Economic and monetary developments and prospects[1]

Slight improvement in inflation outlook due to the appreciation of the króna and higher interest rates, but major imbalances are still present

Major imbalances are still present in the Icelandic economy. These appear in the widening current account deficit, labour market pressures, an ongoing surge in national expenditure and lending, and the high real exchange rate and asset prices. However, the first signs that the tight monetary stance is beginning to produce results have emerged. The rise in the policy interest rate is being transmitted throughout the yield curve and house price inflation is slowing down. The strong króna has constrained inflation over the past few months, although the appreciation has not been transmitted fully into the domestic price level. GDP growth for 2005-2007 has been revised downwards in the current macroeconomic forecast. Thus the output gap will be marginally smaller than forecast in September and the inflation path lower, assuming that the policy rate and exchange rate remain unchanged. Nonetheless, the inflation outlook two years ahead is still above target, especially bearing in mind that the króna is likely to depreciate across the forecast horizon.

I Overview of macroeconomic and inflation forecast

Assumptions of the current forecast

The forecast presented here is an update to the macroeconomic and inflation forecast that the Central Bank of Iceland published in September. In the update, only the most important assumptions have been revised in light of unfolding events and most recent data, but in other respects it is based on the same assumptions as the September forecast. The forecast horizon for inflation is until Q4/2007.

It should be underlined that Central Bank forecasts are really an analytical tool rather than a simple prediction. Three inflation scenarios are presented below. The first, the baseline scenario, is as usual based on the technical assumption of an unchanged policy interest rate (currently 10.25%) over the forecast horizon and an unchanged effective exchange rate from the day of the forecast, November 9, when the index was close to 102. The effective exchange rate of the króna in the current forecast is therefore roughly 6% higher than in the September forecast. Two alternative scenarios are provided, based on variable interest rate and exchange rate paths. These alternative scenarios deserve particular attention in the current climate, given that the assumption of an unchanged exchange rate seems unlikely to hold.

GDP growth forecast revised downwards

Economic indicators suggest that private consumption will probably grow faster in 2005 than was forecast in September. On the other hand, some planned investments in the aluminium and hydro sectors

1. This article uses data available on November 22, 2005, but the forecast is based on data until November 9.

Table I-1 Updated Central Bank macroeconomic forecast

	Policy rate and exchange rate assumptions[1]							
		Current forecast			*Change from previous forecast (percentage points)*[2]			
	2004	*2005*	*2006*	*2007*	*2004*	*2005*	*2006*	*2007*
Central Bank policy interest rate (%)	6.14	9.36	10.25	10.25	-	0.20	0.75	0.75
Foreign exchange index (Dec. 31, 1991 = 100)[3]	121.0	108.2	102.0	102.0	-	-1.5	-5.6	-5.6

	Current macroeconomic forecast							
	Volume change on previous year (%)				*Change from previous forecast (percentage points)*[2]			
		Current forecast						
GDP and its main components	*2004*	*2005*	*2006*	*2007*	*2004*	*2005*	*2006*	*2007*
Private consumption	6.9	11.1	7.8	4.1	-	0.8	-0.4	-0.2
Public consumption	2.8	3.0	2.9	2.6	-	-0.5	-0.1	-0.1
Gross fixed capital formation	21.0	31.0	-2.9	-19.8	-	-0.1	1.1	-3.8
Business sector investment	23.3	55.8	-4.2	-32.2	-	1.1	2.5	-5.3
Excl. power-intensive projects, ships and aircraft	17.3	6.3	-8.8	0.1	-	0.9	-3.4	-5.3
Residential construction	5.7	11.8	9.5	0.6	-	-0.2	-0.5	0.4
Public works and buildings	26.9	-11.2	-14.0	28.4	-	-3.9	-4.9	5.5
National expenditure	8.4	13.3	4.1	-2.1	-	0.2	0.1	-1.1
Exports of goods and services	8.3	3.6	5.8	15.4	-	-0.8	-0.3	0.9
Imports of goods and services	14.2	24.5	0.5	-1.4	-	1.5	0.4	-0.4
Gross domestic product	6.2	4.7	6.6	4.1	-	-0.8	-0.1	-0.7
Other key aggregates								
Gross domestic product at current prices (b.kr.)	885	989	1,110	1,197	-	-9.0	-5.0	-15.0
Current account balance (% of gross domestic product)	-8.4	-15.6	-11.9	-6.8	-	-1.4	-0.6	-0.7
Output gap (% of production capacity in the economy)	2.1	3.3	4.5	1.9	0.6	-0.3	-0.3	-0.8
Private sector wages (change between annual averages in %)	4.7	6.6	7.2	5.5	-	0.5	0.8	-
Labour productivity (change between annual averages in %)	4.1	1.0	1.4	1.1	0.1	-1.0	-0.5	-0.7
Unemployment (% of labour force)	3.1	2.0	1.9	2.4	-	-	-	-

1. Annual averages, assuming unchanged interest rates and exchange rate from the day of forecast. 2. Change since *Monetary Bulletin* 2005/3. 3. Percentage change in index from previous forecast.

have been deferred from this year to 2006 and a sharper contraction is now forecast in public sector investment. Thus the outlook for domestic demand growth this year has not changed much since September. Next year's outlook for domestic demand growth is also virtually unchanged, because a slight downward revision in forecast growth of private consumption and public sector investment is offset by the rescheduled aluminium and hydro sector investments and more investment in other manufacturing segments.

Although the forecast growth of national expenditure in 2005 and 2006 is broadly in tune with the September forecast, the GDP growth forecast for both years has been revised downwards. This is caused by slower export growth and faster import growth, both partly reflecting the rise in the real exchange rate. In addition, the Central Bank's policy rate has been raised since September. This dampens domestic demand growth and raises the real exchange rate, which channels demand out of the economy.

The tighter monetary stance also results in a further slowdown in the growth of domestic demand and GDP in 2007, compared with the September forecast. Consequently, production will not exceed capacity across the forecast horizon by as much as was expected in September.

The inflation outlook has improved, but inflation is still likely to be above target across the forecast horizon

Easing demand pressure and the appreciation of the króna have led to an improvement since September in the inflation outlook two years ahead. On the other hand, a greater increase in unit labour costs is now expected. This is the result both of higher wage settlements following a review in November and a downward revision to estimated growth of labour productivity.

Assuming an unchanged policy rate and exchange rate, the outlook is that inflation will still remain above the 2.5% target across the forecast horizon. Inflation is projected to be just over 3% one year ahead, compared with 3.7% to the same quarter in the September forecast. Two years ahead, inflation is projected to be just over 3½%, compared with 3.8% to the same quarter in the September forecast. Accordingly, the inflation target will not be attained until 2008, if the monetary stance remains unchanged.

Table I-2 Updated Central Bank inflation forecast – baseline scenario

Change in the CPI between periods

Measured inflation (%)	*Change on previous quarter*	*Annualised quarterly change*	*Change on same quarter of previous year*
2004:1	0.3	1.3	2.1
2004:2	1.7	7.0	3.3
2004:3	0.5	1.9	3.6
2004:4	1.3	5.2	3.8
2005:1	0.9	3.7	4.4
2005:2	0.5	2.0	3.2
2005:3	1.4	5.7	4.2
Inflation forecast (%)			
2005:4	1.1	4.7	4.0
2006:1	0.3	1.4	3.4
2006:2	0.8	3.1	3.7
2006:3	0.8	3.3	3.1
2006:4	1.1	4.4	3.0
2007:1	0.9	3.8	3.7
2007:2	1.0	4.2	3.9
2007:3	0.5	2.1	3.6
2007:4	0.8	3.3	3.4

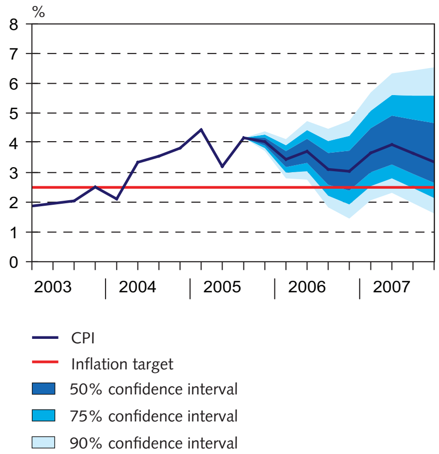
Measured inflation (%)	*Change year-on-year*	*Change within year*
2003	2.1	2.4
2004	3.2	4.0
Inflation forecast (%)		
2005	4.0	3.8
2006	3.3	3.4
2007	3.6	3.2

The baseline scenario is based on the assumption that the policy rate and exchange rate remain unchanged from the day of the forecast. Given the inflation outlook implied by the baseline scenario, the assumption of an unchanged policy rate must be considered highly unrealistic. In light of the historically high real exchange rate and the

Chart I-1

Central Bank inflation forecast – baseline scenario

Forecasting period: Q4/2005-Q4/2007



Source: Central Bank of Iceland.

wide current account deficit, the same applies to the assumption of an unchanged exchange rate.

Many of the assumptions behind the baseline scenario are uncertain, and some more than usual. Hence, considerable emphasis should be given to assessing the probability that the true inflation path will diverge from the baseline scenario. Broadly the risks to the forecast are the same as in September. On the assumption of an unchanged policy rate, the inflation risk profile is tilted to the upside. The risk is particularly pronounced further along the forecast horizon. Alternative scenarios based on financial market analysts' expectations about the policy rate and exchange rate paths, calculated using uncovered interest rate parities, reinforce this assessment.[2] If the policy rate is kept unchanged but the exchange rate follows the uncovered interest rate parity path, inflation will be around 4½%, which is 1 percentage point higher than in the baseline scenario. The higher policy rate path that the analysts forecast would bring down the inflation rate, but not sufficiently to counteract the effect of the depreciation. The alternative scenarios based on variable interest rate and exchange rate paths therefore both produce a higher rate of inflation than in the baseline scenario.

2. The expected policy rate path is based on a survey among financial market analysts, as discussed in more detail in Section III and Box VIII-1. The spread between this path and foreign forward interest rates can be used to produce an expected exchange-rate path based on uncovered interest rate parity. These paths are explained in more detail in Section VIII.

II External conditions

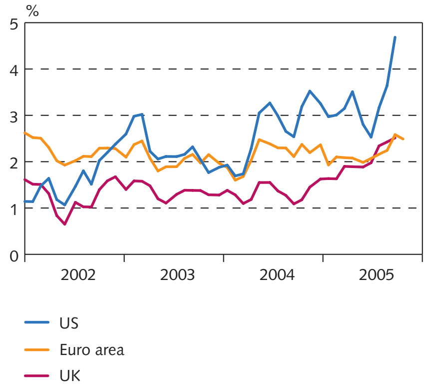
Growth prospects among trading partner countries broadly the same as forecast in September, but a poorer inflation outlook

Global economic developments in recent months point to fairly favourable external conditions for the Icelandic economy in the medium term. Higher fuel prices have not halted a broad global recovery, which has gained pace in regions that have been lagging behind, e.g. continental Europe. World trade has been growing faster than it had for some while, at almost 10% p.a. Both these factors bode well for Iceland's export sectors. This positive development reinforces, but does not fundamentally alter, the scenario on which the Central Bank's September forecast was based. Thus the previous assumptions for growth among trading partner countries remain broadly unchanged.

Inflation has been on the increase in Europe and North America, although the main driver is still higher energy prices. If energy prices do not rise even further, inflation should eventually wane again. However, if oil prices continue to climb they could increasingly affect inflation expectations and wage developments. International forecasts for inflation among Iceland's main trading partner countries next year (e.g. Consensus Forecasts) have been revised some way upwards towards the level assumed in the Central Bank's September forecast. Thus it was not considered necessary to revise the Bank's assessment of global inflation developments when the current forecast was prepared.

Climbing inflation coupled with waning excess capacity will probably lead Iceland's main trading partner countries to keep on tightening their monetary policies, at least towards a neutral stance. This is discussed in more detail in Section III on Financial conditions below. Excess liquidity and broad money growth are also a growing cause for concern, in Europe among other places, because they increase the probability of interest rate hikes. This is already reflected in the path for long-term interest rates, which have headed upwards since September.

Chart II-1
Inflation in the US, UK and euro area
January 2002 - October 2005

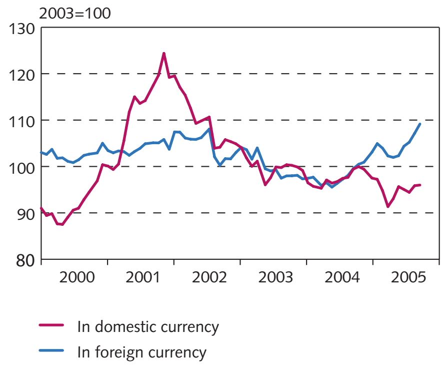


Source: EcoWin.

Substantial rise in marine prices in foreign currency since September

The global economic recovery, higher world market prices of food and robust demand in major market regions for fish products from Iceland have caused a rapid increase in prices of marine products in foreign markets over recent months. In September, prices of marine exports were 10% higher year-on-year in foreign currency terms and more than 2% higher than before the Central Bank's last forecast was made. Over the past twelve months, prices of frozen-at-sea fish have soared by 23% and fresh fish by 15%. These changes are reflected in an upward revision by one percentage point of the forecast for marine export prices in foreign currency since September. Higher export prices have softened the impact that the appreciation of the króna in recent months has had on fisheries companies. At the same time, they may also have contributed to the appreciation, or the stronger króna may have forced businesses to raise their prices in foreign markets, conceivably at the expense of market share.

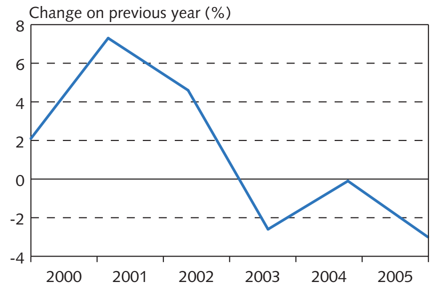
Chart II-2
Estimated marine product prices
January 2000 - September 2005



Sources: Statistics Iceland, Central Bank of Iceland.

Chart II-3

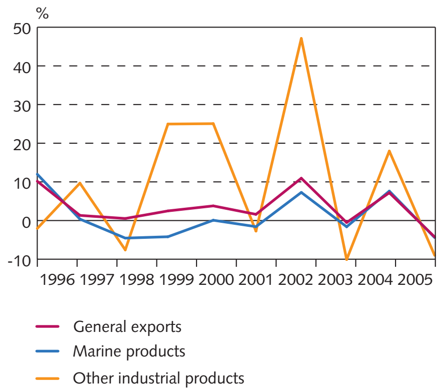
Value of fish catch at constant prices
January - September 2000-2005,
changes between years in %



Source: Statistics Iceland.

Chart II-4

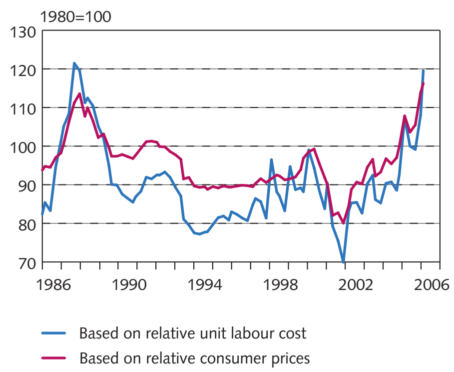
Volume of merchandise exports
January - September 1996-2005



Source: Statistics Iceland.

Chart II-5

Real effective exchange rate of the króna
Q1/1986 - Q1/2006



Source: Central Bank of Iceland.

Fish catch value at constant prices will probably decline this year

External conditions have not developed as favourably on the supply side of the economy. Catches of several major species, e.g. cod and oceanic redfish, have decreased year-on-year. Despite increased harvests of saithe, haddock and deep-sea redfish, catch value has slipped this year, measured at constant prices. Unless a sharp turnabout takes place in the closing months of the year, some contraction appears to be on the cards for 2005, which could lead to a drop in marine export volume. Increased exports of unprocessed wetfish also imply less domestic value added.

Marked decline in manufactured exports apart from aluminium so far this year

Exports of aluminium are expected to remain virtually unchanged year-on-year in 2005, as forecast. Exports by the manufacturing sector have recorded hefty growth in most years recently, but other manufactured goods than aluminium are heading for a sizeable decline this year. The decrease amounted to 9% over the first nine months, somewhat more than was measured in mid-year. There are various reasons for the contraction. In some cases large-scale deliveries have been delayed, but much of the explanation probably lies in a deterioration of the competitive position of domestic producers caused by the stronger real exchange rate.

Real exchange rate at its strongest for decades

Firm indications have emerged that the strong real exchange rate is beginning to have a substantial effect on various export sectors. Certain fisheries segments have actually benefited from rising product prices, but one sign of the impact of the strong króna is an increase in the share of unprocessed fish. The contraction in manufactured exports is probably largely the result of the strong real exchange rate, as mentioned above. Its effect may be more pronounced than in the past, because of the growing ability of some manufacturers which operate facilities in other parts of the world to transfer some of their production abroad if necessary.

In terms of relative consumer prices, the real exchange rate is currently stronger than in 1988 and at its highest level since the 1970s. Measured against relative unit labour costs it is not quite as strong in historical terms and marginally lower than in 1988, but uncertain productivity estimates introduce a considerable margin of error into these figures. Be that as it may, it seems clear that higher productivity, for example in fisheries, enables the sector to weather a stronger real exchange rate than in the past.

The strong króna may have a considerable impact on tourism in the long run

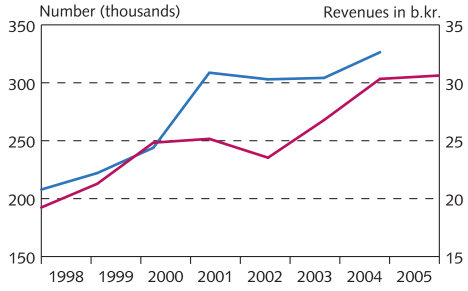
The tourism sector has felt unexpectedly little effect so far from the strong real exchange rate. First-half tourist traffic to Iceland was up year-on-year in 2005. Income from tourists remained unchanged in króna terms, which implies sizeable growth in foreign currency terms, and overnight stays increased by 4% over the first nine months of the year. Supply of low-fare flights to Iceland has been stepped up in recent years, presumably offsetting the effect of the exchange rate on tourist traffic, and domestic tourism service providers are likely to have absorbed exchange rate losses or hedged against them. However, if the current strong exchange rate persists, its impact will probably increase and could be quite pronounced next year.

September forecast for export growth revised downwards, but the outlook two years ahead is broadly unchanged

Given the contraction in merchandise exports over the first nine months, exports are likely to grow by rather less in 2005 than was forecast in September. Export growth has been revised downwards in the current forecast by almost 1 percentage point to 3½%. Growth is accounted for entirely by services, which were up by 6½% in real terms during the first half of this year. Services exports surged in Q2 and the September forecast for ongoing rapid growth remains unchanged. However, there is a high degree of uncertainty in this upbeat growth outlook.

Forecast export growth for 2006 is slightly down from September due to the stronger real exchange rate. Also, slightly less growth in aluminium production is expected this year, but more in 2007. The forecast for exports in 2006 has therefore been revised marginally downwards, to just under 6%. Export growth in 2007, on the other hand, has been revised upwards to 15½%. Projected aluminium production capacity in 2007 has also been upped on top of the extra capacity delayed from 2006, which outweighs the impact of the real exchange rate on other exports.

Chart II-6
Number of foreign tourists and revenues
January - September 1998-2005



Sources: Icelandic Tourist Board, Statistics Iceland, Central Bank of Iceland.

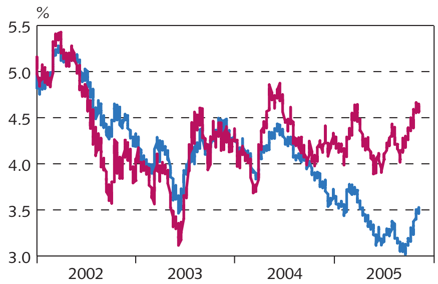
Table II-1 Main assumptions for developments in external conditions

	Current forecast (%)[1]			*Change from previous forecast (percentage points)*[2]		
	2005	*2006*	*2007*	*2005*	*2006*	*2007*
Exports of goods and services	3.6	5.8	15.4	-0.8	-0.4	0.9
Marine production for export	-2.0	3.0	2.0	-2.0	-	-
Prices of marine products in foreign currency	9.0	6.0	3.0	1.0	1.0	-
Prices of exported goods and services in foreign currency	7.1	3.3	0.2	-0.8	-1.2	-0.1
General import prices in foreign currency	2.5	2.3	2.0	-	-	-
Terms of trade for goods and services	0.3	3.9	0.7	-1.0	2.3	0.2
Foreign short-term interest rates	2.6	3.1	3.5	0.1	0.3	0.6

1. Percentage change year-on-year, except for interest rates. 2. Change since *Monetary Bulletin* 2005/3.
Source: Central Bank of Iceland.

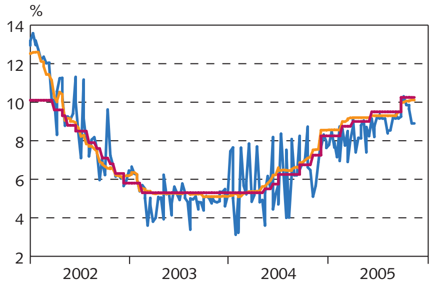
III Financial conditions

Chart III-1
Yield on 10-year government bonds
Daily data January 1, 2002 - November 11, 2005



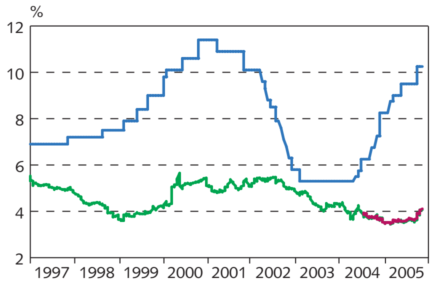
Source: EcoWin.

Chart III-2
Central Bank policy
interest rate and interbank interest rate
Weekly data January 4, 2002 - November 11, 2005



Source: Central Bank of Iceland.

Chart III-3
Central Bank policy interest rate
and yields on indexed long-term bonds
Weekly data January 8, 1997 - November 8, 2005



Source: Central Bank of Iceland.

Financial conditions are gradually tightening

After the Central Bank raised its policy interest rate by 0.75 percentage points in September, financial conditions have tightened considerably and a further tightening is expected. Monetary policy has been transmitted throughout the yield curve and also reached yields on indexed long-term bonds. The concurrent appreciation of the króna has made loans denominated in foreign currencies less attractive to borrowers if they expect that the real exchange rate will eventually return to a more sustainable long-term level. Offsetting this, increased foreign issues of bonds denominated in Icelandic currency have boosted demand for domestic bonds and driven down interest rates on instruments with a maturity of between one and five years. The most important change in financial conditions since September is undoubtedly the rise in housing mortgage interest rates. Yields on Housing Financing Fund (HFF) bonds have jumped since the policy rate hike at the end of September. However, the full impact will only be felt after a general rise in household mortgage interest rates, a process which has only just begun.

Long-term interest rates abroad have begun to rise

Interest rates are still very low in the main countries where Icelandic financial institutions and corporations procure their capital. Since September, however, interest rates on long-term bonds have risen quite sharply in both Europe and North America. In the US, the Federal Reserve has continued its process of measured interest rate increases. After the hike at the beginning of November the federal funds rate is 4%, up from a low of 1% over the period June 2003 to June 2004. Unfolding economic developments (see section II) have also increased the probability that the European Central Bank will raise its minimum bid rate, which is still only 2%. If this development continues, as appears likely, it will have a substantial effect on the transmission of monetary policy in Iceland; until recently, low foreign rates have delayed the transmission of monetary tightening across the yield curve.

The Central Bank's latest rate hike appears to have influenced expectations about the medium-term development of the policy rate

The zero-coupon curve on nominal instruments has risen in line with the latest Central Bank policy rate increase. The hike is also reflected in a higher implied forward interest rate path, which has served as a measure of market expectations about medium-term policy rate developments. The latest hike appears to have exceeded market expectations, judging from forward rates.

Although the yield curve has edged upwards following the last hike, its shape has hardly changed. Based on the implied forward curve, the Central Bank's policy rate is still expected to peak shortly at 10.75%, and then soon head down to 7% at the end of 2007, which is one percentage point above what the curve implied in September.

The immediate conclusion would seem to be that the Central Bank's last rate hike had only a modest impact on market expectations about the development of the policy rate, apart from nudging the entire curve upwards.

However, the implied forward rate curve needs to be interpreted with caution at present, because recent issues of króna-denominated bonds by non-residents – or rather the demand for domestic bonds that they generate – have shifted yields on shorter nominal Treasury instruments downwards but spurred demand for deposits in the interbank market at same time; as counterparties to the bond issuers, Icelandic banks use both nominal Treasury notes and the interbank market to hedge their positions. This increased demand has driven down interbank interest rates, especially at the longer end of the spectrum, i.e. deposits with a term of roughly one year.[3] As a result, the implied forward rate curve probably does not adequately reflect market expectations of the medium-term development of the policy rate.

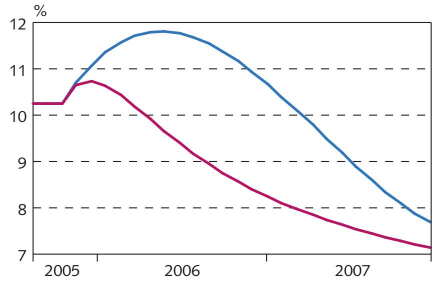
Market analysts' expectations of policy rate developments over the next two years appear to support this conclusion (see Box VIII-1). On average, they expect the policy rate to peak at just below 12% in the middle of next year, which is considerably higher than can be read from implied forward rates, and they also expect a significantly slower decrease, to just over 11% one year ahead and just under 8% two years ahead.[4] These forecasts are well above those made by the same analysts in the survey published in *Monetary Bulletin* 2005/3 in September, which were just over 9% one year ahead and 7.5% two years ahead. Contrary to the picture given by implied forward rates, the Central Bank's policy rate hike in September and its policy message in *Monetary Bulletin* then appear to have had a considerable effect on analysts' expectations about the development of interest rates over a two-year horizon.

The September rate hike was transmitted in full in real terms ...

Since the Central Bank began raising its policy rate in May 2004, the effectiveness of the interest rate increases has been partly offset by rising inflation expectations. For most of the time since the second half of 2004, inflation expectations have been close to 4%. However, they did not increase after the inflation spike in the autumn, except among households, whose average forecast twelve months ahead was higher in late October/early November than in July.[5] The 0.75 percentage-point rise in September was therefore transmitted in full in real terms, which is a precondition for a tighter monetary stance to influence interest rates on indexed bonds.

Chart III-4

Central Bank policy interest rate projected from forward interest rate and forecasts by financial analysts September 2005 - December 2007

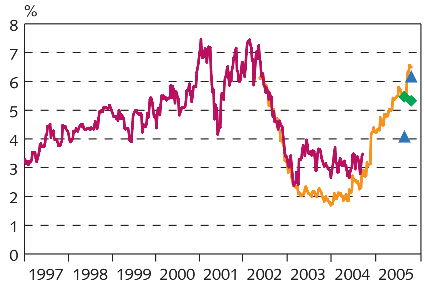


Source: Central Bank of Iceland.

Chart III-5

Central Bank policy interest rate in real terms

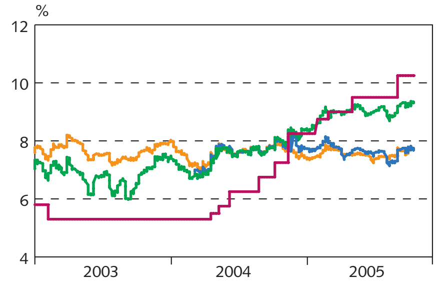
Weekly data January 8, 1997 - November 8, 2005



Household expectations twelve months ahead were surveyed at the end of August/beginning of September and at the end of October/beginning of November. The September value shows analysts' expectations for twelve-month inflation to end-2006 and the later value is for twelve months ahead.
Source: Central Bank of Iceland.

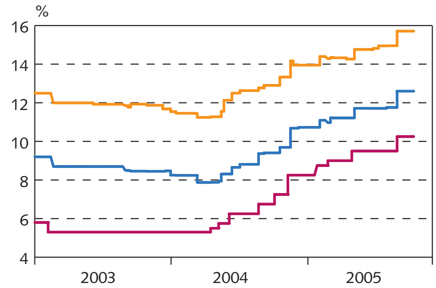
3. A detailed discussion of issues of króna-denominated Eurobonds is found in the article by Thorvardur Tjörvi Ólafsson in this edition of *Monetary Bulletin*, pp. 55-83.
4. As noted in Box VIII-1, one analyst presents a sharply divergent assessment of how the policy interest rate will develop two years ahead. He predicts that the policy rates will soon peak at a lower level than other respondents to the survey have forecast, followed by a swift decrease to a lower level at end-2007 than is indicated by the implied forward rate.
5. Households' inflation expectations are closely linked to their perception of past inflation and should therefore begin to fall back over the next few months if inflation continues to wane.

Chart III-6
The Central Bank
policy rate and yield on Treasury notes
Daily data January 3, 2002 - November 11, 2005



Source: Central Bank of Iceland.

Chart III-7
The policy interest rate and
non-indexed bank lending rates
Weekly data January 4, 2002 - November 11, 2005



Source: Central Bank of Iceland.

... but large-scale foreign issues of króna-denominated bonds have suppressed interest rates on nominal bonds ...

Although the policy rate hike in September exceeded broad market expectations and the sharp tone of *Monetary Bulletin* was interpreted as a clear message that further rises could be expected, interest rates on two- to eight-year nominal bonds were left relatively unaffected. International issues of króna bonds were probably a contributing factor. Eurobonds of market value of roughly 115 b.kr. have been issued and the resulting demand for domestic bonds has driven interest rates in Iceland down, as pointed out above. International bond issues are likely to continue for as long as domestic credit demand remains robust – which is reflected in a wide interest-rate differential with abroad – and there is an ample supply of domestic bonds for hedging.

... and contributed to the appreciation of the króna

The demand for domestic bonds stirred by foreign issues has not only suppressed interest rates, but also contributed to the appreciation of the króna, although just how much of the appreciation can be attributed to the bond issues is difficult to evaluate, because the policy rate hike in September had the same effect. At the time of writing, the króna has appreciated by almost 6% since the policy rate was raised at the end of September. In real terms the króna is currently roughly one-fifth stronger than on average over the past two decades. It seems likely that the real exchange rate will revert to its long-term mean in the coming years. Conceivably, the exchange rate could overshoot. In that case, real returns in foreign buyers' currency will almost certainly turn sharply negative. The fact that Icelandic bonds are in demand at interest rates which are relatively low considering the prevailing exchange rate and economic climate in Iceland may indicate that foreign buyers are not particularly well informed about the Icelandic economy and underestimate the foreign exchange risk involved. A re-evaluation of this risk could cause a sharp rise in required returns as soon as the króna begins to depreciate.

Nominal lending rates rose in pace with the policy rate and indexed lending rates are starting to rise

As is often the case, interest rates on nominal lending by credit institutions closely tracked the change in the Central Bank's policy rate in September. Average prime rates offered by deposit money banks (DMBs) are currently roughly 12½%. However, the spread between the policy rate and prime rates is somewhat narrower than in 2003. A broad-based rise in indexed lending rates is likely, on the back of rising yields on indexed bonds and recent rises in mortgage lending rates announced by the HFF and other credit institutions.

Credit growth has still not slowed down, but twelve-month growth in money has dropped due to the base effect

Lending by the credit system is still surging, especially among DMBs. In September, DMB lending adjusted for changes in the exchange rate and CPI was up by almost 60% year-on-year. Growth of broad money (M3) slowed down in September, primarily due to the base effect, but remained high. M3 surged in September 2004, presumably coinciding with large-scale mortgage lending by the banks then – an increase in lending temporarily raises the level of deposits in the banking system.

Financial conditions of households and businesses have tightened since September

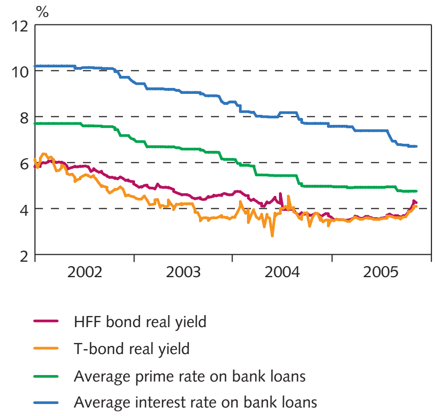
The rise in the policy rate is increasingly being transmitted in the form of tighter financial conditions. Short-term nominal lending rates track rises in the Central Bank's policy rate. While large international issues of króna-denominated bonds present businesses with an opportunity to borrow in Icelandic currency at lower interest rates than otherwise, the appreciation of the króna and rising interest rates on foreign currency-denominated loans have made foreign borrowing considerably less favourable. Furthermore, the strong króna is contributing to widespread erosion of companies' profits. This is only the beginning of a process which will presumably lead to far tighter financial conditions over the months to come.

So far, households have not been affected much by the tight monetary policy, as non-indexed loans do not weigh heavily in their total debt. Higher interest rates on overdrafts and payment cards definitely represent a tightening, but the effect of higher mortgage interest rates will be crucial. Banks are also clearly more reluctant to lend to homebuyers now, since fully mortgaged properties do not represent such secure collateral when house prices are as high as they have been in the Greater Reykjavík Area recently.

Chart III-8

Average indexed bank lending rates and real yield on HFF bonds and T-bonds

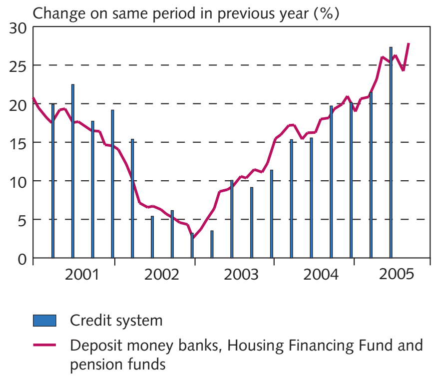
Weekly data January 4, 2002 - November 11, 2005



Source: Central Bank of Iceland.

Chart III-9

Credit growth January 2001 - September 2005[1]

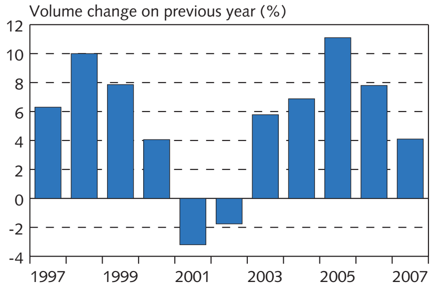


1. Quarterly credit system lending and monthly lending by DMBs, Housing Financing Fund and pension funds.
Source: Central Bank of Iceland.

IV Domestic demand and output

Chart IV-1

Private consumption growth 1997-2007[1]



1. Central Bank forecast 2005-2007.
Sources: Statistics Iceland, Central Bank of Iceland.

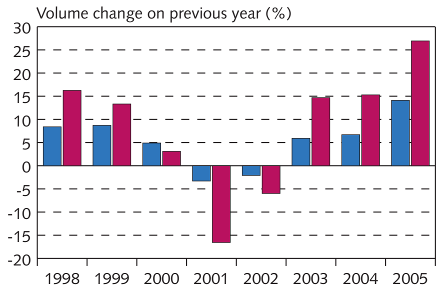
Since the Central Bank's last forecast was published at the end of September and until the exchange rate assumptions for the current forecast were decided in mid-November, the króna has appreciated by almost 6%, and the Central Bank has raised its policy interest rate by 0.75 percentage points: A clear message was delivered in *Monetary Bulletin* 2005/3 on a continuing tight monetary stance in the medium term. Subsequently, inflation expectations have diminished and the policy rate hike has been transmitted in full in real terms. The Central Bank's current forecast reflects these changes, but no new data are available from the national accounts since the September forecast was made.

The main change since the September forecast is a downward revision of output growth for all three years 2005 to 2007. The deviation is mainly explained by a greater-than-expected appreciation of the króna, which leaves an even more negative contribution by foreign trade to GDP this year and in 2006, as demand is increasingly channelled out of the economy. In 2007, domestic demand will begin to wane and exports will take over as the main source of economic growth.

Private consumption

Chart IV-2

Consumer goods imports and private consumption, first-half figures for 1998-2005



Source: Statistics Iceland.

In September, the Central Bank forecast that private consumption would increase by 10% this year and remain robust over the next two years at 8% in 2006 and 4½% in 2007. However, wage drift at the end of the summer exceeded the September forecast and inflation in the last quarter is likely to be lower than forecast then. The outlook is therefore for a greater increase in real disposable income than was forecast in September, fuelling private consumption growth. Further indicators of private consumption growth in Q3/2005 point to broadly the same rate of growth in the second half of the year as in the first half. After taking these factors into account, the forecast for year-on-year private consumption growth in 2005 has been revised upwards to 11%.

However, the outlook is for marginally slower private consumption growth over the next two years than was forecast in September. Real disposable income will go up somewhat following the review of wage settlements, but this is countered by tighter financial conditions of households. Hitherto, the tight monetary policy has only had a limited impact on households, because interest rates on indexed bonds changed very little despite the policy rate hikes until September. Real interest rates went up following the last policy rate hike and are higher than had been forecast. Credit institutions have also recently raised their mortgage lending rates and general indexed lending rates are like to follow them.[6]

6. A more detailed discussion is included in Section III on Financial conditions above.

Table IV-1 Indicators of private consumption in the second half of 2004 and in the first ten months of 2005

% year-on-year change unless otherwise stated	*Quarterly figures*					*Most recent period*	*Change based on*	
	Q3/2004	*Q4/2004*	*Q1/2005*	*Q2/2005*	*Q3/2005*	*Month*	*same month in prev. year*	*year-to-date figures*
Grocery turnover (in real terms)	4.3	3.5	7.2	10.5	9.2	October 2005	8.0	9.6
Payment card turnover (in real terms)[1]	4.9	11.3	11.2	14.4	11.9	October 2005	6.1	11.8
of which domestic	4.0	9.8	9.8	12.8	10.3	October 2005	3.1	9.9
of which abroad	18.4	34.0	35.6	33.7	35.9	October 2005	43.4	36.7
Car registrations (increase in number)	19.5	44.3	61.4	64.4	57.8	October 2005	45.2	60.0
General imports (volume change)[2]	13.6	16.0	15.1	17.5	19.5	September 2005	.	19.5
Imports of consumer goods (volume change)[2]	14.5	15.7	22.1	26.9	26.0	September 2005	.	26.0
Private motor vehicles[2]	24.6	35.0	56.7	66.0	61.3	September 2005	.	61.3
Consumer durables. e.g. household appliances[2]	16.3	17.1	36.3	38.5	38.7	September 2005	.	38.7
Consumer semi-durables. e.g. clothing[2]	8.8	7.5	16.9	17.4	17.5	September 2005	.	17.5
Food and beverages[2]	10.5	10.2	6.8	9.0	8.5	September 2005	.	8.5
Imports of investment goods excluding ships and aircraft (volume change)[2]	23.8	19.3	36.9	26.6	28.4	September 2005	.	28.4
Gallup confidence index	5.5	-3.2	-1.7	9.4	5.6	October 2005	-3.7	11.8
Current situation	23.1	19.8	21.2	34.6	30.7	October 2005	22.9	35.3
Expectations six months ahead	-3.5	-14.7	-13.7	-5.9	-9.0	October 2005	-22.3	-4.1

1. Payment card turnover for both households and businesses; the bulk of payment card turnover comes from households. 2. Quarterly figures are year-to-date figures.
Sources: Federation of Trade and Services, Motor Dealers' and Services Federation, Statistics Iceland, IMG Gallup, Central Bank of Iceland.

Public consumption

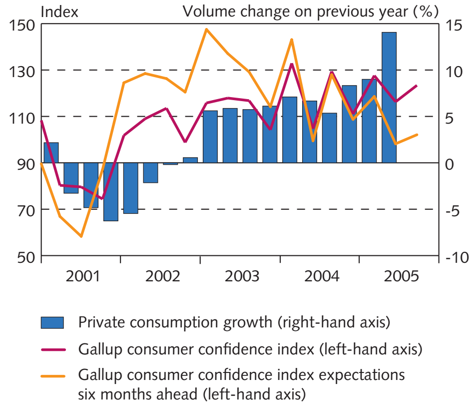
Since the Central Bank's last macroeconomic forecast in September, the government has introduced its budget for 2006 and the Ministry of Finance's new medium-term fiscal programme for 2006-2009 has been announced. A more detailed breakdown of public sector expenditures for the first half of 2005 has also been published by Statistics Iceland. The current forecast is therefore based on more complete data than were available at the end of September.

In September, the Central Bank forecast that public consumption would grow by 3½% this year and roughly 3% p.a. over the next two years. It forecast more growth in public consumption by local authorities and the welfare system than by the central government. The forecast for this year has now been revised downwards to 3%, but the outlook is virtually unchanged for 2006 and 2007.

The lower estimate for public consumption in 2005 is largely explained by less central government consumption than was forecast in September. The most recent Ministry of Finance estimates, announced in October when the budget was presented, put the figure at 2.4%. These estimates are backed up by the development of central government expenditures within the year and are used in the forecast. Municipal consumption is still forecast to increase by 4½%.

Consumption by central government and the welfare system is still expected to increase by more in 2006 and 2007 than assumed in the new draft budget. Experience shows that total public consumption generally exceeds initial estimates.

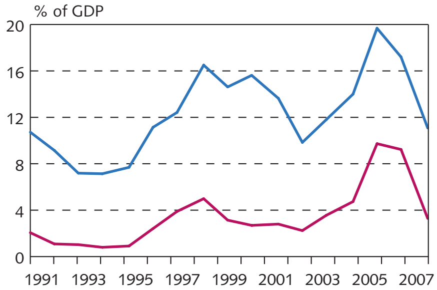
Chart IV-3
Private consumption and consumer confidence[1]
Q1/2001 - Q3/2005



1. Confidence index at end of each quarter.
Sources: IMG Gallup, Statistics Iceland.

Chart IV-4

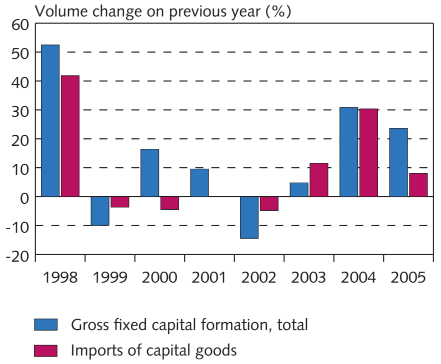
Gross fixed capital formation: businesses, power-intensive industries and power plants 1991-2007[1]



1. Central Bank forecast for 2005-2007.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-5

Gross fixed capital formation and imports of capital goods, first-half figures for 1998-2005



Source: Statistics Iceland.

Gross fixed capital formation

The Central Bank's forecast for gross fixed capital formation has not changed much since September. It forecast an increase of 31% this year and contractions of 4% in 2006 and 16% in 2007 respectively. The new forecast remains unchanged for the current year, with a slightly smaller decrease in 2006, at 3%, but a larger contraction of 20% in 2007.

Business investment to contract in 2006, and by more in 2007

In the current macroeconomic forecast, slightly more business investment growth is assumed in 2005 than in the September forecast, at 56%. The forecast contraction in 2006 has been lowered to 4% from 7%. In 2007, however, an even larger decrease is forecast now, amounting to 32%.

The slight rise in the business investment forecast for 2005 is largely explained by robust domestic demand which has driven investment in sectors such as services and construction. A large-scale aircraft investment was also announced after the September forecast was published. While investments in the aluminium and power sectors to the tune of roughly 3 b.kr. this year that were assumed in the forecast have been rescheduled to 2006, the aircraft investments outweigh them by adding roughly 8 b.kr.

Financial conditions of businesses have tightened and the króna has appreciated since the September forecast. Domestic real interest rates have risen but foreign rates are still low, especially in the euro area, although there are many indications that they will go up in the near future. Tighter conditions are clearly reflected in the investment forecast. A greater contraction in general business investment excluding power-intensive industry, ships and aircraft in 2006 is forecast now compared with September, and the projected increase in 2007 has been revised downwards from 5% to virtually zero. Stepped-up investment in the aluminium and power sectors next year will counterbalance this development and result in a smaller contraction in total business investment than was foreseen in September. In 2007, however, the contraction will be sharper than forecast hitherto, due to higher real interest rates.

Table IV-2 Profitability of listed companies in the first three quarters of 2004 and 2005[1]

	EBITDA % of turnover		*Net earnings % of turnover*		*Return on assets[2]*		*Return on equity*		*Equity ratio*	
	2004	*2005*	*2004*	*2005*	*2004*	*2005*	*2004*	*2005*	*2004*	*2005*
Fisheries	21.6	18.2	11.7	7.9	8.0	7.6	8.5	14.5	34.4	33.5
Manufacturing	17.9	12.6	11.4	7.0	12.6	6.6	20.1	13.9	40.2	26.5
Marine exports	-16.1	-2.0	-20.3	-2.8	-2.7	-0.5	-8.2	-1.8	41.7	40.0
Transport	13.2	10.2	8.3	0.0	13.8	7.2	25.5	42.5	34.1	29.4
ITC	10.3	8.6	5.7	3.8	3.7	7.2	5.9	8.5	34.7	38.3
Other	20.7	19.4	12.0	14.3	10.1	10.6	16.2	23.9	36.0	32.9
Total	14.3	11.3	7.9	5.1	7.9	6.2	11.6	9.3	38.0	30.2

1. Based on the accounts of the 14 listed non-financial companies that were available on November 25, 2005. 2. EBITDA as a proportion of total assets.

Source: Central Bank of Iceland.

The impact of the appreciation of the króna varies widely across the business sector. Companies with substantial shares of their operating costs denominated in krónur but revenues in foreign currencies are hit hardest by the strong real exchange rate. Many companies in the fisheries and tourism sectors are cases in point. Gallup's new business confidence survey conducted for the Central Bank, Confederation of Employers and Ministry of Finance in October, for example, gives a strong indication that fisheries companies' expectations have plunged since the previous survey in February.

Management in general view the current economic climate as very favourable, according to the Gallup survey. However, businesses are much less upbeat than in February when asked about the state of the economy six and twelve months ahead.

Public sector investment will shrink by more this year and next year

As mentioned in the section on public consumption above, a substantial amount of data on the public sector has become available since the Central Bank's forecast in September. This has resulted in a number of changes to the forecast.

In September, the Central Bank forecast a sizeable contraction in public sector investment this year (7%) and next year (9%), followed by a hefty increase of 23% in 2007. A greater contraction is now forecast for 2005 and 2006, but a somewhat larger increase in 2007. It should be underlined, however, that public sector investment does not weigh very heavily in total gross fixed capital formation. A shift of a few percentage points in public sector investment therefore does not imply a major change in the total.

The current forecast is based on the draft budget for 2006, which projects a 20% contraction in central government investment both this year and in 2006. Local government investment is also forecast to decrease by 5% in 2005 and almost 12% next year. Although a sharp contraction in investment during a local government election year (2006) is quite unusual, growth tends to hit a peak during the year before the elections.

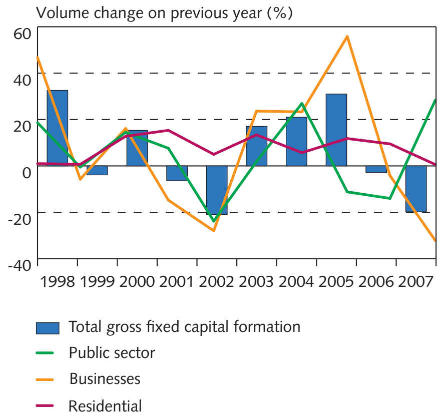
The Central Bank's forecast for 2007 is partly based on the Ministry of Finance's new medium-term fiscal programme, which assumes that central government investment will increase by roughly 90% in 2007. The Ministry of Finance estimates that local government investment will shrink by 21% in 2007 to the lowest figure for 25 years as a proportion of GDP. However, the Central Bank forecasts a contraction of 13%.

Ambiguous indications about residential investment

In September, the Central Bank forecast an increase in residential investment of 12% this year and 10% in 2006. Mortgage rates have risen since the updated forecast was completed, but their effect is negligible since the increase is in tune with the forecast development of indexed interest rates. In 2007, residential investment is expected to remain roughly unchanged year-on-year.

Chart IV-6

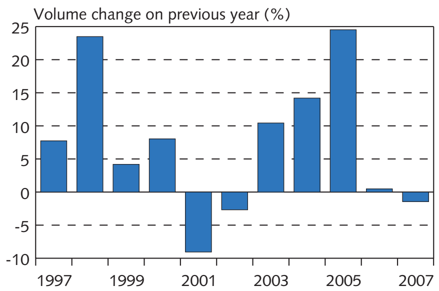
Gross fixed capital formation growth and its main segments 1998-2007[1]



1. Central Bank forecast 2005-2007.
Sources: Statistics Iceland, Central Bank of Iceland.

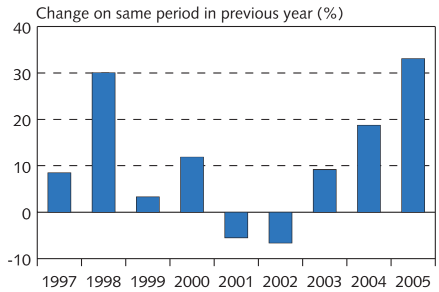
Other residential investment indicators have changed little since September, so the Central Bank's forecast for residential investment remains broadly unaltered since then. As in September, however, these indicators are fairly ambiguous. On the basis of issued building permits, the volume increase can be estimated at 16% last year and 22% this year. Figures from the Land Registry of Iceland tell a similar story for 2004, with almost 18-20% more properties built than during the previous year. A different picture is given by data from Statistics Iceland showing an increase in residential investment of only 5.7% last year. Soaring house prices over the past year indicate a powerful upswing in the sector, but the shortage of skilled construction workers is a constraining factor.

Chart IV-7
Import growth 1997-2007[1]



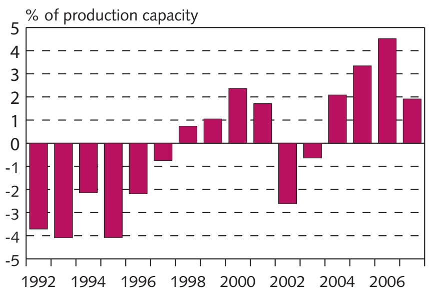
1. Central Bank forecast for 2005-2007.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-8
Goods imports in the first nine months of the year 1997-2005



Source: Statistics Iceland.

Chart IV-9
The output gap 1992-2007[1]



1. Central Bank forecast for 2005-2007.
Source: Central Bank of Iceland.

Imports

Most indications are for faster import growth than was forecast in September. The current forecast for year-on-year import growth in 2005 has been upped to 24½% from the earlier 23%. Faster growth is explained by the appreciation of the króna and upward revisions of public consumption and investment growth since September. In the first three quarters of 2005, import volume increased year-on-year by 22.9%. Of this figure, consumer goods increased by 27.4% in volume terms, investment goods by 38% and capital goods by 11.4%.

Imports are expected to increase by ½% in 2006, marginally more than in the September forecast and mainly driven by the stronger real exchange rate. In 2007, imports are expected to drop by almost 1½% year-on-year, which is more than was forecast in September, due to a contraction in national expenditure.

GDP growth and the output gap

The bottom line of the above analysis is that the outlook is for less output growth from 2005 through to 2007, compared with the September forecast, although growth is still expected to remain robust for all three years. The main explanation for the slowdown is the stronger real exchange rate than in the September forecast, resulting in an even more negative contribution by foreign trade to GDP in 2005 and 2006. In other words, domestic demand is being increasingly channelled out of the economy. Forecast national expenditure is virtually unchanged for 2005 and 2006 but a larger contraction is expected in 2007. A turning point will be reached that year, when exports take over from domestic demand as the main driver of GDP growth

Changes in the growth outlook affect output gap estimates. The forecast for the positive output gap has been revised downwards, most noticeably for 2006 and 2007. In September, the positive output gap – i.e. production in excess of long-term production potential – was forecast at just under 5% next year and almost 3% in 2007. The current forecast is just under 3½% this year, 4½% next year and just below 2% in 2007. Thus even though it has decreased, the output gap is still expected to remain firmly positive over the forecast horizon. It should be underlined that output gap estimates are subject to great uncertainties, especially the most recent measurements, which are most crucial for evaluating future developments.

V Public sector finances

The outlook for Treasury revenues this year has improved even further. Tax revenues have been robust since the last *Monetary Bulletin* was published at the end of September and the outlook is for record corporate income tax revenues. As a result, Treasury revenues should rise by another 7-10 b.kr. compared with the draft supplementary budget. The outlook for local government finances for 2005 remains broadly unchanged from the September forecast, but the estimated structural balance of the public sector as a whole has improved. This is largely because corporate income tax collections were previously underestimated.

Draft supplementary budget: privatisation of Iceland Telecom and a surge in other revenue

The draft supplementary budget was presented to Parliament at the beginning of October. Forecast revenue for 2005 was raised from 306 b.kr. to 328 b.kr., excluding revenues from the privatisation of Iceland Telecom and related items. Likewise, the expenditure forecast was upped from 296 b.kr. to 305 b.kr., excluding privatisation costs and irregular items. Privatisation of Iceland Telecom boosted Treasury revenues by 57½ b.kr. in direct profit on the sale and by almost 5 b.kr. in dividends as a preparatory step for privatisation.[7]

According to the supplementary budget, tax revenues excluding items connected with Iceland Telecom will amount to 301 b.kr this year, as against 281 b.kr. in the original budget. The bulk of the extra revenue is accounted for by higher-than-expected indirect taxes, stamp duty and capital income tax. Personal income tax yields an extra 1 b.kr. and 7 b.kr. of corporate tax revenues were added during its second parliamentary reading. The increase in tax revenues reflects intense economic activity this year and strong business profitability in 2004.

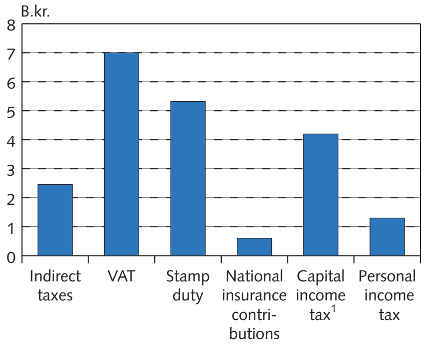
Expenditures also increase by 9 b.kr. from the main budget, excluding items connected with Iceland Telecom. Excluding irregular items and interest payments, over which the Treasury has little direct control, expenditures will end up more than 6 b.kr. higher than budgeted, which amounts to a rise of 2% from the budget to the draft supplementary budget. With this addition, real expenditures in 2005 will be 2.9% higher in real terms than in 2004. The budget target was 2.3%.

Central Bank estimates for 2005 revised in light of new data

In its macroeconomic forecast, the Central Bank estimates Treasury revenues just over 10 b.kr. higher than the draft supplementary budget. This is mostly due to increased corporate tax revenue.

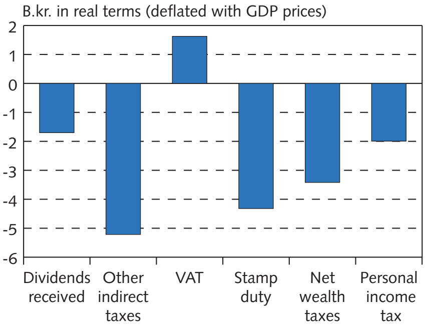
7. The Treasury's payment of capital income tax to itself is entered both on the revenue and expenditure sides. Finally, the book value of Iceland Telecom is entered as a cash flow rather than as revenue, although this does not affect the Treasury's credit budget surplus.

Chart V-1
Additional revenue in
the draft supplementary budget 2005[1]



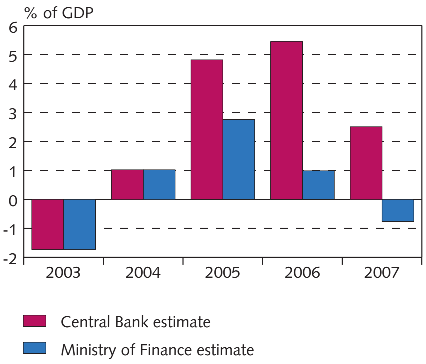
1. Excluding privatisation of Iceland Telecom.
Source: Draft supplementary budget 2005.

Chart V-2
Revenue reductions
in the draft budget for 2006



Source: Draft budget 2006.

Chart V-3
Treasury balance 2003-2007
National accounts presentation



Sources: Ministry of Finance, Central Bank of Iceland.

In light of data presented in the draft supplementary budget, forecast growth of consumption by central government and the welfare system has been revised downwards and a considerably larger contraction in their investment is now expected. Total expenditures are now expected to rise in nominal terms by 5% year-on-year in 2005, instead of 7%.

Cautious revenue forecast in the budget for 2006 …

The draft budget and estimates for 2006 reflect the impact of a cut in personal income tax and the abolition of net wealth taxes. Revenues from indirect taxes are down by 2% in real terms and regular expenditures by 1%. In addition, the government's measures to back up the review of wage settlements are known to cost the Treasury more than 1½ b.kr. next year and considerably more when planned changes to unemployment benefits go into effect, especially if unemployment rises sharply.

Treasury revenues are expected to fall by almost 15 b.kr. year-on-year at constant prices, and the ratio of taxes to GDP from 31% to 28½%. Tax cuts during the year will cost roughly 10 b.kr. and a somewhat larger revenue loss is expected in indirect taxes. The stamp duty is expected to yield around 4 b.kr. less when mortgage refinancing begins to decline and housing market pressures ease. Increased revenue generated by greater production and earnings in general will partly offset these losses.

Treasury expenditures, deflated by GDP prices, are expected to fall by 12 b.kr., almost entirely due to irregular items and debt service. Relatively modest increases on education will balance lower fixed investment. Expenditures excluding interest payments and irregular items (pension fund commitments, revenue write-offs and privatisation costs) should remain virtually unchanged in real terms, compared with an average of 3.5% p.a. over the period 1991-2004. Robust economic growth will nonetheless reduce the ratio of regular public sector expenditure to GDP by almost 1½ percentage points.

… while the Central Bank forecasts higher Treasury revenues next year

Projections based on the Central Bank's macroeconomic forecast produce a higher estimate for Treasury revenues next year than in the draft budget: an increase of 1½% in real terms as against a decrease of almost 4½%. The discrepancy is largely explained by differences in assumptions and macroeconomic forecasts. The Central Bank forecasts much higher growth of household earnings and GDP than the Ministry of Finance. Also, the ministry assumes that revenues from stamp duty and import duties will go down, which the Central Bank does not. While a case for such reductions can be argued, it is less relevant in a robust growth climate and when an unchanged exchange rate and interest rates are assumed, as in the Central Bank's forecast.

The draft budget aims to keep regular expenditures virtually unchanged in real terms. This is an ambitious target given that they have risen by at least 2% p.a. in real terms ever since 1998 and sizeable expenditure pressures are now present. Nonetheless, the expenditure estimate from the draft budget is used in the Central Bank's forecast, plus foreseeable expenditures in connection with the review of wage settlements.

On the basis of the Central Bank's macroeconomic forecast and assuming that only half of this year's increase in revenues from corporate taxes will be reversed in 2006, the Treasury surplus will be much greater than projected in the draft budget. Revenues will increase by 6½ percentage points more than assumed in the budget while the same change in expenditures is foreseen, i.e. a 1% decrease in real terms. Thus the Treasury balance will improve by 13 b.kr. year-on-year according to the Central Bank's forecast but deteriorate by 11 b.kr. according to the draft budget, in both cases excluding the impact of Iceland Telecom and other irregular items.

Further tax cuts and a massive increase in investment in 2007

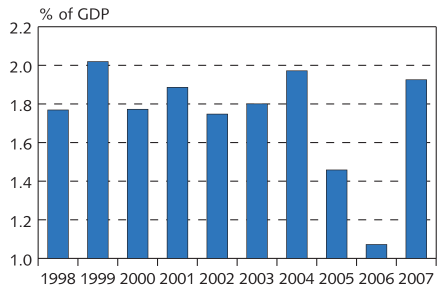
In 2007, taxes will again be cut on a comparable scale to 2006. The personal income tax rate will be reduced from 23.75% to 21.75% of the tax base, costing the Treasury an expected 11-12 b.kr. Tax base growth will partly offset this to leave a net reduction in revenues from direct taxes amounting to 7 b.kr. at 2006 prices, according to Ministry of Finance estimates. On the expenditure side, central government investment will be up by more than 10 b.kr. Proceeds from the privatisation of Iceland Telecom which have been earmarked for investment projects are added almost in full to investment plans previously scheduled in the medium-term fiscal programme from autumn 2004. Transfers are likewise expected to increase substantially due to higher unemployment, a rise in child allowance and commitments made under the review of wage settlements in November this year. The draft budget, which was proposed before the wage review commitments were made, assumed that a 14 b.kr. surplus in 2006 would swing over to a 10 b.kr deficit in 2007.

The Central Bank forecasts a smaller increase in expenditures than the draft budget, in part because of lower debt and lower debt service. According to the Central Bank's forecasts and estimates, output growth will remain fairly robust, earnings will rise substantially and Treasury revenues from indirect taxes will remain broadly unchanged in real terms. However, the Treasury surplus will be slashed by the decrease in direct tax revenue and increased expenditures. A handsome surplus will nonetheless be recorded, according to the Central Bank macroeconomic forecast, in the range of 20-30 b.kr., which is broadly unchanged from the September estimate.

Local government deficit narrows

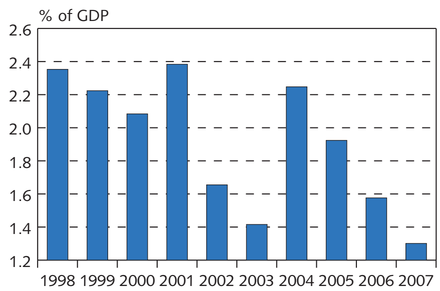
The outlook for local government finances has changed little, because Statistics Iceland's preliminary figures for 2004 had already been released when *Monetary Bulletin* was published in September. Thus the changes in the Central Bank's estimates for local government finances are almost entirely the result of revisions to the macroeconomic forecast. Revenues are still expected to grow faster than GDP, as a result of higher real estate prices and increased contributions from the Municipal Equalisation Fund.

Chart V-4
Central government investment 1998-2007[1]



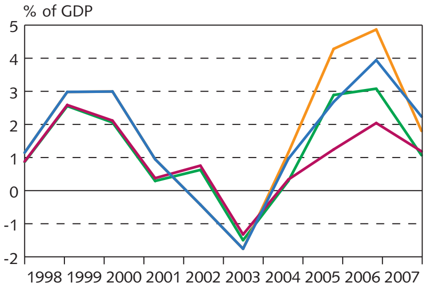
1. Central Bank estimates for 2005-2007.
Source: Central Bank of Iceland.

Chart V-5
Local government investment 1998-2007[1]



1. Central Bank estimates for 2005-2007.
Source: Central Bank of Iceland.

Chart V-6
Treasury balance and structural balance[1]
Estimates in September and November



1. Central Bank estimates for 2005-2007.
Source: Central Bank of Iceland.

The estimated increase in consumption by local governments is unchanged from the September forecast. Statistics Iceland's preliminary data showed a smaller increase for 2003 and 2004 than had been estimated, but limited information is still available for 2005. Compilation of local government financial results is a slow process and they can give an ambiguous picture because their accounting principles diverge sharply from the national accounts. For example, local government operating expenditures were unchanged year-on-year in 2004, according to accounts published recently in the Association of Local Authorities' annual report, but increased by 7% according to Statistics Iceland's estimates.

Investment expenditures are expected to decrease by 5% this year, 10% in 2006 and 13% in 2007, even if it is unusual for investment to decline in the year before municipal elections. If these estimates hold, local government investment in 2007 will be the lowest for 25 years, measured as a percentage of GDP. One explanation may lie in new leasing options now available to local authorities.

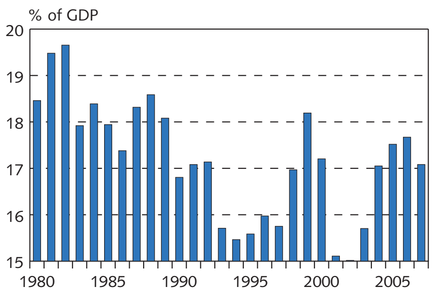
On the basis of the above estimates, local government revenues will increase marginally faster than GDP, but expenditures by 2-3 percentage points less. Accordingly, the overall local government result should improve from a deficit of 10 b.kr. in 2004 (equivalent to 1% of GDP), and reach balance in 2007.

Estimated Treasury structural balance unchanged from September, apart from underforecast corporation tax revenues

The estimated central government structural balance in 2005 and 2006 is stronger than in September, on the basis of conventional cyclical adjustments. Mostly this is the result of an improved outlook for the Treasury balance. The output gap this year and for the next two years is only marginally less than forecast in September, but the estimated Treasury result for 2005-6 has strengthened. The structural balance is essentially the fiscal balance less a correction proportional to the output gap. Hence, the estimated structural balance improves marginally more between forecasts than does the estimated balance. However, the result for 2007 has been revised downwards since September, as shown in Chart V-6.

From a monetary policy perspective, the crucial issue in analysing public sector finances during an upswing is to assess whether the countercyclical fiscal stance is adequate. The soundness of the estimated central government result is also worth examining, since a boom can sometimes conceal fiscal weaknesses. One assumption in the Central Bank's estimates of the public sector result is that indirect taxes as a proportion of GDP increase on average by roughly 0.13 percentage points when the output gap increases by 1 percentage point of GDP. This corresponds to a 3 b.kr. reduction in indirect tax revenues if the output gap in 2007 were zero, instead of almost 2% as forecast by the Central Bank.

Chart V-7
Treasury revenues from indirect taxes 1980-2007[1]



1. Central Bank estimates for 2005-2007.
Source: Central Bank of Iceland.

Chart V-7 shows Treasury revenues from indirect taxes as a proportion of GDP. The long-term path trends downwards, but the ratio also rises significantly at the cyclical peaks in 1982, 1987, 2000 and 2006. The chart gives some indications that the cyclical sensitivity of indirect taxes is greater than 0.13. From 2002 to 2004, for example, the output gap widened by 4.7 percentage points while indirect taxes as a proportion of GDP rose by 2 percentage points. Relative changes in one upswing are hardly a dependable predictor of what to expect in other cycles. Using this ratio nevertheless as a measure of the cyclical sensitivity of indirect taxes yields a figure of 0.43 instead of 0.13. This implies that the Treasury might be expected to lose 10 b.kr. in revenues if the output gap in 2007 measured zero and not almost 2% of GDP.

Other reasons for surpluses at cyclical peaks are that the ratio of wages to GDP tends to be procyclical (see e.g. *Monetary Bulletin* 2001/4, Box 1, pp. 6-7) while there has been a tendency to adjust the tax-free limit for personal income tax by less than the change in wages. If this tendency is weaker during downturns, tax revenues will be below trend in such circumstances. A rough appraisal of the tax system indicates that a 1% shortfall of the income tax base lowers the revenues generated by around 1.8%. Wage income was 83% of the income tax base in 2004 and influences the movements of most of the rest.

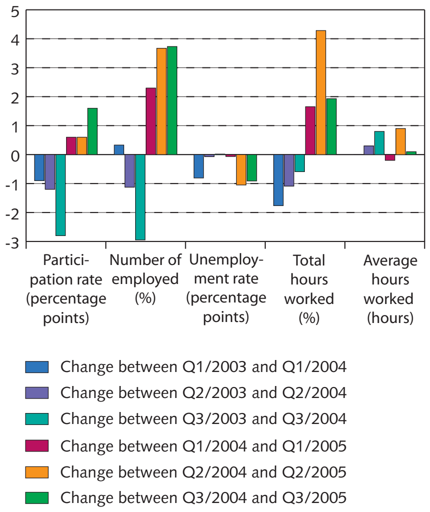
At a cautious estimate, the ratio of wages to GDP could decrease by 1 percentage point if the 2% positive output gap in 2007 were to close. Wage earnings amounted to roughly half of GDP according to tax returns for 2004. If the output gap closed completely and the present ratio were to fall by 1 percentage point in 2007, Treasury revenues from income tax would be likely to shrink by almost 3½%, or 2-3 b.kr., assuming that the tax-free limit was left unchanged.

According to the above, the cyclical sensitivity of the wage-to-GDP ratio and greater sensitivity of indirect taxes could trim back Treasury revenues by 12-13 b.kr. if economic conditions normalised in 2007. Nonetheless, a fiscal surplus of roughly 10 b.kr. would still be left. Although different methodologies are used, the result is similar to that obtained by a conventional cyclical adjustment, as shown in Chart V-6. However, it is unwise to draw sweeping conclusions from forecasts for 2007 which assume an unchanged interest rate and exchange rate. The use of single-cycle relative movements is even more problematic. The actual outcome will almost surely differ from what these calculations imply. That said, they do indicate that the fiscal position is fairly strong, although the impulse to dampen demand and macroeconomic pressures could be greater.

VI. Labour market and wage developments

Chart VI-1

Changes in labour market 2003-2005

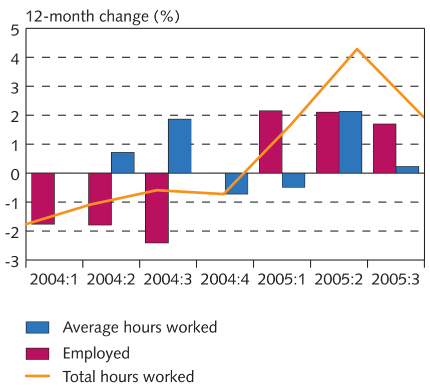


Source: Statistics Iceland.

Chart VI-2

Changes in average hours worked and the number of employed, relative to changes in total hours worked

Q1/2004 - Q3/2005



Source: Statistics Iceland.

Higher wage costs than in the September forecast

Seasonally adjusted unemployment began to fall again in September after remaining virtually unchanged since March. Unemployment decreased further in October to a seasonally adjusted rate of 1.6%. Statistics Iceland's labour market survey for Q3 shows increased labour use, as expected, primarily due to an increase in the number of employed. Growing wage drift was forecast in September, reflecting heavy excess demand for labour and greater problems in meeting it with imported labour. Wage drift at the end of the summer exceeded the September estimate. The social partners' review of wage agreements was concluded on November 15 with an agreement on a one-off payment in December 2005 equivalent to an additional wage rise of roughly 0.65% over the 13 months from December 2005, with an equivalent rise at the beginning of 2007 over and above the previously negotiated increment. Wage costs over the coming years will therefore be somewhat higher than forecast in September.

Labour use continues to increase in Q3

According to Statistics Iceland's labour market survey, labour use continued to rise year-on-year in Q3/2005. Unlike the second quarter, increased labour use then was almost entirely explained by an increase in the number of employed, while average hours worked remained virtually unchanged. Total hours worked increased in pace with the growth in the number of people at work during the reference week, by 1.7%, but had slowed down from Q2.[8] As in the preceding two quarters, the youngest and oldest age-groups accounted for most of the addition to the number of employed (70% of the total), although this was lower than the 90% recorded in the first half of the year. The participation rate went up by 1.6 percentage points year-on-year to 83.1%, a sizeably faster growth rate than in the first half of the year.

Vacancies registered at employment agencies indicate ongoing excess demand for labour which is only being met domestically on a small scale.[9] In the period August-October, the number of such vacancies doubled year-on-year. Issuance of new work permits surged in early autumn when staff were hired for construction of the aluminium smelter in Reyðarfjörður. Almost 850 new work permits were issued in September and although the figure slipped back in October to just over 400, this was still well above the 250 average for the period January-August.

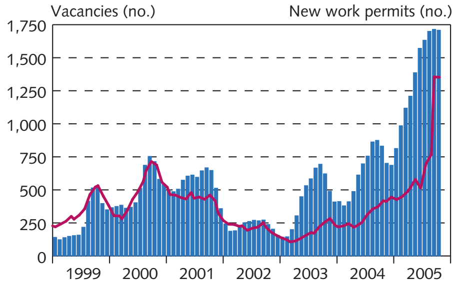
8. Statistics Iceland's labour market surveys report on the number of persons at work during the reference week and the hours they worked. They also state the number of persons employed, which in addition to those at work include those who are in employment but temporarily absent (on sick leave or vacation), with data on their normal working hours. Total hours worked are the number of persons at work during the reference week multiplied by their hours worked.

9. See, however, the discussion of vacancies in Rannveig Sigurdardóttir: The enigma of the Icelandic labour market, *Monetary Bulletin* 2005/1, pp. 93-103.

The latest confidence survey of the 400 largest businesses in Iceland, conducted by Gallup on behalf of the Central Bank, Ministry of Finance and Confederation of Employers, shows that the proportion of employers expecting to recruit employees over the next six months was broadly unchanged (38.5%) from the previous survey in February. However, a larger proportion expects to lay off staff: more than 15% compared with just under 9% in February. Attitudes vary sharply between sectors, probably reflecting differences in profitability. Planned recruitment runs highest in specialised services (67%) and the financial and insurance sector (46%), while almost 50% of fisheries businesses want to lay off employees.

Chart VI-3

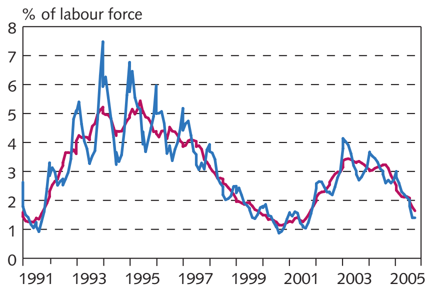
Vacancies registered at employment agencies and issuance of new work permits 1997-2005[1]



1. Monthly data, 3-month moving average.
Source: Directorate of Labour.

Chart VI-4

Unemployment rate
January 1991 - October 2005



Sources: Directorate of Labour, Central Bank of Iceland.

Unemployment in line with the September forecast

After remaining virtually unchanged since March, seasonally adjusted unemployment fell in September and again in October, to 1.6%. Registered unemployment in that month measured 1.4%, down by 1½ percentage points year-on-year and the lowest monthly figure since October 2001. So far this year, registered unemployment has measured 2.2%, which is in line with the Central Bank's September forecast for 2% over 2005. Next year's unemployment forecast remains at just under 2%, rising in 2007 to almost 2½%.

More wage drift at the end of the summer than was forecast in September ...

Wage pressures appear to have built up in the private sector at the end of the summer. Private sector wages in Q3/2005, as measured by Statistics Iceland's wage index, were 6.1% higher year-on-year. Since the CPI was 4% higher year-on-year in Q3, real wages increased by roughly 2%. The twelve-month change in private sector wages was in fact lower than in Q1 and Q2, but only because wage increases negotiated in both 2004 and 2005 were filtering through in the first two quarters.

Calculations using the Institute of Labour Market Research's methodology for selected sectors and the main private sector employee groups show a disparity in year-on-year changes in Q3/2005. Taking increments included in wage settlements into consideration, no wage drift appears to be present in the food and beverage industry. The Gallup survey found that almost one out of four fisheries companies expects that wages will fall this year, and almost one out five that they will also do so over the next six months.[10] However, wages appear to have risen more than negotiated increments in the construction and contracting sector, although not by very much in historical terms. Some wage drift also appears to have occurred in the retail sector and maintenance and repairs. Growing excess demand for labour, in particular in service industries, will not be met with imported labour on the same scale as in the construction and contracting sector. Accordingly, increased wage pressure in excess of the basic terms of wage settlements can be expected in the months to come.

10. To some extent, this may be due to the arrangement whereby fishermen's wages are partly calculated as a share of catch value.

… and the review of wage settlements will increase wage costs next year

The social partners' review of private sector wage agreements was concluded on November 15 with an agreement on a one-off payment of 26,000 kr. in December 2005. This is equivalent to an additional wage rise of roughly 0.65% over the 13 months from that time. If wage settlements are not revoked in the second review in November 2006, wages will go up at the beginning of 2007 by 0.65% on top of the 2.25% originally negotiated in 2004.

The Central Bank's forecast for growth of wage costs has therefore been revised upwards from 6.1% to 6.6% this year and from 6.4% to 7.2% in 2006. In 2007, the forecast rise in wage costs is broadly unchanged at 5.5%.

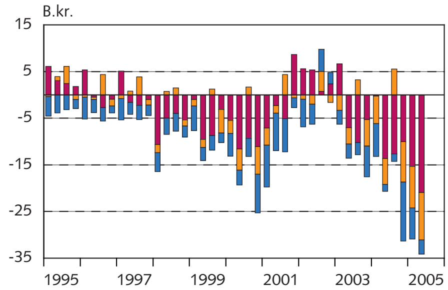
Based on the Central Bank's forecast for labour productivity developments, this implies that unit labour costs will increase by just over 5½% this year, 5.8% next year and almost 4½% in 2007. These rises are well above a level which is compatible in the long run with the Bank's inflation target of 2.5%, and represent mounting underlying inflationary pressure from the domestic labour market.

VII External balance

This year's current account deficit could be even wider than was forecast in September

In September, the Central Bank forecast a current account deficit equivalent to more than 14% of GDP this year, broadly in tune with the results of the first half of the year. Now the deficit appears to be heading even wider. The divergence from the September forecast is explained by a deterioration in the merchandise account in recent months and an ongoing appreciation of the króna. If the real exchange rate remains as high as forecast, it will dampen exports and stimulate imports. The current account deficit for this year is now forecast at roughly 15½% of GDP. Over the next two years it will narrow to just under 7% in 2007. Imports connected with investments in the hydro and aluminium sectors are estimated to account for less than half the deficit this year and in 2006, but only one-third of the deficit in 2007. It should be borne in mind that the forecast assumes that interest rates and the exchange rate remain unchanged. Given that the real exchange rate is currently at one of the highest levels for decades, these assumptions must be considered unlikely to hold.

Chart VII-1
Current account balance components
Q1/1996 - Q2/2005
Net current transfer is included in balance on income

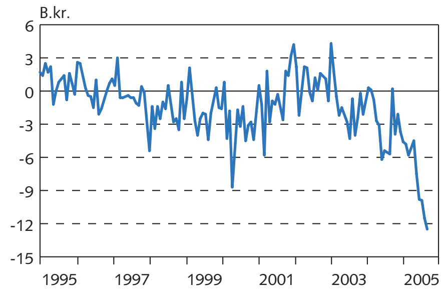


Sources: Statistics Iceland, Central Bank of Iceland.

Record merchandise deficit this year

The deficit on the merchandise account amounted to almost 72 b.kr. over the first nine months of 2005. Almost half the deficit was incurred in Q3. At a rough estimate, the merchandise deficit over the first nine months was equivalent to 10% of GDP. Most indicators point to a hefty deficit in Q4 as well, with a peak in investments in the aluminium and hydro sectors, foreseeable aircraft investments and no sign of a significant slowdown in growth of imported consumer goods. In addition, the króna has appreciated substantially, which will compound the deficit in the months to come. The merchandise trade deficit could therefore exceed 100 b.kr. this year, a new record.

Chart VII-2
Merchandise account balance
January 1995 - September 2005[1]



1. At constant exchange rate based on the trade-weighted currency basket.
Sources: Statistics Iceland, Central Bank of Iceland.

Service account generally positive in Q3

Countering the wider merchandise account deficit, the service account generally shows a surplus in Q3. This seasonal pattern can be expected to continue, and a sizeable year-on-year increase in service exports is forecast for the second half of this year. One reservation is that exchange rate developments could also have a considerable effect on the service account balance, although one of the fastest-growing components most recently – transport – is relatively immune to exchange rate changes.

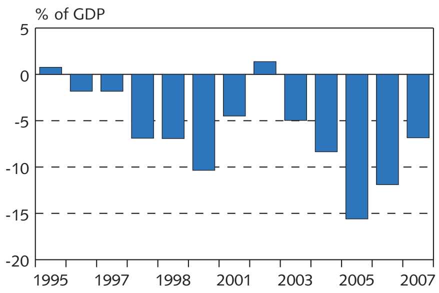
Major uncertainties about the balance on income

The balance on income has been fairly volatile in recent years. Fluctuations have mostly originated in reinvested earnings on foreign direct investment, which weigh increasingly heavily as investment abroad has been soaring. In Q2/2005, reinvested income largely matched the debt service deficit, preventing the current account from moving even further into the red. Over the years, the reinvested earnings item has swung sharply between surpluses and deficits, and there have been substantial revisions due to long delays in obtaining final data.

Since Iceland's net external debt is equivalent to almost 1½ GDP, the initial impact of an appreciation of the króna is to reduce the balance on income deficit. Looking one to two years ahead, however, an appreciation increases the current account deficit, resulting in increased debt accumulation and thereby higher debt service abroad.

Long-term interest rates in major trading partner countries have been moving upwards in recent months. Hitherto, lower interest rates abroad have outweighed the deterioration in the debt position. The outlook is for a reversal of this trend, but the impact is likely to be modest this year.

Chart VII-3
Current account balance 1995-2007[1]



1. Central Bank forecast 2005-2007.
Sources: Statistics Iceland, Central Bank of Iceland.

The current account deficit will put strong pressure on the króna in the medium term

Over the medium term, the massive current account deficit that is foreseeable this year and in 2006 will demand a significant macroeconomic adjustment. The baseline scenario presented in this edition of *Monetary Bulletin* indicates that a considerable deficit will remain in 2007, given unchanged interest rates. However, the assumptions underlying the baseline scenario are unlikely to hold. A current account deficit on the scale forecast is generally only short-lived. The real exchange rate is also way above a level that is sustainable in the long run. Historically, the real exchange rate in Iceland has only briefly remained as high as assumed in the forecast.[11] Thus an adjustment will probably take place through the combined effect of a depreciation of the króna, increasing exports and shrinking domestic demand. It seems likely that the adjustment will begin within the forecast horizon. Consequently, the forecast current deficit for 2007 should not be taken too literally, any more than other aspects of a conditional forecast.

Table VII-1 Current account deficit 2004-2007

		Forecast[1]		
% of GDP	*2004*	*2005*	*2006*	*2007*
Current account balance	-8.4	-15.6	-11.9	-6.8
Merchandise account	-4.1	-10.6	-4.6	0.7
Services account	-1.7	-2.1	-3.8	-3.4
Balance on income	-2.4	-2.9	-3.4	-4.1

1. Central Bank forecast in November 2005.
Source: Central Bank of Iceland..

11. The real exchange rate is currently roughly one-fifth above its average over the past ten and twenty years. In the long run, it is not unlikely that the real exchange rate will trend back to the average, and even temporarily overshoot it.

VIII Price developments and inflation forecast

Price developments

Inflation slows again after peaking in September

Inflation climbed in the summer and reached a high of 4.8% in September. Since then it has slowed down and had fallen to 4.2% in November. In particular, higher inflation in the autumn can be traced to the reversal of the decrease in grocery prices in the preceding months, as well as ongoing house price inflation until October. A turning point was reached in November with a decline in house price inflation and this trend is likely to continue in the months to come.

Although house price inflation slowed down in November, the housing market is still characterised by buoyant demand. Rising prices of domestic services, and the failure of the substantial appreciation of the króna to produce a corresponding reduction in goods prices, also testify to robust demand.

Core inflation indices reveal rather more underlying inflation than the headline consumer price index (CPI). At the beginning of November the twelve-month rise in Core indices 1 and 2 was 4.6% and 4.4% respectively. Part of the disinflation in recent months can therefore be attributed to volatile items.

Inflation in Q3/2005 measured 4.2%, in line with the Central Bank's forecast made in September, when the quarter was drawing to a close. In Q4/2005, inflation will probably be somewhat lower than was forecast in September, at around 4%.

Some reduction in house price inflation in November ...

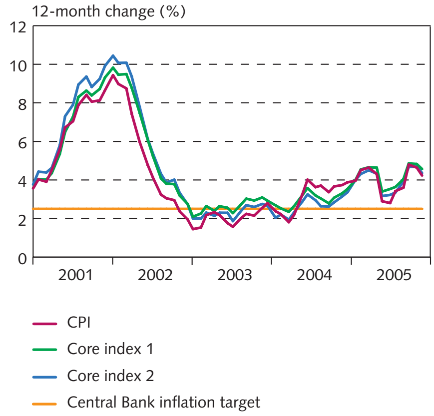
Housing prices have been the main driving force of inflation in Iceland over the past year. In November, the housing component of the CPI had risen 17.8% year-on-year. This caused the CPI to rise by 3.4 percentage points. House price inflation is mainly explained by higher market prices for residential housing, with a twelve-month increase of 33% in November. Month-on-month house price inflation has slowed down quite markedly in the Greater Reykjavík Area. In October, according to data from the Land Registry of Iceland, condominium prices there rose by 1½% month-on-month, but detached housing prices fell by 1%. According to Statistics Iceland, which uses a three-month moving average, the latest twelve-month rates were 34.9% and 45.9% respectively. Regional house price inflation has been much lower, at 20.6%, but contrary to the pattern in and around the capital it has been gaining pace in recent months, at an average of almost 3% month-on-month over the past four months.

... but services price inflation is gaining speed

At the beginning of November, the twelve-month rise in prices of public services was 6.7%. This contributed 0.5 percentage points to the CPI. Over the same period, private services prices rose by 4.2%, raising the CPI by just under one percentage point.

Chart VIII-1

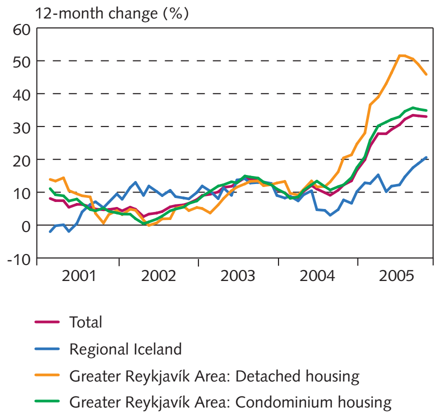
Inflation January 2001 - November 2005[1]



1. The core indices are compiled on the same basis as the CPI, with Core index 1 excluding prices of vegetables, fruit, agricultural products and petrol, and Core index 2 also excluding prices of public services.
Source: Statistics Iceland.

Chart VIII-2

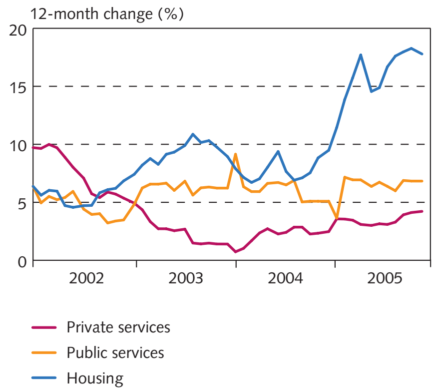
Market prices of housing
March 2001 - November 2005



Source: Statistics Iceland.

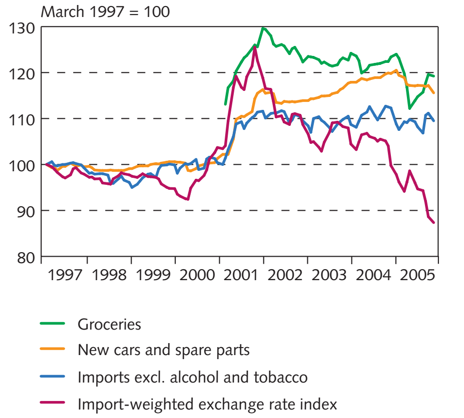
Chart VIII-3

Prices of housing and services
January 2002 - November 2005



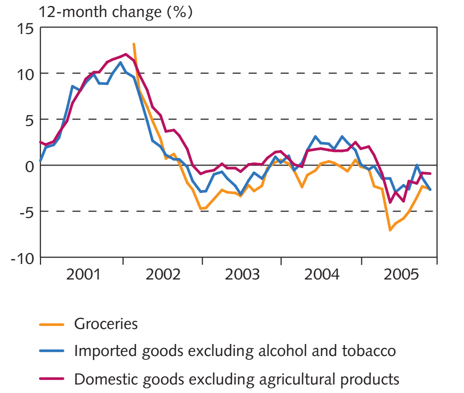
Source: Statistics Iceland.

Chart VIII-4
Import-weighted exchange rate and import prices March 1997 - November 2005



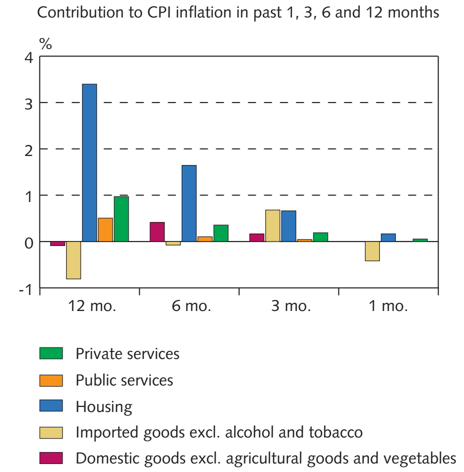
Source: Statistics Iceland.

Chart VIII-5
Goods prices January 2001 - November 2005



Source: Statistics Iceland.

Chart VIII-6
Components of the CPI in November 2005



Source: Statistics Iceland.

The currency appreciation in recent months had little effect on prices of imported goods

The króna was almost 17% stronger on average in the first three weeks of November compared with the monthly average for November last year. The exchange rate assumed in the current forecast is almost 6% higher than in the September forecast. Only a small part of the appreciation of the króna in recent months appears to have been passed through to prices of imported goods. Prices of imported goods excluding tobacco and alcohol decreased by 2.6% over the twelve months until November, with new motor vehicles down by 3.6%, food imports by 6.8% and other goods excluding petrol by 4%.

Basic consumption items such as petrol, oil and groceries track changes in the exchange rate more closely than goods with a slower turnover rate. Although petrol prices are sensitive to exchange rate movements, international price developments have outweighed the appreciation of the króna recently. The twelve-month rise in petrol prices is 4.5%. Prices of imported food, on the other hand, have fallen by almost 7%. Thus less than half of the appreciation of the króna has been passed through to food prices. Groceries, which mainly consist of food, fell by 2.5% over the same period. The price war that flared in the food market in the spring appears to be more or less over. It contributed to a drop in grocery prices of roughly 10% from January to May, which largely unwound over the period May-October. Prices at the beginning of November were 6.3% higher than at the height of the price war in May. Imported food prices were 6.6% higher.

Diverging inflation expectations since September

Market expectations of inflation, measured as the yield spread between indexed and non-indexed Treasury instruments with a maturity of eight years, came down to 3.5% in October and November after peaking at 3.8% in late September/early October. Financial market analysts have revised their inflation expectations downwards since September (see Box VIII-1). In September they forecast average inflation of 5.3% over the twelve months to January 2007 but now expect a rate of 4.4% over the same period. Over the twelve months to January 2008, analysts expect 4.2% inflation, up from 3.7% in their September forecasts. They forecast a rate of 3.9% one year ahead and 4.6% two years ahead.

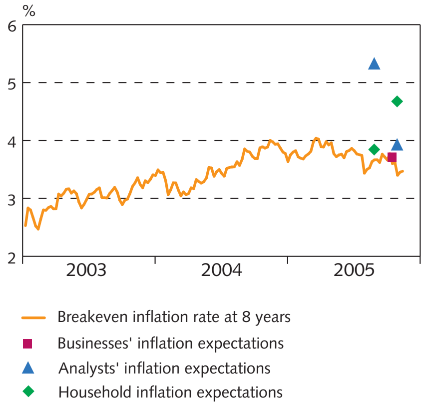
Household inflation expectations are considerably higher than in September. On average, households expected twelve-month inflation of 3.8% then, but now foresee a rate of 4.7%. This change probably reflects higher inflation in the preceding months. Household expectations are therefore likely to have settled back after the slowdown in inflation over the past two months. A survey of the largest businesses in Iceland also reveals higher inflation expectations since February. In October, their management predicted 3.7% inflation one year ahead and a 6.7% rise in the CPI over two years, compared with forecasts of 3.6% and 6.0% respectively in February.

Inflation expectations have still not shown a substantial and unambiguous decline. They are still some way above the 2.5% target, but may not have been affected by the recent slowdown in inflation yet.

Inflation forecast

As mentioned earlier, the forecast presented here is an update to the macroeconomic and inflation forecast published in September. Since the September forecast, the Central Bank has raised its policy interest rate by 0.75 percentage points to the current rate of 10.25%. The króna has appreciated by 6% over the same period. Three inflation scenarios are presented. The baseline scenario is based on the technical assumption of an unchanged policy interest rate over the forecast horizon and an unchanged effective exchange rate, i.e. an index value of roughly 102. Two alternative scenarios are provided, based on variable interest rate and exchange rate paths.

Chart VIII-7
Inflation expectations
Weekly data January 7, 2003 - November 8, 2005



Household and businesses' inflation expectations are based on expectations over the next twelve months and analysts' expectations on twelve-month inflation to end-2006.
Source: Central Bank of Iceland.

The inflation outlook has improved slightly ...

The inflation outlook has improved slightly since September. Following the policy rate hike, real interest rates have gone up and the króna has appreciated. Global inflation prospects have worsened slightly since September, as was expected then. The tightening of the monetary stance gradually dampens domestic demand and the higher real exchange rate increasingly channels demand out of the economy. Thus the outlook is for less demand pressure over the forecast period than was expected in September.

Box VIII-1

Financial market analysts' assessments of the economic outlook

The accompanying table shows the survey responses of financial market analysts in mid-November. Participants in the survey were the research departments of Íslandsbanki, Kaupthing Bank and Landsbanki, and Economic Consulting and Forecasting.

On this occasion, analysts were asked specifically for the first time about the inflation outlook one and two years ahead. They were also asked to give a more detailed assessment of the Central Bank's policy interest rate path than before, i.e. on the timing of the policy rate cycle's peak and trough within the forecast horizon, and at what values.

The main changes from the survey in September is that analysts now forecast somewhat greater output growth this year and in 2006, as well as a smoother inflation path, a higher policy rate and a stronger króna.

Analysts expect higher inflation than in the Central Bank's baseline scenario

As in September, analysts expect inflation to remain some way above the 2.5% target across the forecast horizon. Their estimates for inflation over the year and year-on-year in 2005 are virtually unchanged and in line with the Central Bank's forecast, which is hardly surprising so late in the year. Over 2006 and 2007, forecasters expect inflation to average 4.4% and 4.2% respectively, while the Central Bank's baseline scenario is one percentage point lower in both instances. Analysts expect year-on-year inflation (between annual averages) of just under 4% in 2006, rising to 4½% in 2007, compared with the Central Bank's baseline scenario of 3.3% and 3.6%. It should be underlined that the Central Bank assumes an unchanged policy interest rate and exchange rate over the forecast horizon, while the analysts do not.

Opinions divided over the growth outlook

Analysts' forecasts for output growth in 2005-2006 have been revised upwards since September, but are unchanged for 2007. Individual forecasts diverge quite widely. On average they expect 6.3% growth in 2005 and 5.3% next year, falling to 1% in 2007. The Central Bank's output growth forecast is more even: 4.7% in the current year, 6.6% next year and 4.1% in 2007.

Comparison with the Central Bank's alternative scenarios

It should be reiterated that the Central Bank's baseline scenario inevitably diverges from the analysts' projections, because it assumes an unchanged policy rate and exchange rate across the forecast horizon. The Bank's scenario based on a variable interest rate and exchange rate shows higher inflation than the baseline scenario, although it is still lower than the average forecast by the survey respondents. They assume a greater depreciation of the króna than in the alternative scenario, which is based on uncovered interest rate parity derived from the differential between their forecast policy rate (see below) and foreign forward interest rates. There is less divergence between the analysts' forecast and an inflation path based on the same exchange rate path but an unchanged policy rate.

Forecasters expect the króna to depreciate less ...

Survey respondents have changed their assessments of exchange rate developments significantly and expect the króna to be stronger than they had forecast in September both one and two years ahead. They foresee an exchange rate index of 112 twelve months ahead and 124 after two years. The exchange rate index stood at just over 102 on November 16.

Overview of forecasts by financial market analysts[1]

	2005			2006			2007		
Average	*Average*	*Lowest*	*Highest*	*Average*	*Lowest*	*Highest*	*Average*	*Lowest*	*Highest*
Inflation (within year)	3.8	3.7	4.0	4.4	3.6	5.7	4.2	2.9	6.1
Inflation (year-on-year)	4.0	3.8	4.0	3.9	3.7	4.1	4.6	3.5	6.8
GDP growth	6.3	5.5	7.6	5.3	4.2	7.3	1.0	-0.9	2.2
	One year ahead			*Two years ahead*					
Inflation	3.9	2.9	4.6	4.6	3.1	7.5			
Effective exchange rate index of foreign currencies vis-à-vis the króna (Dec. 31, 1991=100)	112.0	107.0	115.0	124.0	118.0	133.0			
Central Bank policy interest rate	11.3	9.0	12.0	7.9	6.0	10.0			
Nominal long-term interest rate[2]	7.7	7.5	8.0	6.9	6.5	7.2			
Real long-term interest rate[3]	4.1	3.6	4.6	3.6	3.3	4.0			
ICEX-15 share price index	5,166	4,487	5,689	5,564	4,263	6,258			
Housing prices (12-month change)	5.8	3.0	10.0	6.0	3.0	10.0			

1. The table shows percentage changes between periods, except for interest rates (percentages) and the exchange rate index for foreign currencies and the share price index (index points). Participants in the survey were the research departments of Íslandsbanki, Kaupthing Bank and Landsbanki, and Economic Consulting and Forecasting. 2. Based on yield in market makers' bids on non-indexed T-notes (RIKB 13 0517). 3. Based on yield in market makers' bids on indexed HFF bonds (HFF 15 0644).

Source: Central Bank of Iceland.

... but a greater increase in the policy rate ...

The Central Bank raised its policy interest rate by 0.75 percentage points to 10.25% on October 4. Analysts expect further hikes and forecast an average rate of more than 11% one year ahead, moving back to just below 8% after two years. They were also asked to forecast the peak and trough of the policy rate over the next two years. The majority of respondents expect the policy rate to peak before mid-2006 at roughly 12%, reaching a trough in the second half of 2007 in the range 7½-10%. One respondent diverged quite sharply from the rest by forecasting a peak of 10.75% shortly, followed by a gradual decline towards 6% at the end of 2007.

... and modest asset price rises

On November 16, the ICEX-15 share index stood at almost 5,000, so respondents do not expect a great rise in equity prices over the next year, but rather slower increases than have been witnessed recently. The increase two years ahead is forecast at 12%. One forecaster believes that equity prices will drop and has put this view forward for some time.

Finally, respondents were unanimous about modest increases in real estate prices over the next two years, since the market has already begun to cool quite markedly. None expects real estate prices to decline.

Offsetting this, productivity growth over the forecast horizon has been revised downwards. Productivity growth commonly slows down in later stages of the business cycle. Nonetheless, it is still expected to remain close to the historical average over the forecast horizon. Combined with a slight rise in labour costs which is partly the result of the recent review of wage settlements, reduced productivity growth will drive up unit labour costs faster than was forecast in September. Unit labour costs are now forecast to rise by 5½% this year and just under 6% in 2006, by over 1 percentage point more than previously forecast. In 2007, unit labour costs are expected to grow more slowly, but the rate of growth will remain some way above what is compatible with the 2.5% inflation target in the long run.

... but assuming an unchanged policy rate, inflation will stay some way above target over the forecast horizon

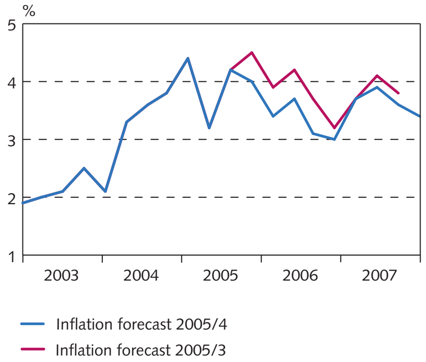
While the stronger króna and smaller output gap will dampen inflationary pressure, higher unit labour costs have the opposite effect. Initially the appreciation of the króna will outweigh them, however, so the outlook is for a somewhat lower rate of inflation until mid-2006 than was forecast in September.

In the baseline scenario, inflation is forecast at just over 3% one year ahead, compared with 3.7% in the same quarter in September (4.2% over the corresponding one-year horizon). The inflation outlook two years ahead shows less improvement, because rising unit labour costs will weigh heavier later in the forecast period. Inflation is now forecast at just above 3½% two years ahead, while in September it was 3.8% in the same quarter (4.1% over the corresponding two-year horizon).

Thus the outlook is still that inflation will remain above the 2.5% target over the forecast horizon, although it will be closer at the end of the period than previously forecast. If the forecast assumptions hold – which in fact seems rather unlikely – the outlook is that the target will be attained in 2008.

Forecasts with variable interest rates and exchange rate

Chart VIII-8
Inflation forecast based on variable interest rate and exchange rate



Source: Central Bank of Iceland.

Since *Monetary Bulletin* December 2004, the Central Bank has presented an alternative inflation scenario based on a variable interest rate and exchange rate, in addition to its baseline scenario which assumes an unchanged interest rate and exchange rate across the forecast horizon. The main aim of the baseline scenario is to describe the way that the Central Bank considers developments are most likely to unfold if it keeps the policy rate unchanged and the exchange rate remains constant. It therefore represents a useful indicator of the need to alter the monetary stance. A forecast based on a variable interest rate and exchange rate, on the other hand, can give a more realistic picture of probable developments, especially in the present climate. The real exchange rate is probably well above a sustainable level for the long run, while the inflation outlook in the baseline scenario is unfavourable even though it assumes that the exchange rate will remain at a historical high for the entire forecast horizon. The obvious inference is that the inflation target will not be attained unless the policy rate is raised over the forecast period.

Financial market analysts expect a higher policy rate and weaker króna than assumed in the baseline scenario

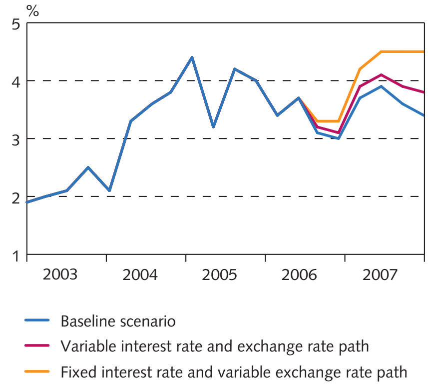
The Central Bank does not forecast its own interest rates, but uses market agents' and analysts' expectations for interest-rate developments to calculate an inflation path based on a variable interest rate and exchange rate. In September the Central Bank opted not to use implied forward interest rates as a gauge of the expected policy rate over the forecast horizon, because they were not felt to give a realistic picture of financial market expectations. Increasing issues of króna-denominated Eurobonds have compounded this problem since September and indirectly have had a significant impact on price formation of nominal short-term bonds, as discussed earlier. Instead, a policy rate path is calculated from financial market analysts' forecasts for the development of the policy rate two years ahead, as shown in Chart III-4 on p. 15 and discussed in Box VIII-1. They forecast that the policy rate will peak in mid-2006 at close to 12%, then gradually come down to just under 8% at the end of 2007. This curve implies an average policy rate of 11½% next year and 9% in 2007, instead of 10.25% for both years as assumed in the baseline scenario. Thus the policy rate in the alternative forecast would be higher than in the baseline scenario next year and until spring 2007.

An exchange rate path can then be calculated for the inflation forecast, based on the spread between the above policy rate path and a foreign implied forward rate, using uncovered interest rate parity.[12] On the basis of this analysis, the króna will gradually depreciate over the forecast horizon and the exchange rate index will be close to 115 at the end of 2007, a relatively modest reduction compared with the financial market analysts' forecasts in Box VIII-1.

Significantly poorer inflation outlook if the króna depreciates given an unchanged monetary stance ...

In addition to a forecast based on a variable interest rate and exchange rate, it is useful to consider an inflation path based on an unchanged policy rate from the day of the forecast, as in the baseline scenario, but calculating an exchange rate path using uncovered interest rate parity, as in the second inflation scenario. Such a scenario gives an idea of the inflation development should the króna begin to slide in step with interest rate parity, but with no policy response from the Central Bank. As Chart VIII-9 shows, inflation would be considerably higher than in the baseline scenario. At the end of the forecast period inflation would be 4½% instead of 3½%. The monetary stance is less restrictive in this model than in the other two, because the króna is weaker and the real interest rate is lower. Output growth is therefore higher than in the baseline scenario, fuelling the output gap and driving inflation up even further.

Chart VIII-9
Inflation scenarios



Source: Central Bank of Iceland.

... but a higher policy rate counters the effect of the weaker króna

A comparison of inflation paths calculated first from a variable interest rate and exchange rate, and second from an unchanged policy rate but variable exchange rate, underlines the role that the policy rate plays in constraining inflation. A higher policy rate constrains growth and the output gap, which eases domestic inflationary pressure. Inflation at the end of the forecast horizon will be half a percentage point lower than in the forecast with a fixed policy rate but depreciating currency, at just below 4%.

A depreciation of the króna will result in a poorer inflation outlook than in the baseline scenario even if the policy rate is raised

A comparison of the baseline scenario with one based on a variable interest rate and exchange rate shows how the policy rate and a depreciation of the króna have contrary effects on inflation. Nonetheless, the policy rate hike assumed in this model does not manage to offset the impact of the weaker króna over the period. Inflation will therefore be higher than in the baseline scenario, despite the higher policy rate. This could suggest that the policy rate needs to be raised by more in real terms than is assumed in the scenarios with a variable exchange rate and interest rate, in order to counteract the depreciation that the interest-rate differential with abroad suggests is embedded in market expectations, even if the depreciation is relatively modest compared with the expectations of some financial market analysts.

12. The foreign rate is calculated using foreign traded-weighted forward rates, but allowing an exchange rate risk premium.

Risk profile

Greater risk of higher inflation than in the baseline scenario

The inflation forecast is always fraught with uncertainty. Since developments are unlikely to unfold exactly as in the baseline scenario, it is vital to take into account the entire risk profile in assessing the inflation outlook two years ahead.

The current risk profile is broadly comparable with that of the Central Bank's recent forecasts. However, labour market risk has diminished after national wage settlements were reviewed and not revoked. This review has been incorporated into the baseline scenario. Exchange rate developments remain the chief risk. The real exchange rate is even higher than in September, and therefore even further from being compatible with external balance. Since September, the risk that a sharp depreciation over the forecast horizon will drive up the inflation rate has tilted further to the upside, especially if this takes place while substantial macroeconomic imbalances remain. Recent foreign issues of króna-denominated bonds exacerbate the exchange rate risk, especially when the bonds approach maturity.

The risk of higher-than-expected inflation is balanced against the risk that long-term real interest rates could rise by more than was forecast in September. Higher mortgage rates, increased supply of new housing and greater uncertainty about the quality of mortgage collateral could put downward pressures on house prices over the period, but prices are assumed to rise modestly in nominal terms in the

Table VIII-1 Main asymmetric uncertainties in the inflation forecast

Uncertainty	*Explanation*	*Inflationary impact*
Private consumption	The impact of lower long-term interest rates and easier credit access, and the potential effect of rising wealth on consumption, could be underestimated	Risk of underestimated demand pressures and thereby of underestimating inflation
	Increased indebtedness could curtail private consumption growth beyond the baseline scenario	Risk of overestimated medium-term demand and thereby of overestimating inflation
	Higher mortgage interest rates could cool the housing market faster than forecast, and subdue private consumption growth	
Exchange rate developments	Wide current account deficit and expectations of increasing inflation in the coming years could exert downward pressure on the króna	Risk of the króna depreciating and thereby of underforecasting inflation
Fiscal policy	The fiscal stance could be easier than forecast, especially with forthcoming municipal and general elections	Risk of underestimated demand pressures and thereby of underforecasting inflation
	The impact of planned tax cuts on future income expectations could be underestimated, so their demand impulse could be correspondingly greater	
Asset prices	Asset prices could fall, reducing private consumption later in the forecast period	Risk of overestimated demand pressures and thereby of overforecasting inflation
Global economy	Foreign interest rates could rise faster and by more than assumed, increasing external debt service beyond the baseline scenario	Risk of overestimated demand growth and thereby of overforecasting inflation
Central Bank risk profile	*One year ahead*	*Two years ahead*
Monetary Bulletin 2005/2	Symmetric	Upward
Monetary Bulletin 2005/3	Upward	Upward
Monetary Bulletin 2005/4	Upward	Upward

forecast. Such a development would not only have a direct deflationary effect, but could also dampen private consumption by more than is expected in the baseline scenario. Other uncertainties have changed little since September.

All told, the forecast risk one year ahead is broadly unchanged since September, but has edged upwards two years ahead. According to the baseline scenario, this implies that there is a slightly higher risk of inflation exceeding the forecast one year ahead, and a considerably higher risk two years ahead. Table VIII-1 summarises the main asymmetric uncertainties in the forecast and Chart VIII-10 presents the estimated confidence intervals compared with the September forecast.

Somewhat higher probability of attaining the target over the horizon if the policy rate remains unchanged

Table VIII-2 shows the Bank's assessments of the probability of inflation being in a given range, based on the above risk profile. Although the probability that inflation will be close to the target has increased somewhat since September, it still remains very low if the policy rate remains unchanged. For example, there is less than 20% probability that inflation will lie in the range 2-3% two years ahead and less than 50% probability of it lying in the range 1-4%.

Table VIII-2 Probability ranges for inflation over the next two years

	Inflation				
Quarter	*Under 1%*	*In the range 1% - 2½%*	*Under 2½%*	*In the range 2½% - 4%*	*Over 4%*
Q4/2005	< 1	< 1	< 1	40	60
Q3/2006	< 1	21	21	65	14
Q3/2007	< 1	9	10	38	52

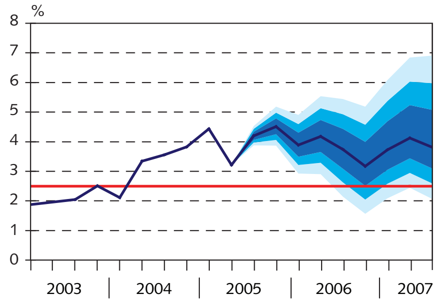
The table shows the Bank's assessments of the probability of inflation being in a given range, in percentage points.

It is important to keep in mind that both the baseline scenario and the risk profile are based on an unchanged policy interest rate over the forecast horizon. Indeed, the main task of monetary policy is to ensure that the economic scenario implied by the forecast and the main risks does not materialise. In this respect, the baseline scenario itself and its confidence intervals present an unrealistic picture of the inflation outlook, by ignoring Central Bank policy responses.

Chart VIII-10

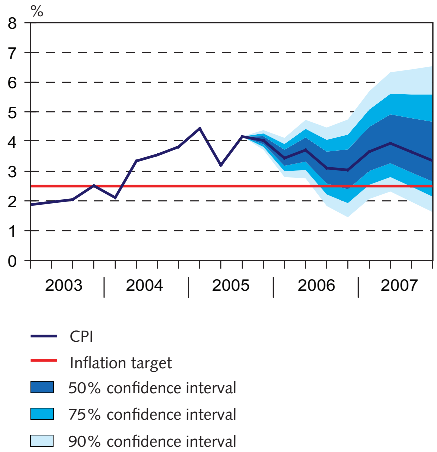
Previous Central Bank inflation forecast
– baseline scenario (in *Monetary Bulletin* 2005/3)

Forecasting period: Q3/2005-Q3/2007



Current Central Bank inflation forecast
– baseline scenario

Forecasting period: Q4/2005-Q4/2007



The charts present the estimated confidence intervals of the forecast for the next two years. The entire shaded area shows the 90% confidence interval; the two darkest ranges show the corresponding 75% confidence interval and the darkest range shows the 50% confidence interval. The uncertainty increases over the horizon of the forecast, as reflected in the widening of the confidence intervals. Uncertainty in the forecast is considered to be somewhat less than is shown by historical forecasting errors, which reflect volatile inflation in the period 2001-2002 immediately after Iceland moved on to an inflation target. A detailed description of how the probability distribution is calculated is given in Appendix 3 to Economic and monetary developments and prospects, *Monetary Bulletin* 2005/1.
Source: Central Bank of Iceland.

IX Monetary policy

Policy rate hike in September proved effective

The 0.75 percentage-point rise in the Central Bank's policy interest rate which was announced in *Monetary Bulletin* 2005/3 at the end of September proved more effective than many policy rate hikes over the past year or more. As described in *Monetary Bulletin* at the time, the Central Bank was concerned that unrealistic expectations that the policy rate would peak this year and decrease soon after were delaying the transmission of monetary policy along the yield curve. These expectations about the policy rate became increasingly awkward as inflation expectations built up. Taken together, they implied that monetary policy lacked credibility in the view of market agents and other analysts, who apparently doubted the Central Bank's commitment to its inflation target in the medium term.

Before the September hike, the policy tightening had still left long-term indexed interest rates almost unaffected. If monetary policy was to reach one of the most overheated parts of the economy – i.e. surging private consumption – the transmission of policy rate changes to long-term indexed bond yields was crucial. The September hike and, equally, the firm message that the monetary stance would be kept tight were intended to speed up the transmission process. This appears to have succeeded. The average yield on Housing Financing Fund (HFF) bonds with a maturity of ten years was roughly 0.85 percentage points higher in the first half of November than in September. The rising yield has already been passed through to mortgage interest rates after the last auction of HFF bonds. A substantial rise in real interest rates could eventually have a significant impact on the housing market and on domestic demand in general.

The exchange rate and interest rate channels of monetary policy are interlinked

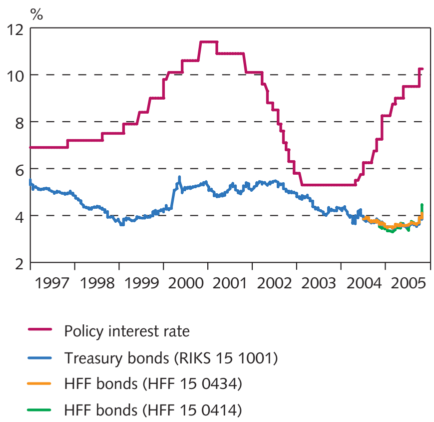
Besides shifting the entire yield curve upwards, the September policy rate hike had a fairly strong impact on the exchange rate of the króna. In the first half of November, the króna had appreciated by more than 5% on average since September. In the current climate of exceptional overheating in Iceland and low interest rates abroad, the exchange rate is bound to be the main channel for transmission of monetary policy, at least initially. While this is undesirable in various respects, it is unavoidable. The Central Bank has little control over which channel monetary policy is transmitted through at any given time.

The various channels of monetary policy transmission – via the yield curve, the exchange rate, expectations, etc. – are all interlinked. Developments since September demonstrate the close relation between the exchange rate and interest rate channels. There are indications that the recent rise in required yields on HFF bonds is partly the result of profit-taking by foreign investors in light of the strength of the króna. In this way, policy rate changes are partly passed through to long-term indexed bond rates via the exchange rate channel.

Chart IX-1

Central Bank policy rate
and yields on indexed long-term bonds

Weekly data January 8, 1997 - November 8, 2005



Source: Central Bank of Iceland.

Issues of króna-denominated Eurobonds channel monetary policy transmission even more through the exchange rate

As discussed in detail in a separate article in this edition of *Monetary Bulletin*, increasing issues of króna-denominated Eurobonds have some impact on the transmission mechanism. In particular, they dampen the impact of the policy rate on nominal interest rates of instruments of a similar maturity, temporarily forcing the exchange rate up. On the other hand, a stronger króna presents an incentive for investors such as domestic pension funds to invest in foreign securities or realise gains from their portfolios denominated in domestic currency. In the long run this offsets the secondary impact of offshore issues on the exchange rate and interest rates. Moreover, an appreciation of the króna should gradually subdue demand for foreign credit, which also counteracts the impact of the international issues. An appreciation increases the current account deficit as well, putting a downward pressure on the real exchange rate in the long term.

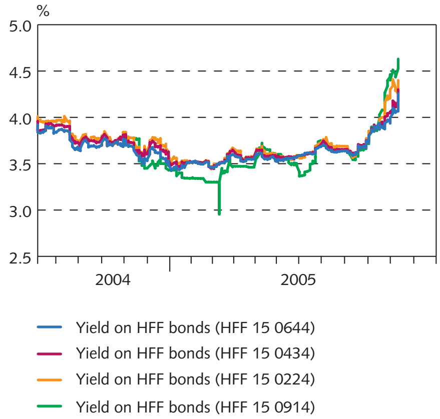
Other countries have not experienced greater exchange rate volatility due to international bond issues in their currencies ...

Foreign issues of króna-denominated bonds are a new departure and have been gaining huge momentum in recent months. The experience of other countries such as New Zealand does not suggest that offshore issues in their currencies necessarily fuel instability, as has been feared in some quarters. As long as these issues end up in dispersed portfolios of long-term investors and not on trading books or perhaps with investors who have underestimated the exchange rate risk, the risk of volatility when investors suddenly decide to close their positions appears modest. Insofar as the bond issues serve to deepen the FX and securities markets, they make a positive contribution to economic developments in Iceland.

... but in the current climate they do exacerbate uncertainties about the transmission of monetary policy

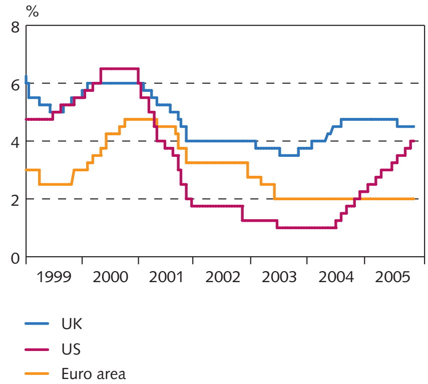
This is not to say that the development is absolutely positive or free from risks in the current climate. As pointed out above, the predominance of the exchange rate channel for transmitting monetary policy is unfortunate in many respects. Monetary policy tightening hits export sectors hard but initially does little to rein in private consumption – on the contrary – until the impact has been felt through the entire yield curve. The resulting widening of the current account deficit requires sustained heavy capital inflows to maintain the strength of the currency. International bond issues enable a larger deficit to be funded over a longer period than before, which could leave the economy more exposed to changes in external conditions later on. For example, a jump in US and European interest rates might cause a sudden aversion to bonds in minor currencies among foreign investors. Historically, such developments have triggered sharp exchange rate movements and currency crises in economies with fixed exchange rate regimes. If a wide current account deficit is largely funded by capital inflows linked to issues of króna-denominated Eurobonds – which bolster the currency for longer than would otherwise be the

Chart IX-2
Yield on HFF bonds
Daily data July 8, 2004 - November 11, 2005



Source: Central Bank of Iceland.

Chart IX-3
Policy interest rate in the US, UK and euro area
Daily data January 4, 1999 - November 11, 2005



Source: EcoWin.

case – a simple reduction in issuance could call for a rapid exchange rate adjustment, even if the foreign investors did not sell their bonds when the currency weakened, but held on to them until maturity. In many cases, the maturity date will coincide with a period when the currency is particularly susceptible to a slide.

Some disinflation likely over the coming months, but a rapid exchange rate adjustment poses a strong inflationary threat

The baseline scenario presented in Section VIII shows a somewhat lower inflation path than the scenario published in *Monetary Bulletin* in September. Both the interest rate and the exchange rate are higher than assumed in the September forecast, and both serve to reduce demand pressures. On the other hand, the forecast increase in unit labour costs has been revised upwards. The inflation outlook is still unfavourable, even if the exchange rate remains as strong as at present.

However, the assumption of a constant exchange rate appears quite unrealistic in the long run. Historically, such a high real exchange rate has always been short-lived. The current account deficit is heading for a record this year. Thus when the economy starts to cool, the króna is likely to come under intense pressure. A fairly wide interest-rate differential with abroad will be required to counter this pressure until domestic demand has readjusted and the current account deficit has narrowed. The inflation scenarios based on a variable interest rate and exchange rate, which are also presented in Section VIII, give some indication of the nature of the problem that monetary policy faces over the coming years.

Higher interest rates abroad could affect the transmission mechanism significantly in the years to come

Financial conditions abroad have been very favourable in recent years. In fact they have been detrimental for monetary policy implementation in Iceland, as pointed out above, even if they have helped to counter inflation in the short run by contributing to an appreciation of the króna. A turnaround is likely over the next few years. The global economic recovery has been broadening and interest rates are already inching up, although in the euro area the ECB minimum bid rate has still not changed and interest margins are still low. Other things being equal, the interest-rate differential with abroad will narrow, putting further pressure on the króna. Iceland's soaring debt in recent years will amplify the macroeconomic effect. If short-term interest rates in Europe begin to rise soon at a measured pace, as seems fairly likely at the moment, this could speed up the monetary policy pass-through and result in a more balanced transmission via the interest rate and exchange rate channels. On the other hand, a delayed but subsequently faster path of monetary policy tightening in Europe coupled with widening interest margins and less forthcoming credit supply, after the króna has already begun to weaken, could have adverse consequences, by amplifying the depreciation and fuelling inflation and a broad economic contraction at an inopportune time.

The real estate market will be crucial for economic developments in the near term ...

House price inflation has slowed sharply in the Greater Reykjavík Area in recent months and prices of detached housing went down in October. Regional house prices have in fact gained pace, but overall house price inflation is slower. When the higher required yields on HFF bonds are passed through in full to mortgage interest rates, the housing market can be expected to cool even further. In addition, the banks have formally and informally brought their mortgage ceilings back down. Both factors will cool the market for larger properties in particular, as has already emerged.

The housing market is likely to be more sensitive than before to interest rate movements for two reasons. First, market house prices are probably farther from long-term equilibrium than ever before. Second, since maximum loan-to-value ratio and mortgage ceilings have been lifted, the size of mortgage loans will be increasingly restricted by an assessment of a homebuyer's debt service capacity rather than by other limitations. Thus a fall in real estate prices cannot be ruled out in the next few years, even within the forecast horizon.

... and will radically alter the composition of inflation

A swift deceleration in twelve-month house price inflation is foreseeable in the next few months due to the base effect as the months when the housing component of the CPI soared last winter drop out of the twelve-month figures. If the housing market cools earlier than is currently foreseen, it will have a significant impact on the medium-term inflation outlook and cause even faster house price disinflation. Two main processes will be at work. First, owner-occupied housing inflation, which has been the main driver of CPI inflation over the past year, will slow sharply. Second, lower house prices will subdue demand, narrow the output gap and thereby reduce inflation. These disinflationary effects will offset the inflationary impact of the weaker króna.

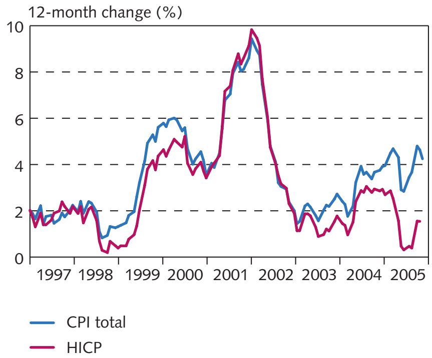
The housing component of the CPI is not crucial for monetary policy implementation

The Central Bank has been criticised for ignoring the composition of inflation in its monetary decisions. It has been pointed out that, measured in terms of the EU's Harmonised Index of Consumer Prices (HICP), inflation has been below target and headline inflation is largely explained by higher house prices, which in one sense are asset prices and should therefore not be a major concern of monetary policy. Such criticism is based on a fundamental misunderstanding of the factors determining the Central Bank's interest rate decisions. Policy rate rises do not target past inflation, but the future rate of inflation. Past house price inflation, however, does provide a valuable indicator of future inflation and has an impact on it as well.

The monetary stance has tightened significantly since September ...

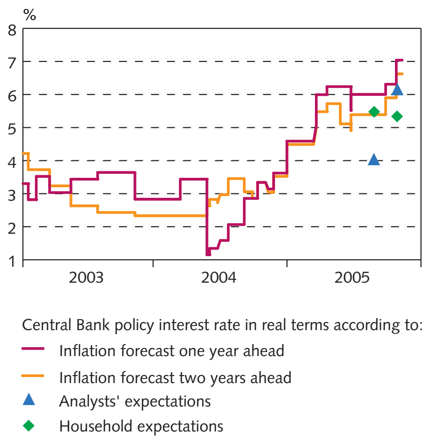
The September policy rate hike was passed through in full to real rates and policy transmission has made considerable progress along

Chart IX-4
CPI and HICP
Monthly data January, 1997 - November, 2005



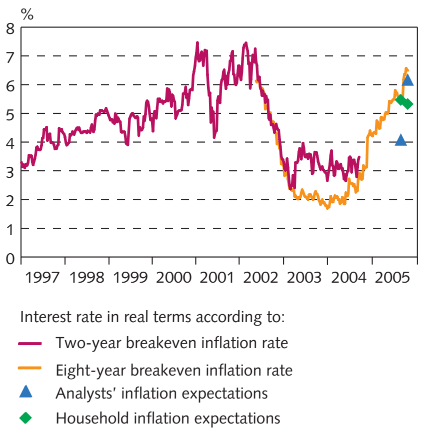
Source: Statistics Iceland.

Chart IX-5
Real policy rate
January 3, 2003 - November 11, 2005



Household expectations twelve months ahead were surveyed at the end of August/beginning of September and at the end of October/beginning of November. The September value shows analysts' expectations for twelve-month inflation to end-2006 and the later value is for twelve months ahead.
Source: Central Bank of Iceland.

Chart IX-6
Real policy rate
January 8, 1997 - November 8, 2005



Household expectations twelve months ahead were surveyed at the end of August/beginning of September and at the end of October/beginning of November. The September value shows analysts' expectations for twelve-month inflation to end-2006 and the later value is for twelve months ahead.
Source: Central Bank of Iceland.

Box IX-1
The exchange rate of the króna and the interest-rate differential with abroad

According to standard economic theory, a rise in the monetary policy rate affects the exchange rate of the domestic currency in two ways. One is the direct impact caused by the wider interest-rate differential with abroad making domestic securities more attractive to investors. Demand for the domestic currency increases, causing it to appreciate. The other effect is indirect, whereby higher interest rates may cause households to expect lower inflation in the future, which in turn lowers expectations of a future currency depreciation.

The Chart shows the interest-rate differential between Icelandic and foreign twelve-month interest rates on money market bills and the effective exchange rate of the króna since the beginning of 2000. It shows that interbank rates rose in Iceland until the differential reached 8 percentage points towards the end of 2001. However, the króna depreciated at the same to a low in November 2001. Why did the króna depreciate then in spite of a sizeable rise in interest rates?

This development is easier to understand by adjusting the interest-rate differential for the difference in inflation between Iceland and other countries, i.e. by examining the real rather than nominal interest-rate differential. It transpires that although interest rates went up considerably in Iceland in 2000 and 2001 as a result of rises in the Central Bank's policy rate, they did not keep pace then with the surge in inflation in Iceland, which was much greater than among its main trading partner countries. Thus the interest-rate differential with abroad narrowed in real terms at the same time as it widened in nominal terms and the króna depreciated.

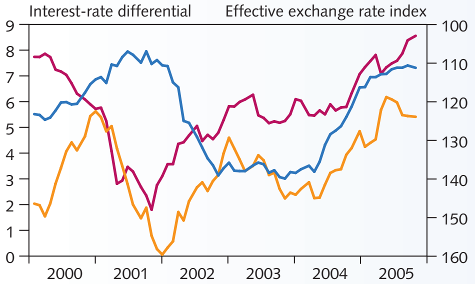
As this example shows, a distinction must be made between the part of the greater nominal differential that implies a widening in real terms and the part reflecting a higher rate of domestic inflation than in other countries. In the former case, demand for domestic securities increases and the króna generally appreciates, all other things being equal, as has happened from the beginning of 2004 to the present day. Over this period, the interest-rate differential has widened from roughly 2½ percentage points to roughly 5½ percentage points and the króna has appreciated by almost 16%.[1]

In the second case, while the yield on domestic securities is admittedly higher than before, higher domestic inflation increases the probability that the appreciation of the króna will unwind later, since the real exchange rate appreciates if the nominal rate remains unchanged, which will ultimately drive the nominal exchange rate back down to rebalance the competitive position of domestic production vis-à-vis foreign production. Expectations of an eventual depreciation create investor aversion towards the króna, for fear of subsequent exchange-rate losses. They therefore seek to close their positions in domestic securities, despite higher nominal yields, and the króna depreciates.

The long-term exchange rate development of a currency seems easier to understand by examining its interest-rate differential in real rather than nominal terms. However, it should be remembered that short-term forecasting of exchange-rate developments has proved

Chart 1
Interest rate and exchange rate
February 2000 - October 2005

At end of month



Nominal interest rate spread (left hand axis)
Real interest rate spread (left-hand axis)
Effective exchange rate index (right-hand axis, decending values)

Sources: EcoWin, Central Bank of Iceland.

1. Using real interest rates calculated from the difference in contemporary inflation between Iceland and its main trading partners.

extremely difficult and they often appear to bear little relation to the underlying economic fundamentals.[2] Although economists consider the above theories to be based on insights that give an accurate picture of the forces driving exchange rates, the Chart also shows that other factors may be at work, and sometimes the exchange rate trend runs contrary to simple theoretical predictions. This can be seen, for example, from exchange rate developments in 2000, when a sizeable depreciation took place in spite of a considerable rise in interest rates at the same time. Capital inflows in connection with investments and fluctuations in investors' general confidence also exert an effect. One consequence of such swings may be that real interest rates go up at the same time as the currency depreciates.

2. See, for example, What determines the exchange rate of currencies?, *Monetary Bulletin* 2001/4, Box 3, 24-26.

the yield curve, as explained in Section III. Also, the appreciation of the króna following the policy rate hike tightens the stance further. Expectations about the development of the policy rate have changed significantly, especially among financial market analysts, and should speed the pass-through along the yield curve.

... but the inflation target calls for even more tightening

The inflation and macroeconomic forecasts and risk profile described in Section VIII indicate that the monetary stance needs to be tightened still further if the inflation target is to be attained. However, it is extremely difficult to envisage what policy rate will be sufficient to stabilise inflation. While a sizeable depreciation of the króna is likely over the next two years, the pace of this adjustment if the policy rate is left unchanged is highly uncertain, as are the impact of policy rate changes on exchange-rate developments and the impact of the depreciation on the price level – given that the appreciation in recent months has only passed through to domestic prices to a limited extent.

This is the uncertainty that the Central Bank, businesses, households and market agents have to face and it cannot be dispelled, no matter how transparent monetary policy is. Nonetheless, the Central Bank emphasises its commitment to the inflation target, however developments unfold. Monetary easing which would leave inflation persistently far above target would not soften the foreseeable medium-term adjustment. In an economy with an extremely high level of both household and business debt – the bulk of which is either price-indexed or exchange rate-linked – an over-accommodative monetary policy and currency depreciation, redoubled by the resulting inflation, would be likely to cause as much contraction as high interest rates. The damaging effects of such a policy would be greater in the long run.

Hence, price stability will probably require a substantial interest-rate differential between Iceland and its main trading partner countries while the economy is readjusting after the current episode of overheating. How wide the differential needs to be will largely be determined by how successfully inflation and inflation expectations can be reined in. As outlined in Box IX-1, it is the real rather than the nominal interest-rate differential that affects the exchange rate of the króna. This underlines the importance of maintaining a sufficiently tight stance until macroeconomic imbalances have been reduced.

Preannounced, fixed dates for interest rate decisions will enhance monetary policy transparency

In order to enhance the transparency of its monetary policy, the Board of Governors of the Central Bank of Iceland has agreed to adopt a formal calendar for its interest rate decisions. Six scheduled dates for interest rate decisions have been announced for next year. Three will coincide with the publication of *Monetary Bulletin*. Accordingly, the Board of Governors will give a detailed explanation of its decision on the policy rate – irrespective of whether it is changed or left unchanged – on six occasions in 2006. This arrangement will give the Central Bank the opportunity to deliver its policy message more frequently in order to influence market expectations and contribute to more efficient transmission of monetary policy. Nonetheless, the formal calendar will not prevent the Central Bank from changing its interest rates more frequently if it deems this necessary. Publication dates of *Monetary Bulletin* and interest rate decision dates in 2006 are shown in Table IX-1.

Although three editions of *Monetary Bulletin* will be published as of 2006 instead of the previous four, the Central Bank does not consider that this will hamper the transparency of monetary policy, especially since scheduled interest rate announcement dates will be introduced at the same time and the Board of Governors' decision and their rationale for it will be announced in a press release on the dates when *Monetary Bulletin* is not published. Each edition of *Monetary Bulletin* will contain a complete inflation and macroeconomic forecast. Publication of four editions a year has proved difficult to organise in a way that takes full advantage of quarterly economic data such as the national accounts. The Central Bank of Iceland undertakes very extensive publication activities for its size and these have been increasing over the years.[13] For example, *Financial Stability* now

Table IX-1 Publication dates for *Monetary Bulletin* and interest rate announcement dates in 2006

Date of interest rate decision	*Commentary published in*	*Weeks since previous interest rate decision announcement*
January 26	Press release	8
March 30	*Monetary Bulletin* 2006/1	9
May 18	Press release	7
July 6	*Monetary Bulletin* 2006/2	8
September 14	Press release	10
November 2	*Monetary Bulletin* 2006/3	7

13. Norges Bank of Norway and the Banco Central de Chile, for example, publish three inflation reports a year, and the Bank of Canada two monetary policy reports, with two short updates between them.

Box IX-2 Amendment to the joint declaration of the Government of Iceland and Central Bank of Iceland from March 27, 2001

On November 11, 2005 the Prime Minister of Iceland and Board of Governors of the Central Bank of Iceland signed an agreement on an amendment to the wording of item 11 in their joint declaration on an inflation target and a change in the exchange rate policy from March 27, 2001. This now reads as follows:

11. The Central Bank shall publish inflation forecasts, projecting inflation at least two years into the future. Forecasts shall be published in the Bank's *Monetary Bulletin*. This shall also contain the Bank's assessment of the main uncertainties pertaining to the inflation forecast. The Bank shall also publish its assessment of the current economic situation and outlook.

1. In other respects the declaration from March 27, 2001 is unchanged. It was published in *Monetary Bulletin* 2001/2 and is also published, as amended, on the Central Bank's website under the heading "Inflation target/Declaration on inflation target".

appears as a separate publication but was previously a chapter in *Monetary Bulletin*. What is crucial is that the analysis in *Monetary Bulletin* should present a clear picture of the Central Bank's viewpoints. The necessary amendment to the joint declaration between the Central Bank of Iceland and Government of Iceland, in order to reschedule publication frequency, is described in Box IX-2.

Article 24 of the Central Bank of Iceland Act No. 36/2001 states that the Board of Governors lays down internal rules on the preparations of, arguments for and presentation of its monetary policy decisions. Rules in accordance with this provision were set in January 2002 and published in *Monetary Bulletin* 2002/1. In connection with the decision to introduce a calendar for announcing interest rate decisions as of 2006, these rules are under review. It is aimed to set new rules before the end of 2005 and make them public.