many developing countries have a sizable share of assets and liabilities denominated in foreign currencies, large exchange rate movements may have serious adverse effects on inflation. Fourth, in many developing countries, central bank independence is more a statutory than a de facto situation, because its decisions are still governed primarily by the need to finance the fiscal deficit, and some fiscal dominance still persists. Many developing countries have significantly lowered their central government's fiscal deficit, but some still have contingent liabilities—involving obligations incurred by local governments and public enterprises, or arising from quasi-fiscal deficits—that threaten the consolidated public sector's fiscal stance. Under these circumstances, central banks might hesitate to raise interest rates for fiscal reasons, although they would be required to do so to contain inflation. Finally, some developing countries may encounter difficulties in meeting the sophisticated information requirements needed for inflation forecasting (for example, reports on leading indicators and reliable econometric models).

Despite these problems, the inflation-targeting approach appears to be promising for developing countries. It offers a number of operational advantages and it compels policymakers to deepen reforms, enhance transparency, and improve the fiscal stance; it also holds out the promise of eventual convergence to international levels of inflation. F&D