### Economic and monetary developments and prospects<sup>1</sup>

### Inflation outlook has deteriorated two years ahead

The macroeconomic outlook is broadly the same as was described in Monetary Bulletin 2005/1 at the end of March. The economy is still characterised by large and growing imbalances. Among the clearest signs of imbalances are soaring housing prices, a surge in lending growth and a mounting foreign trade deficit. Indicators released since Monetary Bulletin was published in March by no means suggest that demand growth has slowed down. Inflation has edged down over the past two months. However, this is caused by transitory factors, e.g. an appreciation of the króna since December, a change in the method of calculating interest rates in the housing component of the CPI and a supermarket price war. None of these factors affects the inflation outlook over the coming two years. On the contrary, prospects have deteriorated, since the exchange rate used in the current forecast is lower than in March. Furthermore, greater-than-expected housing price rises since March will drive private consumption next year.

## 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 March. 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 March forecast.<sup>2</sup>

As usual, the inflation forecast is based on the technical assumption of an unchanged policy interest rate (currently 9%) over the forecast horizon and an unchanged effective exchange rate index from the day of the forecast, May 17, when it was close to 116. The exchange rate in the revised forecast is therefore 6% weaker than in March. The forecast horizon is until Q2/2007.

### The economic outlook has not changed much since the last forecast

The economic outlook two years ahead has not changed much over the relatively short interval since the last forecast in March, with little new information emerging to warrant a substantial revision. Growth is expected to remain robust over the next two years. The outlook is for a slightly wider output gap than in the March forecast. Restoring economic balance without a hard landing will be test of the resilience of the economy and a challenge to economic policies.

The main changes since the March forecast are that the Central Bank's policy interest rate has risen slightly, the króna has depreciated

This article uses data available on May 27, 2005, but the forecast is based on data until May 17.

Comprehensive macroeconomic and inflation forecasts are published in the second half of March and September, and updates in June and December. The comprehensive forecasts are scheduled to include national accounts data which are published for the preceding year in March and for the preceding half-year in September.

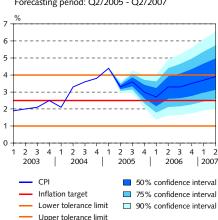
Table I-1 Update Central Bank macroeconomic forecast

		Policy rate and exchange rate assumptions <sup>1</sup>						
				Change from previous forecast				
		Current forecast			(percentage points) <sup>2</sup>			
	2004	2005	2006	2004	2005	2006		
Central Bank policy interest rate (%)	6.14	8.85	9.00	-	0.17	0.25		
Foreign exchange index <sup>3</sup>	121.0	114.2	116.0	-	4.4	6.4		

	Current macroeconomic forecast					
	V	Volume change on previous year			s forecast nts) <sup>2</sup>	
		Curren	t forecast			
GDP and its main components	2004	2005	2006	2004	2005	2006
Private consumption	7.5	8.0	7.0	-	-	0.4
Public consumption	3.6	2.5	2.6	-	-	0.1
Gross fixed capital formation	12.8	34.2	-8.0	-	0.7	-0.1
Industries	12.9	52.8	-13.9	-	0.5	-0.9
Excl. power-intensive projects, ships and aircraft	6.7	1.7	-1.6	-	-1.0	1.2
Residential housing	3.0	21.9	9.9	-	2.4	0.3
Public investment	27.3	-11.6	-4.7	-	-0.6	3.4
National expenditure	7.7	12.4	2.4	-	-0.1	0.2
Exports of goods and services	8.3	4.0	7.6	-	-0.9	-1.8
Imports of goods and services	14.3	18.5	-1.2	-	-1.1	-1.2
Gross domestic product	5.2	6.6	6.2	-	0.2	0.1
Other key aggregates						
Current account balance (% of gross domestic product)	-8.1	-12.0	-10.1	-	0.2	-0.8
Output gap (% of production capacity in the economy)	1.1	3.3	4.4	-	0.2	0.3
Private sector wages (change between annual averages in %)	4.5	6.0	6.1	-	-	0.1
Labour productivity (change between annual averages in %)	3.1	2.5	2.5	-	-	0.1
Unemployment (% of labour force)	3.1	2.1	1.9	-	-0.2	-0.2

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





and housing prices have increased by more than had been expected. Higher housing prices and the greater incentive they provide for residential investment will boost household asset value. Increased housing wealth will drive up private consumption next year by more than was forecast in March, in spite of the higher policy rate. The weaker króna will channel much of this increased demand towards domestic factors of production, which will be reflected in lower import growth. Despite the lower real exchange rate, the export forecast has also been revised downwards, reflecting new information about fish stocks.

### Inflation outlook has deteriorated slightly since March

The weaker króna and wider output gap have caused the inflation outlook two years ahead to deteriorate from the forecast published in *Monetary Bulletin* 2005/1 in March. One year ahead the outlook is broadly the same as before. Inflation is expected to slow down in the near term and come close to target in the first half of next year. Afterwards it is forecast to regain pace. Assuming that the policy rate remains unchanged, inflation will measure 3.7% at the beginning of 2007, which is some way above the March forecast of just over 3%

Table I-2 Updated Central Bank inflation forecast Change in the CPI between periods

	<i></i>			<i>-</i> 1	
	Change on		nualised	Change o	
Measured inflation (%)	previous quarter	quarteriy	cnange	quarter of previo	ous 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
Inflation forecast	(%)				
2005:2	0.6		2.4		3.3
2005:3	0.8		3.1		3.6
2005:4	0.7		2.9		3.0
2006:1	0.6		2.4		2.7
2006:2	1.1		4.6		3.3
2006:3	0.8		3.4		3.3
2006:4	0.8		3.4		3.5
2007:1	0.8		3.3		3.7
2007:2	1.3		5.4		3.9
	(	Change		Change	
		n-year		within year	
Measured inflation	,	,		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
2003		2.1		2.4	
2004		3.2		4.0	
Inflation forecast	(%)				
2005		3.6		3.0	
2006		3.2		3.6	

for the same period. As in March, the forecasting risk is symmetric one year ahead but to the upside two years ahead. However, the upside risk has diminished since March, because part of the currency depreciation in the risk profile in March has already occurred and been incorporated into the main forecast now.

The main reason for the poorer inflation outlook since March is the weaker króna, which combined with other factors contributes to a wider output gap than was forecast then. Thus the probability of attaining the inflation target over the forecast horizon has decreased, assuming an unchanged policy rate. In order to reach target, the monetary stance will need to be tightened still further.

Chart II-1 Economic growth in the US, UK, euro area and Japan Q1/1999 - Q1/2005

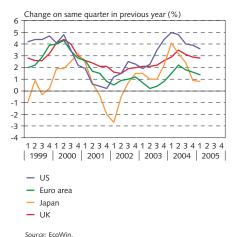
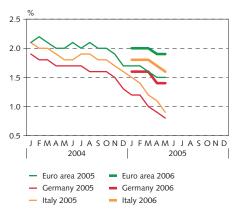


Chart II-2
Forecasts for economic growth in 2005-2006 in the euro area, Germany and Italy<sup>1</sup>



1. Horizontal axis indicates the date of forecasting *Source*: Consensus Forecasts.

### II External conditions

The outlook for external conditions is marginally poorer now than in March. In Iceland's main trading partner countries, GDP growth has declined and growth prospects have worsened, prices of marine exports have slipped although they are considerably higher than a year before, and the outlook for the fish catch is slightly worse. The export forecast has therefore been revised slightly downwards for both this year and 2006.

### Growth outlook sluggish in developed countries but robust in

Growth prospects in major economies have taken a downturn in recent months, especially in continental Europe and Japan. Higher oil prices have had a sizeable impact on growth in these areas. First-quarter growth in the US was also lower than expected. Although the outlook is not as upbeat as before, fairly strong global economic growth is expected this year. Inflation is generally low, and so are interest rates. China and the US continue to lead growth and most emerging economies follow close on their heels.

Forecasts for euro area growth in 2005 have been revised downwards in recent months, in particular due to weaker growth in Germany and Italy. The main explanation is higher oil prices. At the end of 2004, oil futures indicated that prices would drop this year to roughly \$40/barrel, but average prices this year are now expected to be close to \$50/barrel.

Growth in the US slowed down earlier than expected, bringing down forecasts for the year as a whole. In Q1/2005 growth of both private consumption and business investment slowed down, but the current account deficit continued to widen. Imports soared by 14.7% in the first quarter, while exports rose by 7% (for a further discussion of the US current account deficit, see Box 1).

However, growth in China has continued apace. Growth in Q1/2005 measured 9.5%. Although it is expected to slow down later in the year, China's growth is still expected to remain robust for the year as a whole.

Box 1

## The US current account deficit

### The US current account deficit is widening, especially with China ...

The US current account deficit has continued to widen this year. As discussed in *Monetary Bulletin* 2005/1 there are various explanations for the widening deficit, including lower private sector saving and the growing fiscal deficit. The deficit on the US merchandise account, which accounts for the bulk of the current account deficit, has widened with all major trading partner countries, and most of all with China. Since the mid-1990s the current account deficit with China has spread from virtually nothing to the annual equivalent of almost 200 b. US dollars in Q4/2004, which accounts for close to 30% of the total merchandise account deficit. It widened particularly rapidly after the dismantling of trade barriers with China's membership of WTO in 2002. US imports of oil and other commodities and manufactured goods have also grown substantially.

#### ... but has been easily financed so far

Unlike the situation at the turn of the millennium, when much of the growing current account deficit was financed with foreign direct and portfolio investment in US companies, the recent US current account deficit has largely been financed with purchases of US bonds by non-residents, including central banks. Foreign investors have significantly increased their exposures in US assets and now own some 45% of outstanding US Treasury bonds and over 10% of equity in US companies. This is more than double the ratio a decade ago. Until now, the current account deficit has been easily financed. Asian central banks have been major buyers of US Treasury bonds. To a certain extent, these investments by Asian countries can be seen as an effort to build up reserves after the shocks they incurred over the period 1996-1998. However, Asian central banks have also intervened in FX markets in order to hold the exchange rates of their home currencies stable against the dollar. Although such funding is clearly unsustainable, it is difficult to predict when the turnaround will happen, or how quickly the adjustment will take place and what form it will take. Conceivably it will be effected through a further slide in the value of the dollar, but faster GDP growth in Europe and slower growth in the US could also contribute to a better balance.

### The depreciation of the dollar has hitherto had little impact on the current account deficit

The depreciation of the dollar has hitherto had virtually no impact on the current account deficit. This is not to say that it will not contribute to closing the deficit in the long run. International trade is known to respond to changes in exchange rates with a considerable lag.<sup>1</sup> Over time, however, imports should decrease and exports increase as a result of the weakening that the dollar has already undergone. Because exports are now equivalent to only 2/3 of imports, the current account deficit will take a long time to show a significant narrowing. The OECD expects the US current account deficit to peak in 2006.

If growth in the US continues to outpace that among most of its trading partner countries, the dollar will be more likely to need to slide even further in order to establish a sustainable external balance. There are no prospects that faster GDP growth in continental Europe will reduce the US current account deficit in the near future, since growth forecasts for the euro area have been revised downwards. The dollar may be more likely to depreciate against Asian than European currencies, since it is Asian central banks that are financing much of the deficit and the main depreciation of the dollar until now has been recorded against the euro. A counteracting trend is that interest-rate differentials between the dollar and the euro have widened, which strengthens the dollar.

Chart 1
US current account balance 1970-2004



Source: EcoWin.

Chart 2 Exchange rate of the US dollar 1980-2005 Quarterly data

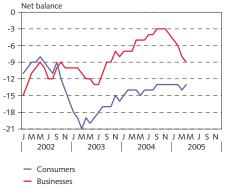


Effective exchange rate of US dollar (left-hand axis)
 Exchange rate of euro against US dollar (right-hand axis)

Sources: EcoWin, OECD

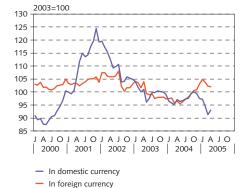
<sup>1.</sup> The OECD has calculated the relative price elasticity of US exports as 0.1 between quarters, 0.4 over one year and 0.6 over a longer horizon. Under the J curve effect, a current account deficit may widen immediately after a depreciation. Export prices fall and import prices rise at once, but the time required to finalise new orders and business agreements creates a considerable lag in export volume growth and contracting imports. Thus a deficit on a merchandise account can worsen before it begins to improve. In the US, however, import prices have been highly inelastic, since manufacturers have tended to keep their dollar prices unchanged in order to defend their

Chart II-3 Consumer and business confidence indicators in the euro area January 2002 - April 2005



Source: EcoWin

### Chart II-4 Estimated marine product prices<sup>1</sup> January 2000 - April 2005



1. An index calculated by Statistics Iceland translated into foreign currency using the export-weighted currency basket Sources: Statistics Iceland, Central Bank of Iceland.

#### Growth outlook remains subdued in main European economies

Prospects of a pick-up in growth in Europe appear weak for the near future and higher oil prices have presumably delayed recovery even further. As mentioned above, growth forecasts have been revised downwards, especially for Germany and Italy. In fact, Germany recorded much higher-than-expected growth in Q1/2005, at 1%. However, because this growth was largely export-driven at the same time as domestic demand contracted, the prospects for this year are not considered to have improved significantly. Exports may be sensitive to the sustained strength of the euro and fluctuations in global trade. In Italy, growth expectations have also plunged. In Q1/2005, output declined year-on-year for the second consecutive quarter, the technical definition of a recession. Hence the growth outlook for the year as a whole is very poor, for similar reasons to Germany. Italy's manufacturing sector faces especially weak prospects, according to latest data. It has had trouble adapting to fiercer global competition and Italy's share in world exports has been on the decline.

Surveys reveal that business confidence in the service and manufacturing sectors has continued to dwindle across the euro area, while consumer confidence has stayed broadly unchanged so far this year. Growth has been faster in services than most other sectors, but recent data suggest a slowdown, especially in Germany and Italy. Private consumption growth is still subdued in the euro area, although it has picked up slightly. Higher oil prices and the strong euro are slicing into profits, making businesses unlikely to step up investment and recruitment in the near future. Consumers can therefore be expected to show restraint for as long as the present uncertain employment prospects continue.

### Subdued growth in Europe has not had much effect on marine product prices

The depressed state of the continental economies does not appear to have had a marked effect either on demand for marine products from Iceland or prices of them. For most marine products, the market outlook is currently quite upbeat. Sales have been a little sluggish in fresh fish markets recently, however, probably due to the temporary impact of increased supply from Norway and the Faroe Islands. In the first four months of this year, average prices of marine products were 7% higher year-on-year in foreign currency terms. Prices rose most for frozen-at-sea products, at 18%, but for land-frozen products by 4% and for saltfish by only 2%. Most market analysts expect prices of the main frozen, salted and fresh demersal products to keep on climbing this year, since demand is growing and Iceland's competitive position is strong. A minor slide in demersal product prices in March can be traced to the seasonal downturn in saltfish prices. Eastern European markets for frozen products are building up and the outlook for fish meal and fish oil prices is considered favourable.

### Smaller cod stock than previously thought, but other species appear to be in good condition

The Marine Research Institute's (MRI) recent spring survey suggests

that the 2003 year-class of cod was below average and the 2004 year-class substantially below average. The abundance index for cod has gone down by 16% since the measurement taken in 2004.

Final recommendations for the total allowable catch (TAC) of demersal fish for the coming fishing season have not yet been announced by the MRI, however. The survey findings may signal a reduction in the TAC for cod in coming fishing seasons, although it is not certain that this will be made for the next season, which commences on September 1. Offsetting this, the haddock and saithe stocks are in fine condition and TACs for them are likely to be increased for the coming season. TACs for other major species are unlikely to change much between fishing seasons, apart from uncertainties surrounding Greenland halibut.

### Less growth in catch value than forecast in March

The fish catch in the first four months of 2005 was considerably larger than over the corresponding period the year before and a somewhat larger total demersal harvest can be expected this year than in 2004, in terms of both volume and value. The annual pelagic catch is more difficult to predict, since the total capelin harvest tends to be highly uncertain with wide fluctuations in the summer and autumn fisheries in recent years. Nonetheless, a larger total pelagic catch can be expected this year than in 2004, with the capelin catch over the first four months already outstripping the figure for the whole of last year. The herring catch will probably also be up after the recent increase in the TAC from the Icelandic-Norwegian herring stock, but a slight contraction in blue whiting is likely.

A rather larger total fish catch can be expected this year compared with 2004, and it will also increase next year. Nonetheless, the volume increase has been revised downwards since the forecast in March, as a result of the poorer condition of stocks than assumed then.

The outlook for prices of fish products is unchanged from the March forecast. Prices are expected to rise next year by more than previously forecast, but not sufficiently to offset lower catch growth. Catch value and marine export production will therefore increase rather more slowly over the forecast horizon than was assumed in March.

### Real exchange rate reached a seventeen-year high in Q1 but has fallen in Q2

The króna has depreciated since peaking on March 21, thereby reversing the appreciation that took place during Q1. The current forecast assumes an unchanged exchange rate from May 17, implying that the króna will be 5.7% stronger on average this year than in 2004.

The real exchange rate peaked in Q1 when it reached its highest level for 17 years, but has decreased so far in Q2, especially as a result of a lower nominal exchange rate and lower inflation. Since the outlook is that domestic inflation and unit labour cost will rise faster than among trading partner countries, the real exchange rate will increase by more than the nominal rate year-on-year. Assuming an

Chart II-5 Fish catch in January-April 2001-2005

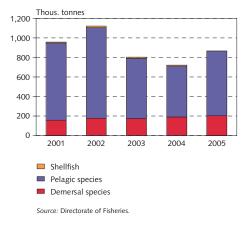


Chart II-6
Real effective exchange rate of the króna
Q1/1986 - Q2/2005

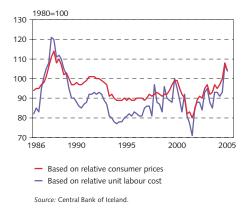
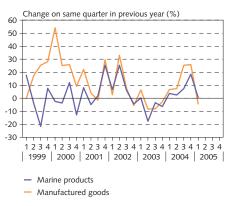
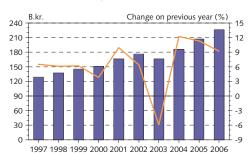


Chart II-7 Merchandise export growth 1999-2005<sup>1</sup>



 At constant exchange rates based on the export-weighted currency basket.
 Sources: Statistics Iceland, Central Bank of Iceland.

Chart II-8
Merchandise export real growth 1997-2006<sup>1</sup>



- Merchandise exports at constant exchange rates (left-hand axis)
- Growth on previous year at constant exchange rates (right-hand axis)
- 1. Central Bank forecast for 2005-2006. Sources: Statistics Iceland, Central Bank of Iceland.

unchanged nominal exchange rate from May 17, the average real exchange rate defined in terms of relative consumer prices will increase by roughly 8% this year, then remain virtually unchanged in 2006. In terms of relative unit labour cost the increase will be even sharper, at 10% this year and 2% next year.

### Total exports likely to grow this year in spite of a drop in merchandise exports in Q1

Exports are expected to grow at a somewhat slower rate this year and in 2006 than was forecast in March. The reason is a downward revision in the growth forecast for marine exports in both years, and for exports of services and other goods than aluminium. Total exports of goods and services are expected to rise by 4% this year and 7½% next year.

The outlook is for some increase in total merchandise exports this year, even though they have only grown by 2% over the first four months. Exports of marine products increased by only 0.5% and manufactured goods by 1.5%. There was a contraction in exports of pharmaceuticals and medical equipment in the first four months, while exports of both aluminium and ferrosilicon were up. The downturn in pharmaceuticals exports is presumably temporary and they are expected to increase this year. Near-stagnation in marine exports cannot be attributed to lower catch volume or value, since both were up year-on-year. A probable explanation is inventory movements or factors such as the timing of sales and dispatch of orders, which would make the contraction temporary.

Table II-1 Main assumptions for developments in external conditions

	Current forecast <sup>1</sup>		st <sup>1</sup>
	2004	2005	2006
Marine production for export	8.1	3.0	2.0
Export prices of marine products	-0.9	6.0	3.0
Aluminium export prices	9.6	2.9	-3.4
Prices of exported goods and services	-3.5	7.7	0.6
General import prices in foreign currency	2.5	2.5	2.3
Of which fuel prices	35.9	27.9	9.7
Terms of trade for goods and services	-2.6	3.4	-2.1
Foreign short-term interest rates	2.3	2.6	3.0

	previous ioreca	1SL <sup>-</sup>
2004	2005	2006
-	-1.0	-2.5
-	0.0	1.0
-	-1.3	4.8
-	-2.0	0.3
-	0.2	0.1
-	-6.1	12.9
-	1.5	-1.1
-	0.0	0.0

Change from

Percentage-point change year-on-year, except for interest rates.
 Change since Monetary Bulletin 2005/1.

Source: Central Bank of Iceland.

### III Financial conditions

### Foreign long-term interest rates have gone down since March

After tightening over the period from November to March, as described in *Monetary Bulletin* 2005/1, financial conditions have not changed much overall. International financial conditions have eased and the króna has depreciated, but domestic short-term interest rates have edged up.

The economic recovery in Europe is still sluggish and is generally not expected to speed up in the near future. Improved business profitability has not been matched by greater investment. These conditions, a favourable inflation outlook and the low key rates of the European Central Bank (ECB) have contributed to low bond rates in the euro area which appear unlikely to change substantially this year. In fact, interest rates on 10-year German Treasury bonds were at a historical low in mid-May. US long-term interest rates have also inched downwards despite rising short-term rates and large fiscal and current account deficits. However, risk premia on corporate and emerging market economy bonds have risen somewhat after falling sharply over the past year, but remain relatively low.

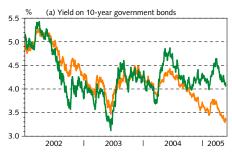
#### Domestic short-term interest rates have inched up in real terms

The Central Bank of Iceland raised its policy interest rate by 0.25 percentage points in March to the current rate of 9%. Since an increase on this scale or even more was expected beforehand, money market interest rates had already accommodated the hike before it was announced, and have changed little since then. Estimation of the Central Bank's policy rate in real terms has been complicated by the fact that the indexed bond which has been used as a benchmark matured in April. No new information is available on business and household inflation expectations since March, but on the basis of a survey conducted in February, expected real interest rates are around 5% among households and marginally higher among businesses. Given the tendency of household expectations to track historical inflation and the slowdown in inflation since March, real interest rates are likely to have risen by more than the policy rate hike in March. Based on the twelve-month rate of inflation, the policy rate has gone up significantly in recent months to beyond 6% in the past few weeks. Chart III-3 shows different measures of the Central Bank's policy rate in real terms. On the whole, it can be inferred that the Central Bank's policy rate has inched upwards in real terms since March.

### Yields have risen on Treasury notes with a maturity of roughly two years, but have fallen on longer maturities

The transmission of policy rates through the non-indexed interest rate spectrum is mainly restricted to a sizeable rise in yields on Treasury notes with a maturity of roughly two years. However, they were approaching 9% some time before the policy rate hike in March and have changed little since. Yields on Treasury notes with a lifetime of 5-8 years have been on a downward trend since before the policy

Chart III-1 Foreign interest rate developments January 2, 2002 - May 23, 2005 (daily data)





#### Chart III-2

Domestic and foreign short-term interest rates and the interest-rate differential with abroad

3-mo. Treasury bills. Weekly data January 1997 - January 2003, daily data February 3, 2003 - May 23, 2005

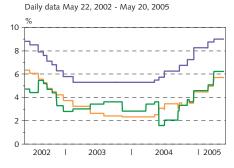


- Yield on 3-month Treasury bills in trading partner countries
   (trade-weighted average)
- Yield on 3-month Treasury bills in Iceland
   Differential

Source: Central Bank of Iceland

#### Chart III-3

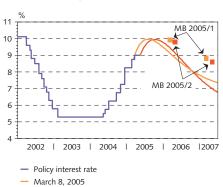
Central Bank policy interest rate in real terms



- Nominal policy interest rate
- Policy interest rate in real terms based on forecast inflation one year ahead
  - Policy interest rate in real terms based on forecast inflation two years ahead

Source: Central Bank of Iceland.

Chart III-4
Central Bank policy interest rate 2002-2007

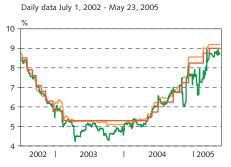


Curves indicate forward interest rates. Boxes indicate interest rate forecasts by financial analysts before publication of *Monetary Bulletin* (MB) 2005/1 and 2005/2. Source: Central Bank of Iceland.

Chart III-5

May 17, 2005

Policy interest rate and other short-term market rates: Treasury notes and REIBOR



- Policy interest rate in nominal terms
- 3-month Treasury bills
- 3-month interbank market rate (REIBOR)

Source: Central Bank of Iceland.

Chart III-6
The Central Bank policy interest rate and yield on Treasury notes

Daily data January 3, 2003 - May 23, 2005

10 % 9 8 7 6 5 4 2003 | 2004 | 2005

- Policy interest rate
- Yield on T-notes (RIKB 07 0209)
- Yield on T-notes (RIKB 10 0317)
- Yield on T-notes (RIKB 13 0517)

Source: Central Bank of Iceland

rate hike. As before, the policy rate pass-through to the non-indexed term structure appears to indicate that market agents expect the policy rate to peak soon and head back down relatively rapidly afterwards.

Non-indexed bank lending rates have risen broadly in pace with the policy rate. Indexed lending rates have remained more or less unchanged in recent months, in line with developments in the mortgage loan market. However, there are indications of some reduction in average premia on the banks' prime rates.

### Market agents expect policy rate hikes to continue

The Central Bank's policy rate hike on March 22 was roughly in line with market agents' expectations, as can be read from the yield curve for non-indexed market interest rates. Likewise, the market appears to have expected interest rates to be raised by 0.25 percentage points with the publication of this edition of *Monetary Bulletin*.

As in March, implied forward rates indicate that the policy rate will peak in the second half of this year at around 10%, although somewhat later than was previously expected. Likewise, they imply that a fairly rapid reduction in the policy rate is expected in 2006, falling below 7% two years hence, which is somewhat lower than forecast in March.

Financial analysts still expect the policy rate to head downwards at a later time and slower pace than is implied by forward rates (see further Box 4). If the term structure provides a reliable indication of market agents' expectations, it can be inferred that they are rather more optimistic than financial analysts about when the Central Bank can lower its policy rate again.

#### Lending growth still gaining momentum

In recent months, the domestic money banks' (DMBs') lending growth has been gaining even more momentum. After adjustment for the effect of the currency appreciation and price indexation, twelve-month growth in domestic lending by DMBs was just over 47%. This was offset by a decrease in lending by the Housing Financing Fund (HFF) and pension funds. At the end of March, total lending by all these institutions had increased by just under 21% year-on-year. This surge reflects relatively favourable financial conditions and the removal of restrictions on household borrowing. By the end of April, commercial banks and savings banks had provided households with mortgage loans worth roughly 200 b.kr. since entering this market at the end of August 2004. Monthly lending has been fairly stable at close to 20 b.kr., apart from the period October-December, when it exceeded 30 b.kr.. Pension funds' lending to members appears to have picked up in Q1/2005 after a sharp contraction in the autumn following the banks' entry into the mortgage loan market.

Foreign currency-denominated securities issues and foreign borrowing by DMBs are still growing apace. The twelve-month increase this March was just over 64%, while in March 2004 it was just over 69%.

The annual growth rate of broad money (M3) has been in the region of 15% in recent months. While down from the peak recorded in 2003, growth on such a scale is clearly incompatible with price stability in the long term.

The króna is considerably weaker now than in the forecast published in *Monetary Bulletin* 2005/1 in March, having slid by 6% between forecast dates. Its depreciation is possibly the most important change in financial conditions since March and represents some easing. However, the current outlook for exchange rate developments may be more uncertain, which could subdue demand for foreign borrowing, even though the króna is weaker than before.

### Little change in financial conditions of households, despite higher short-term interest rates

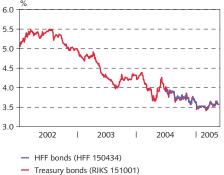
The main determinant of financial conditions of households is the development of indexed lending rates, in particular on the mortgage loans that they have taken on a large scale recently. These rates have shown little change since autumn 2004. Relatively minor changes have taken place in interest rates on foreign currency-denominated loans available to households, while overdraft rates have increased in pace with Central Bank's policy rate. Households have continued to refinance their debt by taking mortgage loans to prepay existing loans that are on less favourable terms. The benefits of loan conversion are still likely to outweigh the increased debt service caused by higher interest on overdrafts. So far, households have apparently not made much use of this new borrowing to reduce their overdrafts.<sup>3</sup>

#### Weaker króna improves financial conditions for some sectors

The depreciation of the króna since March affects the financial conditions of businesses much more than households, but as discussed in *Monetary Bulletin* 2005/1 the sectoral impact may vary. On the whole, a weaker currency ought to imply easier financial conditions, i.e. it should boost their profits and make foreign currency-denominated borrowing more favourable by reducing the subsequent expected volatility of their exposures. However, a depreciation of the currency also increases debt service on existing foreign currency-denominated loans, which in recent years have accounted for more than half of outstanding corporate debt. If the bulk of a company's income is not also denominated in foreign currency, this may imply a tightening of financial conditions. High equity prices, as well as the weaker króna, also represent favourable financial conditions for listed companies.

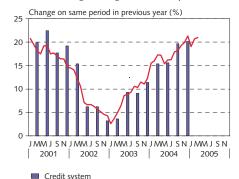
In the opposite direction, short-term interest rates have been moving upwards, although they have not changed much since March. On the whole, therefore, the financial conditions of businesses are probably broadly the same as in March, or possibly marginally better.

Chart III-7 Yields on indexed long-term bonds Daily data January 3, 2002 - May 23, 2005



Source: Central Bank of Iceland

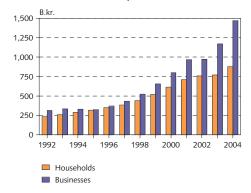
Chart III-8
Credit growth January 2001 - March 2005
Quarterly credit system lending and monthly lending by
DMBs, Housing Financing Fund (HFF) and pension funds



Deposit money banks, Housing Financing Fund and pension funds

Source: Central Bank of Iceland.

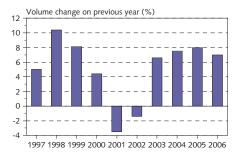
Chart III-9
Credit by sector 1992-2004
Outstanding credit system lending to households and businesses at end of year<sup>1</sup>



Lending was reclassified in 2003.
 Source: Central Bank of Iceland.

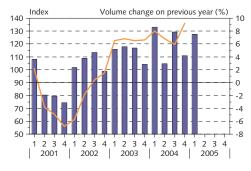
<sup>3.</sup> See Financial Stability 2005, published by the Central Bank of Iceland in April.

Chart IV-1 Private consumption growth 1997-2006<sup>1</sup>



1. Central Bank forecast for 2005-2006.

Chart IV-2
Private consumption and consumer confidence<sup>1</sup>
Q1/2001 - Q1/2005



Gallup consumer confidence index (left-hand axis)Private consumption growth (right-hand axis)

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

### IV Domestic demand and output

No new national accounts data have become available since the Central Bank's last forecast in March. Changes in the outlook since then primarily reflect the depreciation of the króna and movements in a number of economic indicators that were considered to warrant inclusion when the forecast was revised.

GDP growth ran at 5.2% last year, and is expected to climb even higher this year and in 2006. The general outlook is broadly the same as in March but with slightly greater GDP growth, partly because the króna will be weaker. Higher housing prices should also drive private consumption and residential investment. As in the March forecast, private consumption is expected to soar this year and next year. Private consumption appears to have gained pace in Q1/2005 and the forecast for next year has been revised slightly upwards. The weaker króna will increasingly channel demand directly towards the domestic economy, resulting in a wider positive output gap than was forecast in March.

### Private consumption

In March, the Central Bank forecast private consumption growth of 8% this year and just over 6½% in 2006. Private consumption grew by 9.2% in the last quarter of 2004, which was considerably faster than earlier that year. Indicators of private consumption growth so far this year suggest that it will be at least as robust in Q1/2005 as in the preceding quarter. The same forces are still at work as at the end of last year: more easily available credit at low interest rates, enhanced scope for mortgage equity withdrawal, robust growth of real disposable income and ongoing rises in asset prices. Housing wealth is now expected to grow more rapidly than in the March forecast, driven by greater rises in housing prices and investment. This should boost private consumption further, other things being equal. Hence, the Bank's forecast for private consumption next year has been revised upwards since March. The forecast for the current year remains unchanged, however.

As pointed out above, financial conditions of households have not changed much since the last *Monetary Bulletin* was published in March. Interest rates on indexed bank lending have changed little but overdraft rates have gone up in step with the Central Bank's policy rate. However, only a small proportion of household credit carries interest rates that are affected relatively quickly by changes in the policy rate.

Household expectations so far this year are broadly the same as one year before, according to Gallup's consumer confidence survey. As in recent years, households are less upbeat about the future than the present, probably in part because their current position is very favourable. Also, discussions of rising inflation and other signs of macroeconomic imbalances have an adverse effect on their expectations for the future.

As noted above, the rise in asset prices so far this year continues to bolster private consumption. On May 19, equity prices had risen

Table IV-1 Indicators of private consumption in 2004 and in the first four months of 2005

				Μ	ost recent pe	riod		
							Chan	ge based on
			arterly figu					year-to-date
% year-on-year change unless otherwise stated	Q1/2004	Q2/2004	Q3/2004	Q4/2004	Q1/2005	Month	1 month	figures
Grocery turnover (in real terms)	3.8	3.4	4.3	3.3	7.2	April 2005	7.2	14.3
Payment card turnover (in real terms) <sup>1</sup>	9.7	9.7	4.9	11.2	11.2	April 2005	12.0	35.3
of which domestic	8.9	8.6	4.0	9.8	9.8	April 2005	11.9	7.1
of which abroad	27.3	29.1	18.4	34.0	35.6	April 2005	35.0	35.3
Car registrations (increase in number)	35.8	28.4	19.5	44.3	61.4	April 2005	66.8	64.4
General imports (volume change) <sup>2</sup>	23.7	18.7	13.6	16.0	15.1	April 2005		13.8
Imports of consumer goods (volume change) <sup>2</sup>	14.5	15.3	14.5	15.7	22.1	April 2005		23.3
Private motor vehicles <sup>2</sup>	24.4	24.2	24.6	35.0	56.7	April 2005		57.5
Consumer durables. e.g. household appliances <sup>2</sup>	21.7	19.4	16.3	17.1	36.3	April 2005		36.5
Consumer semi-durables. e.g. clothing <sup>2</sup>	10.7	9.9	8.8	7.5	16.9	April 2005		17.2
Food and beverages <sup>2</sup>	13.8	11.8	10.5	10.2	6.8	April 2005		6.8
Imports of investment goods excluding ships								
and aircraft (volume change) <sup>2</sup>	36.9	38.3	23.8	19.3	36.9	April 2005		26.8
Gallup confidence index	18.0	-11.7	5.5	-3.2	-1.7	April 2005	4.0	-1.8
Current situation	66.1	13.8	23.1	19.8	21.2	April 2005	31.0	24.6
Expectations six months ahead	2.4	-22.3	-3.5	-14.7	-13.7	April 2005	-10.1	-15.4

<sup>1.</sup> 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, Housing Financing Fund, Land Registry of Iceland, Motor Dealers' and Services Federation, Statistics Iceland and Central Bank of Iceland.

by 22% since the beginning of the year and by almost 27% year-on-year. Real estate prices, which surged when credit supply was stepped up at the end of last summer, continue to rise. Housing prices in the Greater Reykjavík Area over the first four months of 2005 were up 18% year-on-year. According to the Central Bank's forecast for residential investment, housing supply in and around the capital could outstrip demand later next year. Slower housing inflation can then be expected.

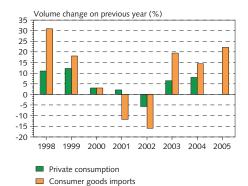
At the end of April, the commercial banks and savings banks had provided households with mortgage loans to the tune of roughly 200 b.kr. since they entered the mortgage loan market last August, and no sign of a slowdown in lending growth appears in sight. Although lending by the Housing Financing Fund (HFF) and pension funds has contracted over the first half of this year, total lending to households by the credit system has still soared.

The strong króna has fuelled demand for imported goods and services. Imports of private motor vehicles and other consumer durables, and credit card use abroad, grew faster in Q1/2005 than in any quarter of last year. Imports of food and beverages, however, grew at a slower rate. While the króna remains strong, it has depreciated somewhat from the exchange rate on which the March forecast was based, which may subdue consumption of imported goods and services.

### Public consumption

Apart from monthly summaries of Treasury finances, no new data on public consumption have been published since the Central Bank's last forecast in March. According to the budget for 2005, central

Chart IV-3 Consumer goods imports and private consumption in Q1 1998-2005



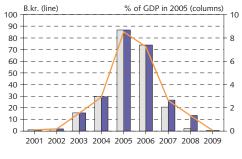
Source: Statistics Iceland

### Box 2

# The status of aluminium and hydropower sector investments

# Chart 1 Aluminium and power sector investments: total investment cost 2001-2009

Construction of Fjarðaál smelter, expansion of Norðurál smelter and related power facilities

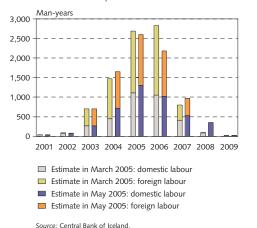


- ☐ Estimate in March 2005 (right-hand axis)
- Estimate in May 2005 (right-hand axis)
- Estimate in May 2005 (left-hand axis)

Source: Central Bank of Iceland.

### Chart 2 Aluminium and power sector investments: labour use 2001-2009

Construction of Fjarðaál smelter, expansion of Norðurál smelter and related power facilities



In April, Norðurál signed an agreement with Reykjavík Energy (Orkuveita Reykjavíkur) and Suðurnes Heating (Hitaveita Suðurnesja) to purchase approximately 70 MW of additional electric power for its smelter at Grundartangi, west Iceland. The agreement enables Norðurál to expand the plant's capacity to 260,000 tonnes per year (tpy). Current capacity is 90,000 tpy and an expansion now in progress will increase this to 212,000 tpy in the second half of 2006 and to 220,000 tpy by early 2007. A further expansion phase will be launched after mid-2007, adding 40,000 tpy of extra capacity when it is completed in the second half of 2008. Estimated cost of this final investment phase including power facilities to supply it is roughly 17 b.kr. Around one-third of the additional investment will be made in 2007 and two-thirds in 2008. If these plans materialise, total production capacity of the three aluminium smelters in Iceland – Ísal (Alcan), Norðurál (Century Aluminium) and Fjarðaál (Alcoa) - will be 765 thousand tpy in 2008, compared with Iceland's current capacity of roughly 270 thousand tpy. Capacity will therefore be boosted by more than 180% over the ensuing period.

government and welfare system expenditures will increase by 1½% year-on-year. So far in 2005, these expenditures have risen by 2% in real terms year-on-year, which is a negligible discrepancy given the short-term volatility of expenditure. These figures do not warrant a change in the assumptions underlying the forecast from March. Public consumption is still expected to grow by 2½% this year and next year. Central government spending growth is expected to be somewhat lower, while municipalities and the welfare system will increase theirs in the range 3-4%.

### Gross fixed capital formation

The outlook for gross fixed capital formation has hardly changed since March, when the Central Bank forecast growth of just under 34% this year and a contraction of just under 8% next year. Data that have subsequently been released do not alter this conclusion substantially.

### Business investment growth broadly the same as forecast in March

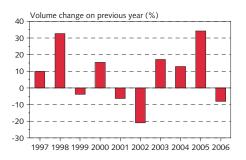
The Central Bank's March forecast took into account the rescheduling of investments in the aluminium and hydropower sector to this year not only from 2004 but also from 2006 and 2007. Business investment is now forecast to grow by 53% this year, which is broadly the same as was forecast in March. Next year will see aluminium and hydropower investments contract by almost 14%, a rather sharper decrease than in the March forecast. Additional investments by Norðurál aluminium smelter, Reykjavík Energy and Suðurnes Heating, which were agreed in April, will be made in 2007 and 2008 and therefore fall outside the forecast horizon (see Box 2). Excluding the aluminium and energy sectors, the forecast for business investment is broadly unchanged since March, and a contraction is still expected in 2006.

Results of companies listed on Iceland Stock Exchange (ICEX) could possibly justify revising the growth forecast upwards. Their turnover increased by 27% in 2004 and EBITDA and profits were very strong. On the basis of interim statements for the first quarter, their position is still strong although profitability is marginally down compared with Q1/2004. These companies would therefore appear well placed for continued growth. However, they accounted for only a small share of total gross fixed capital formation by businesses in 2004 and less than 17% of business investment excluding the aluminium and energy sectors and purchases of ships and aircraft. Furthermore, some of their expansion has taken place outside Iceland. Around four-fifths of these companies' increased turnover last year was foreign in origin, either in the form of export income or due to operations abroad.

One of the most important aggregates from the perspective of investment is cash flow from operating activities, which can then be deployed on investments and amortisation of loans. Cash flow from operating activities of listed companies increased by nearly one-third last year and amounted to almost 10% of turnover. A rather larger proportion of cash was used for net investment in 2004 than the preceding year, but since some of this was deployed on foreign investment it did not have a corresponding effect on domestic gross fixed capital formation. After adjustment for foreign investments, listed companies' total domestic investment can be estimated at 12 b.kr. last year.

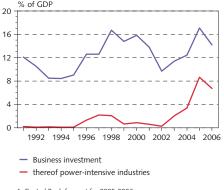
On the whole, the financial conditions of companies are broadly the same as when Monetary Bulletin was published in March, but the changes that have occurred have varying sectoral impacts (see the discussion of financial conditions of businesses in Chapter III). The less overvalued króna since March implies that foreign currencydenominated borrowing has become slightly more favourable, provided that expectations of a future depreciation have adjusted

Gross fixed capital formation growth 1997-2006<sup>1</sup>



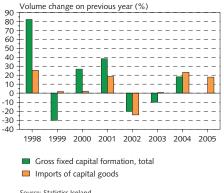
Central Bank forecast for 2005-2006.
 Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-5 Gross fixed capital formation: businesses and power-intensive industries 1991-2006



. Central Bank forecast for 2005-2006. ources: Statistics Iceland, Central Bank of Iceland

Chart IV-6 Gross fixed capital formation and imports of capital goods in Q1 1998-2005

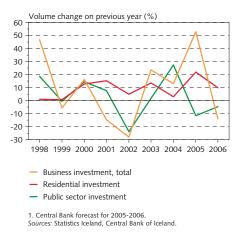


Source: Statistics Iceland

Table IV-2 Listed non-financial companies' cash flow from operating activities and investment in 2003 and 2004

All listed non-financial companies	2003	2004
Cash flow from operating activities	32,412	40,310
Net investment in fixed assets (m.kr.)	12,123	16,836
as % of turnover	37	42
Fisheries		
Net investment in fixed assets (m.kr.)	2,018	3,283
as % of turnover	31	39
Manufacturing		
Net investment in fixed assets (m.kr.)	3,580	3,911
as % of turnover	35	27
ICT		
Net investment in fixed assets (m.kr.)	3,333	3,305
as % of turnover	42	34
Transport		
Net investment in fixed assets (m.kr.)	2,347	4,451
as % of turnover	41	61

Chart IV-7 Growth in business, residential and public sector investment 1998-2006<sup>1</sup>



commensurably, and profits in the traded goods sector should be boosted as well. Both these factors stimulate investment. Higher equity prices also represent more favourable financial conditions which could spur gross fixed capital formation.

The short-term impact of exchange rate developments over the past year on business investment has probably varied as well. The high real exchange rate has squeezed profits and thereby investment plans for companies with a substantial share of operating expenses in domestic currency but income in foreign currency, such as the fisheries and travel and tourism sectors. A high real exchange rate may also deter investment by companies in direct competition with foreign producers in the domestic market. Offsetting this, the strong króna has made it economical to import capital goods, which is clearly reflected in import statistics. Imports of capital goods increased by 22% year-on-year in Q1/2005. The growth rate for imports of commercial transport equipment (excluding aircraft and ships) was most pronounced at 74%. Imports of machinery also showed a sizeable rise of 42%, which is largely accounted for by aluminium-related investments.

Table IV-3 Profitability of listed companies 2003-2004 and in the first quarter of 2004 and 2005

	EBI	TDA	Net ea	arnings	EBI	TDA	Net ear	rnings
% of turnover	2003	2004	2003	2004	Q1/2004	Q1/2005	Q1/2004	Q1/2005
Fisheries	21.3	18.1	8.7	11.7	19.7	14.6	12.4	15.8
Manufacturing	16.3	18.1	7.5	11.2	17.4	15.2	11.6	9.2
Marine exports	1.5	3.1	0.3	0.6	2.1	3.0	1.2	1.3
Transport	10.7	7.0	2.3	4.1	-0.5	1.7	-0.8	1.2
ICT	17.6	20.2	3.6	8.9	9.2	7.8	5.1	8.2
Other	17.6	27.5	5.4	15.5	12.7	12.8	7.0	11.1
Total	12.1	12.1	6.6	4.3	9.4	8.3	5.9	6.6

Source: Central Bank of Iceland.

#### **Public sector investment**

According to the Central Bank's forecast in March, public sector investment was expected to shrink by 11% this year and 8% next year. The outlook for this year remains virtually unchanged. Investment outlays contracted by 20-25% according to Treasury payment figures for Q1/2005, but sweeping conclusions should not be drawn from interim figures. On the other hand, the contraction in 2006 is smaller than forecast in March, at just over 4½%. If the forecast holds, central government investment as a proportion of GDP will drop to its lowest level for twenty years, at around 2¾%.

#### Residential investment

In March, the Central Bank forecast an increase in residential investment by just under 20% this year, significantly up from its forecast in December 2004. National accounts data suggest that residential construction grew by only 3% last year, which is a lower rate than in 2003 and far below the growth rate forecast by the Central Bank and others. Lower-than-expected growth last year will probably imply a correspondingly greater increase in 2005, when part of the previously estimated investment will be recorded. Accordingly, the forecast for residential investment was revised upwards in March. An even greater increase is expected this year, at almost 22%, and 10% in 2006. Stronger residential investment growth is explained by unexpectedly high housing inflation. The twelve-month increase in housing prices for all of Iceland is now 27.8% at the same time as the construction cost index has risen by only 6.7%. Housing prices are expected to rise by nearly 30% over the whole of this year, which is 5 percentage points above the March forecast.

The housing market is still characterised by excess demand and the recent forces driving it are still at work and possibly even stronger than last year. It is estimated that real disposable income per capita will rise by twice as much this year as in 2004 – by around 4% – and by almost 6% next year. Unemployment is falling rapidly and credit terms are still favourable. Certain types of housing are in short supply. The twelve-month rise in the price of detached housing in the Greater Reykjavík Area, for example, was 43% in May. In the long run, it can be expected that the decreasing size of family units will drive up per capita demand for housing and people will move onto the housing ladder at an earlier age. Recent developments in real disposable income and favourable credit terms are likely to fuel this trend. All these factors should stimulate demand and contribute to rising housing prices for as long as supply remains short of demand.

Issued building permits provide an indication of the outlook for residential investment, because in the overwhelming majority of cases construction begins shortly after permits are issued. Estimates by municipal construction officials for the number of issued building permits in 2004 and this year signal rapid growth in housing investment this year.<sup>4</sup>

Chart IV-8 Housing market prices, construction cost and residential investment 1985-2006<sup>1</sup>



Residential investment (right-hand axis)
 Ratio of market price to construction cost (left-hand axis)

1. The yellow line indicates the ratio of market prices of apartments in the Greater Reykjavík Area to construction cost. Both indices are normalised to the average for 1985-2004. Central Bank forecast for residential invest-

Sources: Land Registry of Iceland, Central Bank of Iceland.

Chart IV-9 New housing: turnover and number of transactions June 2000 - April 2005

Six-month moving averages

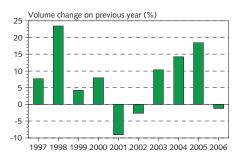


Turnover in new housing (left-hand axis)No. of housing transactions (right-hand axis)

1. New housing is defined as constructed over the preceding twelve months. Source: Land Registry of Iceland.

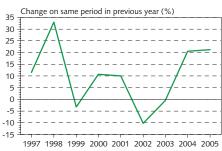
<sup>4.</sup> Some 20% more building permits were issued in 2004 than the previous year, and the increase so far this year is 10%. If some of last year's increase in permits is reflected in greater construction volume this year, and if building permit issuance increases further this year, the pending growth is quite likely to be in the region of one-fifth.

Chart IV-10 Import growth 1997-2006



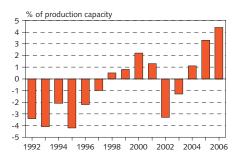
Central Bank forecast for 2005-2006.
 Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-11
Goods imports in January-April 1997-2005
At constant exchange rates



Source: Statistics Iceland.

Chart IV-12
The output gap 1992-2006<sup>1</sup>



1. Central Bank forecast for 2005-2006. Source: Central Bank of Iceland. Over the period 2000-2002, turnover in the market for new housing<sup>5</sup> and the number of housing transactions remained fairly stable. Both figures jumped after mid-2003, and with the entrance of commercial banks and savings banks into the mortgage loan market last August, the real estate market surged. Housing transactions and turnover are down marginally so far this year, but the year-on-year growth rate is still high. Over the first four months of 2005, turnover in the market for new housing had increased by 83% year-on-year and the number of housing transactions by 63%.

### **Imports**

The March forecast for import growth this year has been revised slightly downwards. The depreciation of the króna since March more than offsets a slight rise in imports resulting from marginally faster growth of domestic demand. Import growth this year is forecast at 18½%, roughly one percentage point down from the March forecast. Investments in the aluminium and hydropower sectors call for large-scale imports and private consumption is expected to continue to increase. In 2006, imports are forecast to shrink by just over one percentage point, with a drop in imports for aluminium-related investments and slower growth of private consumption as well.

Merchandise imports soared over the first four months of 2005, by 21% year-on-year measured at constant exchange rates. The surge in imports of transportation equipment, both private cars and commercial vehicles, was particularly pronounced. Imports of fuel, consumer durables and other capital goods also increased substantially. The high real exchange rate and, presumably, soaring private consumption have boosted imports so far this year, but the króna has slid recently. Nonetheless, the króna is forecast to appreciate on average by almost 6% year-on-year in 2005.

### GDP growth and the output gap

GDP growth last year was just over 5%, according to an estimate by Statistics Iceland. Assuming an unchanged policy interest rate and exchange rate, the prospects are for buoyant GDP growth this year and in 2006. GDP is forecast to grow by just over 6½% this year and just over 6% next year. This is broadly in tune with the March forecast. The main difference lies in the higher growth rate of gross fixed capital formation this year, especially housing investment. The forecast for private consumption growth in 2006 has been revised marginally upwards, and so has public sector investment. For both years, imports will be subdued by the depreciation of the króna, but this is offset by slower export growth than was forecast in March. The revised outlook for GDP growth will produce a somewhat wider output gap over the coming two years than was forecast in March.

<sup>5.</sup> New housing is defined here as constructed over the past twelve months.

### V Public sector finances

A large increase in Treasury revenues due to the present upswing will probably cause the public sector balance to improve more than assumed in Ministry of Finance estimates. The public sector surplus could increase from half a percentage point of GDP in 2004 to over 1½% in 2005 and more than 2% in 2006. Prepayment of debt could soften the slowdown in the economy when the cyclical effect unwinds. The cyclically adjusted public sector surplus is estimated to be broadly the same as in the March forecast.

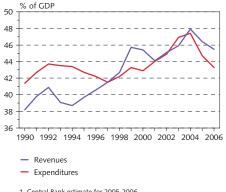
### This year's fiscal balance could be stronger than in the Ministry of Finance's latest forecast, if expenditures stay under control

The fiscal balance in 2004 appears to have been marginally stronger than expected, with a surplus of 9 b.kr. compared with the 6 b.kr. target in the supplementary budget. Growth in tax revenues explains this improvement. The budget for 2005 assumed a surplus of 10 b.kr. with no proceeds from the privatisation of Iceland Telecom. In its most recent estimates from April 2005, the Ministry of Finance forecasts that Treasury revenues will rise by 6½% year-on-year in 2005 and tax income by more than 7½%. Expenditure growth is estimated at 5%. This corresponds to a ½% real contraction, which is largely driven by contracting investment outlays. Public consumption and transfers are expected to increase by just over 1% in real terms (relative to prices). The combined fiscal and welfare system surplus is estimated at 14 b.kr. In 2006, the estimated fiscal surplus is broadly the same.

However, the Treasury result this year could turn out even larger than in the Ministry of Finance's forecast. Wages are likely to rise faster than the tax-free limit for personal income, and revenues from consumption taxes and import duties will probably grow by more than demand and imports. Signs of such a trend can be seen in monthly reports on the Treasury's finances. In Q1/2005, total tax revenues grew 23% year-on-year. Personal income tax revenues were up by 13%, indirect tax revenues by 23% and other taxes by even more. The budget assumed year-on-year tax revenue growth of 6% on a cash basis. Buoyant revenues in the opening months of the year are clearly the product of exceptional circumstances, in particular the strong króna, which has stimulated imports. Central government expenditures on a cash basis were 8% higher year-on-year in Q1/2005, which is a negligible deviation from the budget targets bearing in mind volatility over the year as a whole. In light of this strong position, the Treasury decided to prepay 6 b.kr. of foreign debt over and above earlier plans.

On the basis of the Central Bank's forecast, Treasury revenues can be expected to increase by more than 10% year-on-year in 2005 and yield up to 10 b.kr. in excess of the most recent estimates. However, there is no particular reason to expect expenditures to exceed estimates significantly. Given the ambitious budget target of a ½% reduction in expenditures in real terms, however, an overshoot could nevertheless be hard to avoid. If expenditures remain close to target, the fiscal surplus including the welfare system could approach 20 b.kr. this year. And if

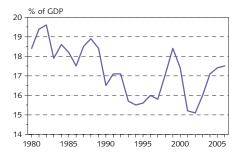
Chart V-1 General government revenues and expenditures 1990-2006<sup>1</sup>



1. Central Bank estimate for 2005-2006.

Sources: Statistics Iceland, Central Bank of Iceland

Chart V-2
Treasury indirect tax revenues 1980-2006<sup>1</sup>



Central Bank estimate for 2004-2006.
 Sources: Treasury Accounts (consumption taxes and stamp tax),
 Central Bank of Iceland (estimate for 2004-2006).

they stay in line with the ministry's medium-term programme, a reasonable surplus could be shown next year as well. Nonetheless, expenditures could be more difficult to control in the run-up to the general election in spring 2007.

### Local government deficit should narrow next year, but municipal elections could cause expenditures to overshoot

According to estimates by the Ministry of Finance, local government revenues will increase by just over 8% this year, and expenditures by broadly the same. The Central Bank forecasts higher wage rises and therefore higher municipal tax revenues than the Ministry of Finance. Some local authorities have also raised their municipal tax rate. Real estate tax revenues are driven up by higher housing prices, although some municipalities have waived part of these increases. Revenues for the year could be boosted by as much as 12%, which would improve the local government balance by 2-3 b.kr., assuming that expenditures remain according to plan.

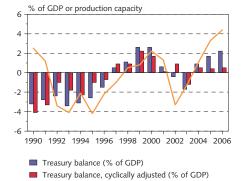
In 2006, local government revenues can be expected to go on rising in pace with housing prices this year and wages next year. An additional 1% in revenues is likely to be generated if recent proposals made by a joint central and local government committee on the latter's tax base are accepted. The latest estimates forecast that expenditures will increase by just over 4% in real terms, which is somewhat lower than the average growth since 1998, when municipalities took over the primary school system. Projected from the assumptions behind the Central Bank forecast, revenues will increase by almost 10%, or 5% in real terms. If expenditures increase by 4% in real terms as assumed above, this could shrink the local government deficit to around 1 b.kr. next year. However, experience shows that the municipal elections in spring 2006 could affect this year's and next year's outcome.

### Larger general government surplus in 2005 and 2006 is mainly driven by growth in tax revenues

According to the above, estimated general government revenues<sup>6</sup> will increase by more than 3% in real terms this year and by more than 4% in 2006, while real expenditures will rise by almost 1% and roughly 3% respectively. According to the Central Bank forecast, general government revenues as a proportion of GDP will decrease from 48% of GDP in 2004 to 46½% this year and 45½% in 2006, and expenditures from 471/2% in 2004 to 45% this year and to 431/2% next year. The general government surplus could amount to more than 11/2% of GDP this year and up to 21/2% in 2006.

Part of this improvement is explained by the smaller increase in central government expenditures than in GDP, but it is mostly the result of growing tax revenues. Chart V-3 shows that the cyclically adjusted Treasury balance is considerably weaker than the headline figure would imply, and the surplus is smaller than during the last upswing.

Chart V-3 Cyclically adjusted Treasury balance 1990-2006<sup>1</sup>



The output gap (% of production capacity)

Central Bank estimate 2005-2006.
 Sources: Statistics Iceland, Central Bank of Iceland.

General government comprises the operations of central government, local government and also the social security system, which in Iceland is virtually a sub-department of the state.

### VI Labour market and wage developments

#### Labour market pressures ahead

Pressures can be expected to build up in the labour market if excess demand for labour is not met with imported labour. Unemployment has dropped substantially and labour use has increased steadily since the beginning of autumn. Wage drift has been muted in historical terms, but began to register at the end of last year, mainly in sectors where there has been excess demand for labour.

### Labour use still increasing but the participation rate is below average

Labour use increased further year-on-year in Q1/2005, according to Statistics Iceland's labour market survey. Signs of a turnaround emerged in Q4/2004 with a rise in the number of employed. However, neither total hours worked nor the participation rate increased until Q1/2005. The employment situation in regional Iceland especially for women - also appears to be on the mend, contrary to the trend in 2004.

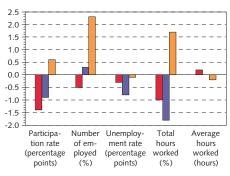
Virtually the entire increase in the number of employed lies with the youngest (age 16-24) and oldest (55-74) age groups. The participation rate is still some way below the average for the past thirteen years, and even lower than in Q1/2003 when the labour market was weakest. Domestic labour use could therefore grow still further, assuming that supply induces higher participation.

Based on the number of vacancies registered at employment agencies, however, this does not appear to be the case. So far this year, there have been around 60% more vacancies at employment agencies than at their peak in the last upswing, in autumn 2000.7 Issuance of work permits has increased for most sectors. Only just over one out of four new work permits last year was in connection with investments in the aluminium and hydropower sectors, despite heavier use of foreign labour on those projects than originally assumed. The Directorate of Labour expects only a small share (10-30%) of the manpower requirement for aluminium and hydropower projects until 2007 to be met domestically.

### Sizeable drop in unemployment this year

Unemployment has fallen rapidly this year. Seasonally adjusted unemployment was 2.1% in April, down by 0.6 percentage points since December and by 1.3 percentage points since summer 2004. So far this year seasonally adjusted unemployment has been 2.3%, the same figure that the Central Bank forecast in March for the whole year. According to the current forecast, unemployment is expected to be somewhat less than was forecast in March, at 2.1%. However, some rise in seasonally adjusted unemployment cannot be ruled out over the next few months, as was the case over the same period in

Chart VI-1 Changes in labour market 2003-2005



- Change between 2003 and 2004
- Change between Q1/2003 and Q1/2004
- Change between Q1/2004 and Q1/2005

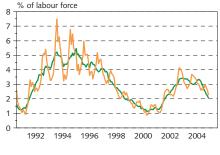
Source: Statistics Iceland

Vacancies registered at employment agencies and issuance of new work permits 1999-20051



- Vacancies (left-hand axis)
- New work permits (right-hand axis)

Chart VI-3 Unemployment rate January 1991 - April 2005



Unemployment rate

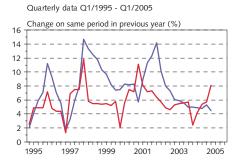
Unemployment rate (s.a.)

Sources: Directorate of Labour and Central Bank of Iceland.

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

<sup>1.</sup> Monthly data, shown as three-month moving averages Source: Directorate of Labour

Chart VI-4 Wages in the private sector (excl. banks) and public and banking sectors



- Public sector (excl. banks)
- Public sector and banking sector

Source: Statistics Iceland

2004. Unemployment is expected to shrink further in 2006 and measure 1.9% over the whole of next year.

### Wage developments in line with the March forecast

Wages had increased year-on-year by 8.1% in the private sector in the first quarter of 2005, but by only 4.5% in the public sector. Timing of new wage settlements explains the sizeable lead in private sector increases over the past year. The full impact of recently agreed wage settlements for the majority of civil servants will be reflected in Statistics Iceland's wage index over the next few months.

In historical terms, wage drift has been modest in the sectors where excess demand for labour has been strongest. Indications that have emerged since the Central Bank's last assessment of wage trends in March do not suggest that wage drift has been greater than assumed then. Wage developments are therefore still expected to be broadly the same as in March.

However, the outlook is ambiguous due to this autumn's review of whether inflation benchmarks in private sector wage settlements have held. The costs entailed by changes in civil service pay scales next year could also turn out higher than currently expected.

### VII External balance

The sharp deterioration in the external balance of the economy last year, which was described in *Monetary Bulletin* 2005/1, has continued so far this year. A record current account deficit therefore still looks likely this year, while the overall outlook for the external balance is broadly unchanged from the March forecast.

### Largest merchandise account deficit in Q1 since 1998

Although developments in the early months of a year do not always provide reliable indications, the development of the merchandise account over the first months of 2005 firmly suggests that the forecast for the current account deficit this year could hold. Soaring imports and a contraction in exports resulted in a deficit of 11.6 b.kr. on the merchandise account in Q1/2005. The deficit was 5.9 b.kr. in March and has only been that high during a single month three times over the past 10 years, calculated at constant prices. As a proportion of GDP as roughly estimated for Q1/2005, the merchandise account deficit is the largest in the first quarter since 1998 (see Chart VII-1) and wider than in 2000, which turned out to be a record year. Imports in Q1/2005 increased 22.4% year-on-year, based on a constant exchange rate.

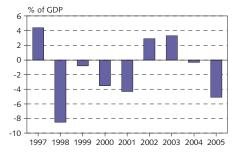
### Current account deficit still heading for a record this year

The current account deficit in 2004 was almost 70 b.kr., equivalent to roughly 8% of GDP. More than half the deficit was registered on the merchandise account, but the service account worsened too, in particular due to increased expenditure on tourism and travel. The balance on income was negative by 17.7 b.kr., with interest payments rising strongly towards the end of the year. Foreign debt increased by 40% over the year. While this explains a large part of additional debt service, rising foreign short-term interest rates also contributed. These developments underline how sensitive the current account is to changes in foreign interest rates.

This year's current account deficit is expected to set another record at the equivalent of 12% of GDP, which is broadly in line with the March forecast. Although import growth, because of the depreciation of the króna, is expected to grow at a slightly slower pace than forecast in March, imports as a proportion of GDP are still forecast to peak this year, driven by investments in the aluminium and hydropower sectors (see Chart VII-3). The slower pace of import growth will not narrow the current account deficit, however, because the forecast for export growth has also been revised downwards since March, in step with slower growth of marine exports. Moreover, debt service will increase because of the lower exchange rate of the króna than was assumed in the March forecast. Thus the forecast current account deficit in 2005 is broadly unchanged from March.

In 2006, the current account deficit will be marginally wider than was forecast in March, at 10% of GDP. The main force at work is a downward revision of export growth, on the back of a smaller fish catch. More growth is now forecast for national expenditure,

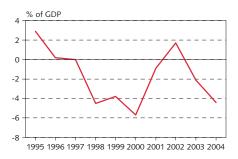
Chart VII-1 Merchandise account balance January-March 1997-2005<sup>1</sup>



1. For 2005, the ratio is based on the Central Bank's estimate of gross domestic product in the first quarter.

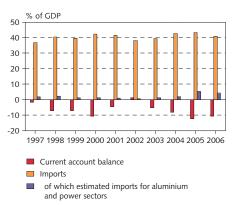
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VII-2 Merchandise account balance as a percentage of GDP 1995-2004



Sources: Statistics Iceland, Central Bank of Iceland

Chart VII-3 Current account balance and imports 1997-2006<sup>1</sup>



Central Bank forecast for 2005-2006.
 Sources: Statistics Iceland. Central Bank of Iceland.

especially private consumption. Although the weaker króna reduces imports and the current account deficit, rising national expenditure and debt service have the opposite effect.

As described in Monetary Bulletin 2005/1, the present deficit on the current account occurs under quite different economic conditions from those prevailing in 2000. The real exchange rate is much higher than then and global interest rates have been at a historical low. Thus the deficit on income has not grown in pace with foreign debt, which has quadrupled over the past seven years while interest payments have little more than doubled over the same period. Foreign interest rates look likely to rise in the near future, but the recovery is forecast to be slow. A little less than 15% of Iceland's external debt is denominated in US dollars. The Federal Reserve has raised the federal funds rate target by 2 percentage points since June 2004, so debt service on short-term dollar-denominated borrowing can be expected to have increased somewhat. However, long-term rates remain low and have even been falling in recent months. Shortterm interest rates have remained virtually unchanged in the euro area and long-term rates have gone down, as in the US. Apart from some increase in risk premia, Iceland's interest rate terms have probably not changed significantly since March. For every percentage point that interest rates and premia on Iceland's external debt might rise, its debt service and current account deficit will increase by roughly 11/3 percentage points of GDP.8 This could have a substantial impact if interest rate developments deviate from the assumptions in the forecast.

Net external debt (excluding equity capital) was equivalent to just over 129% of GDP at the end of 2004.

## VIII Price developments and inflation forecast

### Price developments

Inflation has slowed down since the Central Bank's last forecast was published in March. Lower inflation can be attributed to the impact of the stronger króna on prices of imported goods and fiercer competition in the groceries market. A change in Statistics Iceland's method of calculating the housing component of the CPI also caused a drop in the index in May.

### Change in calculation method produces a drop in the housing component of the CPI

Inflation breached the upper tolerance limit of the target in February and rose even further in March when the twelve-month increase in the CPI measured 4.7%. In April and May inflation slowed down, primarily due to the impact of the stronger króna and fiercer competition in the groceries market. Statistics Iceland's new method for calculating the housing component of the CPI also caused a 0.45% drop in the index in May. This change entailed shortening the horizon for calculating average real mortgage interest rates in the housing component of the CPI from five years to twelve months (as discussed in more detail in Box 3). The new calculation method will reflect the impact of interest rate changes earlier and more strongly than before. Twelve-month inflation measured 2.9% in May but would have been about 3.4% had the index calculation method been left unchanged.

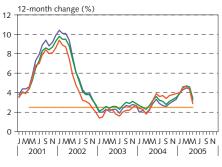
Changes in the two core indices published by Statistics Iceland provide an indication of underlying inflation. They have risen by rather more than the headline CPI so far this year, primarily because they do not reflect the reduction in agricultural prices. Thus the gap that developed between the CPI and the core indices in the middle of last year has virtually closed. In May the twelve-month average rise in Core index 1 was 3.4% and Core index 2 went up by 3.2%. Average inflation in Q1/2005 was in line with the Central Bank's March forecast at 4.4%.

### Appreciation of the króna brings down imported goods prices ...

The appreciation of the króna has had a considerable effect on the CPI components which are most sensitive to exchange rate movements. In March the króna was 11% stronger year-on-year on average but it began to weaken towards the end of that month. The appreciation for most of March has had some effect on imported goods prices, but this had presumably not been transmitted in full when the króna began to weaken again.

Imports of food and beverages are among the components of the CPI that are most sensitive to the exchange rate. In May this component had fallen by more than 12% in the space of a year. The currency appreciation of 7%% is not the sole explanation, however, because price competition among discount supermarkets also

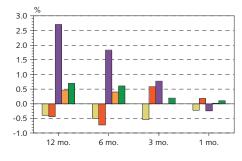
Chart VIII-1 Inflation January 2001 - May 2005<sup>1</sup>



- CPI
- Core index 1
- Core index 2
- Central Bank inflation target
- 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
Components of the CPI in May 2005
Contribution to CPI inflation
in past 1, 3, 6 and 12 months



- Domestic goods excl. agricultural goods and vegetables
- Imported goods excl. alcohol and tobacco
- HousingPublic services
- Private services

Source: Statistics Iceland.

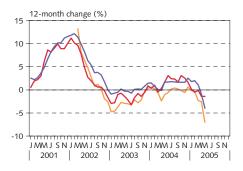
Chart VIII-3 Exchange rate and import prices March 1997 - May 2005



- Imported goods excluding alcohol and tobacco
- Import-weighted exchange rate index

Source: Statistics Iceland.

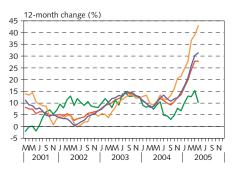
Chart VIII-4 Goods prices January 2001 - May 2005



- Domestic goods excluding agricultural products and vegetables
- Imported goods excluding alcohol and tobacco
- Groceries

Source: Statistics Iceland

Chart VIII-5 Market prices of housing March 2001 - May 2005



- Greater Reykjavík Area: apartments
- Greater Reykjavík Area: detached housing
- Regional Iceland

Total Source: Statistics Iceland.

Chart VIII-6 Prices of housing and services January 2002 - May 2005



- Housing
- Public services Private services

Source: Statistics Iceland.

reduced the prices of these goods. Prices of imports that are less sensitive to short-term changes in the exchange rate, e.g. new motor vehicles and spare parts, have also fallen slightly over the past year, most markedly since the beginning of 2005.

Petrol prices are also sensitive to exchange rate changes and higher global fuel prices counteract the impact of the stronger króna. Since March, petrol prices have risen quite sharply and in May they were 6.2% higher year-on-year. Alcohol and tobacco have also risen, although these have slowed down in the spring. Thus the twelvemonth decrease in imported goods prices measured only 0.9% in May, but excluding petrol, alcohol and tobacco the annualised decrease was 2.8%.

### ... and domestic goods prices have fallen rapidly in recent

Fiercer competition among discount supermarkets is one of the main explanations for the recent fall in domestic goods prices. Domestic goods prices had decreased by 4.3% year-on-year in May and by almost 7% since February when a groceries price war began. Prices of domestic vegetables dropped most, down by almost 12% over the twelve months to May. Prices of agricultural goods excluding vegetables have also gone down after rising at the end of last year.

#### Market prices of housing continue to surge

Although the twelve-month rise in the housing component of the CPI was lower in May than in April, at 14.6%, due to the new method for calculating the index, the underlying annual rate of housing inflation gained momentum. Market prices of housing went up by 2.3% month-on-month and by almost 28% year-on-year. As before the increase was most pronounced in the Greater Reykjavík Area, although regional housing prices have also picked up.

There is no sign that housing price inflation is slowing significantly. It is mainly driven by increased availability of credit which has sent housing demand soaring, at a much faster pace than supply can meet. However, estimates by municipal construction officials in and around the capital indicate that supply may increase substantially later this year and in 2006.

Public services prices have risen by considerably more than the CPI over the past year, with a twelve-month increase of 6.4% in May. Prices of private sector services have also outpaced the inflation target and had risen by 3% year-on-year in May. This trend reinforces earlier observations that inflation mainly emerges in fields protected from international competition. An exception is the lower prices of agricultural products.

### Inflation expectations

No reliable new information on inflation expectations has been available since March. In recent years the yield spread between nonindexed and indexed three- and five-year Treasury bonds has been used as a measure of market agents' inflation expectations. Due to the lack of an indexed bond to serve as a benchmark (after the class

Rises in the housing component of the CPI have been the main driver of inflation over the past year. Excluding this component, the CPI in May 2005 was unchanged year-on-year. This has prompted some debate about the methods used for calculating the housing component. They have been discussed in Monetary Bulletin and were also referred to by the Chairman of the Board of Governors of the Central Bank of Iceland in his address to the Bank's annual meeting on March 30 this year (see pp. 47-56). As of May 2005 Statistics Iceland changed the method of averaging real interest rates in the model which determines the user cost of owneroccupied housing in the CPI. This resulted in a CPI measurement that was 0.45% lower than would otherwise have been the case, while the headline CPI fell by 0.54% from April. The significance of this change from the perspective of monetary policy is discussed on p. 37. The following is Statistics Iceland's announcement of the change, published in its monthly statistics (Hagtíðindi) on May 3:

"In July 2004 the Housing Financing Fund (HFF) changed its long-term housing credit system with the introduction of cash mortgage loans (HFF mortgage bonds) carrying a lower real rate of interest than before. Shortly afterwards the banks began offering competitive mortgage loans, which greatly increased the supply of long-term credit to households. Housing transactions increased as a result and housing prices soared.

"Statistics Iceland took into account the fall in interest rates caused by this structural change in July 2004, since it reduced the level of real interest rates. In the new mortgage loan system, interest rates are determined on a monthly basis. Initially, mortgage rates were expected to change much more frequently than before, which might give rise to month-to-month volatility in the CPI. For this reason, it was decided in August 2004 to calculate real interest rates in the index as a five-year moving average, updated on a monthly basis. This would ensure that the impact of the interest rate reduction would be reflected in the calculation without interest rate changes causing short-term volatility in the index. Mortgage interest rates decreased from 5.1% to 4.8% in July 2004 and had gone down to 4.15% at the end of the year. They have remained unchanged since and are likely to have stabilised at a lower level in real terms.

"In light of this experience and perspectives that have been expressed, Statistics Iceland considers that the term of the moving average for interest rates should be shortened to twelve months, thus incorporating the effect of changes into the calculation more quickly. The new method will be applied until the CPI is rebased in March 2006, when it will be reconsidered. If interest rates remain stable over this period, the impact of the change in interest rates on inflation measurements will be neutralised.

"The composition of real interest rates used for the calculation has also been reviewed, as is done every March in the annual rebasing of the index. Interest rates on own financing of housing, which account for just over half the weight of interest rates in the housing component, are fixed. Other interest rates are variable, and cover HFF loans, mortgage loans from banks and pension funds, and mortgage loans taken over when housing is purchased. After these changes, average interest rates are 3.7%.

"The total reduction in the CPI on account of the fall in the twelve-month moving average of interest rates amounts to 0.9% from July 2004 to April 2005 and the impact of lower interest rates which lower the CPI by 0.45% has already been included in the measurement in May 2005."

### Box 3

Changed method of calculating mortgage interest cost in the housing component of the CPI

### Box 4

# Financial market analysts' assessments of the economic outlook

The accompanying table shows the economic forecasts of financial market analysts at the beginning of May. Participants in the survey were the research departments of Íslandsbanki, Kaupthing Bank, Landsbanki, and Economic Consulting and Forecasting.

After disagreeing quite sharply in the February survey about probable economic developments, analysts are now in closer agreement on the scenario over the next two years. They are generally more upbeat, forecasting lower inflation and a higher rate of GDP growth.

Analysts expect average inflation of 3.8% over 2005, and a virtually identical rate year-on-year – i.e. just within the upper tolerance limit of the inflation target. The Central Bank forecasts a somewhat lower rate of inflation for the year, but it should be underlined that it assumes an unchanged policy interest rate and exchange rate over the forecast horizon. The Central Bank forecasts 3% inflation over 2005 and 3.6% year-on-year. Respondents differ markedly about the inflation outlook for 2006. On average they forecast a considerable rise over 2006, at 5.3%, and 4.9% year-on-year. In contrast, the Central Bank forecasts 3.6% over 2006 and an average of 3.2% year-on-year.

Respondents have revised their forecasts for GDP growth upwards since November 2004, with less difference between the highest and lowest forecast values. On average they expect 6.2% growth in 2005 and 5.3% next year. The Central Bank's GDP growth forecast is rather higher at 6.6% this year and 6.2% in 2006.

On average, respondents forecast an exchange rate index of 122 twelve months ahead, implying a sizeable depreciation of the króna from its value in recent weeks – the exchange rate index has risen somewhat (i.e. the króna has weakened) in recent weeks after dipping to just over 106 in the second half of March. Subsequently they forecast a further slide, bringing the exchange rate index down to just above 130 after two years. This is very close to their exchange rate forecasts in February.

The Central Bank raised its policy interest rate to 9% on March 29. Analysts expect further hikes in the coming months, forecasting a policy rate of almost 10% one year ahead and little change in the following year.

Asset prices have soared so far this year but forecasters expect the rises to slow down. Opinions are sharply divided, however, with one analyst forecasting a decrease one year ahead and a further decline two years ahead.

As in recent surveys, forecasters agree that real estate prices will rise both one year and two years ahead – but at a slower rate than recently, when housing prices have surged over a very short period.

#### Overview of forecasts by financial market analysts<sup>1</sup>

Overview of forecasts by infancial marke		2005		2006		
	Average	Lowest	Highest	Average	Lowest	Highest
Inflation (within year)	3.8	3.0	4.5	5.3	4.0	7.0
Inflation (year-on-year)	3.7	3.5	4.0	4.9	3.9	6.4
GDP growth	6.2	6.0	6.5	5.3	5.0	5.5
	(	One year ahead			Two years ahead	1
Effective exchange rate index of foreign						
currencies vis-à-vis the króna (Dec. 31, 1991=100)	122.5	115.0	133.0	129.5	127.0	133.0
Central Bank policy interest rate	9.8	9.3	10.0	8.6	7.3	10.0
Nominal long-term interest rate <sup>2</sup>	7.6	7.5	7.6	7.2	7.0	7.4
Real long-term interest rate <sup>3</sup>	3.6	3.2	4.0	3.5	3.3	3.7
ICEX-15 share price index (12-month change)	6.8	-15.0	15.0	15.2	-19.3	35.0
Housing prices (12-month change)	10.9	7.5	15.0	14.6	7.5	20.8

<sup>1.</sup> The table shows percentage changes between periods, except for interest rates (percentages) and the exchange rate index for foreign currencies (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.

that had been used matured in April), the breakeven rate of inflation can no longer be determined in this way. The most recent survey of household inflation expectations by IMG Gallup was produced at the end of February and beginning of March and showed that households forecast average inflation of around 4% over the following twelve months. Household inflation expectations appear to reflect measured rather than forecast inflation. Conceivably, expectations may have come down since the last survey, which was conducted when inflation was at a peak.

### Inflation forecast

As pointed out earlier, the current Central Bank macroeconomic and inflation forecast is only an update of the March forecast. The next comprehensive forecast will be published in September.

The Central Bank has raised its policy interest rate by onequarter of a percentage point since its last inflation forecast was published in March, and it stood at 9% on the day of the forecast. Over the same period, the króna has depreciated by 6%. The forecast is based on the technical assumption of an unchanged policy rate and the exchange rate index remaining at 116 over the forecast horizon.

#### Inflation outlook has worsened somewhat

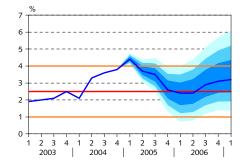
Since the Central Bank published its last forecast in March, the inflation outlook has deteriorated somewhat. The exchange rate on which the current forecast is based is 6% lower than in March and demand is likely to grow faster. Other assumptions, such as the pass-through of exchange rate changes to prices, are barely changed.

The inflation outlook one year ahead is broadly the same as in the March forecast. The forecast for the next quarter has been revised downwards, as a result of Statistics Iceland's new method for calculating the housing component of the CPI, which is explained in Box 3. Inflation is forecast at 2.7% one year ahead, which is broadly the same as in the March forecast, whether estimated in the same quarter or over the same forecast horizon.

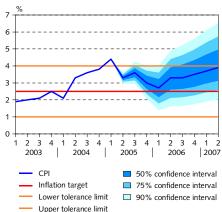
On a longer range, the inflation forecast has been revised upwards since March. This is particularly marked in Q2/2006, when the base effect of the change in the housing component of the CPI disappears. Inflation then is forecast almost 1 percentage point higher than in the March forecast. Two years ahead the discrepancy is smaller, with an expected rate of inflation of 3.7% compared with just over 3% in the March forecast.

As usual, the Bank's forecast is based on the technical assumption that both the policy rate and the exchange rate remain unchanged from the day of the forecast. An alternative inflation forecast based on variable interest rates and exchange rate is not published with the current forecast, but it presents broadly the same scenario two years ahead as the alternative forecast in March. This projects that the króna will depreciate relatively rapidly in the near term, producing a poorer inflation outlook than the main forecast despite a somewhat higher policy interest rate over most of the horizon. However, the divergence between the forecasts based on a

Chart VIII-7
Previous Central Bank inflation forecast (in *Monetary Bulletin* 2005/1)
Forecasting period: Q1/2005 - Q1/2007



Current Central Bank inflation forecast Forecasting period: Q2/2005 - Q2/2007



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 it 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.

fixed and a variable policy rate should have narrowed since March, because part of the depreciation added to the alternative scenario in March has now been incorporated into the main forecast. Thus the exchange rate paths of the two forecasts should be in closer alignment now than in March.

#### Risk profile virtually unchanged from the March forecast

Inflation prospects are always fraught with uncertainty. The main forecast may be seen as the most probable outcome based on an unchanged policy rate and exchange rate, but it is vital to take into account the entire risk profile in monetary policy decision-making.

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 their potential wealth effect, on private consumption could be underestimated	Risk of underestimated demand and thereby of underestimating inflation
Exchange rate developments	The impact of currency appreciation on domestic prices could be underestimated	Risk of overforecasting short-term inflation
	Wide current account deficit and increasing inflation expectations for the coming years could create downward pressure on the króna	Risk of the króna depreciating and thereby of underforecasting inflation
Wage developments	Adverse inflation prospects and the outcome of specific wage agreements could lead to renegotiation of private sector wage agreements	Risk of underestimated wage rises and thereby of underforecasting inflation
Fiscal policy	The fiscal stance could be easier than assumed in forecasts, especially with a general election scheduled for 2007	Risk of underestimated positive output gap 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	Housing price rises over the coming months could be underestimated	Risk of underforecasting short-term inflation
	Asset prices could fall, reducing private consumption later in the forecast period	Risk of overestimated positive output gap and thereby of overforecasting inflation
Central Bank risk profile	One year ahead	Two years ahead
Monetary Bulletin 2004/2	Symmetric	Upward
Monetary Bulletin 2005/1	Symmetric	Upward
Monetary Bulletin 2005/2	Symmetric	Upward

The risk profile has not changed much since the March forecast, except that there is less probability of a sharp depreciation, since the króna is weaker now than in the previous forecast. Uncertainties therefore remain broadly symmetric one year ahead but are slightly more to the upside two years ahead. Table VIII-1 summarises the main asymmetric uncertainties in the forecast and their impact on its confidence intervals. Chart VIII-7 presents the estimated confidence intervals for the current forecast compared with the March forecast. A more detailed description of uncertainty assessments in the Central Bank's forecasts may be found in Appendix 3 in *Monetary Bulletin* 2005/1.

Table VIII-2 shows the Bank's assessments of the probability of inflation being in a given range, based on the confidence intervals. The probability that inflation will be within the tolerance limits of the target two years ahead has decreased, reflecting higher forecast inflation.

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

	Inflation						
	Under	In the range	Under	In the range	Over		
Quarter	1%	1% - 2½%	21/2%	21/2% - 4%	4%		
Q2/2005	< 1	< 1	< 1	> 99	< 1		
Q1/2006	< 1	39	40	55	5		
Q1/2007	< 1	11	11	41	48		

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

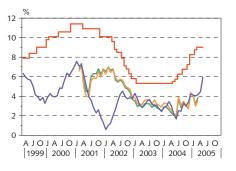
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### Chart IX-1 Exchange rate index of the króna May 27, 2004 - May 27, 2005



Source: Central Bank of Iceland

# Chart IX-2 Central Bank policy interest rate in nominal and real terms<sup>1</sup> March 1999 - May 2005



- Policy interest rate
- in real terms based on past inflation
- in real terms based on breakeven inflation rate at 2 yrs.
- in real terms based on breakeven inflation rate at 3 yrs

 Due to the lack of an indexed bond to serve as a benchmark after the class that had been used matured in April 2005, the breakeven rate of inflation can no longer be determined by this criterion.
 Source: Central Bank of Iceland.

### IX Monetary policy

### Financial conditions broadly the same as in March

The Central Bank raised its policy interest rate by 0.25 percentage points at the same time as *Monetary Bulletin* was published in March. The rationale behind this decision was presented in the Introduction where it was stated that monetary policy decision-making should take into account the tighter stance implied by the appreciation of the króna. Since the forecast in March, some of the appreciation has unwound. The exchange rate on which the current forecast is based is 6% lower than in March. The weaker króna has resulted in a less favourable inflation outlook and also implies some easing of the monetary stance.

Apart from the depreciation of the króna, financial conditions have not changed much since March. The policy rate has inched up in real terms according to most available indicators, but is not very high in a historical context. On the other hand, foreign long-term interest rates have gone down, in spite of the Federal Reserve's hikes in its funds rate in March and May. Higher risk premia on interest rates could offset the effect to some extent.

### Need for a tighter monetary stance despite a temporary slowdown in inflation

The current main task of monetary policy is to apply the necessary tightening to ensure price stability over the coming years in a climate of growing macroeconomic imbalances. In particular, imbalances take the form of soaring real estate prices and a widening current account deficit. Inflation has also exceeded the 2.5% target, although it has slowed down since March.

Excluding the housing component of the CPI, inflation is zero. Since the housing component reflects higher asset prices, which benefit most households and are also likely to unwind later, it is natural to ask whether it is necessary to tighten the monetary stance even further than has already been done.

To be effective, monetary policy must look forward rather than back. Although inflation has slowed down for the past two months and primarily takes the form of higher real estate prices, most economic indicators and the Central Bank's current forecast imply a substantial ongoing risk of excessive inflation over the next two years. Decision-makers must not be deceived by the decrease in inflation over the past two months which is above all due to the strengthening of the króna and a change in the method for calculating the housing component of the CPI. The price war in the groceries market may also prove short-lived. Signs of substantial imbalances can be seen throughout the economy. These include rapid growth of turnover, imports, deposit money bank lending and Treasury revenues, a widening current account deficit and surging real estate prices. Failure to take action to contain excessive growth of domestic demand would be a recipe for inflation later, even if the strong króna is softening the inflationary impact at present. Indeed, a strong currency is one of many manifestations of macroeconomic imbalances. Given

the very high probability that the currency will weaken in the long run, the arguments in favour of a tight monetary policy are obvious.

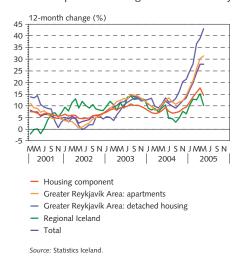
### Change in method for estimating mortgage interest cost has no effect on monetary policy

A new method for estimating mortgage interest cost in the housing component of the CPI caused inflation to measure roughly half a percentage point lower than would otherwise have been the case (see Box 3). This reduction in measured inflation prompted some speculation that this would give the Central Bank room for manoeuvre to ease the monetary stance. This is a misunderstanding. First, it was already known that mortgage interest cost was overestimated in the index, provided that the lower interest rates on mortgage loans since summer 2004 were permanent. Monetary policy decisions have borne this in mind. It should be noted that although the twelve-month rise in the CPI is the formal benchmark for the inflation target, it is not a mechanical target for the Central Bank, which is also obliged to take into account other measures of underlying inflation in its monetary policy decisions. Second, it is important for monetary policy to be as forward-looking as possible. Two-year inflation forecasts therefore play a crucial role in monetary policy decision-making. Statistics Iceland's recent change in its method for estimating mortgage interest cost mainly affects its estimates of past inflation measured as the twelve-month change in the CPI. After just over a year the base effect of this structural change in the CPI will largely have disappeared. Thus the new method has no impact on the inflation outlook two years ahead. Moreover, it cannot be ruled out that the change will cause a higher inflation measurement two years hence, i.e. if interest rates on indexed mortgage loans go up. In the long run, this structural change in the CPI should not have any effect on measured inflation.

### A shorter term for measuring mortgage interest cost could complicate monetary policy implementation

This prompts the question of whether Statistics Iceland's changeover from five-year to twelve-month averages for its calculations of mortgage interest costs for owner-occupied housing is entirely appropriate from the perspective of monetary policy. As a result of this shorter term, the policy rate could impact the CPI by changing the mortgage interest cost value, e.g. whereby a policy rate hike would produce a higher inflation measurement. This is unfortunate insofar as tightening the monetary stance can then call for even further tightening. The same type of spiral could operate in the opposite direction. To address this problem, when the UK moved on to an inflation target in the early 1990s it decided to calculate a separate benchmark index excluding mortgage interest payments. However, the situation in Iceland is not entirely comparable. Mortgage interest rates in Iceland are generally fixed, not variable as in the UK. The pass-through of the policy rate to mortgage rates is therefore much less immediate in Iceland, and sometimes does not register at all, as recent examples show. In addition, loans are

Chart IX-3
Increase in the CPI housing component and market prices of housing March 2001 - May 2005



generally price-indexed in Iceland. Under normal circumstances, however, changes in the policy rate may be expected to exert some temporary effect on mortgage loan rates, and under certain conditions a fairly strong impact cannot be ruled out. Were this to happen, the Central Bank would also have the option of ignoring the effect of interest rate changes on the CPI in its monetary policy decisions, just as it can in the case of fluctuations in petrol prices or other factors beyond its sphere of influence. Another possibility would be to calculate a separate index excluding interest expense as a supporting reference, like the two core indices currently calculated by Statistics Iceland.

### No conflict between the price stability objective and financial stability

The recent surges in equity prices and in real estate prices in the Greater Reykjavík Area are rather disconcerting. Higher asset prices fuel demand growth but may eventually unwind and amplify the resulting contraction. Real estate prices are buoyant at the same time as a firm tightening of the monetary policy stance is unavoidable for other reasons. Monetary policy measures, which aim to prevent the large-scale investments in the aluminium and hydropower sectors this year and in 2006 from disrupting price stability, will inevitably affect asset markets. It is fairly foreseeable when these investments will decline, i.e. assuming that no projects of similar scope are launched when the current ones come to an end in 2007. It can be concluded that a turnaround in the real estate market will become more likely towards or after the end of these investments. A cautious monetary approach may be justified at this juncture, to avoid a slump in asset prices, which could undermine financial stability. This does not conflict with monetary measures in the current climate, at least not so far. From the perspective of both the inflation target and financial stability, there are strong arguments in favour of a tight monetary stance now, to reduce foreseeable macroeconomic imbalances when investments tail off and to leave less need for an even tighter stance later, when a turnaround in the asset market might be close at hand. Also, it should be noted that, as a result of extensive indexation of financial liabilities, lower interest rates and higher inflation do not necessarily leave the financial system any less exposed to the risks that a slide in asset prices could cause. Thus there is no reason to flinch from the objective of price stability.

### Appendix 1

# Forecast errors in Central Bank of Iceland forecasts

The inflation forecast and analysis of economic prospects are one of the cornerstones of the Central Bank's monetary decision-making process. Due to the lags in the monetary policy transmission mechanism, it is vital for the Bank to have the clearest possible view of future inflation prospects and economic developments at any time.

Since the adoption of inflation targeting in March 2001, the Central Bank has published an inflation forecast two years ahead in its quarterly *Monetary Bulletin*. Confidence intervals have been included with the forecast, since the great uncertainty surrounding economic developments could make a simple point forecast misleading. Confidence intervals take into account various uncertainties that could lead to substantial deviations from the point forecast. Among them are changes in the global economic situation, exchange rate developments and various domestic factors. In evaluating inflation prospects two years ahead and possible monetary policy responses to them, the Central Bank also considers the risk profile of the forecast no less than the point forecast itself.

The Central Bank publishes a survey of its inflation forecasting errors once a year, most recently in *Monetary Bulletin* 2004/2. Evaluations of inflation forecasts focus on their bias and root mean square error (RMSE). The bias shows the forecasts' mean deviation from actual inflation and thus whether inflation is being systematically over- or under-forecast. The root mean square error measures how far on average the forecast value differs from the true value.

For many years, the Central Bank has published inflation forecasts with a horizon of up to one year. Table 1 shows the bias and RMSE in the Bank's forecasts since 1994. Both the bias and the RMSE increase as the forecast horizon lengthens, which is natural since the uncertainty increases further ahead. There are no indications of systematic under- or over-forecasting of inflation over this period.

Table 1 Central Bank inflation forecasting errors 1994:1-2005:1

	Forecast horizon					
%	1 Q	2 Q	3 Q	4 Q		
Bias	0.0	-0.1	-0.2	-0.3		
RMSE	0.4	0.8	1.3	1.6		

Since moving on to an inflation target in March 2001, the Central Bank has also published an inflation forecast two years ahead. Table 2 presents the bias and RMSE since the adoption of inflation targeting. It shows that there is little discrepancy between the bias of the forecasts one and two years ahead, while the RMSE of the forecast two years ahead appears to be smaller. An explanation could

be that monetary policy is more capable of having an impact on inflation in the longer run due to the lags in the transmission mechanism. One should be careful, however, in interpreting these data due to the small number of data points available so far. Tables 1 and 2 show a similar RMSE one year ahead after the inflation target was adopted (1.5%) and over the whole period (1.6%). By comparison, the standard deviation of annual inflation over these periods is in the range  $2-2\frac{1}{2}\%$ .

Table 2 Central Bank inflation forecasting errors since 2001:2

	No. of measurements	Bias (%)	RMSE (%)
Four quarters ahead	13	-0.3	1.5
Fight quarters ahead	9	-0.4	12

Table 3 compares the estimated probability distribution of the inflation forecast with the distribution of actual inflation after targeting was adopted in 2001. Twelve forecasts four quarters ahead can now be compared with measured inflation over the same period. Of these, five fell within the 50% confidence interval (in 42% of cases), eight within the 75% interval (67% of cases) and eleven within the 90% interval (92% of cases). One forecast fell outside the 90% confidence interval, produced just before the beginning of the sharp depreciation of the króna in Q2/2001. Distribution of forecasting errors therefore closely matches the given probability distribution. Nine forecasts over a horizon of eight quarters can be tested. Five turned out to fall within the 50% confidence interval (56% of cases) and all nine within 75%. The confidence intervals two years ahead have therefore overestimated the measured distribution of inflation after two years.

Table 3 Distribution of measured inflation based on inflation forecast confidence intervals

	No. of	Within confidence interval		
	measurements	50%	75%	90%
Four quarters ahead	12 <sup>1</sup>	5	8	11
Eight quarters ahead	9	5	9	9

1. Only a point forecast was published in *Monetary Bulletin* 2004/1. Therefore, 12 measurements are given in Table 3 but 13 in Table 2.

Finally, when the forecast errors are examined in the context of exchange rate developments over the forecast period, a fairly clear relation can be seen between the deviations of the exchange rate from, first, the assumed rate in the forecast, and second, the one-year inflation forecast error. The relation is not so clear in forecasts two years ahead, which do not appear to be as sensitive to exchange rate changes as one-year forecasts. This implies that fluctuations in the exchange rate primarily affect the development of short-term inflation and have less impact on inflation in the long term. One explanation is that if the króna deviates significantly from an exchange rate that is compatible with the inflation target in the long run, this calls for a monetary policy response to correct the deviation.