

II. INFLATION TARGETING IN TRANSITION ECONOMIES: SOME ISSUES AND EXPERIENCE

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With increasing mobility of international capital flows, pegging exchange rates is becoming an increasingly challenging task, and many countries are now adopting inflation targeting as a monetary policy framework. This trend can now be observed in transition economies as well. In 1998, the Czech Republic was the first transition economy to begin inflation targeting. Poland joined later, and other advanced transition economies may follow suit. This chapter discusses some issues of inflation targeting in transition economies and various reasons why inflation targeting could be an attractive option for these countries. It also discusses conditions for successful inflation targeting and to what extent these conditions are met in transition economies. The chapter then considers operational issues of inflation targeting and how the Czech Republic and Poland have dealt with these. It also addresses in more detail the matter of disinflation and the role of central banks and governments in deciding its speed, as well as the merits and problems of opportunistic inflation. The final section makes a brief assessment of inflation targeting in the Czech Republic and Poland and concludes that while inflation targeting in transition economies would be more difficult than in advanced economies, it could still deliver important benefits.

A. Introduction

On May 27, the Czech National Bank (CNB) decided to abandon the exchange rate band and allowed the currency to float freely. After several months during which monetary policy has been conducted without any formal policy framework in place, the CNB announced in December 1997 that it would start implementing inflation targeting. The Czech Republic thus became the first transition economy that joined a small but fast growing club of countries in which monetary policy is being implemented by directly targeting its ultimate objective, price stability. In September 1998, Poland also adopted inflation targeting as a framework for monetary policy. Slovakia, which has abandoned a fixed exchange rate in 1999 and has now a managed float, is also discussing inflation targeting that could well become an option for other advanced transition economies.

There is a growing literature dealing with the issues of inflation targeting in both developed and developing economies. This chapter will focus on the aspects of inflation targeting that may be of most interest to transition economies, using as a reference the experience of the Czech Republic, and to some extent of Poland. Transition economies as a group face certain unique tasks that have implications for monetary policy generally, and for inflation targeting specifically. These include, among others, the stabilization from high or moderate to low inflation, the deregulation and liberalization of prices, opening of the economies to international trade and capital flows, and restructuring of large segments of the economy that have become inviable under the market system.

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In the second section, we will discuss the reasons that led to the decision to introduce inflation targeting in the Czech Republic and that may prompt other transition countries to follow. In the third section, we will discuss the preconditions for successful inflation targeting and the extent to which they are met in advanced transition economies. The fourth section deals with problems facing the inflation targeters in deciding on operational features of inflation targeting and how these problems were addressed in the Czech Republic and Poland. In the fifth section, we will discuss some issues that concern inflation targeting during disinflation. In the sixth section, we ask whether inflation targeting countries should use the so-called opportunistic disinflation. The final section examines the experience with inflation targeting in transition countries thus far and offers some conclusion.

B. Why Inflation Targeting

Just as financial innovations in the 1980s wreaked havoc with targeting monetary aggregates, increasing capital mobility in the 1990s has forced many countries to abandon a fixed exchange rate as a nominal anchor. Though not without its own problems, inflation targeting now appears to be an attractive alternative to many countries, including transition economies.

The Czech Republic was the first transition economy to introduce formal inflation targeting. It was not a deliberate decision. In May 1997, the currency was subject to a strong speculative attack, and the Czech National Bank (CNB) was forced to abandon the fixed exchange rate (with a large fluctuation band). After the exit from the peg, there was no formal monetary policy framework. The CNB did not want to leave expectations of future inflation and exchange rate unanchored, and during the year, it announced publicly several times what inflation it expected at the end of 1997. However, it was clear that public announcements of its expectations did not constitute a sufficiently robust and credible nominal anchor and that a more formal framework for monetary policy conduct had to be put in place. After analyzing different options, the CNB decided in December 1997 that in the future, monetary programs would be formulated on the basis of inflation targeting.

There were several reasons why the CNB decided to choose inflation targeting.² First, after the May 1997 financial crisis, it was not feasible to return to a fixed exchange rate. The experience of the Czech Republic has shown that with a largely liberalized capital flow, it is not possible to pursue exchange rate and inflation objectives at the same time. Furthermore, while it helped to stabilize inflation from a high to a moderate level, the fixed exchange rate did not suffice to bring inflation down from a moderate to a low level. In fact, because of the Balassa-Samuelson effect, it is possible that a nominally stable exchange rate would become an obstacle to lower inflation. Second, using monetary aggregates as an intermediate target did not seem feasible either. The experience has shown that the traditional problem of instability of money demand, and therefore an unstable relationship between money growth and inflation, is an equally serious obstacle to targeting monetary aggregates in transition economies. The process of transition is characterized by

² See Hrnčář and Šmidková (1998).

a sequence of price shocks, including corrections in administered prices and tax reforms, which make the relationship between the money supply and price level very difficult to predict. The instability of money demand and the money-price relationship is further exacerbated by far-reaching changes in the financial sector, including deep institutional changes, and the emergence of new types of financial assets and players. Therefore, relying solely on regulating money growth in conducting monetary policy would be extremely difficult. Most important, this approach is not likely to be very effective in reducing inflationary expectations. Similar objections also apply to using nominal GDP as an intermediate target. The relationship between monetary policy instruments, nominal GDP, and the price level are even less stable than between monetary aggregates and the price level.

The CNB could have also applied a “just-do-it” approach to monetary policy, in a similar way as the U.S. Federal Reserve has done.³ Given the difficulty of establishing a more stable relationship between some intermediate target and price level, some may think that a less formal approach to monetary policy would be advisable. However, while this approach may work in countries whose central bank has well-established, anti-inflationary credibility and where inflation is low, it is doubtful that this method would work equally well in the Czech Republic and other transition economies. For several years, inflation remained quite high in the Czech Republic, and after the introduction of a float in mid-1997, inflationary pressures further increased. The “just-do-it” approach to monetary policy probably would not be very effective in bringing inflation expectations and actual inflation down. Public announcements by the CNB about its expectations of future inflation would also probably not suffice to anchor inflation expectations and persuade economic agents that monetary policy would be actually conducted with the aim to achieve the announced inflation. Moreover, there would be little basis to assess continuously whether the CNB is implementing monetary policy so as to ensure that this announced rate of inflation is actually achieved.

There was some criticism of the CNB when inflation targeting was introduced. Some analysts and politicians had argued that reducing inflation is not a high priority for a transition economy and that the Czech economy could and should accept for a while somewhat higher inflation. However, there is one important additional reason why inflation should be reduced and why targeting inflation may become an attractive choice for the more advanced transition economies: the intention to join the European Union (EU) and eventually the European Monetary Union (EMU). While no Maastricht-type criteria are required for joining the EU, participation in the EMU requires that applicants first join the exchange rate mechanism (ERM II) that allows only a ± 15 percent fluctuation of their currency vis-a-vis the euro. Arguably, this is quite a wide band. But without reducing inflation sufficiently close to the EU level at the time of joining the ERM II, there is a risk that large inflation and interest rate differentials could entail larger exchange rate instability than that permitted by the ± 15 percent fluctuation band. Therefore, for transition economies that would like to join the EMU,

³ This seems to be the implicit conclusion of those who have criticized the adoption of inflation targeting in the Czech Republic.

a clear target for disinflation will be required, and formalizing inflation targets could facilitate their achievement.⁴

For these reasons, inflation targeting seemed to be an attractive option to the Czech Republic and could also be one for other transition economies. By explicitly committing itself to achieving a certain inflation target over a medium-term horizon, and by establishing firm rules for how monetary policy will be conducted to ensure that this target is met, central banks could more effectively affect inflationary expectations and reduce inflation. The question remains, though, whether transition countries are ready for inflation targeting.

C. Preconditions for Inflation Targeting

Inflation targeting is technically more demanding than other monetary policy frameworks, even though it may not pose similar difficult policy dilemmas, such as a nominal exchange rate policy. In the literature, several preconditions have been identified that must be met if inflation targeting is to be successful.⁵ These include an achievement of reasonably low inflation,⁶ public support to price stability, a sufficiently independent central bank which has a clearly defined objective of achieving and/or maintaining price stability, absence of other nominal objectives like a pegged exchange rate, absence of fiscal dominance (i.e., absence of risk that monetary developments and inflation will be affected by fiscal developments), developed financial markets that allow nonmonetary financing of eventual government borrowing, well-developed money markets to allow monetary policy instruments to affect sufficiently quickly and robustly monetary conditions and inflation, and the capacity of the central bank to model and forecast inflation.

Admittedly, some of these conditions are not yet fully satisfied in the Czech Republic, Poland and other transition economies that may consider adopting inflation targeting. Even so, it could be argued that successful implementation of inflation targeting in the most advanced transition economies is feasible. Several considerations are discussed below.

First is the rate of inflation in advanced transition economies. As can be seen from Figure 1, advanced transition economies have achieved a significant reduction of inflation during the 1990s. For example, inflation in these economies is close to or lower than inflation in Chile or Israel at the time they adopted inflation targeting. Generally, both politicians and the general population have been supportive of price stability—of course, with occasionally different views about the exact

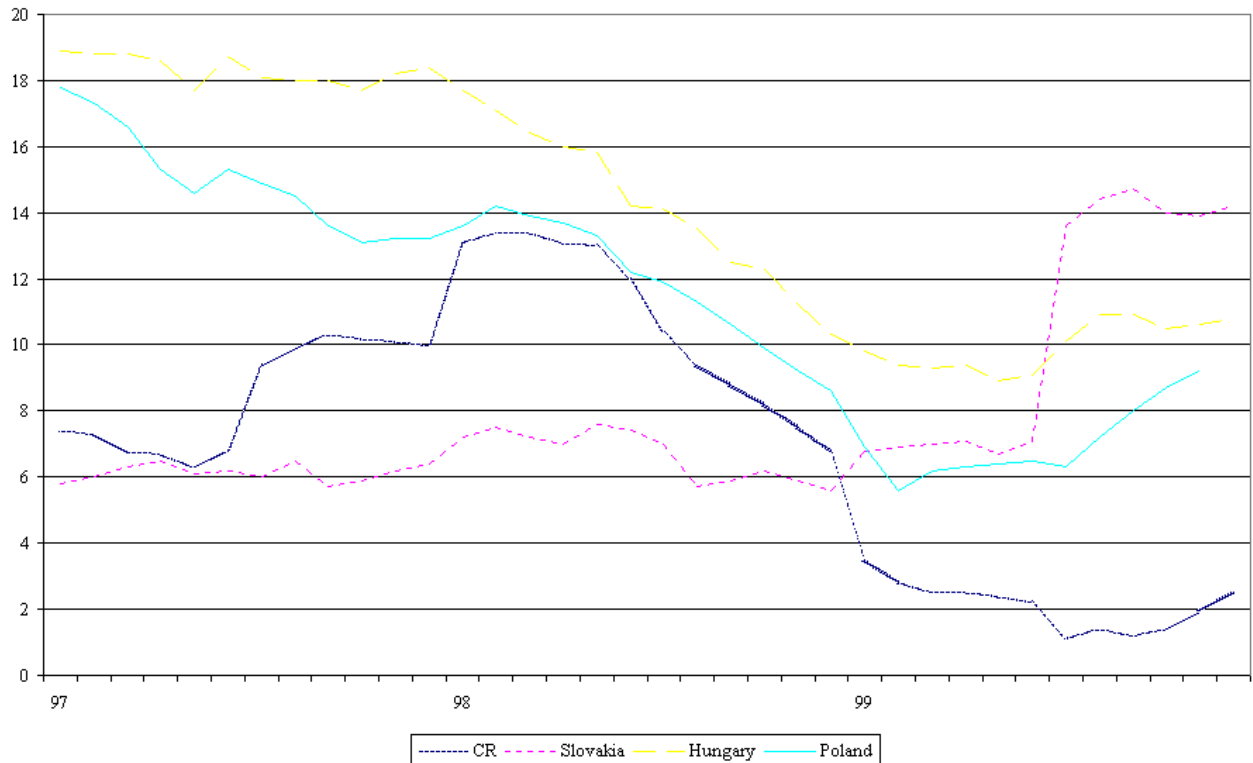
⁴ In the literature, some concern was expressed about the feasibility of simultaneous convergence of inflation in transition economies to the EU level of inflation and observance of exchange rate stability prescribed by the ERM II mechanism. See Masson, P.R. (1999).

⁵ See Masson, Savastano, and Sharma (1997).

⁶ It is not clear, though, what is the maximum level of inflation compatible with the adoption of inflation targeting. We return to this issue below.

definition of price stability or the speed with which it should be achieved. But the most advanced transition economies are no exception to the worldwide trend of pursuing price stability as a worthy objective of economic policy.

Chart 1: Selected Transition Economies: Consumer Price Increase (in %)



Second, closely related to the above issue, central banks in the most advanced transition economies are sufficiently independent to be able to pursue the inflation objective without the risk of undue interference from the government. In the Czech Republic, the CNB has only one objective, to ensure the stability of the currency. It does not pursue other nominal targets that could be potentially conflicting. Similar provisions apply to the National Bank of Slovakia. In Poland, the National Bank of Poland (NBP) has a basic objective to maintain price stability, and while it should at the same time support government policies, it should only do so insofar as such action does not limit the pursuit of its basic objective.

In Hungary and in Poland, some problems for inflation targeting may arise with respect to the exchange rate regime. In Poland, the crawling exchange rate band could theoretically be inconsistent with an inflation target. However, the band is reasonably wide, ± 15 percent, and the authorities eventually intend to allow the currency to float. In Hungary, the problem is that the central bank is required to maintain both internal and external stability of the currency, but it does not have the freedom to change the exchange rate regime or its level. However, the authorities for

the time being intend to keep a crawling peg, with gradual deceleration of the pace of crawl to guide inflation expectations and inflation downward.⁷

As for fiscal policy and seignorage, there is little risk of fiscal dominance of monetary policy in transition economies. Central banks in the most advanced transition economies are not allowed to provide direct financing to the government. The Czech Republic has a tradition of prudent fiscal management, and fiscal dominance does not present a problem. Also in Hungary and Poland, fiscal deficits are reasonably moderate and do not require monetary financing that would compromise inflation targets. In Slovakia, fiscal deficits were recently quite high and rising, but the new government is now taking steps to bring deficits down to a more sustainable level. Furthermore, while somewhat larger than in advanced economies, seignorage is not a major source of government revenue in the most advanced transition economies (see Table 1). Financial markets are reasonably well developed and could thus serve as a source of financing of moderate government borrowing needs, without a resort to money printing that would endanger inflation targets.

Table 1. Selected Transition Economies: Seignorage and General Government Balance 1/

	Seignorage			General Government Balance		
	1996	1997	1998	1996	1997	1998
Czech Republic	-3.9	5.9	0.2	-1.2	-2.1	-2.3
Hungary	2.1	2.8	1.1	-3.1	-4.6	-4.6
Poland	1.6	2.6	1.4	-3.3	-3.3	-2.6
Slovak Republic	1.1	1.1	0.8	-1.3	-5.2	-6.0
Advanced economies	0.4	0.3	x	-2.5	-1.3	x

Sources: IMF; data for advanced economies from Masson (1999).

1/ Seignorage equals a change in base money divided by nominal GDP; general government balance is in percent of GDP.

Fourth, money markets are also reasonably well developed in the Czech Republic, Poland and other advanced transition economies, and could therefore serve as an effective instrument of transmission of changes in short-term interest rates to the economy and price level.

⁷ On December 30, 1999, Hungarian Minister of Finance Zsigmond Jarai said that the monthly depreciation rate of parity vis-a-vis the euro will be reduced from the current 0.4 percent to 0.3 percent in April 2000, and to 0.2 percent in the second half of the year. In 2001, the crawling peg regime should be phased out and the currency should be fixed to the euro. See Chase Manhattan Global Market Brief, December 30, 1999, page 4.

Probably the weakest spot of inflation targeting is the limited capacity of transition economies to forecast inflation. It is argued that successful inflation targeting requires a capacity of the authorities to forecast relatively accurately inflation. This seems obvious, given the fact that the inflation forecast serves as an intermediate target in inflation targeting regimes. However, in transition economies, forecasting inflation (or any other economic variable) is an inherently difficult task.⁸ The reason is simple. Transition economies have a relatively brief history as functioning market economies in which prices are free from the control of central planners. At the end of the 1990s, transition economies still had a history of as functioning market economies that were shorter than 10 years. Furthermore, due to large structural changes that are typical for the process of transition, the relationship between changes in price level, money, wages, exchange rate, and other economic variables is fairly unstable. Therefore, it is difficult to estimate a structural model of the economy that would allow predicting future inflation with a sufficient degree of accuracy.⁹ More than usual, in transition economies, the past is a very poor guide to future.

Does the lack of a robust relationship between monetary policy instruments and inflation represent an insurmountable obstacle to inflation targeting in transition economies? Not necessarily. But besides making inflation targeting more difficult, this lack of a strong relationship between monetary instruments and inflation does make missing targets more likely. It also makes the ability of central banks to credibly explain the reasons for missing the targets more important.

The CNB was well aware of these difficulties when introducing inflation targeting. Initially, it decided to use different methods of creating inflation forecasts, relying more on informal methods of generating these forecasts, including expert estimates, while at the same time developing and testing a small macroeconomic model to be used in generating a more formal inflation forecast.¹⁰ In May 1999, the CNB began to conduct regular measurements of inflation expectations in financial markets, using the most liquid segment of the market, the interbank deposit market.¹¹ It can be expected that as the period of large structural changes ends, and as the structure of the economy stabilizes, it would be possible to generate more precise medium-term inflation forecasts than those produced by using less formal methods.

⁸ For a discussion of this issue in the case of Poland, see Christoffersen and Wescott (1999). For Hungary, see International Monetary Fund (1999), Chapter IV. Both publications can be found on the IMF external web site: <http://www.imf.org/external/pubind.htm>.

⁹ The difficulties in forecasting inflation are further multiplied by changes in the exchange rate regimes, for example, by the introduction of a float in the Czech Republic in 1997.

¹⁰ The problems of modeling inflation in the Czech Republic are discussed in more detail in Stavrev (1998).

¹¹ A preliminary analysis of results of measuring inflation expectations is reported in Czech National Bank (1999b), p. 4.

To be sure, there is a risk that an imperfect ability to generate inflation forecast could result in missing inflation targets by a large amount, which could damage the reputation of the framework. There is even a possibility that it could result in inadequate monetary policy response that could be damaging to the economy. However, these risks are to be weighed against the difficulties that the policy makers in transition countries would be facing under different monetary policy regimes. For example, it is not at all clear that central banks in transition economies would find it much easier to achieve monetary targets, and even if they did, large shifts in velocity produced by monetization and financial innovations would make the relationship between money aggregates and inflation less solid than the monetary policy makers may wish.

Alternatively, due to large shifts in money demand, pursuing a rule-based policy of constant money growth could produce excessive instability in the real economy. No monetary policy framework can do away with these inherent uncertainties in transition economies.¹² However, transparency and accountability of inflation targeting framework can provide a better guidance to economic agents about what inflation target a central bank is trying to achieve, and how it will proceed in conducting monetary policy in cases where projected (or expected) inflation deviates from targeted inflation. Given the inherent difficulties of inflation targeting in transition economies, doubts will certainly remain whether this framework could produce generally lower and more stable inflation than other monetary regimes. However, there are good reasons to expect that as a minimum, it should produce lower and more stable inflation expectations, and permit less costly disinflation and achievement of price stability.

D. Operational Features of Inflation Targeting

There are several operational issues that have to be decided before a country adopts inflation targeting. First, price stability has to be defined and quantified. In cases where actual inflation is higher than an inflation rate that corresponds to price stability, the time horizon during which price stability should be achieved must be chosen, and the path of disinflation specified. Second, the price index to target must be chosen—whether it is to be an indicator of headline inflation or an indicator of underlying inflation. Third, a choice must be made whether to target a range or a single numerical value of inflation, and how wide the eventual band should be. Fourth, a strategy of communication with the public must be put in place by inflation targeting central banks, in order to keep the public informed about central banks' evaluation of the economic situation, inflation projections, and policy intentions. Fifth, it should be decided how to respond when an inflation target is missed, and how central banks should be held accountable for meeting the targets.

¹² A similar point is made by Barry Eichengreen in a discussion of inflation targeting in emerging markets. Specifically, he argues that “fiscal dominance is a critique of excessive deficits, not a critique of inflation targeting,” and that “while emerging markets may find it difficult to make inflation targeting work, there are good reasons to think that they will find alternatives like monetary targeting more difficult still.” See Eichengreen (1999), which can be found on the web site: <http://elsa.berkeley.edu/users/eichengr/htm>.

Definition of price stability and speed of disinflation

Very high inflation is usually viewed as incompatible with inflation targeting. In most inflation-targeting advanced economies, this framework has been introduced only after price stability has been reached or approached. However, in some countries that have adopted inflation targeting, inflation is still somewhat high. Among the advanced economies, this has been the case in New Zealand and Canada; among the emerging market economies, two notable examples are Chile and Israel. Similarly in transition economies, inflation is still somewhat higher than in advanced economies, and must be further reduced (see Figure 1).

How fast should countries reduce inflation? The experience of other countries that started targeting inflation earlier shows that a relatively gradual disinflation has been the preferred choice. Chile began to target inflation in September 1990, and at that time, annual inflation was about 25 percent. Inflation has been brought gradually and monotonically down to 3 percent in 1999.¹³ From 2001 onward, the central bank is expected to target inflation in a range of 2–4 percent. Israel adopted inflation targeting in 1991, when inflation was running close to 20 percent. The current inflation target is 3–4 percent.¹⁴ As in Chile, disinflation in Israel has been rather gradual, but it accelerated significantly recently on account of positive supply shocks. In New Zealand, inflation was about 7 percent in 1990 when inflation targeting was introduced, and the Reserve Bank had targeted a reduction of inflation by 1.5 percentage points each year for a three-year period. Canada adopted inflation targeting when inflation was about 5 percent. It aimed at a two percentage points reduction the first year, and a half percentage point each of the subsequent 18 months periods.¹⁵

Transition economies also approach disinflation in a gradual manner. In Poland, the NBP first set a short-term inflation target in June 1998 for end-1999 in the range of 8–8.5 percent. At the time of the decision, inflation was still above 11 percent, but declining. Subsequently, inflation continued to fall faster than expected, and in March 1999, when it dropped to about 6 percent, the NBP modified the end-1999 CPI target to 6.6–7.8 percent. At the same time, it kept the medium-term target of CPI inflation at 4 percent in the year 2003.¹⁶ In Hungary, the government is currently projecting that the average annual inflation will be 6–7 percent in year 2000.¹⁷ The IMF suggests that a reasonable medium-term target range for Hungary would be CPI inflation in the range of 3–5 percent, which

¹³ It should be noted that Chile had not always been classified as an inflation-targeting country. The same is true for Israel. One reason is that inflation targets were not announced explicitly, but were implicit in the rate of the exchange rate crawl.

¹⁴ See Landerretche, Morandé, and Schmidt-Hebbel (1999).

¹⁵ See Debelle (1997).

¹⁶ See National Bank of Poland (1998).

¹⁷ See National Bank of Hungary (1999).

could be achieved quickly in one to two years or gradually during a period of four years.¹⁸ The IMF recognizes that both gradual and quick disinflation has its pros and cons.

When the Czech Republic introduced inflation targeting in early 1998, inflation was approaching 12 percent and it was still rising, while net inflation was around 7 percent. The CNB initially stated that disinflation will continue relatively rapidly. In a one-year horizon, monetary policy was to be conducted so as to bring net inflation at the end of 1998 to a range of 5.5–6.5 percent; and in a three-year horizon (i.e., at the end of year 2000), the target would be net inflation in the range of 3.5–5.5 percent. In its first Inflation Report, the CNB subsequently sought to clarify that the crucial target is the one for the end of the year 2000, and that the 5.5–6.5 percent net inflation at the end of 1998 does not have the same status as the 3.5–5.5 target range. The main purpose of setting this short-term target was to help guide inflation expectations.

At the end of 1998, the CNB formulated more precisely its long-term objective of price stability. It suggested that the long-term inflation target should be net inflation in the range of 1–3 percent.¹⁹ The CNB noted that this is somewhat higher than the quantified objective of price stability in the European Monetary Union (harmonized consumer price index less than 2 percent), but the CNB explains that for specific reasons, inflation in transition economies will stay somewhat higher for some time. The CNB suggested that this objective of price stability should be achieved in the year 2005. Given the inflation target for the year 2000 in the range of 3.5–5.5 percent, this implied an average annual reduction in net inflation by 0.5 percentage points.

It is likely that for other countries in transition that decide to implement inflation targeting, desired future membership in the European Union and eventual participation in the European Monetary Union will serve as a main guidance and constraint in defining price stability and deciding on the speed of disinflation. However, there are some doubts whether transition economies joining the EMU would be able to satisfy both the rigorous requirement of price stability (CPI inflation of less than 2 percent) and the requirement of a stable nominal exchange rate as specified by the ERM II mechanism.²⁰

What price index to target

In deciding on what price index to target, inflation targeting countries face a tradeoff between transparency and the ability to control inflation. The advantage of broadly defined headline

¹⁸ See International Monetary Fund (1999).

¹⁹ Since price deregulation should be mostly completed by that long-term target (about 2005), headline inflation should be close to net inflation by then.

²⁰ We do not discuss this extremely important issue here in detail. For further discussion, see Masson (1999).

inflation (i.e., the consumer price index) is that it is better understood by the public, but the disadvantage is that its movements could reflect factors other than monetary policy measures and could be a target difficult to achieve. A more narrowly defined measure of inflation that excludes effects of possible supply shocks could be better controlled by a central bank, but at the same time, it could be more difficult for the public to assess the conduct of monetary policy on basis of such measure. Given the emphasis on central banks' accountability and transparency in a regime of inflation targeting, this could potentially be a serious obstacle, particularly for a central bank that still has to earn its credibility. The practice varies among individual inflation targeting countries, depending on their particular circumstances and the importance of individual factors bearing on the choice of the price index. This is illustrated by comparing the approach of the Czech Republic and Poland.

Poland has decided to target the broad consumer price index. The NBP explained that CPI has been used extensively in Poland since the beginning of transition, and that it is deeply rooted in public perceptions as the measure of inflation. CPI provides accurate information about changes in price levels of consumer goods and services. Application of some measure of core inflation would require eliminating from the targeted index some prices of goods and services that affect strongly public perception of inflationary developments. However, the NBP has started preparatory work for calculating the core inflation index, and it does not exclude the possibility that it will start targeting core inflation in the future.²¹

In the Czech Republic, the CNB has chosen a different approach. For the purpose of inflation targeting, it has introduced a new indicator, so-called net inflation. Net inflation measures changes in the consumer price index, excluding the movement in regulated prices and is adjusted for the impact on the remaining items of changes in indirect taxes or subsidy elimination. At the end of 1997, the CPI consisted of 754 items, 91 items had regulated price, and net inflation measured movements of 663 items, which in terms of weights in a consumer basket, represented about four-fifths of the total basket.²²

Unlike central banks in most other inflation-targeting countries, the CNB did not exclude changes in prices of energy and agriculture products from net inflation. The exclusion of both the effect of changes in administered prices and changes in energy prices would make the targeted price index far too detached from headline inflation. The Czech economy is very open, with imports

²¹ See National Bank of Poland (1998). It is noteworthy that the NBP intends to calculate core inflation itself. Usually, central banks targeting a measure of underlying inflation do not calculate this index. In order to avoid a conflict of interest, they let other agencies, mainly statistical offices, calculate and publish underlying inflation.

²² Other inflation targeting countries have used price indices that excluded effects of indirect taxes or regulated prices for targeting or monitoring purposes. However, in transition economies, the importance of these factors in movements of headline inflation is significantly higher than in advanced economies.

representing more than 40 percent of GDP. Changes in import prices of oil and gas have a potentially large impact on domestic prices. However, for the time being, the CNB considers isolating the effects of price deregulation as more important than isolating the effects of terms of trade shocks or exchange rate effects. In contrast to industrial countries, many prices were still regulated in the Czech Republic in late 1997. The CNB knew that substantial changes in regulated prices, including rents, would be needed before they reached market-clearing level. As a result, a given monetary policy stance could produce different future paths of headline inflation, depending on the pace of price deregulation or adjustment of administered prices. Exclusion of regulated prices from the targeted index should have provided the government room to proceed quickly with price deregulation without fears that the CNB would react to temporary higher headline inflation triggered by price deregulations by tightening monetary policy. For these reasons, targeting net inflation excluding regulated prices could better suit the specific conditions of economies in transition.

Still, it soon became clear that the omission of external shocks to prices unrelated to monetary policy from a targeted price index could complicate the conduct of monetary policy, and in line with the practice of other inflation targeting countries the CNB in late 1998 announced a list of factors that could affect inflation, but that would not trigger an offsetting response by monetary policy. To quote from the CNB Inflation Report for October, 1999: “The exceptions that could justify missing an inflation target are exceptional and unpredictable factors which cause actual inflation to deviate from an inflation target, and for which the CNB cannot bear responsibility. These factors are: significant differences between actual and predicted world prices of commodities; significant differences between actual and predicted exchange rates that do not reflect developments of domestic economic fundamentals and monetary policy; significant changes of conditions in agriculture that affect agriculture producer prices; and natural disasters and other extraordinary events that produce demand-led and cost-pushed price shocks.”²³

Obviously, being an open economy with a high share of regulated prices in total CPI does not make it easier for the central bank to deal with this tradeoff between transparency and ability to control inflation. Central banks face unattractive options. They can exclude both administered prices and energy prices from targeted inflation and ensure that monetary policy could better control the movement of a targeted price index, while risking that a broader measure of inflation moves in discord with targeted inflation. However, inflation expectations that influence behavior of economic agents are guided more by movements of broad price indices and less by artificially constructed measures of underlying inflation. As one trade union representative put it, “we do not consume net inflation.” An alternative option, the one followed by Poland, is to choose to target a broader price index whose movements are affected by many factors outside monetary policy, including price deregulation, external shocks, and changes in an exchange rate. In this case, missing an inflation target would be a frequent occurrence, and anti-inflationary credibility of a central bank would be put under risk. The NBP is aware of this risk, and intends to comment in detail on external factors

²³ See Czech National Bank (1999b), p. 57.

affecting the CPI index but not core inflation, so as to explain the discrepancy between an inflation target and forecasted and/or observed CPI level.

Target point or target range?

The decision whether to target a range or a single numerical value should consider some tradeoffs as well. As in other aspects of design of the operational framework, there is a tradeoff involved in deciding about the width of the band—whether it should be zero (a single point) or several percentage points. A wider band increases the chance that monetary policy will be successful in keeping targeted inflation inside. But a band that is too wide could reduce the ability of inflation targeting to anchor inflation expectations, and it could make it more difficult to establish anti-inflationary credibility. Some argue that a band that is narrow enough to anchor inflationary expectations is likely to be frequently missed, and that it is preferable to target a point and explain the deviations of actual inflation from that targeted point. This could be an especially valid argument for countries in transition, where predicting and targeting inflation is subject to high degree of uncertainty.

Both the Czech Republic and Poland have opted for a range. In the Czech Republic, the width of the band, two percentage points, seems to reflect the CNB's assessment of the accuracy with which it thinks it can reach net inflation targets, as well as the past volatility of net inflation. However, particularly in view of the recent volatility of inflation contributed to external shocks, the band is not wide enough to allow the CNB to maintain net inflation inside it for most of the time without undesirable instability of interest rates. Poland has chosen an even narrower target range, just one half of percentage point, which was subsequently widened to 1.2 points. The NBP explained that before the introduction of inflation targeting, monetary targets in Poland were defined as fixed points, and a wider band could possibly signal to the public a weaker commitment to reduce inflation. It could be argued that under such circumstances, a fixed point could be better than a narrow band, as both are unlikely to be achieved, but the damage of missing a point could be less serious than the damage of missing a band. However, the NBP intends to widen the band in the future.

The use of a target band is one possibility of how to deal with the inevitable uncertainty in implementing monetary policy. Another approach, applied in the United Kingdom, is to present a probable inflation forecast in the form of the now famous fan charts. However, this approach may face serious difficulties in transition economies, since estimating future inflation requires a certain level of understanding how the economy works. As we have discussed below, this requirement is not yet fully met in transition economies.

Communication with the public

One of the important benefits of inflation targeting is the increased transparency of monetary policy and improved communication with the public. In the past, central banks used to be quite secretive institutions, but inflation targeting has changed this practice in a quite revolutionary way. The success of inflation targeting depends very much on the ability of central banks to establish

credibility that its targets are achievable, and that the public understands how they intend to achieve them. Inflation targeting central banks use different tools of communication to achieve this objective, including inflation reports, speeches of central bank officials, articles, and testimonies.

In line with the practice in other inflation-targeting countries, the CNB has decided to publish quarterly Inflation Reports, in which it explains to the public its views about past and expected future economic and monetary developments, and about its conduct of monetary policy.²⁴ The first Inflation Report, which was published in April 1998, did not yet include an inflation forecast, but subsequent issues have all included such a section, where the CNB explains in qualitative terms its assumptions about general economic trends and what inflation it expects at the end of the targeted period. However, the methodology of inflation forecasting has not yet been published. The Report also includes minutes from the meeting of the CNB Board, but not how individual votes were cast. In Poland, the NBP also publishes Inflation Reports, initially semiannually, but it intends to publish these reports quarterly in the future. As with the Czech Republic's Reports, the Polish Report includes some assessment of inflation prospects, but without a specific inflation forecast model. Another interesting point is that the NBP intends to publish the voting records of individual Council members.

The CNB has used other communication channels to explain the purpose of inflation targeting and how it functions to the public. Early in 1998, CNB officials published a number of articles in leading economic journals discussing the reasons for its adoption and the mechanism of its operation. In late 1998, the CNB took a further step to take a more active role in affecting inflation expectations. It realized then that a much more rapid than originally expected decline in inflation, together with a great degree of rigidity in nominal variables, could produce undesirable developments in real variables, most important, in real wages. In fact, this risk, to some extent, had already materialized in the final months of 1998, when rapid disinflation and broadly unchanged growth in nominal wages produced a sizable acceleration of real wage growth. The CNB had therefore initiated an informative meeting with the representatives of trade unions and employees to explain what inflation it expected in 1999 to help reduce inflation expectations.²⁵ This direct approach to affect inflation expectations of trade unions through personal persuasion was used again in late 1999.

²⁴ The Reports are published both in Czech and in English on the CNB's web site: <http://www.cnb.cz>.

²⁵ These discussions were difficult ones. Trade union representatives agreed that it would not be desirable to aim for higher than zero growth in real wages in 1999. The complication was that the trade union's economic experts projected that inflation in 1999 would reach 10 percent, and trade union representatives therefore demanded a 10 percent increase in nominal wages that in their view would be consistent with zero growth in real wages. Ultimately, inflation in 1999 remained close to 2 percent, and 10 percent nominal wage growth resulted in an overly large increase in real wages. At the end of 1999, when the CNB was again discussing with the representatives of trade unions inflation prospects for 2000, the union representatives seemed to have learned from their previous mistake, and expressed more trust in CNB's inflation forecast for 2000.

Accountability

Practice differs in inflation targeting countries regarding the accountability of central banks for meeting inflation targets. On the one end of the spectrum is New Zealand, where the central bank governor is personally responsible for meeting inflation targets, and in case that the central bank misses the target, he must explain why this has happened. The Reserve Bank Board recommends to the government whether the governor should continue in the office or not. Other countries do not have such strict standards, and they rely more on a self-disciplining mechanism to ensure that central banks reach inflation targets. While central banks are not formally accountable to the government for meeting inflation targets, they are informally accountable to the public. The Czech Republic and Poland, relying on the self-discipline of the central bank, have adopted such an approach.

A closely related aspect of central banks' accountability is the way in which inflation targets are established. In cases where inflation targets are set by the government, it is clear that a central bank is accountable to the government for achieving this target. However, in both Poland and the Czech Republic, as in some other inflation targeting countries, it is the central bank itself that sets an inflation target. It is difficult to see how central banks with goal independence could be held formally accountable by some other body for not reaching an inflation target that they set themselves. These central banks could be seen as being informally accountable vis-a-vis the broad public, in the sense that they must endeavor to gain and maintain public confidence in the desirability and feasibility of its inflation objective. We discuss the issue of who should set inflation targets in more detail in the following section.

E. Inflation Targeting and Disinflation

As we have noted above, inflation in advanced transition economies is running currently somewhat above the inflation in advanced economies in Western Europe. The authorities in these countries have stated that price stability is the ultimate objective of monetary policy, and this objective is also reflected in legislation specifying the objectives of central banks. While there is not much dispute about the desirability of price stability, there is an intense discussion on how quickly price stability should be achieved, and what exactly represents price stability in transition economies. This discussion has been particularly heated in the Czech Republic, where the CNB has been accused of pursuing an excessively ambitious pace of disinflation that has resulted in excessively tight monetary conditions and plunged the economy into recession. The purpose of this chapter is not to discuss the merits of this argument, but rather to point to the problem that the necessity to decide explicitly on the speed of disinflation in inflation targeting countries presents for monetary policy.

Theoretically, disinflation could be too rapid, resulting in a high (though, arguably temporary) loss of output and higher unemployment, or it could be too slow, resulting in inflation expectations

becoming more entrenched at high levels and subsequently more costly to reduce later.²⁶ Therefore, it could be argued that there exists an optimal speed of disinflation which would minimize the sacrifice ratio (the ratio of loss of output to disinflation). However, the determination of this optimal speed of disinflation is less a matter of exact science, and more a matter of judgment.

Many factors have been identified in the literature that jointly determine the sacrifice ratio, including the structure of the economy, the degree and method of indexation of wages and other nominal variables, past history of inflation and stabilization, and the credibility of monetary policy. However, while we can identify factors that affect inflation, and identify policies that would make disinflation less costly in terms of lost output, economics could hardly provide a justification for a decision that price stability should be achieved at a particular speed.²⁷ Given that economics does not provide a hard conclusion about the optimal speed of disinflation, and in view of the important consequences of the decision about the rate of disinflation for the economy and for different groups of population, societies should pay particular attention to the mechanism of how this decision is reached.

By its nature, the decision about the speed of disinflation is not a purely technocratic decision, that could be put in hands of professional economists in the central bank. Because different speeds of disinflation will have different consequences for different groups of population, this decision is by its nature more a political decision, and the question arises as to whether it should be entrusted to a political body such as the government. This brings us to the issue of central bank independence.

Many economists today agree that central banks should have instrument independence, but not goal independence.²⁸ That is, central banks should be made independent in pursuing their respective policy objectives, but these objectives should be agreed upon by politicians. In most circumstances, this arrangement does not cause serious problems, because politicians are unlikely to publicly demand a central bank to pursue an objective that would differ much from a prevailing definition of price stability. However, as we have discussed, there is much less guidance provided by the literature about what the optimal speed of disinflation should be. Therefore, there is more than sufficient room even for reasonable people to disagree. For instance, a government in a transition economy could credibly defend a less ambitious schedule of disinflation than the central bank

²⁶ It could be argued that lower inflation usually means higher output growth, and therefore, the sooner lower inflation is reached, the sooner will the economy achieve a higher output growth. But there are also counterarguments. For example, due to a loss of marketable skills, individuals who could be seen as temporarily unemployed during the period of rapid disinflation could become permanently unemployed, which results in additional loss of output.

²⁷ For a more detailed discussion of inflation in transition economies, see Cotarrelli and Szapary (1998).

²⁸ See, for example, Fischer (1995).

would wish to pursue, arguing that there are many obstacles to a rapid disinflation in the yet not fully reformed economy and that rapid disinflation would be unnecessary costly.²⁹

The experience of the Czech Republic illustrates well the perils of a unilateral decision of a central bank about the speed of disinflation. After the CNB announced its inflation target for 1999 and 2000, and particularly after both inflation and growth declined more than anticipated, the central bank became a target of criticism. According to some, the Czech economy was not yet ready for such rapid disinflation, and the CNB has been accused of excessively tight monetary policy that came with serious costs in terms of recession and rising unemployment. Much of this criticism, however, was directed at the CNB's failure to achieve this target, rather than the pace of disinflation in the target itself.

Public dispute between a central bank and government is not desirable. It undermines the credibility of the inflation targeting framework and could make future disinflation more costly. Clearly, it would better serve the credibility of monetary policy if the rate of disinflation were the joint decision of the central bank and government, though this is not necessarily the practice in all inflation-targeting countries.³⁰ Such a joint decision would have several advantages. Most important, it would be more credible. When a government decides (perhaps jointly with a central bank) on the speed of disinflation, it is implicitly committing itself to policies supporting this disinflation objective. The speed of disinflation (co)decided by the government would be seen by markets as a political decision that takes into account possible short-term tradeoffs, and it would reduce the probability that policies supporting the achievement of targeted disinflation would be challenged on grounds that they do not reflect the preferences of society and that they are unduly costly.

Even in situations where the ultimate responsibility for deciding the speed of disinflation rests with the governments involved, central banks could still provide an important input into this decision by voicing (possibly publicly) their own views about the desirable speed of disinflation. Of course, there is a risk that a government would choose too slow a rate of disinflation. However, it is not clear whether this would impose higher costs on the economy than a unilateral decision by a central bank to pursue a more rapid rate of disinflation that would be subsequently challenged by government as being too ambitious.

²⁹ Several arguments are usually made as to why inflation in transition economies should be temporarily higher. One argument is based on the need to complete relative price adjustments, that under conditions of downward nominal price rigidity require higher inflation. A second argument is that the price level in transition economies is much lower, and that the approaching price level prevailing in European Union requires a temporarily faster growth of prices.

³⁰ However, in some countries like Australia where the inflation target is set by a central bank alone, the government subsequently endorses this target publicly.

There have been many arguments in favor of central banks' independence, reflecting empirical experience that political interference with monetary policy tends to produce higher than optimal rates of inflation. This experience suggests that a central bank should be given a mandate by political authorities to pursue an objective of price stability, and that it should have the freedom to do so without further political interference. However, it does not necessarily follow that central banks should be entirely responsible for determining the speed of disinflation. The credibility of central banks in transition economies in bringing inflation down to the level prevailing in the countries of European Union would be increased if the decision on the speed of disinflation were made jointly with the government.

F. Opportunistic Disinflation?

The implementation of inflation targeting in the Czech Republic has brought out an interesting problem that could arise in other inflation-targeting economies as well. When the CNB began to target inflation in the beginning of 1998, net inflation was about 7 percent, and headline inflation about 13 percent. An inflation target was set for end-2000 for net inflation in the range 3.5–5.5 percent, and an intermediate target of 4–5 percent for end-1999. However, early in 1999, net inflation fell to zero, while headline CPI inflation fell below 2 percent. What should central banks do in such situations? Would it have been appropriate for the CNB simply to lock in the unexpectedly rapid disinflation of the previous two years, and focus its monetary policy at maintaining price stability from then on? More generally, should inflation-targeting central banks try to benefit permanently from temporary shocks that reduce inflation and allow more rapid disinflation than originally was planned?

At first sight, such an option would seem to be attractive. As we have seen, Poland adjusted its original inflation target for 1999 after actual inflation early in the year turned out to be lower than projected. A case could be made for acting opportunistically and using faster than expected disinflation to lock in this windfall benefit of lower inflation.³¹ It would seem that when inflation has been reduced to less than the central bank's target, but remains still above the level of inflation corresponding to price stability, it would make no sense to let inflation rise again, only to be forced to reduce it again later. Disinflation, even at a moderate pace, could be costly, and if a country can avoid the need to disinflate in the future, this could spare the economy some loss of output. Whether past faster-than-planned disinflation was a result of good fortune or mistakenly tight monetary policy may seem not to matter, in that past decisions were made and, past costs, if any, might have been incurred, but the objective now is to avoid any unnecessary future costs of disinflation.

In practice, central banks have been treating the bottom sides of the inflation target range in different ways.³² Some were treating them as seriously as upper sides of a band, and eased

³¹ For example, see Haldane (1998).

³² See Clifton (1999).

monetary policy to bring inflation back up inside the band (e.g., New Zealand in 1991), while others preferred to consolidate the unexpected rapid disinflation (Israel in 1998, Canada in 1992).

In theory, there are several problems with opportunistic disinflation and with treating the bottom of the band leniently. First, there is a possibility that opportunistic disinflation will not find much sympathy with politicians—particularly if the faster than originally intended disinflation coincides with a significant weakening of economic activity. At that point, there would be calls for a relaxation of monetary policy, even if this means a return to somewhat higher inflation. The CNB was well aware of the possible negative reaction of politicians in 1999 and did not even suggest that it could lock in the lower-than-targeted inflation rate. Second, if rapid disinflation is a result of temporary external shocks, like a large price decline in commodities, it would be a mistake to assume that monetary policy could lock in such disinflation forever without large costs. Once these shocks are over, prices of commodities usually do not stay low, but rise again, as global demand recovers. Monetary policy that would try to prevent an accelerated pace of disinflation at times of declining commodity prices or other positive supply shocks would be probably too expansive. In the same vein, monetary policy would risk being too restrictive if it tried to avoid any acceleration of inflation as positive supply shocks were reversed.³³ The CNB and many other inflation-targeting central banks explicitly recognize that monetary policy should not attempt to offset temporary supply shocks that knock disinflation from its projected path.

Third, an opportunistic approach to disinflation could undermine the credibility of an inflation targeting framework. By setting medium-term inflation targets, central banks attempt to establish a predictable environment that would allow economic agents to plan for the future. Even though there could and will be deviations from the target, credible inflation targeting would lead the agents to expect that a central bank would do its best to return actual inflation to the targeted path. Attempts at opportunistic disinflation could increase the uncertainty because it would make monetary policy less predictable. For example, economic agents could expect that central banks might also adjust an inflation target upward in case of a negative shock.

Although under some circumstances, the case against opportunistic disinflation is weaker, consider a situation where an excessively restrictive monetary policy, rather than external supply shocks to inflation, has contributed to somewhat more rapid disinflation than originally targeted. Should an excessively tight monetary policy that resulted in an underutilization of resources now be replaced by an excessively unrestrictive monetary policy that would create pressure on resources and rise inflation? Not necessarily. Whatever is the practical usefulness of this concept in transition economies, monetary policy should try to keep the utilization of resources (actual output growth) close to potential, and not to offset a mistake in one direction by an offsetting error in another

³³ If positive price shocks were permanent, perhaps as a result of sudden increase in productivity, it would be appropriate to accept the effects of such shocks on inflation. But this does not seem to be the case in the Czech Republic, where positive shocks to inflation resulted to a large extent from lower imported inflation that was likely to be reversed.

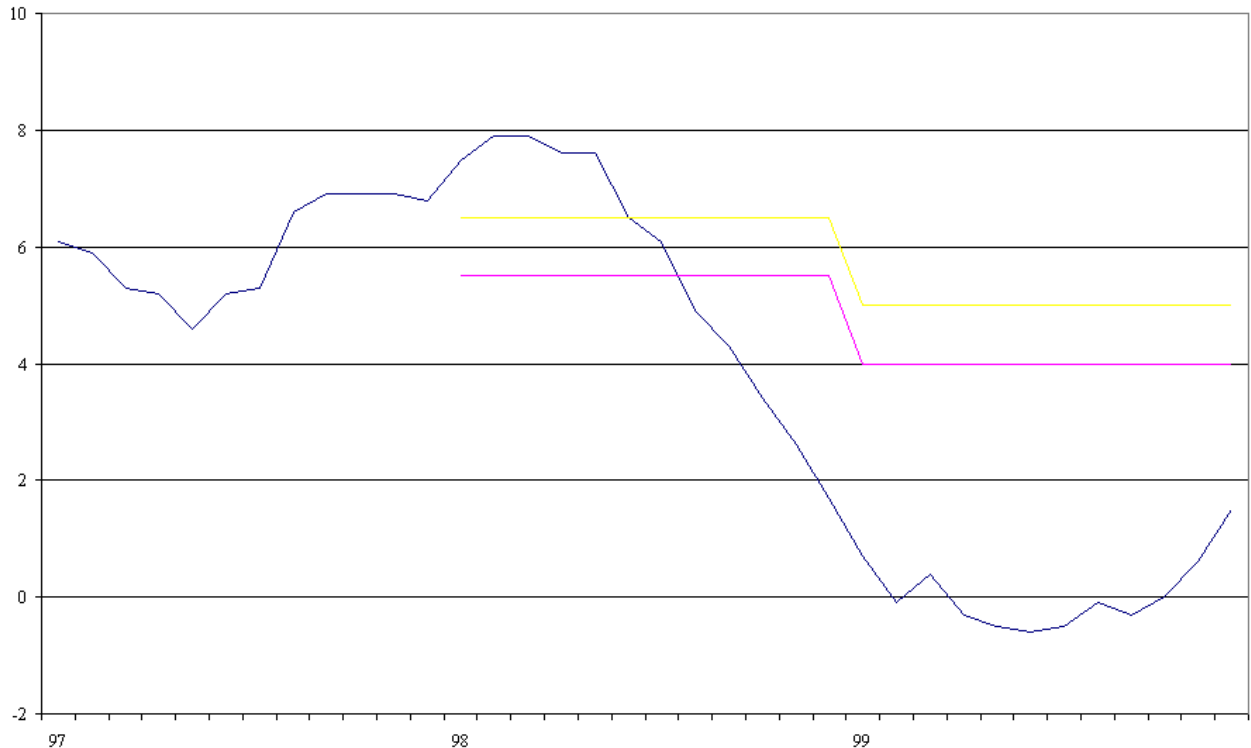
direction. One year of an overly restrictive monetary policy and another year of an excessively unrestrictive monetary policy would not make on average two years of the right monetary policy.

As another example, a situation may arise where the path of disinflation has been set incorrectly. For example, competitive pressures in the economy, due to liberalization, privatization and a more open trade policy would produce a faster disinflation for a given monetary policy stance than originally expected. To maintain the original disinflation target could in such a case require an overly expansionary monetary policy. Thus it would seem to be more appropriate to accept in such a case a faster than originally intended disinflation.

G. Preliminary Results of Inflation Targeting and Conclusions

Figures 2 and 3 summarize the brief history of inflation targeting in the Czech Republic and Poland. These two charts tell a different story. At the end of 1999, consumer price inflation in Poland was above the target range, while net inflation in the Czech Republic was significantly below the target range. A more rapid than expected decline in inflation prompted the National Bank of Poland (NBP) to reduce its target for end-1999 early in the year, a step that in retrospect may seem to have been somewhat premature. If the NBP maintained its original target of 8–8.5 percent, it would miss it only by a very small margin. In the Czech Republic, in contrast, net inflation at the end of 1999 was 1.5 percent, well below the target range of 4–5 percent. At the same time, the CNB expects that at the end of 2000, net inflation will be in the lower end of the 3.5–5.5 percent range. For a detailed analysis of causes of higher (lower) than targeted inflation in Poland (Czech Republic), the reader is referred to Inflation Reports of NBP and CNB.

Chart 2. Czech Republic: Net Inflation and Inflation Target (in percent)



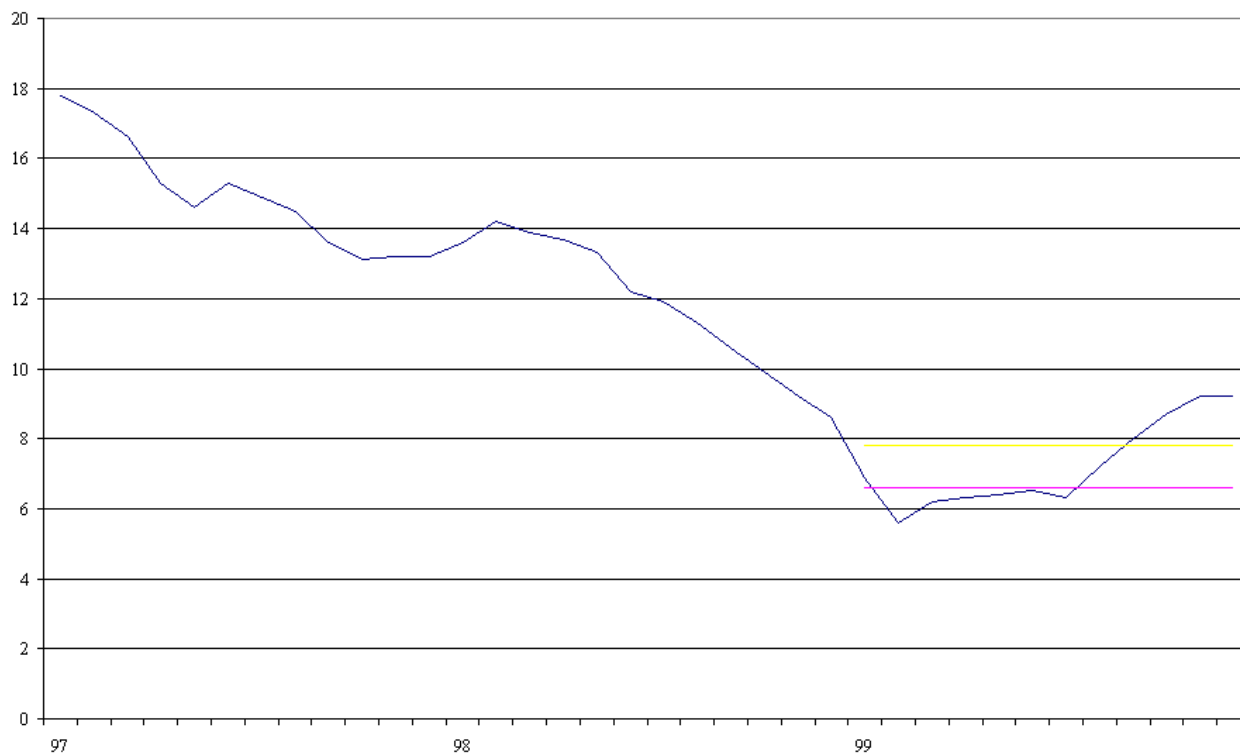
Here, we would just note several points. First, the CNB calculations suggest external factors had a sizable effect on net inflation: the CNB estimates that in 1998, these factors reduced net inflation by 2–3 percentage points.³⁴ In the absence of these shocks, net inflation at the end of 1999 would have been close to the bottom of the target range. There were also other structural shocks that contributed to lower than projected inflation. Among the most important was the unexpected continuing decline in foodstuff prices in 1998 and 1999.³⁵ Second, while inflation in Poland declined significantly as well during 1998 and 1999, in the Czech Republic, inflation declined faster and the decline lasted longer than in Poland. The result was a growing difference between inflation rates in these countries during 1999. Relatively rapid economic growth of domestic demand, an increase in import prices and monopolistic structure of some industries, both resulted in the reversal of disinflation in Poland in the course of 1999. On the other hand, weak domestic demand, together with a strong koruna and

³⁴ See Čapek (1999), p. 9.

³⁵ See for example Čihák and Holub (1998), who argue, that after the decline in 1997, it was unlikely that foodstuff prices would continue to decline. Yet decline they did.

strong competitive pressures in the domestic economy resulting from the penetration of the Czech market by foreign distributors continued to keep inflation low in the Czech Republic, even after the effects of external price shocks began to disappear.

Chart 3. Poland: CPI and Inflation Target (in percent)



The short history of inflation targeting in the Czech Republic and Poland does not allow any far-reaching conclusions about inflation targeting in transition economies thus far. In the Czech Republic, the target for 1999 was off significantly. However, the last two years were characterized by significant turmoil in the world economy and a deep recession in the Czech economy which made inflation targeting particularly difficult. The experience of the Czech Republic does not disprove the possibility of inflation targeting in transition economies. But it illustrates the particularly difficult task that inflation targeting central banks in transition economies face. Increased uncertainty prevailing in transition economies makes it especially difficult to predict inflation sufficiently well ahead, as required by the forward-looking nature of the inflation-targeting approach. In view of that problem, and given the possibility that transition countries will be more frequently hit by shocks that could divert inflation from the targeted path, missing the inflation target is far more likely in transition economies than in the more advanced economies.

This does not imply that monetary policy targeting other nominal variables like the money supply would make the task of controlling inflation easier. Even though inflation targeting in transition economies is more difficult than in advanced economies, it could still bring significant benefits. It should be clear, though, that central banks should not focus too much on reaching their inflation targets at any price at all times. Such an effort could produce a significant instability of monetary policy instruments, damaging economic performance. The focus of inflation-targeting central banks should be on the medium-term to ensure that disinflation remains on track and that inflation converges to levels deemed consistent with price stability. Alongside this trajectory, there inevitably will be deviations from the targets, possibly sizable. Thus, the onus is on central banks' ability to communicate to the public clearly what are the limits and possibilities of inflation targeting in transition economies, and if an error in targeting occurs, to explain credibly and openly why inflation targets were missed. After all, the purpose is to anchor expectations and reduce inflation by establishing credibility in its policies, not to make a particular inflation target every year at any price. Inflation targeting is not a shooting contest.

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