Box III-2

The impact of the publication of the Central Bank's policy rate path on forward interest rates and the effectiveness of monetary policy

In the March 2007 issue of *Monetary Bulletin*, the Central Bank of Iceland published for the first time a baseline forecast based on its own policy rate projection; i.e., a policy rate path that the Bank's staff considered compatible with the inflation target. In presenting such a forecast, the Bank followed the example set by the central banks in New Zealand, Norway, and Sweden. The change was a positive one: the impact on market expectations of future policy rate developments seems to have strengthened, thereby improving the transmission of monetary policy throughout the nominal and real yield curves.[1]

The main channel of monetary policy is through its impact on expectations

During the past decade, there has been a global trend towards greater transparency of monetary policy. The publication of policy rate paths can be viewed as a part of this trend, although to date only a few central banks have taken this step. This increase in transparency reflects the general consensus among central banks, that the more systematic and transparent monetary policy is, the more effective it will be. In this way, monetary policy exerts greater influence on the expectations of markets and the general public, thus increasing the effects it has on private decisions.

The key interest rate for expenditure decisions of households and businesses is the long-term interest rate rather than the policy rate; however, long-term rates are largely determined by expectations about the future developments of the policy rate. When inflation is above the target, it is not only a high policy rate today that matters for bringing inflation down again, but also (and even more so) expectations of a high rate in the future. This is especially important where long-term fixed-rate loans predominate, as they do in Iceland. In determining the terms of such loans, lenders must assess the likely interest rate developments over the maturity of the loan. If short-term interest rates are expected to be high for a sustained period, the rates offered on long-term loans must also be higher.

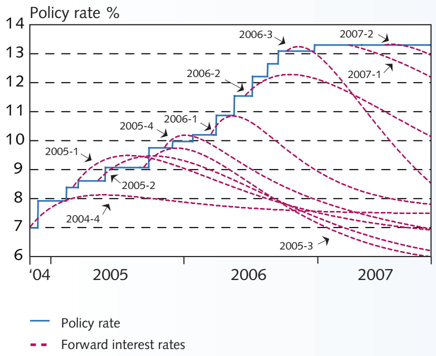
Publication of policy rate path strengthens the Central Bank's influence on expectations

By publishing its own policy rate path, the Central Bank can increase its influence on market expectations. Communication concerning the Bank's view of future monetary policy becomes much clearer. This should improve the understanding of current decisions and the factors behind the Bank's assessment of the inflation outlook, thus facilitating an independent evaluation of likely policy rate developments. It should also improve the quality of the Central Bank's forecasts and make them easier to interpret. All of this is conducive to improving the quality of the discussion on monetary policy, making it easier to understand, improving its credibility and, ultimately, enhancing its effectiveness. This benefit of greater transparency should be more in at times of uncertainty and turbulence, especially where inflation deviates significantly from target. In the past, the Central Bank of Iceland frequently published inflation forecasts with inflation far in excess of the target. This was because the policy rate path on which the forecast was based was not consistent with the inflation target, leading to forecasts that were likely to fuel inflation expectations. Such a formulation of inflation forecasts is therefore not conducive to effective anchoring of inflation expectations, and

1. A detailed discussion of the main arguments for and against policy rate path publication and a summary of other countries' experience with it can be found in Thorvardur Tjörvi Ólafsson (2007), "Publication of its own policy rate path boosts the effectiveness of central bank monetary policy", *Monetary Bulletin* 2007/1, pp. 71-86.

Chart 1

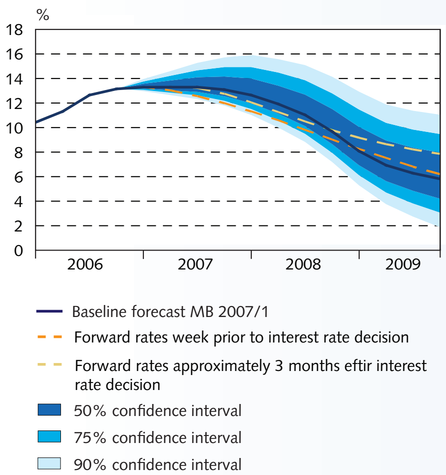
Policy rate and forward interest rates in Monetary Bulletin 2004/4 - 2007/2



Source: Central Bank of Iceland.

Chart 2

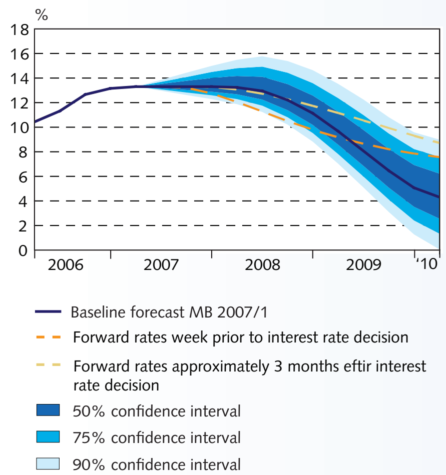
Policy rate path from MB 2007/1 and expected policy rate from forward rates



Source: Central Bank of Iceland.

Chart 3

Policy rate path from MB 2007/1 and expected policy rate from forward rates



Source: Central Bank of Iceland.

it reduces the effectiveness of monetary policy and undermines the credibility of the inflation target.

Forecasts of policy rates are always subject to considerable uncertainty

The economy will always be subject to unexpected shocks. The economic outlook is therefore uncertain, and new information requires constant reassessment of economic conditions. Policy rate forecasts are therefore just as uncertain as forecasts of other variables. This is also reflected in the changes in expectations concerning the future developments of the policy rate from implied forward rates (see Chart 1).

In the Central Bank's forecasts, this uncertainty is illustrated in the publication of confidence intervals surrounding the policy rate path with a so-called fan chart, which shows how uncertainty increases as the forecasting horizon lengthens. The shape of the fan also shows how the probability distribution can be asymmetric around the baseline path; for example, if it is considered likelier that the policy rate will exceed the baseline forecast than fall below it.

A systematic monetary policy does not represent an unconditional commitment by the Central Bank to adhere to a given policy rate path, but rather a commitment to a certain pattern of behaviour in setting the policy rate. This implies that the policy rate path will change in response to new information, but the responses should be systematic and predictable. The policy rate path represents the policy rate developments that Central Bank staff consider consistent with attaining the inflation target within the forecast horizon, given the information available at the time of the forecast. The probability distribution is an assessment of how unforeseen shocks could lead to changes in the interest rate path. Sensitivity analysis in the form of alternative scenarios is also included to demonstrate in greater detail the potential monetary policy responses to specific shocks.

Market expectations concerning future policy rate developments are more in line with Central Bank communication …

Although the Central Bank began publicising its own policy rate path only a short time ago, the impact of monetary policy on policy rate expectations for the next year or so has greatly improved. Previously, Central Bank policy only had a weak impact on long-term rates, despite sizeable increases in the policy rate. An important reason for this appears to have been a lack of credibility of the Bank's interest rate communication. The market seemed to expect the policy rate to fall rapidly even though the Bank emphasised that a high rate would be maintained for an extended period. This was reflected in a sharply inverted yield curve (see Chart 1). It represented a serious credibility problem for the Central Bank and had a detrimental impact on the effectiveness of monetary policy.

As can be seen in Charts 2 and 3, the publication of the Central Bank's policy rate path has brought expectations more into line with the Bank's communication concerning the need to keep interest rates high over a protracted period. Forward interest rates in March 2007 indicate that market agents expected interest rates to fall in late March, around the time *Monetary Bulletin* 2007/1 was published, and to continue falling rather rapidly thereafter. Following the Central Bank's publication of the policy rate path, market expectations rose gradually towards the published path. The effect on market expectations became even more pronounced after the policy rate path announcement in the July 2007 issue of *Monetary Bulletin*. At that time, the Bank announced that the easing of monetary policy announced in March would likely be delayed by six months because of deterioration in the inflation outlook. Market expectagradually to the revised policy rate path and seem more consistent with the Bank's published path through 2008, whereupon the Central Bank and the market's expectations begin to diverge.[2] This divergence should not come as a surprise, as the scope for different assessments of the economic outlook increases as the forecast horizon lengthens. It is likely, for example, that long-term yields reflect expectations of continuing investment in aluminium manufacturing facilities and power plants, which were not assumed in the Central Bank's baseline forecast in July. Projects of this sort would inevitably mean a more gradual easing of policy than assumed in the baseline forecast. It is also possible that market agents expect the króna to depreciate more sharply than the Central Bank has forecast, which would also call for a higher policy rate than is set forth in the baseline forecast.

... and transmission to other interest rates has improved

As can be seen in Table 1, the transmission of policy rate changes or communication to other interest rates seems to have strengthened since the Central Bank began publishing its own policy rate path. Though monetary policy is only one of the factors influencing market interest and general lending rates, it would appear that the influence across the entire nominal and real yield curve has strengthened. As is mentioned above, long-term nominal and real rates have frequently fallen despite policy rate hikes, but recently they have risen even though the policy rate has held steady for some time. An important reason for this is the expectation that the policy rate will continue to be high over the medium term, although changes in the international financial markets have also been a contributing factor.[3]

2. A corresponding change has occurred in financial analysts' expectations as reported in the survey results in each issue of *Monetary Bulletin*.
3. As can be seen, long-term nominal and real rates rose substantially following the publication of the July issue of *Monetary Bulletin*, despite falling long-term interest rates in the global markets. However, risk prema of domestic commercial banks rose as well.

Table 1 Interest rate changes in the wake of Central Bank policy rate decisions (percentage points)[1]

	PM 2006/1	*PM 2006/2*	*PM 2006/3*	*PM 2007/1*	*PM 2007/2*
Central Bank policy rate	0.75	0.75	0.00	0.00	0.00
3 month interbank rate	0.86	0.19	0.14	0.32	0.45
1 year bond rate (RIKB 08 0613)	-0.03	-0.04	0.03	0.73	0.85
6 year bonds rate (RIKB 13 0517)	0.74	-0.30	0.45	0.27	0.59
7 year indexed housing bond rate (HFF 1509 14)	-0.12	-0.05	0.09	-0.03	0.20
37 year indexed housing bond rate (HFF 1506 44)	0.08	-0.05	0.03	0.04	0.22
Indexed mortgage rates[2]	0.22	0.04	0.00	0.00	0.50
CDS spreads for domestic commercial banks	0.02	0.03	0.04	-0.06	0.19
Euro area 3 month interbank rates	0.05	0.14	0.07	0.10	0.13
Euro area 10 year bond rates	0.19	-0.23	-0.04	0.12	-0.28

1. Changes from the day before the policy rate decision until one month afterward. A longer period of time cannot be examined, as that would overlap with interest rate decisions between publications of *Monetary Bulletin.* 2. The average of the lowest mortgage rates offered by Glitnir, Kaupthing, and Landsbanki. 3. In interpreting the effects of the March 2007 decision, it is important to keep in mind that value-added taxes were cut in March. This resulted in a temporary dip in yields on indexed bonds, which temporarily obstructed the transmission of the policy rate to long-term real rates and terms of long-term indexed loans.

Sources: Central Bank of Iceland, Bloomberg, Reuters EcoWin.