

Box IX-2 Alternative scenarios

Unforeseen shocks or significant errors of judgement concerning important underlying assumptions in the forecast and their interaction can cause economic developments to deviate substantially from forecasts. It is useful to analyse how sensitive the forecast results are to probable deviations in the development of various key economic aggregates. The number of potential sources of deviations from the baseline forecast is of course unlimited, but an attempt is made to assess the main sources of error at any time. As in the previous forecast, the exchange rate of the króna and possible new investments in the aluminium and power sectors are considered to be the main sources of uncertainty.

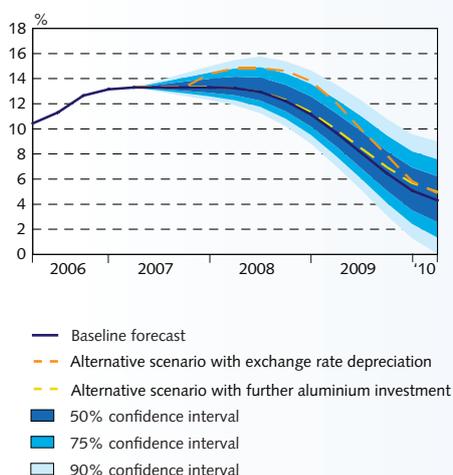
Alternative scenarios highlight the impact that major uncertainties in the baseline forecast could have on inflation and potential monetary policy responses to shocks. The need for responses to unexpected shocks depends upon the credibility of monetary policy. If the Central Bank lacks credibility – i.e. if the Central Bank is not regarded as capable of keeping inflation close to target – it will need to make a stronger response than otherwise. The more credible the monetary policy, the better an anchor it provides for inflation expectations. If inflation expectations are anchored the response can be facilitated more efficiently through market forces and expectations, reducing the need for direct action by the Central Bank itself.

In the current climate, a higher policy rate is needed if the króna depreciates sharply

The real exchange rate is currently at a record high and the króna is under pressure from the funding requirement of Iceland's enormous current account deficit and foreign debt, even though part of the deficit will unwind within the forecast horizon when investments for the aluminium industry come to an end and exports from them enter full swing. Nonetheless, the króna has remained strong and has appreciated since the last forecast in March. The wide interest rate differential and the Central Bank's clear message that the tight monetary stance will continue have supported the króna.

Arguably, the risk of a sharp depreciation of the króna has increased since the last forecast. The baseline forecast therefore projects a faster depreciation of the exchange rate than was expected in March. In the current economic climate, however, there is a considerable risk that imbalances will unwind even faster. As in *Monetary Bulletin* in March, an alternative scenario is presented in

Chart 1
Policy rate – alternative scenarios



Source: Central Bank of Iceland.

which a substantial depreciation of the króna takes place. However, it occurs roughly one quarter later, in Q4/2007 and Q1/2008. It assumes a total depreciation of 20% and an increase in the spread on Icelandic residents' foreign liabilities of 1½ percentage points, as in the last *Monetary Bulletin*. The timing is not a forecast but is merely chosen to allow the impact of the shock and the response to it to be captured within the forecast horizon. Such a sequence of events could conceivably be sparked off by rising international investor risk aversion and global interest rates.

Chart 1 shows the Central Bank's possible response to such a shock. The policy rate is raised immediately by almost one percentage point in Q4/2007 and eventually by a total of 1½ percentage points, to prevent the inflation spike from taking root in expectations. Accordingly, the policy rate rises to just above 14¾% in mid-2008, when it begins to move down again. The policy rate remains higher than in the baseline forecast throughout the horizon. Nonetheless, it does not need to be raised by as much as in the alternative scenario in *Monetary Bulletin* in March, because of the smaller output gap when the shock is felt. This is because the output gap estimate has been revised downwards and the depreciation occurs at a more mature stage of the cycle, when it is smaller than in the previous scenario.

However, this sharp rise in the policy rate does not suffice to prevent a temporary surge in inflation in the wake of the depreciation (Chart 2). Inflation peaks in mid-2008 at 5½% instead of just over 3% in the baseline forecast. It gradually wanes and reaches target at the end of the forecast horizon, roughly a year later than in the baseline forecast.

The purpose of responding to the depreciation with a policy rate hike is not to bolster the exchange rate as such, but to prevent higher inflation from severely eroding the real policy rate and to create a credible anchor for inflation expectations in spite of this spike. Thus the timing of a possible depreciation of the króna is crucial. If it occurs in the current climate of overheating, there is more risk that it will have a lasting effect on inflation than when the factors of production are not fully utilised.

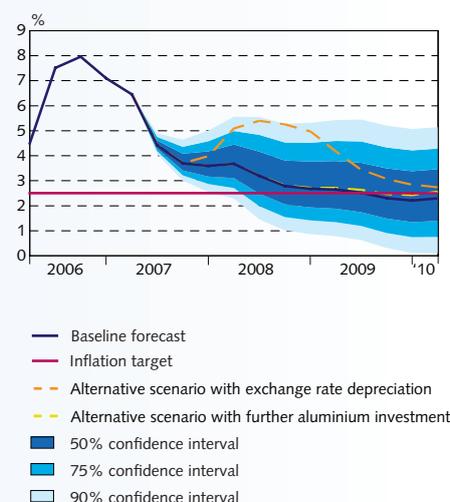
Another major consideration is the source of the depreciation. If it is caused by a negative supply shock (e.g. a negative terms of trade shock), a milder response is called for than if it is driven by a portfolio shock. A negative supply shock dampens general demand, which counteracts the inflationary effects of the depreciation and thereby creates less need for a policy rate hike – and increasingly so, the more firmly that inflation expectations are anchored.

The Helguvík aluminium smelter project delays policy rate cuts

The baseline forecast does not assume any further investment in the aluminium and power sectors within the forecast horizon. The Central Bank's policy has always been not to take such investments into account until there is a high probability that they will be realised, but to estimate their impact in alternative scenarios. If plans for large-scale investments materialise, demand for domestic factors of production will increase by more than in the baseline forecast. Inflation pressures will be correspondingly greater, although possibly tempered by the stronger króna, at least initially.

Since *Monetary Bulletin* in March, Alcan's plans to expand its smelter at Straumsvík have been rejected in a local referendum. Century Aluminium's plans to construct an aluminium smelter in Helguvík, on the other hand, appear to have gained momentum. Other options being discussed are at such an early stage that they would probably fall partly or entirely outside the current baseline forecast horizon. The following alternative scenario is therefore confined to

Chart 2
Inflation – alternative scenarios



Sources: Statistics Iceland, Central Bank of Iceland.