

Unforeseen shocks and changes to important underlying assumptions can cause economic developments to deviate substantially from forecasts. It is therefore useful to analyse how sensitive the baseline forecast is to probable deviations in the development of various key economic variables. The number of possible deviations is obviously unlimited, but an attempt is made to assess the principal risk factors and estimate more thoroughly the effects of the two that are considered most important.

As in the previous forecast, the development of the exchange rate of the króna over the forecast horizon is considered the primary risk to the baseline forecast. The July issue of *Monetary Bulletin* included an assessment of the impact of the Helguvík aluminium smelter project, as new major aluminium and energy projects were not included in the baseline forecast. The same applies to the current baseline forecast, as there has been little change in the fundamental circumstances related to prospective aluminium projects since July (see Box IV-2 for further discussion). The conclusions drawn in the alternative scenario in *Monetary Bulletin* 2007/2 are still generally valid and indicate that monetary policy will have to be somewhat tighter later in the forecast horizon than the baseline forecast suggests (see Box IX-2 in *Monetary Bulletin* 2007/2, pp. 40-42). At present, the uncertainty related to the upcoming wage settlements appears to carry more weight, largely because wage negotiations will apparently take place in a more difficult environment than previously envisaged, as regards both inflation and labour shortage.

A sharp depreciation of the króna before the economy cools down would require a higher policy rate than in the baseline forecast

The real exchange rate is at a record high and the enormous current account deficit requires a constant influx of foreign capital, partially to meet increasing foreign debt service. A declining supply of foreign capital could exert downward pressure on the króna, especially since it seems unlikely that the current account deficit will reach a sustainable level within the current forecast horizon. This situation could persist for some time, though the imbalance will unwind somewhat once the aluminium and power sector construction is complete and aluminium exports have reached their full potential. The timing of a possible depreciation of the króna is difficult to forecast, however. The króna has, for example, remained strong for a prolonged period even under economic conditions that would tend to press it downward, and it has weathered the recent upheavals in the global capital markets relatively well. The wide interest rate differential and the Central Bank's clear signalling of a continuing tight monetary stance have likely played a key role in supporting the króna.

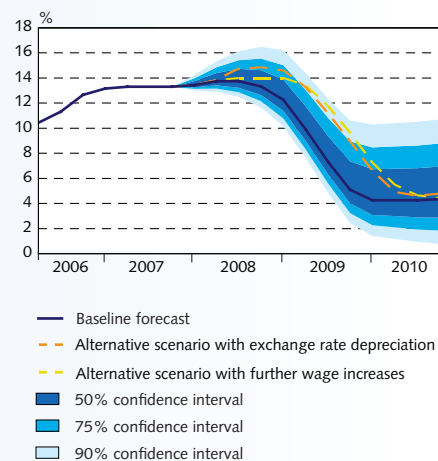
Though the króna withstood the turmoil in August, the danger of sudden downward pressure still remains. The alternative scenario presented here is similar to the one described in July, though the depreciation takes place slightly later. It is assumed that the króna will depreciate by a total of 20% in Q1 and Q2/2008 and that the spread on Icelandic residents' foreign liabilities will increase by 1.5 percentage points at the same time. It should be emphasised that 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 triggered by a revision of international investor risk appetite and rising global interest rates.

A precipitous depreciation of the króna would cause domestic demand to contract more sharply next year than in the baseline forecast. A more positive contribution from net trade will bolster out-

Box IX-2

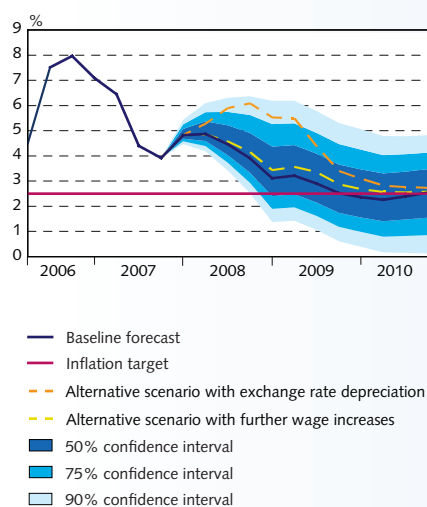
Alternative scenarios

Chart 1
Policy rate - alternative scenarios



Source: Central Bank of Iceland.

Chart 2
Inflation - alternative scenarios



Sources: Statistics Iceland, Central Bank of Iceland.

put growth, however, thus widening the output gap. Mounting inflationary pressures will ensue, calling for a tighter monetary stance. Chart 1 shows the Central Bank's possible monetary policy response to such a shock. The policy rate is raised from 13.3% to over 15% in Q2/2008 and held more or less unchanged until the latter part of the year, whereupon the policy stance starts to unwind. The policy rate is lowered more gradually than in the baseline forecast, however, with the greatest divergence in the policy rate path occurring around mid-2009, when the policy rate is approximately 9% in the alternative scenario, compared to 5% in the baseline forecast. At the end of the forecast horizon, however, the rate is more or less identical in both cases. The increase in the policy rate is not as large as in the alternative scenario in the last issue of the *Monetary Bulletin*, where a policy rate hike of 1½ percentage points above the baseline forecast was assumed. There are two reasons for this: the current baseline forecast already includes some rate hikes, and the depreciation occurs at a stage of the business cycle when the output gap has shrunk more than was the case in July, closer to the emergence of a substantial slack.

A higher policy rate does not prevent rising inflation in the wake of the depreciation (Chart 2). Inflation peaks at around 6% in Q3/2008, compared to just below 4% in the baseline forecast. It then gradually begins to decline, reaching 3% in Q4/2009, as opposed to 2½% in the baseline forecast, and is projected to reach the inflation target at the end of the forecast horizon, as in the baseline forecast.

The purpose of raising the policy rate following the depreciation of the króna is not to bolster the króna but rather to prevent higher inflation from severely eroding the real policy rate and to create a credible anchor for inflation expectations in spite of the temporary upsurge in inflation. The timing of the depreciation is therefore crucial. If it occurs while the economy is still overheated, there is a greater risk that it will have a persistent effect on inflation than if it happens when the economy is not at full capacity. The source of the exchange rate shock is therefore important as well. If the depreciation is caused by a negative supply shock – for example, deteriorating terms of trade – a weaker monetary policy response is required than if the depreciation is caused by a negative portfolio shock (e.g. if foreign investors reassess the risk attached to domestic assets, as is described in this Box). A negative supply shock would weaken overall demand, thus counteracting the inflationary effects of the exchange rate depreciation. There would then be less need for a policy rate hike, especially if inflation expectations are firmly anchored.

If wages rise faster than in the baseline forecast, a policy rate higher than in the baseline forecast will be needed

The domestic labour market has been very tight for many years, as is reflected in an unemployment rate well below its natural level and a growth rate of unit labour costs far above the level compatible with the inflation target. This unfavourable wage development is a key reason for Iceland's persistent high inflation rates in recent years.

At the end of 2007, a number of contractual wage agreements will expire, which contributes to the uncertainty surrounding wage developments. The baseline forecast allows for wage rises somewhat above the level compatible with the inflation target. It assumes that unit labour costs will rise by more than 8% in 2007, as compared with nearly 10% in 2006. In 2008, unit labour costs are projected to rise by more than 4%, while in 2009 and 2010 the increase is forecast at approximately 2.5%, which is in line with the inflation target (see also Chapter VI).

The alternative scenario assumes that negotiated wage increases will be rather higher and will creep up the pay scale, as often happens in a tight labour market. It assumes that wages will rise

by 2-4 percentage points more than in the baseline forecast from early 2008 and throughout 2009. The resulting increase in disposable income will stimulate private consumption and keep it above the level in the baseline forecast from the middle of 2008. Overall demand will therefore be stronger and the output gap larger. Inflationary pressures will mount indirectly through the larger output gap and directly through the transmission of higher wage costs to retail prices. Inflation will therefore increase, assuming the baseline policy rate path. In order to contain inflation, the policy rate is raised by 0.25 percentage points over and above the baseline forecast early in 2008 and then held unchanged until the beginning of 2009, when the easing cycle begins. The policy rate is therefore higher than in the baseline forecast until the end of the forecast horizon, with the divergence peaking in late 2009. At that point the policy rate is 9½% in the alternative scenario, compared to 5% in the baseline forecast (see Chart 1). This will suffice to reduce inflation to target by the beginning of 2010, roughly six months later than in the baseline forecast (see Chart 2). Although the inflation path is similar to that in the baseline forecast, the cost of substantial wage hikes will emerge in the form of a substantially higher policy rate for most of the forecast horizon, which will eventually result in a sharper contraction than in the baseline scenario.

Large depreciation may contribute to excessive wage increases

The current strength of the króna rests on weak foundations. At the same time there is a serious shortage of labour in Iceland. Thus, the possibility that the deviations described above could amplify one another is cause for particular concern. If the króna depreciates considerably in the run-up to wage negotiations, labour unions could demand correspondingly larger wage hikes in order to achieve a targeted increase in real earnings. A sizeable depreciation also makes the inclusion of indexation clauses in wage agreements more likely. Such a development could easily set off a vicious cycle of a depreciating exchange rate and escalating wages, similar to the wage-price spirals of the 1970s and 1980s. A tight monetary stance is needed in order to break the spiral, and it can only be done by raising the policy rate. Excessive wage increases will only delay the inevitable adjustment of the economy towards a more sustainable level and will eventually cause a more severe contraction later on. Tighter monetary policy moves this adjustment forward in time and tends to soften the contraction, while ensuring that inflation remains at or near target.

Credibility of monetary policy determines how strongly it needs to respond

The alternative scenarios above should not be viewed as forecasts but rather as a way to highlight how some major elements of uncertainty to the baseline forecast could change the inflation outlook and affect monetary policy response. The strength of the response required will be determined to an extent by the credibility of monetary policy. If the Central Bank's ability and willingness to keep inflation at target is questioned, a firmer policy response is needed. The alternative scenarios are therefore fraught with uncertainty in the same way as the baseline forecast. Most important, however, is that monetary policy is shown to respond to shocks in a systematic and predictable manner.