

The new framework for monetary policy

This article describes the changes to the monetary framework which went into effect on March 27 with a joint declaration by the government of Iceland and Central Bank of Iceland, which is published elsewhere in this volume. It explains the main ideas behind the reform, and their implications. The decisions underlying the technical implementation of the new regime are also explained.

1. Reforms to the monetary framework

The joint declaration issued by the government and Central Bank of Iceland makes fundamental reforms to Iceland's monetary framework and the Central Bank's status within government.¹ Since the introduction of the previous regime, major changes have taken place in Iceland's economic environment and in the domestic and global financial markets. Thus it had become necessary to adapt the monetary framework and the status of the Central Bank to these new conditions. Furthermore, the reforms reflect comparable changes in the status of a large number of other central banks over the past decade.

The main reforms involve a simplification of the objectives of monetary policy, by making price stability its main goal and with a precise definition of price stability in the joint declaration of the government and the Bank. Furthermore, the Central Bank is given full independence for formulating monetary policy in such a way to attain this goal without government intervention. To increase the transparency of monetary policy and the accountability of the Bank,

responses are specified if the Bank does not achieve the target. These measures aim to establish a formal and credible framework for the long-term objective of monetary policy and ensure its more open and effective implementation, which should contribute to long-run economic stability and prosperity.

1.1. The main objective of monetary policy

The ultimate objective of economic policy is, generally speaking, to improve public welfare. This could involve, for example, efficient resource utilisation, full and stable employment, high and sustainable economic growth, price stability or a fair distribution of income (see, e.g., Svensson, 1997).

At first sight one might conclude that monetary policy should, as a part of the government's economic policy, share the same general goals as economic policy in general.² However, this is not correct. Monetary policy can only affect nominal variables in the long term. This implies that monetary policy is unable to maintain higher growth or employment than the underlying structure of the economy allows at any given time. Such efforts will in the end only lead to higher inflation with the economy returning to its sustainable path.

In the long run, monetary policy can thus only achieve a single economic objective. As this goal

1. A new bill on the Central Bank of Iceland is now awaiting consideration by parliament. If approved as law, it will bring about fundamental changes in the status of the Central Bank and its independence for using its policy instruments. As pointed out in an article by Pétursson (2000b), the Central Bank of Iceland ranked among the least independent in the industrialised countries under the legislation currently in effect. The new legislation will strengthen the Bank's status considerably, bringing it more or less into line with international best practice.

2. This was undoubtedly the view behind the current Central Bank Act and legislation governing other central banks up until the past decade.

should be nominal, it seems natural that it should be inflation, which in the long term is primarily a monetary phenomenon.³ Inflation is harmful to economic activity and public welfare, and increasingly so the higher it is.⁴ Thus, it is logical to set price stability as the main objective of monetary policy. This does not, however, imply that the objective should be absolute price stability as measured using conventional price indices. Research suggests that such indices systematically overestimate actual inflation, and that a very low rate of inflation can reduce the flexibility of labour and financial markets (cf. Pétursson, 2000a). Hence, inflation in the range of 1-3% is generally considered compatible with price stability.

It makes little sense to set objectives for monetary policy which it is impossible to achieve. Experience also suggests that setting such objectives may lead to worse policy performance than would otherwise be the case. With price stability as its main objective, forward-looking monetary policy can play an important part in creating a stable economic environment, on which sustainable, long-term growth of the economy can be built upon. In fact, this is the contribution of monetary policy towards achieving the above-mentioned main objective of economic policy, and it is unrealistic to expect anything more.

It should be reiterated that this is not tantamount to claiming that price stability is a socially more important objective than other goals of economic policy. That is not the reason why monetary policy should focus on it exclusively. It simply entails a recognition that monetary policy instruments are more suitable for affecting prices than real variables such as economic growth and employment. Successful monetary policy, however, can serve to reduce the variability of real variables, while an unsuccessful policy can increase it.

1.2. The Central Bank of Iceland's inflation target

Monetary policy with a formal inflation target involves defining price stability as the main objective of monetary policy and publicly declaring a numerical definition of price stability in terms of an inflation target. Furthermore, the central bank is granted

full independence to apply its monetary instruments to achieve the inflation target. In turn, the bank is obliged to ensure maximum transparency of monetary policy and be accountable towards the government and public.

This arrangement has become increasingly popular among industrialised countries and elsewhere over the past ten years. After New Zealand led the way in 1990, 15 other nations have introduced this policy, most recently Iceland and Norway. A large number of others are also considering taking this step, and there are good grounds for arguing that the European Central Bank and US Federal Reserve follow the same kind of policy, although theirs also has other characteristics.

1.3. The Central Bank of Iceland's inflation target

The joint declaration by the government and the Central Bank of Iceland defines the Bank's inflation target as an annual inflation rate of 2½%. This is a somewhat higher target than is used in most countries, such as the EMU countries and Sweden, but is in line with the targets of the Bank of England and Central Bank of Norway. Some countries, such as Brazil and South Africa, have defined an even higher target, as shown in Table 1. The main reason for basing the target on an inflation rate of 2½% is that Iceland is a small, open economy which is subject to frequent terms of trade shocks, which could make a lower target rate unrealistic. Furthermore, the UK is Iceland's main trading partner and inflation among Iceland's main trading countries averages around 2½%. It therefore seems appropriate to define price stability in Iceland as approximately 2½% inflation.

The price index measure for the inflation target

The inflation target is based on the 12-month changes in the headline Consumer Price Index (CPI), compiled by Statistics Iceland. Many countries have opted to base their inflation target formally on various measures of underlying inflation, i.e. the CPI excluding certain volatile items or components which monetary policy should not respond to. In countries where the target is based on headline CPI, measures of underlying inflation are usually also used in formulating policy in one way or another. The reason is that the headline CPI contains various volatile components and items that are unresponsive

3. Although a large number of factors can have temporary effects on inflation, persistent inflation can only be caused by loose monetary policy.

4. See, e.g., Pétursson (2000b) and the references cited in that article.

Table 1 Countries with formal inflation targets

<i>Country (policy introduced)</i>	<i>Inflation target</i>	<i>Country (policy introduced)</i>	<i>Inflation target</i>
Australia (1993)	1993-: 2-3%	Mexico (1999/1994)	1999: 13% 2000: <10% 2003: 3%
Brazil (1999)	1999: 8% ($\pm 2\%$) 2000: 6% ($\pm 2\%$) 2001: 4% ($\pm 2\%$) 2002: 3½% ($\pm 2\%$)	New Zealand (1990)	1990: 3-5% 1991: 2½-4½% 1992: 1½-3½% 1993-96: 0-2% 1996-: 0-3%
Canada (1991)	1992-93: 3% ($\pm 1\%$) 1994: 2½% ($\pm 1\%$) 1995-: 1-3%	Norway (2001)	2001-: 2½% ($\pm 1\%$)
Chile (1999/1990)	1991-99: From 18 to 4.3% 2000: 3½% 2001: 2-4%	Poland (1999)	1998: <9.5% 1999: 6.6-7.8% 2000: 5.4-6.8% 2001: <4%
Czech Republic (1997)	1998: 5½-6½% 1999: 4-5% 2000: 3½-5½% 2001: 2-4% 2002: 1-3%	South Africa (2000)	2002: 3-6%
Iceland (2001)	2001: 2½% (1-6%) 2002: 2½% (1-4½%) 2003-: 2½% ($\pm 1½\%$)	Sweden (1993)	1995-: 2% ($\pm 1\%$)
Israel (1997/1991)	1992-97: From 15 to 8% 1997-98: 7-10% 1999: <4% 2000-02: 3-4% 2003-: 1-3%	Switzerland (1999)	2000-: 0-2%
		Thailand (2000)	2000-: 0-3½%
		United Kingdom (1992)	1992-96: 1-4% 1997-: 2½%

When two years are stated for the introduction of the policy, the earlier one refers to when the inflation target was set for monetary policy together with another intermediate target. The later one refers to the year when a pure inflation target was adopted.

Source: Respective central bank websites and Pétursson (2000a).

to monetary policy or even perversely responsive, i.e. prices that rise following a tightening of monetary policy. Moreover, such a general index contains various supply factors which it would not be optimal for monetary policy to respond to. Headline CPI can therefore give misleading information about the tightness of the monetary stance in the present and future, and thereby lead to incorrect monetary responses.

Examples of components frequently excluded from the headline index, when measuring underlying inflation, are government-administered prices, the effects of changes in indirect taxes, various energy prices such as petrol, volatile food prices and the

effects of changes in government subsidies. In some countries, mortgage interest payments have a direct impact on the housing component of the CPI, whereby interest rate rises lead to a rise in the CPI. In these countries, mortgage costs are usually exempted when measuring the underlying rate of inflation.

Since the Icelandic public has familiarity and confidence in the headline CPI, it is considered appropriate to base the inflation target on that index, at least for the time being. Another important consideration is that indexation of financial liabilities in Iceland is based on this index, making it difficult to justify the use of a different index for monetary policy. Furthermore, the problem in evaluating the hous-

ing component of the index, as described above, does not apply in Iceland.

The Central Bank will, nonetheless, request Statistics Iceland to publish regular measurements of the underlying rate of inflation which will be taken into account in formulating monetary policy. As such measurements gain more experience and familiarity, their weight in the formulation of monetary policy may increase.

Tolerance limits of the inflation target

Although a target has been set for an annual average inflation rate of 2½%, it would be unrealistic to assume that the Central Bank will have such complete control over inflation as to maintain it at 2½% at all times. Tolerance limits of ±1½% have therefore been allowed for the target. These give scope for allowing short-lived deviations from the inflation target which may be justifiable under certain circumstances. For example, it may be appropriate to allow temporary supply shocks to be passed on to prices in order to prevent unnecessarily large swings in growth and employment. The Central Bank is thereby given scope to work towards levelling out fluctuations in the real economy insofar as it does not view them as threatening the main monetary policy objective of price stability.

In other industrialised countries the tolerance limits are generally narrower, on average ±1%. There are three arguments for allowing broader tolerance limits in Iceland. Firstly, Iceland is a small open economy where terms of trade shocks can have considerable short-term effects on inflation. Since the Icelandic economy is relatively volatile, it could prove difficult and even undesirable for the Central Bank to try to respond to all fluctuations in the inflation rate caused by, for example, terms of trade shocks. Such a response could entail unnecessarily high costs in the form of sharper swings in growth and employment. Secondly, the inflation target is based on the headline CPI which includes volatile components that the Central Bank has little scope for responding to. Thirdly, it is vital to try to minimise the likelihood that the Central Bank would fail to maintain inflation within the tolerance limits at the very start of the new regime, while its credibility is being established. If this were to happen, there would be a high risk of loss of credibility. When the infla-

tion target has gained more experience, there is less risk that its credibility will be harmed even if inflation temporarily overshoots the tolerance limit. Conditions for narrowing the limits might thereby be created later.

The lower tolerance limit of the inflation target should underline that the Central Bank is also committed to preventing disinflation which could have a serious impact on the economy. Given the above arguments about the possibly harmful effects of too low a rate of inflation and distortions in measuring it with the CPI, the lower tolerance limit of the inflation target has been set at 1%.

It should be emphasised that the tolerance limits of the inflation target differ fundamentally from the target zone limits of the earlier exchange rate peg. The exchange rate limits were “hard”, i.e. the Central Bank was obliged to maintain the exchange rate of the króna within the band at all times but did not need to try to affect the exchange rate while it remained within the band. The tolerance limits of the inflation target, on the other hand, are “soft” in the sense that the Bank will not need to keep inflation within them under all circumstances. As described above, cases may arise where it is appropriate for inflation to move outside the limits temporarily. Thus the tolerance limits only define a threshold where the Bank is obliged to submit a report to the government explaining the deviations and its responses to them. The tolerance limits also differ fundamentally from the target zone limits of the exchange rate peg insofar as they have a clearly defined inflation target within the limits. The Bank is therefore always obliged to aim for an inflation rate as close to 2½% as possible, notwithstanding these limits. Consequently, if inflation is higher or lower than the target, even though it remains within the limits, the Bank will always base its decisions on steering the inflation rate towards 2½%.

The role of the Bank's inflation forecast

A formal inflation target makes monetary policy forward-looking, i.e. policy will be formulated with reference to inflation prospects in the medium term rather than looking at the current inflation rate, since there is little that monetary policy can do about current inflation and inflation in the immediate future. The reason is that monetary policy affects prices with

long, variable and uncertain lags. International studies suggest that the initial impact of monetary policy actions on prices is felt six to twelve months later, with its full effects taking up to two years. The formulation of monetary policy needs to take this fact into account.⁵

In practice, monetary policy therefore involves the Central Bank making an inflation forecast based on unchanged monetary policy. If forecast inflation for the next two years is inconsistent with the inflation target, the Bank will adjust its policy instruments in such a way that the forecast is in line with the target. The speed with which it tries to achieve the target, however, will reflect the impact these measures will have on the real economy as estimated by the Bank. If, for example, forecast inflation is above the target and the Bank thinks that a too aggressive policy response might lead to an unnecessarily sharp contraction, it might decide to take a longer time in attaining the target. However, the Bank must explain its responses to the government and general public in a transparent way, so that the inflation target does not lose its credibility. The Bank's scope for taking advantage of this policy flexibility depends upon its own credibility. High credibility means that a temporary rise in inflation will only lead to a small, or even no, rise in inflation expectations, decreasing the risk that inflation will take root. Correspondingly, more scope is available for levelling out short-term fluctuations in the real economy. The opposite applies if monetary policy has little credibility.

Transition process of the inflation target

Although the long-term target of monetary policy is set as an annual inflation rate of 2½%, it is unrealistic to assume that the Central Bank can achieve this immediately, in light of the above-mentioned lags in the transmission mechanism of monetary policy.

The Central Bank's January inflation forecast assumed an inflation rate of about 4½% from the beginning to the end of this year and just under 3% from the beginning to the end of 2002, a somewhat higher rate than is compatible with the inflation target. On the basis of this forecast, the transition process assumes that the upper tolerance limit will

initially be wider, i.e. 1½% higher than the forecast. This implies that the upper tolerance limit on inflation will be 6% in 2001 and 4½% in 2002. The lower tolerance limit on inflation will, however, always be 1%, corresponding to the 1½% lower tolerance limit.

It should be reiterated that the inflation target is always 2½% and the aim is to achieve this level no later than by the end of 2003. Setting the tolerance limit higher than the long-term limit (4%) to begin with reflects both the Central Bank's small chance of affecting inflation in the near future and the importance of making a good start with the new regime while it is still gaining confidence. Such a transition process is common in many of the countries that have adopted inflation targeting with a higher inflation rate than was considered acceptable relative to the long-term target for price stability, as shown in the table above.

2. The effects of the new regime on exchange rate policy

With these reforms to the monetary policy framework, the Central Bank ceases to use the exchange rate of the króna as the intermediate target and nominal anchor of monetary policy. The fluctuation limits were abolished, after gradually being widened from ±2¼% to ±6% in September 1995 and then to ±9% in February 2000.

The Bank therefore no longer bases monetary policy on keeping the króna within a fixed band and the exchange rate will now broadly speaking be market-determined without interventions by the Central Bank. Instead, increased importance is attached to the ultimate goal of monetary policy, and in practice monetary policy will be formulated such that the Bank's inflation forecast replaces the exchange rate as the intermediate target of policy, as explained above.

For a small, open economy such as Iceland, the exchange rate plays an important role in domestic price developments and for the economy in general. The Central Bank will therefore continue to monitor the exchange rate closely and respond to changes as it sees necessary in order to achieve its goals. Thus the Bank will still have scope to use foreign exchange interventions, if it deems this necessary in order to contribute to achieving the inflation target or

5. The impact of monetary policy through changes in the exchange rate may shorten the transmission mechanism to some degree, however.

if it considers currency fluctuations a threat to financial stability. The main change in the exchange rate regime is that the Bank is no longer obliged to keep the exchange rate within specific limits, thus enabling it to formulate monetary policy more on the basis of domestic economic and inflation prospects.

It might seem at first sight that exchange rate volatility will increase following an adoption of a flexible exchange rate regime. This need not be the case, however, especially not when the exchange rate policy was as flexible as the one pursued in Iceland. Daily exchange rate fluctuations have increased during recent years, but that is a sign of increased depth of the market and is a positive sign.

Daily exchange rate fluctuations have increased following the adoption of the new framework, which was expected while market participants are learning about the new environment. In the long-term, however, it is unclear whether exchange rate fluctuations will increase. If the inflation target is credible and inflation remains close to it, this price stability will contribute to greater exchange rate stability. Offsetting this is the apparent herd behaviour that sometimes characterises foreign exchange markets, which tends to exaggerate fluctuations. It is likely, however, that the features and consequences of such behaviour have already appeared in the former exchange rate framework with its relatively wide fluctuation limits. Likewise, the economy will regularly be hit by unforeseen demand and supply shocks. To some extent these shocks will be reflected in adjustment in the exchange rate, but such adjustment is perfectly normal and can be more efficient than adjustment through the real economy under a fixed exchange rate.

Even though exchange rate volatility increases, the experience of countries that have introduced inflation targets and flexible exchange rate policies seems to indicate that their impact on inflation has diminished. Various reasons have been suggested. The public clearly takes a different view of changes in the exchange rate under a fixed rate regime from those in a floating one. Changes under a peg are

interpreted as being permanent, and it is natural for them to appear promptly in domestic prices. However, under a flexible exchange rate regime a larger proportion of exchange rate changes is interpreted as temporary which need not be reflected in prices until they have clearly become permanent, since it is costly for firms to change prices frequently. Increased international competition also may have led firms to absorb exchange rate changes to a greater extent through their mark-ups, instead of passing them on through prices. Firms have, at the same time, better techniques available to hedge themselves against short-term exchange rate fluctuations than before.

Thus the impact of short-term exchange rate fluctuations on domestic prices is likely to diminish with increased flexibility of the exchange rate and the development of domestic financial markets. Permanent changes in the exchange rate will, however, eventually be transmitted to prices. That said, it is important to distinguish between exchange rate effects on the price level and inflation. A permanent depreciation of the currency will lead to a permanent rise in prices in the long run. While prices are adjusting towards the new long-run equilibrium, inflation starts rising. This rise in inflation will, however, only be temporary during the adjustment process and in the long run the inflationary impact disappears. Within the two-year framework now set for the inflation target, short-term exchange rate fluctuations will therefore have relatively little impact.

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