

Economic and monetary developments and prospects¹

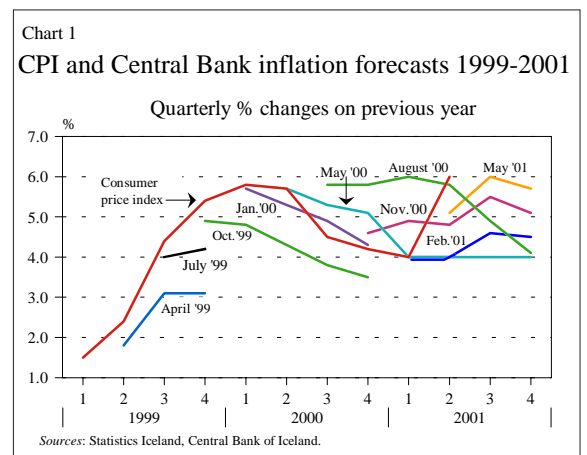
Inflation will slow next year if wage increases are in line with current agreements

Inflation exceeded the tolerance limits of the Central Bank's target in June. The Bank therefore now forecasts an inflation rate of just over 8% from the beginning to the end of this year. However, if no further exchange rate depreciation occurs and wage increases are in line with current negotiated agreements, inflation will slow down next year and could re-enter the tolerance limits towards the middle of next year, when the limits will have been lowered to 4½%. On these assumptions, the Bank's 2½% inflation target will be reached around the middle of 2003. As always, substantial uncertainty surrounds these prospects. High inflation expectations indicate some risk that a price, wage and exchange rate spiral could emerge. Thus the Bank has not seen grounds for further reductions in interest rates for the time being, especially considering that higher inflation expectations, if anything, rather argue for raising them. This consideration is compounded by the fact that the economy has proved much more robust in recent months than was foreseen. It therefore remains uncertain whether the positive output gap has been reduced to any significant extent during the first half of the year.

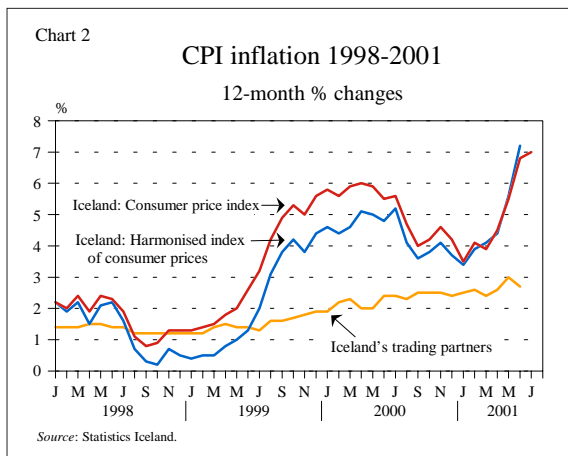
Inflation in Q2 was much higher than forecast in May

Inflation increased rapidly in the second quarter of this year. Between Q1 and Q2 the CPI rose by 3.5%, with increases in May and June weighing heaviest. In May, the Central Bank forecast that the CPI would be 5.1% higher in Q2 than a year ago. As it turned out the CPI rose 6%. The forecasting error was spread fairly evenly across the period, but the major source of the error was the 1.5% CPI increase in June. To a large extent the forecasting error is explained by the fact that the exchange rate at the end of Q2 was 5.6% lower than assumed in the Bank's inflation forecast. Together with the depreciation, recent higher inflation can be attributed to large wage increases spurred by robust demand in the economy. The Bank's report to the government, published in its entirety else-

where in this Monetary Bulletin, presents a detailed explanation of the reasons that inflation gained momentum and exceeded the target tolerance limits in June.



1. This article uses data available on July 23, 2001.



Inflation has been on the increase elsewhere in the European Economic Area of late, but on a much larger scale in Iceland. Based on the twelve-month increase in the HICP for the EEA, inflation in Iceland rose from 4.1% in March to 7.2% in June. At the same time, inflation among Iceland's main trading partner countries went up from 2.4% to 2.7%.

Over the twelve-month period until the beginning of July, the CPI rose by 7%. More than half of that increase took place in the final three months. Imported goods account for 2.9% of the total increase in the CPI over the past 12 months and 2% in the past three months. Over the past quarter motor vehicles and spare parts were the fastest rising components of the CPI, rising 8.1%, while price increases of petrol and imported foods and beverages also had a significant impact, rising 7% and 7.2% respectively. Other imported goods prices went up by somewhat less. From April, domestic foods and beverages (excluding agricultural products and vegetables) rose by 5.9%, or more than the total increase in the index. Although prices of domestic food rose less than the price of imported food, the increase in domestic food prices contributed more to CPI inflation due to their heavier weight in the index. Housing price rises slowed down significantly over the past three months. The housing component of the CPI rose by 1.9%, i.e. considerably less than the index as a whole.

Non-public services prices rose by just under 8% over the twelve-month period to July, and the price of public services have also risen considerably recently. Prices of non-public services rose by 7.8% over the

Table 1 Analysis of CPI inflation by origin 2001

%	Change in index in the previous		Relative contribution to increase in CPI	
	6 mo.	12 mo.	6 mo.	12 mo.
(1) Domestic agricultural products less vegetables ..	7.7	5.6	4.1	5.2
(2) Vegetables	15.6	-0.4	1.2	-0.1
(3) Other domestic food and beverages	18.5	8.9	9.9	8.2
(4) Other domestic goods.....	6.1	7.5	2.4	5.1
(5) Imported food and beverages	29.8	14.7	7.8	6.6
(6) Cars and spare parts	19.1	11.5	14.6	15.2
(7) Petrol	25.8	5.0	10.1	3.4
(8) Other imported goods	13.5	5.4	16.3	11.3
(9) Alcohol and tobacco	12.5	8.0	3.3	3.7
(10) Housing	8.5	6.7	9.8	13.4
(11) Public services	3.1	3.5	3.1	6.0
(12) Other services	10.6	7.8	17.3	21.9
Total	12.0	7.0	100.0	100.0
Domestic goods (1-4)	11.3	6.9	17.7	18.4
Agricultural products and vegetables (1-2).....	8.7	4.8	5.4	5.1
Domestic goods less agricultural products and vegetables (3-4) ..	13.1	8.2	12.3	13.3
Imported goods, total (5-9)	18.0	8.1	52.1	40.2

1. Changes at an annualised rate. Source: Statistics Iceland.

twelve-month period until the beginning of July, of which 5.2% occurred from the beginning of the year and 3.3% over the past three months. Rising services prices can to a large extent be attributed to wage increases, while the exchange rate depreciation has had a sizeable impact on the prices of some services, such as tourism and transportation. Given the length of time that has now elapsed since wages rose in January, service price increases may be expected to slow down in the near future.

Public sector services rose much less than other services in the past 12 months, or 3½%. In July, however, public sector services went up by 1½%. The main source was a hike in electricity prices, but kindergarten fees increased also in various places. Further public service price rises can be expected in the months to come, for example kindergarten fees in Reykjavík in August. Recently concluded wage

agreements with a number of public sector unions may lead to price rises in the near future as well.

Housing prices dropped in real terms in Q2, although nominal rises continue

At the beginning of July the market price of residential accommodation, as calculated in the CPI, had risen by 6.6%, but the index as a whole by 7%. In real terms, housing prices therefore had dropped by 0.4% in the space of a year. This decrease occurred mainly in the second quarter, when housing prices fell by 2.3% in real terms. In the first half of the year the decline was 2.6% in real terms.

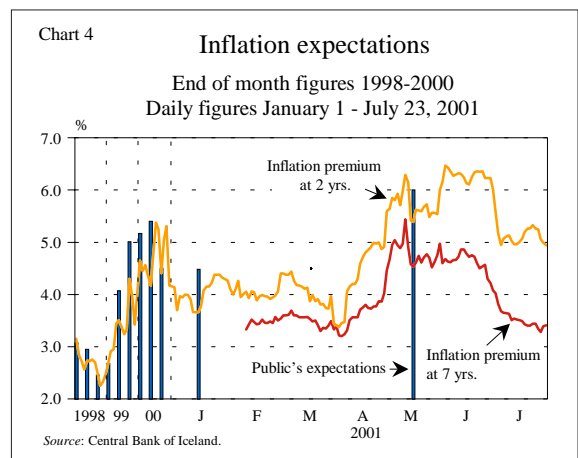
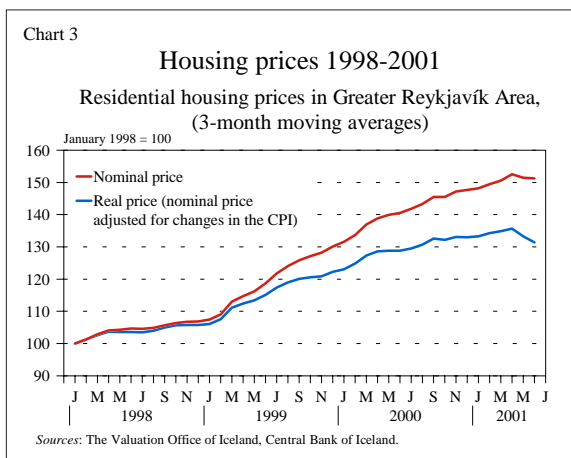
So far, a nominal price decrease appears to be confined to larger residential properties (detached houses) in the Greater Reykjavík Area. The Real Estate Valuation Office's indices for price per square metre in the Greater Reykjavík Area provide a good indicator of housing price trends, although the weights of the various components differ somewhat from those applied by Statistics Iceland. According to the Valuation Office, prices of detached houses fell in nominal terms in May and June. Preliminary evidence suggests that prices of multiresidential accommodation were broadly stable, or may even have declined marginally, between June and July. A downturn is likely to take the form initially of lower demand for larger properties. This in turn may tighten the supply of smaller apartments in the resale market, since these will remain occupied by people who would otherwise have moved into larger housing, thereby delaying the decline in the price of smaller

property. Nonetheless, it is not possible to ascertain that demand is the overwhelming determinant of housing prices. There has been substantial fluctuation on the supply side. A sizeable supply of new residential properties in the Greater Reykjavík Area is pending in the next few months. When construction work in these quarters gains momentum the supply of housing on the secondary housing market could increase as well.

Other factors could also impact housing prices. For example, the minimum disbursement of housing bonds was increased recently. This enables buyers to finance their purchases on more favourable terms, although the impact could be reduced if the discounted yield on housing bonds rises, as can be expected. As yet, however, it is difficult to state anything firmly on this point. The consequences of the new real estate and fire insurance valuation for the housing market are also uncertain. A lower fire insurance valuation could complicate financing of residential accommodation purchases, dampen demand and put downward pressure on prices. It is uncertain whether measures will be taken to counteract this trend. In line with international standards, real estate taxes were removed from the index base in the spring. Thus any rise in real estate taxes resulting from a higher valuation has, as in the case of other direct taxes, no effect on the index.

Volatility of the inflation premium on treasury bonds indicates uncertainties about inflation prospects

Since the publication of the last Monetary Bulletin in May the inflation premium on treasury bonds has



shown sizeable fluctuations, reflecting considerable uncertainty about inflation prospects. The sharpest day-to-day swing was between April 30 and May 2, when the inflation premium on 2-year government bonds rose by 0.7 percentage points, from 4.9% to 5.6%. This rise occurred once it became obvious that the CPI for May would show quite a large increase, partly because a petrol price rise was announced for the end of the month. Inflation premium on these bonds peaked at 6½% on June 5, but was somewhat lower in July. Considerable swings have also taken place in the case of treasury bonds with a lifetime of around 7 years, although less than on shorter ones. From April 30 to May 2 the premium went up by half a percentage point, from 4% to 4½%, and stood at 4.9% by the middle of June. Since then it has fallen in pace with the premium on shorter bonds and was roughly 3½% in the middle of July. A lower inflation premium on bonds with a longer lifetime suggests that market participants expect inflation to slow down on a longer-term view. However, it remains a fair way above the Central Bank's 2½% inflation target, which implies some lack of credibility among market participants.

New inflation forecast: Higher inflation in the near term than forecast in May

The following is the Central Bank's second inflation forecast after adopting inflation targeting. It is prepared under rather different circumstances from the preceding forecast, since the exchange rate has depreciated considerably since the end of April. Scant hopes that the króna would soon rally presumably caused the accumulated depreciation to prompt greater increases in prices and the CPI than had been expected. This large rise in the index caused the twelve-month figure to overshoot the 6% tolerance limit in June. In its new forecast, the Bank expects prices to keep rising on account of preceding depreciation, although the quarterly increase will not be as large as during Q2/2001. The annual rate of inflation will keep rising until the end of the year, at which point the impact of the depreciation will largely have been transmitted into the price level. According to the forecast, inflation will have moved to within the 4½% tolerance limit around mid-2002 and reach the 2½% target around mid-2003. This scenario is based on the assumption that wages do not increase in

Table 2 Inflation forecast of the Central Bank

	<i>Quarterly changes</i>		
	<i>Change from previous quarter (%)</i>	<i>Annualised quarterly change (%)</i>	<i>Change on same quarter of previous year (%)</i>
2000:1	1.1	4.3	5.8
2000:2	1.4	5.9	5.7
2000:3	0.5	2.1	4.5
2000:4	1.1	4.6	4.2
2001:1	0.9	3.4	4.0
2001:2	3.5	14.5	6.0
2001:3	2.1	8.6	7.7
2001:4	1.3	5.3	7.9
2002:1	0.6	2.4	7.6
2002:2	0.9	3.6	5.0
2002:3	0.8	3.2	3.6
2002:4	0.8	3.0	3.1
2003:1	0.3	1.3	2.8
2003:2	0.7	2.8	2.6
2003:3	0.6	2.6	2.4
2003:4	0.6	2.6	2.3

Figures indicate changes between quarterly averages of the consumer price index. Shaded area indicates forecast.

<i>Year</i>	<i>Annual changes (%)</i>	
	<i>Year on year</i>	<i>Within year</i>
1998	1.7	1.3
1999	3.4	5.8
2000	5.0	3.5
2001	6.4	8.1
2002	4.8	2.9
2003	2.5	2.2

Shaded area indicates forecast.

excess of what is provided by current agreements and the assumed wage drift, that the króna remains stable and that the economy will continue to cool in the months to come.

In May the Bank forecast assumed that inflation between Q2/2000 and Q2/2001 would be 5.1%, but as it turned out inflation was 6% over the period. The forecasting error between quarters was outside the forecast's 90% confidence interval. The bulk of the increase is attributable to the depreciation of the

Table 3 Other inflation forecasts and inflation expectations

	2001		2002	
	Year on year	Within year	Year on year	Within year
Average forecast	6.5	7.6	6.0	3.8
General public's inflation expectations..	-	6.0	-	-
Inflation premium on treasury instruments....	-	5.3	-	-

Inflation forecasts are published by ECF, Íslandsbanki, Kaupthing, Landsbanki and the National Economic Institute. The public's inflation expectations are based on a survey in May. The interest rate premium is the difference between interest rates of indexed and non-indexed treasury instruments with a maturity of just over two years. It is a measure of market participants' expectations for the average rate of inflation over the next two years

Source: Central Bank of Iceland.

króna, while wage increases in both the private and the public sector also had an impact. Thus the inflation forecast presented here anticipates significantly higher inflation than forecast in May. At that time the Bank expected an inflation of 5.7% in the course of 2001 and 3.4% over the following year. Here an inflation rate of 8.1% is forecast in the course of 2001 and 2.9% during next year. The forecast for 2003 is virtually unchanged, with anticipated inflation of 2.2% during the year, compared to 2.1% forecast in May. In the current forecast, pressure which has been building up is expected to emerge earlier than was expected in May. As a result of this and due to the depreciation of the króna, inflation is forecast to rise in the near term, but the impact of the depreciation of the króna is expected to have been largely transmitted into prices by the beginning of next year. Accordingly, inflation will decelerate rapidly next year, assuming that no further depreciation takes place, wage agreements hold and domestic demand slows down.

Table 3 presents a comparison of the Bank's forecast with those of market participants, the general public's inflation expectations and the inflation premium on treasury bonds. On average, the Central Bank forecast higher inflation in the course of the year than market participants, while forecast year-on-year inflation is similar. In May the Bank forecast

higher inflation than market participants, both in the course of the year and year-on-year, but the gap appears to be closing. However, it should be borne in mind that some of these forecasts were prepared some while ago when the exchange rate of the króna was higher, leading to lower forecast inflation. A survey of inflation expectations by the public is conducted for the Central Bank three times a year, in January, May and September. Last May, the public's expectations measured 6%, fairly much in line with the experience of earlier surveys which have tended to measure marginally higher expected inflation than the Central Bank has forecast. Inflation premiums, as measured by the interest premium on non-indexed bonds with a lifetime of slightly more than two years over indexed bonds of comparable lifetime, also appears to be broadly in step with the Bank's forecast. These premiums reflect the inflation anticipated on average by market participants over that period plus a risk premium which is in all probability on the higher side at the moment due to exchange rate fluctuations.

Assumptions in the inflation forecast

The forecast presented here incorporates, among other things, the revised economic outlook for growth and labour demand, published by the National Economic Institute (NEI) in June, and the latest forecasts of the IMF and the OECD, regarding international price developments. Changes in contractual wages are estimated based on current settlements with the main private sector unions. The outlook for wage drift is evaluated based on the assumption that overheating in the labour market will ease

Tafla 4 Main assumptions of the inflation forecast

Percent changes between annual averages	2000	2001	2002	2003
Contractual wages	3.7	5.4	3.7	2.9
Wage drift	2.0	1.7	1.2	1.0
Domestic productivity	2.2	1.5	1.0	1.3
Effective exchange rate of the króna (based on imports)...	-1.0	18.2	3.8	0.0
Import prices in foreign currency terms	3.3	2.4	1.0	1.3

Source: Central Bank of Iceland.

over the coming years, which is consistent with the NEI's projections. Lower economic growth is expected to bring productivity growth down. The development of import prices is projected based on IMF and OECD forecasts and forward prices for petrol and oil. Forward prices suggest that petrol prices in Iceland could drop by 5-7% during the next quarter, if the exchange rate remains stable. There is a strong long-term correlation between petrol prices and oil prices, and the outlook in the oil market is for some downward trend in petrol prices next year.

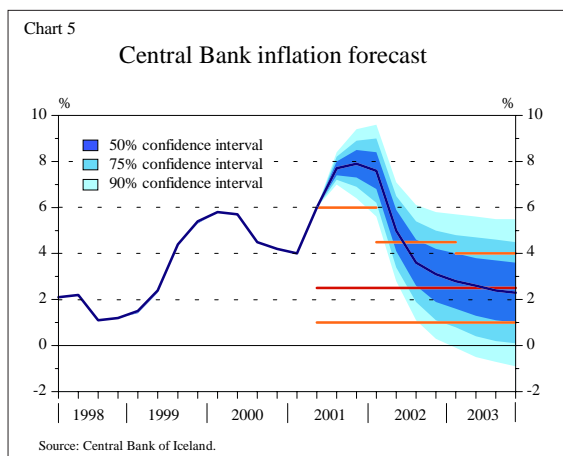
As previously, the Bank assumes a constant exchange rate from the day of the forecast, July 20. The main change in assumptions from the previous forecast is indeed the level of the exchange rate, which depreciated by 5.6% from the last forecast. Studies indicate that a permanent 1% depreciation generates a permanent long-term price rise of roughly 0.4%. If the recently witnessed depreciation proves permanent, it can be expected to push up prices by more than 2% in the long run.

Housing prices are expected to decrease by 5% in real terms over the coming half-year. This assumption is broadly in line with the previous forecast of a 5% real decline over the space of a year, although the decline is expected to take place earlier than was previously assumed. The prices of large properties in the Greater Reykjavík Area are already beginning to drop in nominal terms. Smaller ones can be expected to follow suit towards the autumn, since new housing is in abundant supply and there are emerging signs that demand is waning.

Uncertainties and risk factors

As before, the Central Bank emphasises that forecasts are subject to uncertainties and that specific values should be interpreted with care. The forecast is therefore presented in Fig. 5 with an assessment of its confidence interval. The entire coloured area shows the 90% confidence area; the two darkest ranges show the corresponding 75% confidence interval, and the darkest range is the one inside which there is 50% probability that inflation will fall. The uncertainty increases the longer the horizon of the forecast, as reflected in the widening of the confidence interval.²

As always, many assumptions of the forecast are highly uncertain. Most important is the uncertainty



on the exchange rate. Later in this article it is argued that the real exchange rate is bound to appreciate in the future. If this occurs within the forecast period as the result of a recovery of the nominal exchange rate, inflation will end up lower than forecast. If, for example, the exchange rate gradually appreciates over the following nine months to the level it was at near the end of April, inflation in the course of 2001 will be 7½% and move back within the tolerance limits during the first half of next year. Then the Bank's inflation target could conceivably be reached as soon as next year. This scenario is of course based on the assumption that no upward review of wage agreements is made.

Considerable uncertainty prevails concerning housing price developments. New housing is in abundant supply and there are signs that demand is dwindling. Nominal prices of most types of housing are still rising, however, although prices fell in real terms during the last quarter. If housing prices keep rising in nominal terms, the real decline in housing prices will not be as large as assumed in the forecast. On the other hand, it is also conceivable that pressure generated by excess supply could lead to even sharp-

2. The assessment of uncertainty in the inflation forecast is principally based on the Bank's historical forecasting errors where appropriate, and on a simple extrapolation of the forecasting uncertainty over the horizon the Bank has not hitherto forecast. Just as forecasts for individual values are subject to uncertainty, so is the estimated uncertainty of forecasts. The estimated forecast uncertainty should therefore be interpreted with caution. The aim is to highlight the inherent uncertainty of forecasting rather than to provide precise assessment of the probability distribution of forecast inflation.

er real decline than assumed, with a corresponding effect on inflation.

Uncertainties about wage developments have grown in the wake of higher inflation, especially bearing in mind that this could trigger the revocation of wage agreements next February. If agreements are revoked and wage rises are negotiated, this will have an upward effect on prices. Thus on a long-term view there is some risk of a wage and price spiral if current inflation expectations establish themselves.

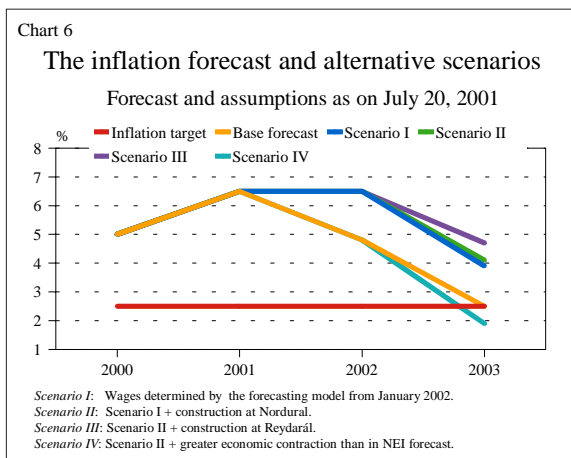
Alternative scenarios

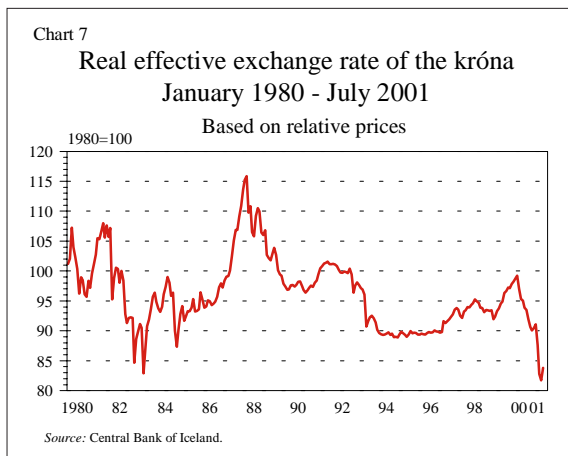
One of the critical assumptions underlying the above inflation forecast is that wage agreements will not be revoked. It is also assumed that no further power-intensive industrial projects will be launched. Naturally, considerable uncertainty surrounds these assumptions. A model which forecasts both wages and prices enables the construction of scenarios where these assumptions change. The most important determinants of inflation and wages in this model are the exchange rate and conditions in the goods and labour markets. The accompanying chart shows four alternative scenarios. Firstly, it is assumed that wages are determined according to the model from the beginning of 2002. Scenarios two and three incorporate hydropower development projects corresponding to the expansion of the Nordural smelter and the construction of the Reydarál smelter, based on the NEI's estimates of its timetable and economic impact. These projects cause the positive output gap to widen as economic growth increases and

unemployment falls. Both these factors contribute to higher inflation and wage rises. Consequently the Bank's inflation target would not be achieved in 2003, assuming a stable exchange rate and that monetary policy remains unchanged. In fact, the disinflation process comes to a halt if Reydarál is included in the scenario. On the other hand, an appreciation of the exchange rate is to be expected during the construction phase, if a substantial amount of foreign financing is involved. Import of labour during the construction phase will also dampen the project's impact on inflation. Furthermore, it should be borne in mind that the results are sensitive to the timing of these projects. If they occur during a period of slack in the economy and inflationary expectations have established themselves around the Central Bank's target, the inflationary impact will be more manageable. Scenario four shows what will happen if wages are consistent with agreements until the end of 2002 and the contraction in the near term is sharper than in the NEI's June forecast. However, this scenario includes the enlargement of the Nordural expansion smelter. On these assumptions, economic growth will only be in the region of ½% this year and a 2½% contraction will take place next year. Subsequently, growth will return to its equilibrium path. Under this scenario inflation would fall below the target in the second half of 2003. The above scenarios should not be regarded as forecasts, but are presented to highlight the interaction of economic growth, labour market conditions, wage formation and inflation.

The recent depreciation of the króna can largely be traced to a persistent current account deficit

The Icelandic króna was floated at the end of March this year. In June, the króna had on average depreciated by 13% from March, and was almost 7½% lower than assumed in the inflation forecast which the Bank published in May. Over the first 20 days of July the exchange rate was on average somewhat stronger than in June, having reached a trough on June 20. The Bank's report to the government describes the interaction of many factors that might have had an impact on the exchange rate in recent months. Various explanations are put forward, e.g. a real exchange rate incompatible with long-term economic equilibrium, an exceptionally wide current account deficit which undermined exchange rate sta-

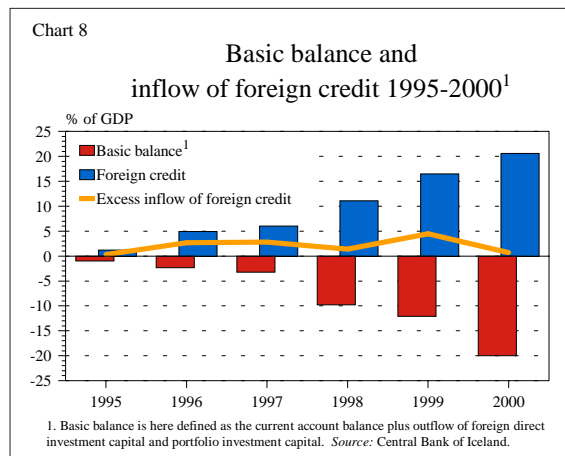




bility when financing of it became harder to sustain, the fishermen's strike, and other events that caused a temporary disruption to the inflow of foreign exchange revenues and fuelled pessimism about the macroeconomic outlook. It is also conceivable that market participants overestimated the need for an exchange rate adjustment, or that self-fulfilling inflation expectations about the response of other market players had been at work.

In the Central Bank's view, there is not a strong case for the existence of a major deviation in the real exchange rate from its long-term equilibrium level. In June this year, the real exchange rate measured in terms of prices reached its lowest level since June 1983. Historical experience suggests that the real exchange rate is likely to appreciate again, either by means of a nominal appreciation of the króna or through higher inflation, or both. However, this does not rule out the possibility that the exchange rate may deviate from its long-term trend over a protracted period, perhaps several years, besides the fact that the equilibrium level itself is subject to great uncertainty.

It can be concluded that the current account deficit, coupled with outflows to meet portfolio investments and direct investments, has been the root cause of the depreciation of the króna over the past year, although other factors have also come into play. Last year, the inflow of foreign credit equivalent to one-fifth of GDP and the Central Bank's repeated intervention proved inadequate to prevent a depreciation. If financing of the current account deficit turns more sluggish, exchange rate stability can be under-



mined before a sufficient adjustment in domestic demand takes place. Hence currencies may be particularly prone to come under pressure when the current account deficit begins to shrink, as at present seems to be the case in Iceland. The Bank's report to the government discusses the reasons for the recent depreciation in more detail.

Last year the current account deficit amounted to 68.2 b.kr. and the combined outflow on net foreign direct investment and net portfolio investments 64.5 b.kr. To finance the sum total, termed the "basic balance" in chart 8, a currency inflow in the form of foreign borrowing to the tune of 133.4 b.kr., or 11.1 b.kr. per month, was required to prevent pressure on the exchange rate. In the past year there have been various signs of diminishing demand for foreign credit, reflecting increasing reluctance among less optimistic domestic borrowers, who have become more aware of the exchange rate risk. Greater caution is a constructive and necessary element in reducing credit growth to a level close to normal long-term growth, but the side-effects of this adjustment process can be painful.

Substantial decrease in the underlying current account deficit and securities investment outflows during Q1

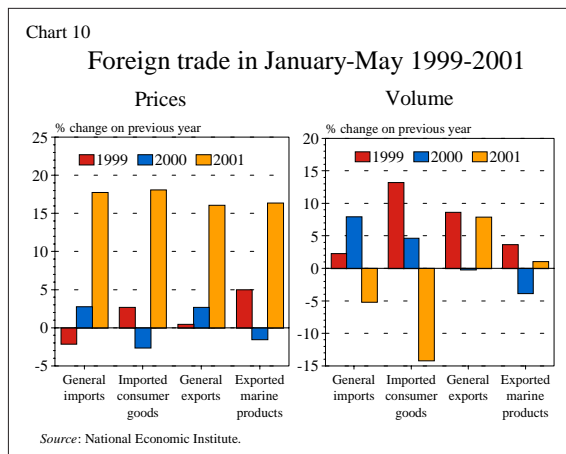
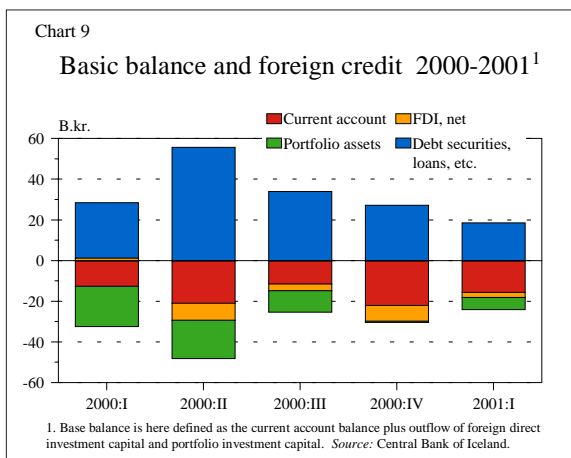
The current account deficit during Q1 amounted to 15.6 b.kr., just over 3 b.kr. more than a year before. However, the trade deficit excluding trade in vessel and aircraft shrank sharply. Of the 10 b.kr. deficit excluding vessels and aircraft, 8.6 b.kr. was on the factor income account, double the figure from a year

before. The service account was in balance, compared to a 2.4 b.kr. deficit over the same period the previous year.

In comparison with the past year the borrowing requirement to fund the current account deficit declined sharply, which was equivalent to one-fifth of GDP for the whole of 2000, as stated above. Total borrowing requirement to finance the deficit, net direct external investment and foreign securities purchases amounted to 24 b.kr. in Q1/2001, compared with 30.8 b.kr. over the same period last year. The main factor at work was diminishing outflow on foreign securities purchases, which was 13.8 b.kr. less than in Q1/2000, at 5.9 b.kr. According to available data for the period, recorded credit inflow nonetheless represented a lower proportion of the borrowing requirement than last year, at 77% compared with 87% then. This is reflected in a fairly large errors and omissions item, i.e. the surplus on the capital account falls considerably short of the deficit on the current account, which should theoretically balance, at least in the long run. It is premature to draw conclusions from these figures since they are rather volatile, although they could indicate growing sluggishness in funding the current account deficit with foreign credit, which could partly explain the exchange rate depreciation in the months that followed.

External trade data for April and May indicate a shrinking trade deficit in Q2 and probably in the second half of the year

The merchandise trade account was in a surplus



amounting to 2.2 b.kr. in April but a 3.5 b.kr. deficit in May. On the whole, foreign trade was in better balance over this period. Over the first five months of 2001 the deficit was 8.6 b.kr., or 9.4 b.kr. less than during the corresponding period a year before. Excluding trade in vessels and aircraft, the deficit was 3.1 b.kr., less than one-third of that during the same period in 2000.

Overall, the current account deficit seems quite likely to narrow this year. Opposing forces are at work here, some tending to increase the deficit and others which reduce it. The recent depreciation actually operates in both directions to begin with. On the one hand it leads to changes in the relative prices of domestic and foreign goods and services, thereby improving the competitive position of domestic production and services, boosting exports and reducing imports. The initial impact, however, may be an increase in current account deficit as a proportion of GDP, because when the exchange rate depreciates, and before market participants have the opportunity to respond to relative price changes, the deficit will increase by more than GDP in króna terms. This applies in particular to the factor income account, where there is little scope for responding to changes in the exchange rate. This phenomenon is known as the “J-curve effect,” referring to the course of the current account as it initially deteriorates when the currency depreciates, then improves afterwards.

Little impact on trade volume was discernible from the exchange rate depreciation last year. Thus it is not unlikely that the current account deficit in the second half of 2000 can be explained to some extent

by the J-curve effect. During the first half of this year, however, some adjustment to the depreciation is apparent, although these are difficult to distinguish from adjustment linked to the economic cycle and external conditions. For example, it cannot be taken

for granted that faster export growth is spurred by the depreciation. Growth in exports of marine products during the first months of the year most likely reflects fairly good fishing catches rather than a weaker currency. Furthermore, aluminium produc-

Box 1 The National Economic Institute has lowered its forecast for growth this year

In its revised forecast published on June 18, the National Economic Institute forecast GDP growth ½% lower than forecast in March. The most significant change was that private consumption is forecast to decelerate much more rapidly than envisaged previously and is now expected to grow by only ½% this year. Revised figures for last year also show somewhat less private consumption than earlier projections. A 3½% fall in capital formation is expected in 2001, which exceeds the March forecast by one percentage point. This will result in a minor decrease in national expenditure, which will lead to a fall in imports by 0.9%, instead of growth of the same figure. Exports are forecast to remain unchanged. The current account deficit relative to GDP is forecast at a similar size to before, although the goods and services balance will be more favourable.

Next year, GDP is forecast to grow by only ½% and national expenditure to drop by 2%, following a negligible contraction this year. The last time national expenditure contracted was in 1993. Imports are expected to continue to shrink next year, by 4.7%. Although export growth is forecast to be sluggish (1.6%), it will be sufficient to bring about a reduction in the current account deficit ratio to 7.4% of GDP.

As pointed out elsewhere, in the Central Bank's view the current account deficit is heading for a somewhat lower figure than in the NEI forecast, despite an increasing deficit on the balance of income this year. This trend could continue next year, spelling even less economic growth than is currently forecast, or even a contraction.

Economic prospects 1999-2002

<i>Volume changes on previous year in % unless otherwise stated</i>	<i>Forecast in June</i>			<i>Forecast in March</i>			<i>Difference</i>	
	<i>Prov. 2000</i>	<i>Proj. 2001</i>	<i>Forec. 2002</i>	<i>Prov. 1999</i>	<i>Proj. 2000</i>	<i>Forec. 2001</i>	<i>Proj. 2000</i>	<i>Forec. 2001</i>
Private consumption.....	3.7	0.5	-0.5	6.9	4.0	2.5	-0.3	-2.0
Public consumption.....	3.7	3.1	2.5	5.1	3.7	3.1	0.0	0.0
Gross fixed investment.....	9.0	-3.5	-9.9	-0.8	9.0	-2.5	0.0	-1.0
Total national expenditure.....	5.1	-0.1	-2.0	4.6	5.4	1.1	-0.3	-1.3
Exports of goods and services.....	6.3	3.3	1.6	4.4	5.1	3.4	1.3	0.0
Imports of goods and services.....	9.3	-0.9	-4.7	5.7	9.3	0.9	0.0	-1.8
Gross domestic product.....	3.7	1.5	0.5	4.1	3.6	2.0	0.1	-0.5
Balance on income in b.kr.....	-19.8	-24.1	-28.3	-13.5	-19.0	-23.5	-0.8	-0.6
Current account balance in b.kr.....	-67.1	-73.0	-57.6	-43.6	-68.9	-72.15	1.8	-0.8
Current account balance, % of GDP ..	-10.0	-10.1	-7.4	-7.0	-10.3	-10.1	0.3	0.0

Source: National Economic Institute.

tion, which accounts for the bulk of the growth, is probably relatively insensitive to exchange rate trends. Exports excluding volatile items increased by 8% in volume during the first 5 months of the year and prices rose by 16% in króna terms, largely because of the depreciation. Increased export of aluminium accounts for virtually all the volume growth, since exports excluding power-intensive industries grew by less than 1%. Exports of marine products ran fairly high during the first 4 months, but the impact of the fishermen's strike was felt in May. Growth in exports of marine products is likely to slow down during the second half of the year.

Imports so far this year seem to have responded to the lower exchange rate and changes in the macro-economic situation. Imports excluding volatile items contracted by 5% during the first 5 months of the year compared with the same period in 2000, with the contraction deepening in the last months. The greatest drop was in imports of consumer goods, which fell 14%. Excluding aircraft, imports of investment goods also declined considerably. Raw material imports, however, were still showing some growth, despite a decrease of one-quarter in fuel imports and solely due to rising imports of inputs for power-intensive industries.

Negative impact of the exchange rate depreciation on the balance on income counteracts the effect of demand and relative price adjustment

If adjustment to the exchange rate depreciation is ignored, and exports, imports and net factor income merely extrapolated in line with the exchange rate depreciation in excess of the assumption made in the NEI's March forecast, the current account deficit will exceed the NEI's forecast by 8 b.kr. In its revised forecast published in June, however, the NEI envisaged no change in the ratio of the current account deficit to GDP from its March forecast. In effect, this basically implies that the adjustment of foreign trade to the lower exchange rate will offset the J-curve effect.

In view of developments over the first 5 months of this year, however, the current account deficit could shrink more than forecast, although irregular items distort the picture for Q1. The adjustment of trade flows to changes in relative prices and income would in that case probably more than compensate

for the J-curve effect. Initially, the adjustment will largely be felt in imports of consumer goods and services, and probably to a growing extent in investment goods as the year progresses. This is already quite evident from imports of consumer durables and expenditure on travel and transport. Export growth, however, is probably nowhere near as sensitive to changes in the exchange rate, for the reasons stated above. Nonetheless, the depreciation is likely to yield, for example, some growth in tourism, although hardly on a significant scale before next year.

The reason for expecting a fairly sharp adjustment of imports is that a combination of factors are at work in the same direction. The impact of relative prices changes has already been discussed. Imports also decrease if real income drops in the wake of higher inflation, which in fact is also attributable to the lower exchange rate to a significant extent. Consumer expectations of lower real income in the future can also amplify this effect. Also, there are various other cyclical mechanisms at work which are likely to be felt simultaneously. For example, the household debt service burden has increased, a certain degree of saturation can be expected to be present after hefty growth in the purchase of consumer durables (e.g. cars) and investment goods during the upswing, and the sense of job security has probably diminished although unemployment remains still low. The signs of a contraction in imports that have emerged during the first months of 2001 will therefore probably intensify in the course of the year. Imports of investment goods are still running high, although some contraction is now being noticed. The NEI's June forecast for a 3½% decline in gross capital formation appears realistic, based on the trend so far. In the NEI forecast, the investment activity sustaining capital formation this year is the continued construction of commercial and office premises, purchases of computers and office equipment, and fisheries. It is probably in these areas where a contraction is most likely in the near future.

Counteracting the more favourable balance on trade and services is the growing deficit on the balance on income, including interest payments, which is posed to become much larger than forecast by the NEI hitherto. In June it forecast a 24.1 b.kr. deficit this year. However, the deficit for Q1 had already reached 8.6 b.kr., or 37% of the forecast figure for

the whole year, even though only part of the exchange rate depreciation had occurred then. If the exchange rate remains weak until the end of the year, a simple projection of the exchange rate impact would leave the factor income deficit for the year as a whole in the region of 37 b.kr. If this turns out to be the case, the factor income deficit alone could reach a record figure of roughly 5% of GDP, slightly larger than its previous record of 4½% in 1984.

The adverse development of the balance on income, caused by the depreciation, calls for a more abrupt adjustment on the demand side than would otherwise be required. In order to strengthen the exchange rate on a permanent basis, the current account deficit should preferably not run higher than 2-3% of GDP on average, which assuming a 5% deficit on the balance on income would require a surplus on the goods and services account in the range 2-3%. In a downswing an even larger surplus could be required to put the exchange rate on a firm footing. It is clear, however, that the impact on the exchange rate will to a large extent depend on the behaviour of market players such as the pension funds, which allocate national assets between purchases of domestic and foreign securities.

Uncertain exchange rate outlook in the coming months, although a long-term strengthening is likely

International experience indicates that it is next to impossible to forecast exchange rate developments with certainty, and the Icelandic króna is no exception. There are conflicting forces that could serve to strengthen or weaken the króna still further:

- The current account deficit still entails a sizeable need for foreign capital, although the need for foreign credit decreased markedly in Q1 due to lower net purchases of foreign securities.
- Offsetting this is the greater short-term interest rate differential with abroad, which has recently been almost 7% in the case of three-month T-bills, and somewhat wider measured in terms of money market rates. This gives investors considerable incentive to buy Icelandic rather than foreign short-term bonds, provided they have confidence that exchange rate depreciation will not offset the differential. However, the incentive to hold domestic assets is somewhat dampened by

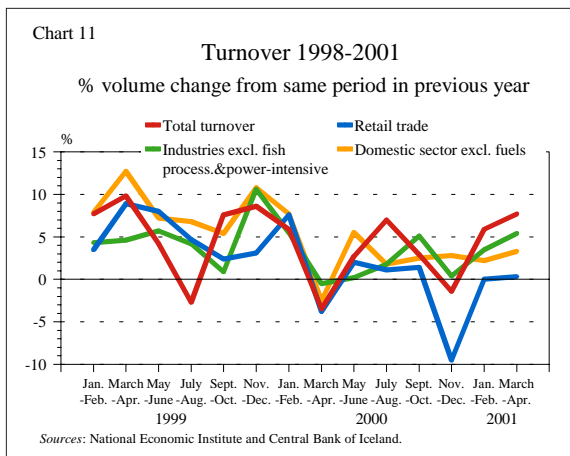
the deterioration in the inflation outlook during the first half of the year.

- The stock of foreign securities owned by Icelandic residents has become fairly large. Once those who manage these assets start to expect a strengthening of the króna, they have plenty of reason to increase the weighting of domestic assets in their portfolios.
- The business outlook is ambiguous. Potential investors have relatively few good options. Some exporters will benefit from the weaker exchange rate and could be viewed as interesting investment options, while the outlook for profitability in other sectors is less favourable, e.g. in the retail and financial sectors. There is also substantial uncertainty in overseas markets, making it unclear whether profitability of domestic businesses relative to foreign ones will have a positive or a negative impact on the exchange rate in the near term.
- The real exchange rate of the króna is at a very low level from a historical perspective. Investors who wager on its stability are therefore unlikely to suffer permanent damage even if the króna weakens further in the short term. On a long-term view, the low level of real rate of exchange increases the likelihood of an appreciation, provided that inflation does not head any further out of control.

The balance of the above forces will determine the exchange rate of the króna in the years ahead, but it is absolutely impossible to tell what results this tug-of-war will have in the next few months. The Central Bank has made its desire for the króna to strengthen from its present rate clear to market participants. However, the Bank will only intervene in the foreign exchange market if there is a pressing reason for doing so or intervention is likely to have long term effects.

Turnover and activity are still running high

The most recent statistics suggest that economic activity was much more robust in the first half of the year than could have been expected given recent discussions in the media. Growth in the first-half of the year was probably not below potential growth.



Hence it is still uncertain whether the positive output gap has begun to shrink. The NEI recently published its first quarterly national accounts, from 1997 to the first quarter of this year. These indicate that GDP in Q1/2001 was just over 7½% higher than in the same period last year, mainly driven by dynamic exports and strong growth in capital formation, while private consumption shrank slightly. Although these statistics need to be taken with a certain caution, as these are preliminary figures and the first attempt to produce quarterly accounts, it seems safe to conclude that output continued to grow during the first months of this year. Figures for turnover in various sectors, based on VAT returns, support this conclusion. In the first four months of 2001, turnover grew almost 7% in real terms from the corresponding period last year. As stated elsewhere, exports were robust in the first five months of this year, especially because of aluminium and marine products. Turnover of domestic sectors (excluding fuel) rose 3% in real terms from the same period in 2000, which is little changed from the preceding year. To a substantial extent this is due to a large increase in turnover in the construction and service industries, while retail activity remained virtually stagnant in real terms. Real turnover in manufacturing industries excluding power-intensive industries and fisheries was 4½% higher than in the same period last year, which represents an acceleration in the rate of growth. It is also worth noting in this context that the year-on-year growth in domestic sector turnover in March and April was higher than in January and February. Thus these statistics still provide no evidence of an economic contraction,

which is consistent with the indicators on the state of the labour market discussed below.

Poorer business profitability due to higher financial costs

Available interim reports and forecasts made by financial institutions suggest that profits of listed companies declined during the first half of this year. However, this is to a large extent the result of higher financial expenses, mainly due to the depreciation of the króna. EBITDA as a proportion of turnover appears virtually unchanged from the same period last year. In the fisheries sector, this ratio seems to have grown considerably, prompted by higher product prices in foreign currencies and the lower exchange rate of the króna. EBITDA has also apparently increased in the manufacturing industries. General operating conditions therefore seem fairly favourable for export and import competing industries. On the other hand, higher foreign-denominated liabilities as a result of the depreciation will hide this fact this year. Such an accounting adjustment will have much less effect on cash flow, which will improve among companies experiencing growth in EBITDA.

Labour market still overstretched with little sign of easing

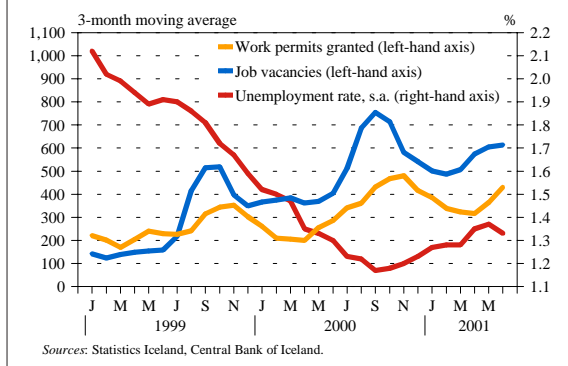
The labour market situation is slow to change. The labour market is still very tight judging by the number of vacancies offered by employment agencies. In June these numbered 610, compared with 450 in June 2000. Unemployment in June measured 1.2%, having fallen by 0.4% from the previous month. This is a marginally lower rate than in June last year but also a lower monthly drop. Seasonally adjusted unemployment was 1.3% in June and had not changed much since the middle of last year.

The number of new temporary work permits for employee coming from outside the EEA fell in May and June compared with the same months in 2000, for the first time in more than a year. A total of 346 new temporary work permits and permits for change of workplace were issued in these two months, as against 405 in the same months last year.³ The num-

3. The Department of Employment recently introduced a new subcategory for temporary work permits, namely temporary permits for changes

Chart 12

Unemployment, work permits and job vacancies



ber of permit extensions were issued in June was substantially larger than year ago. During the first six months of 2001, 2,259 work permits were issued, 787 more than in the first half of last year. Of this figure, almost two hundred were issued to striptease artists, who were first required to have work permits in May 2000. The number of unlimited permits doubled from 102 to 207. Indefinite permits are issued to foreign individuals, unlike temporary permits which are issued to employers. Foreign citizens are entitled to indefinite permits after working in Iceland for three years and obtaining indefinite residence permits. Given the large number of temporary permits issued and extended in recent years, many foreign nationals are now entitled to indefinite residence and work permits in Iceland, thereby becoming permanent participants in the Icelandic labour market.

Indications of an easing in demand for labour remain weak. However, the NEI's labour market survey in April indicated a better balance in the labour market, and a substantial easing of demand in some areas, e.g. services, transport and manufacturing. The Federation of Icelandic Industries conducted a similar survey among its members at the end of June and beginning of July.⁴ Of the respondents, most businesses wanted to keep their staffing levels unchanged, and overall they wanted to increase their workforce by 0.1%. Tourism companies wanted to

of workplace. In June, 131 new temporary work permits were issued, and a further 87 on account of changes in workplace.

4. Around twelve hundred business were sampled, and just over one-third replied.

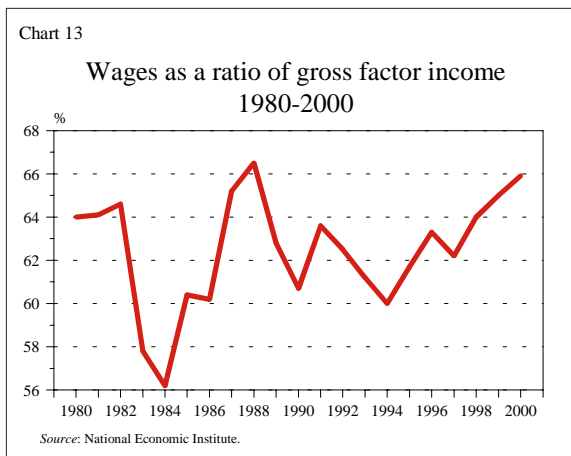
cut back staff the most, or by 3.9%, but this can be explained by the approaching end of the summer season. Manufacturing companies also wanted to cut back staff slightly. Considerable demand remains for workers in construction, where companies wanted to increase their staffing by 2%. Fish processing firms expect to increase their number of employees by just over 1% at the start of the new fishing season in the autumn.

Wage rises in Q2 in line with expectations

The wage index rose by 2.3% between Q1 and Q2 this year, largely due to new agreements with central and local government employees. Real wages were 1.3% higher in June than a year before. Since December, they have risen by 1.6%. Wage agreements have been made with various groups of public sector employees recently and only a handful have yet to complete negotiations. The wage index for public sector and bank employees increased by 4.4% between Q1 and Q2 in 2001. A continuing rise may be expected in the next quarter both because of contracts that remain to be negotiated and due to the fact that the index measures average wages for the period, so that recent increases will be spread over two quarters. The wage index for the general labour market increased much less, or 0.8% between Q1 and Q2.

Wage drift in the general labour market more than doubled between the first quarters of 2000 and 2001, when measured on the basis of a paired sample made by the Institute of Labour Market Research rather than the wage index published by Statistics Iceland. In Q2 wages in the general labour market had risen by 8.1% in the space of a year, according to the wage index, which exceeded contractual rises for the largest groups of wage-earners by 2.1%, the same figure as in Q1. Wage drift in Q1 according to the Institute's results measured 4½%. Hence, the gap between wage increases as measured by Statistics Iceland on one hand and the Institute of Labour Market Research on the other hand has been widening substantially of late. According to the Institute's results, real wages in the general labour market had risen by 9.3%.⁵

5. It should be pointed out that the use of paired samples (in which only individuals in both of two subsequent samples are compared) entails



As stated in the Central Bank's report to the government, published elsewhere in this issue of Monetary Bulletin, wages have risen by considerably more than productivity in recent years, in pace with robust domestic demand growth. Rising wages are reflected in a growing share of wages in factor income, up from 60% in 1994 to 66% last year as shown in Chart 13.

Much poorer fiscal result than in the first half of 2000

During the first 6 months of this year, treasury outlays were 1.7 b.kr. higher than receipts. Over the same period last year, revenues outstripped outlays by 10.6 b.kr. This sharp turnaround can partly be traced to ad hoc outlays to meet bond redemption, a Supreme Court ruling on disability pensions and buying up of sheep farming quotas, but is mainly the result of a large increase in general outlays and a certain degree of slack in revenues.

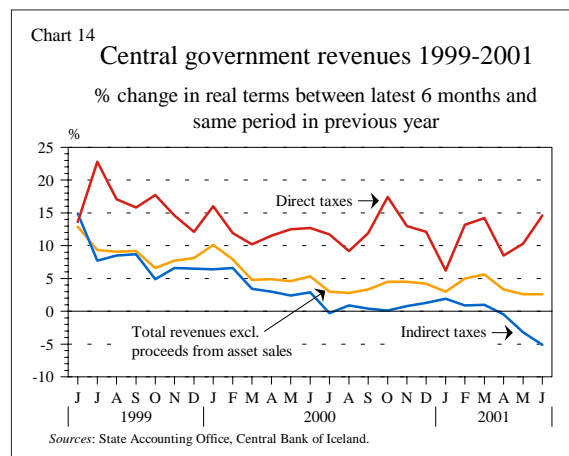
Asset movements showed an outflow of 2 b.kr. until the end of June, while for the same period last year there was a 3 b.kr. inflow, the difference being due to 5 b.kr. in late collections of revenues from privatisation measures in 1999. If this last figure is excluded, first-half movements in 2000 and 2001 were similar. The net borrowing requirement amounted to 3.7 b.kr. over the first 6 months of this year, compared with a 13.7 b.kr. surplus for the first half of 2000.

some positive bias because of increments for length of service, although this hardly explains the entire difference between measurements.

Much higher supplementary payments were made to state pension funds in the first half of this year than during the same period in 2000, or 7.5 b.kr. against 3 b.kr. The net borrowing requirement after these payments is 11.2 b.kr. so far this year, compared with a 10.7 b.kr. surplus at the same point in 2000. Net funding with domestic long-term borrowing was negative to the tune of 2.7 b.kr., and even more if accumulated interest is included in repayments. In all, 6 b.kr. has been funded with T-bills, 6.1 b.kr. with borrowing abroad and 1.8 b.kr. by drawing on bank deposits. At the same time last year, there were in contrast net repayments of domestic long-term debt by 9.8 b.kr., net funding with T-bills was minimal and net borrowing abroad amounted to 1.4 b.kr. Thus the treasury has played a considerable part in funding the current account deficit this year, unlike the situation at the same time a year ago.

Treasury revenue growth has slowed down and indirect tax receipts have decreased

Tax receipts were 6.4% higher in the first six months of 2001 than over the same period in 2000. Receipts from direct taxes until the end of June were 20% higher and personal income tax yielded 14% more revenue. Indirect tax receipts, however, were 0.6% lower than at the same time in 2000. In this figure, VAT receipts were 0.8% down, despite average price rises of 4.7%. Import-related revenues (import duties, general excise taxes, and motor vehicle and petrol import duty) dropped by 11%. However, revenues from payroll taxes and motor vehicle taxes



Box 2 The Central Bank's system for assessing the economic situation and outlook

The Central Bank assesses the economic situation and outlook in a variety of ways, drawing not only on its own work but also that of other official economic agencies such as the National Economic Institute. Furthermore, it keeps abreast of analyses from financial institutions, industry and employers organizations and the labour movement. The Bank also closely monitors international economic developments which have an impact on the domestic economy.

Broadly speaking, the Bank's monitoring work may be divided into the following categories:

- Assessment of economic indicators
- Forecasting
- Market watch
- Surveys
- Personal contact with financial institutions, industry organizations, labour unions and businesses

Assessment of economic indicators: New economic statistics are scrutinised soon after they are published. Each month the Bank's Economics Department observes and analyses at least 82 domestic economic aggregates, which are generally compiled on a monthly or more frequent basis. These indicators are analysed in a number of ways to extract the information they contain. For example, the interest rate spectrum is analysed to obtain information on expectations about interest rate trends and inflation.

Forecasts: The Central Bank conducts quarterly inflation forecasts spanning a horizon of at least two years. As part of the forecasting process it makes a comprehensive assessment of the factors that are most crucial for inflation developments. As a rule the Central Bank builds on NEI macroeconomic forecasts but also eval-

uates them independently. The Bank also considers inflation forecasts made by financial institutions.

Market watch: The Markets Unit of the Bank's Monetary Department closely monitors developments in domestic financial markets and maintains close contact with other financial institutions.

Surveys: The Central Bank surveys the general public's inflation expectations. The Bank is considering whether to launch more comprehensive surveys of consumer and business sentiment. Furthermore, the Bank takes into account other surveys conducted in this field.

Personal contact: Bank officials hold discussions with a broad range of economic and social group to gather information and hear their views. The Governors have a regular contact with senior officers of other financial institutions. The Bank's Economics Department has contact with analysts at other financial institutions, industrial organisations, labour organisations, real estate market players and individual companies. Officials at the Markets Unit also have very frequent contact with their counterparts at financial institutions as well as firms that are major players in the foreign exchange market. Furthermore, the Bank's Financial Department maintains contact with financial institutions concerning the monitoring of financial stability.

After the Central Bank adopted inflation targeting, the Bank's system of monitoring the economy has become more important. In the near future the Bank will strive to improve its ability in this area. The focus will be on improving the Bank's forecasts and its methods of monitoring expectations, among other things via surveys.

exceeded inflation by 4%, as wages have been rising more than prices and car ownership has increased substantially.

Excluding revenues from the sale of assets, total treasury first-half revenues increased by 7.2% from

the same period last year. The budget assumed a 6% increase between the years and inflation of just under 6%. A further 15½ b.kr. was expected from sale of assets, which is still at the preparatory stage. The overall picture is that consumption-related revenues

have plummeted in real terms while taxes on personal income, corporate income and wealth have more than kept pace with inflation. For the year as a whole, total nominal tax revenues look set to be similar to the budget estimates, or possibly lower.

Treasury outlays grow at twice the rate assumed in the budget

Treasury outlays were 21.6% higher in the first half of 2001 than the same period a year before. The budget assumed an 11% increase between the years. In part the large increase now is the result of ad hoc measures: payment of accumulated interest to meet savings bond redemption, buying up of agricultural quotas, unforeseen disability pension payments and settlements for health insurance expenditures in 2000. Other outlays excluding investment expenditures increased by 17½%, while the budgeted increase for the whole year was 9½%. Central government operating expenses alone rose by 10½%, compared with the 6.6% increase between the years assumed in the budget. It is not inconceivable that the large increase in outlays over and above ad hoc payments is partly explained by their timing, so that the rate of increase could slow down as the year progresses. If the present trend continues, however, central government outlays will rise by 18% between the years instead of the 11% forecast in the budget, while revenues excluding sale of assets will be more or less on target. If the budget's assumption of 15½ b.kr. gains on the sale of assets holds good, the treasury surplus would be around 20 b.kr. instead of the bud-

geted 34 b.kr., and the surplus excluding sale of assets around 5 b.kr. instead of 20 b.kr.

Underlying credit growth still shrinking, and growth in money supply and savings slows down again

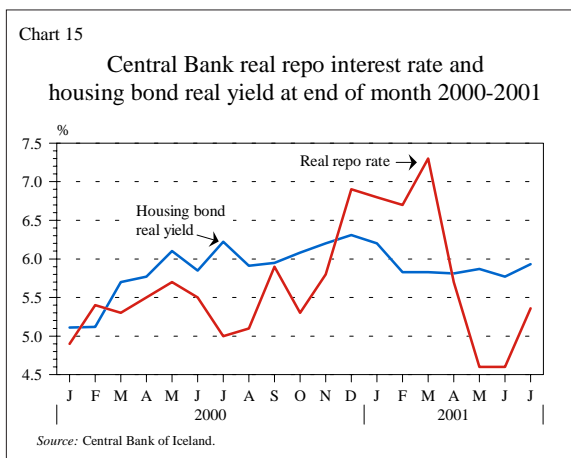
Lending by deposit money banks (DMBs) increased by 9½% from the end of March to the end of June, partly due to a revaluation of foreign-denominated loans following the 12% effective appreciation of foreign currency over the period. Excluding the impact of the depreciation of the króna and indexation, lending grew by roughly 3%. Twelve-month nominal credit growth ran at 26% at the end of June, the same rate as the year before. The difference, however, is that this year the exchange rate depreciation and indexation of loans account for a major part of this growth. After adjustment for these factors, credit growth over the 12 months to the end of June was roughly 12½%. At the same point a year before, growth was just over 24½% measured in these terms. Thus lending growth is continuing to slow down gradually.

At the end of June, broad money (M3) had increased by 12% over the preceding 12 months, and the rate of growth has hardly changed for a whole year. In the opening months of the year money supply was growing somewhat faster, for reasons including an increase in foreign-denominated bank deposits, especially in March. Currency deposits declined somewhat again in May and did not increase by more in June than at the same time a year before. Although money supply growth has changed little over the past year, in real terms it is down considerably, to 4½% in the past 12 months.

Total lending and domestic securities assets of the credit system increased by just over one-fifth over the 12 months until the end of March. The fastest growth was in corporate lending, by almost one-quarter, while lending to households increased by almost 16%. Excluding adjustment for exchange rate and indexation changes, the twelve-month rate of growth in lending by the credit system was running at 13% at the end of March, which is a somewhat higher growth rate than at the end of last year.

Financial conditions and the monetary stance

The monetary stance eased somewhat in May and June due to higher inflation expectations and the



Box 3 Are there grounds for Iceland to maintain a similar monetary stance to the USA?

Recently comparisons have frequently been made between monetary policy stance in Iceland and the USA. Since the beginning of this year the Federal Reserve has cut interest rates six times, by a total of 2.75 percentage points. The federal funds rate stood at 6.5% at the beginning of the year, and had then been unchanged since the previous spring, but is now 3.75%. Central Bank of Iceland policy interest rates peaked at 11.4% over the period November 2000 to March 2001. At the end of March they were lowered by 0.5%. A question which has been frequently asked is whether this difference between Icelandic and US interest rates is warranted, e.g. in light of the fact that economic growth is now slowing down in both countries and is forecast to be at similar rates this year. Closer scrutiny, however, reveals many differences. Firstly, inflation is much higher in Iceland, as the accompanying table shows. This means that despite the 7.15 percentage points differential between the Icelandic Central Bank rate and the federal funds rate, the real differential is much less, at 3.2 percentage points based on inflation over the past 12 months.

As the chart shows, the two countries differ in more than their inflation rates. Most indicators suggest that the Icelandic economy is much more overheated. For example, the difference in wage developments is striking. Over the period from 1996 to 2000, wages in Iceland rose by 18% more than productivity. In the USA productivity outstripped wages over the same period. This means that there is much less risk of wage increases leading to higher inflation in the USA than in Iceland. This pattern reflects the situation in the labour market. Unemployment was at a historical low in the USA last year, and went as low as 3.9%. Over the past half a year it has been rising again and stood at 4.6% in May. In Iceland unemployment figures have been much lower. Registered seasonally adjusted unemployment reached a low of just over 1%, but lay in the range 2-2½% according to labour market surveys comparable to those in the USA.¹ Seasonally adjusted

unemployment in Iceland has risen slightly of late, but is still very low.

The impact of Iceland's much higher wage increases on the inflation outlook is magnified by the particularly unfavourable development of the króna, which for example weakened by one-fifth over the period May 2000 to May 2001. The US dollar appreciated in effective terms by 7% at the same time, according to IMF calculations, and by much more on a longer-term view. The dollar has not been stronger since the mid-1980s, which is actually too much of a good thing from the point of view of US businesses and the external balance of the economy. The exchange rate has contributed to keeping inflation in check in the USA, but kindled inflation in Iceland. Despite the lower US interest rate, the dollar has remained strong, in fact undesirably so. The Federal Reserve can cut interest rates without much concern about the impact of exchange rate developments on prices. In contrast to the Central Bank of Iceland's concern about inflationary consequences of a depreciation of the króna, even if the dollar were to weaken substantially, the Federal Reserve can afford to look at the dollar exchange rate with benign neglect. The US economy is relatively closed and self-sufficient (although it has opened somewhat in recent decades).² Iceland not only has a much higher proportion of foreign trade to GDP, but also profoundly lacks diversification of production and domestic competition. Changes in the exchange rate are therefore transmitted much more quickly to Icelandic prices.

The strong real exchange rate and large current account deficit in the USA suggest that the dollar may depreciate considerably over the years to come. The

1. Such employment surveys are only conducted in Iceland twice-yearly.

2. Only 10% of changes in the exchange rate of the dollar are transmitted to US consumer goods import prices within one year. The impact of a 10% depreciation of the dollar on the consumer price index in the USA is therefore only a fraction of 1%, compared with approximately 4% in Iceland. On the impact of exchange rate changes on US import prices, see Maurice Obstfeld and Kenneth Rogoff (2000), "Perspectives on OECD Economic Integration: Implications for US Current Account Adjustment", paper presented at a conference organised by the Federal Reserve Bank of Kansas City, Jackson Hole, Wyoming, August 24-26, 2000.

Comparison of economic conditions
in the USA and Iceland

%	USA	Iceland
Latest central bank policy interest rate..	3.7	10.9
Latest annual inflation	3.6	7.0
Real policy interest rate based on latest inflation	0.1	3.8
Forecast inflation, % between 2000 and 2001	3.1 ¹	6.4
Wage increases 1996-2000	12.7	31.4
Rise in wage costs per unit production, % 1996-2000	-1.8	17.9
Exchange rate trend May 2000 - May 2001 ²	6.6	-21.4
Average GDP growth 1996-2000	3.4	4.5
Forecast growth 2001	0.7 ³	1.5 ⁴
Output gap 2000	2.2	2½
Unemployment as % of labour force ⁵	4.6	1.6/2-2½
Current account deficit 2000, % of GDP.....	4.5	10.3
12-month credit growth, Latest figures.....	4.7	25.9
Accumulated 3-year credit growth.....	27.0 ⁶	81.0

1. IMF Forecast, May 2001. 2. Average US\$ exchange rate as per IMF, *International Financial Statistics*. Average kr. rate as per Central Bank of Iceland official exchange rate index. 3. Consensus Forecast, May 2001. 4. National Economic Institute of Iceland, June 2001. 5. Based on June 2001. 6. Foreign lending weighs heavier in total lending by US financial institutions. Excluding this component would give a considerably lower figure for credit growth in the USA in recent years

long-term outlook for the exchange rate of the króna has been even weaker, and explains its less favourable development. There are few reasons to believe that the exchange rate of the króna was more misaligned than the dollar is today when it peaked in real terms last year, far from it. However, Iceland's current account deficit last year was more than double that of the USA. The closer correlation between exchange rate and prices in Iceland means that monetary policy must pay much more heed to conceivable impacts on the króna. A persistent current account deficit may make it unavoidable to maintain a sufficiently high interest differential with abroad as to make the Icelandic króna

attractive for investors to hold. Otherwise there is a risk of even further depreciation while the adjustment of domestic demand is in progress.

A comparison of lending growth is no less striking. Lending has been growing fairly rapidly in the USA in recent years. In 1998 and 1999, twelve-month lending growth by US credit institutions to domestic businesses (excluding other credit institutions) was in the range 6½-7%. Growth slowed down considerably last year and has recently been around 4½-5%. By comparison, lending growth within the Icelandic credit system amounted to around 20% last year and lending by DMBs increased by almost 35% when the growth rate peaked in 1999. Since then, credit growth has not fallen below 25%, although part of last year's figure can in fact be attributed to the revaluation of loans linked to the exchange rate or price index.

All the above goes to show that economic conditions in Iceland are very different from those in the USA. There are many indications that the USA is on the brink of recession. The underlying economic trend in the US economy leaves the Federal Reserve fairly well placed to stimulate economic growth by lowering interest rates. Given wage and productivity developments in recent years, excess capacity and the strong position of the dollar, the Federal Reserve can ease the monetary stance, fairly confident that it will not lead to higher inflation. In Iceland, there are various signs of a slowdown or even a recession in the near future. The NEI's measurements of GDP for Q1, however, still indicate robust growth of more than 7% since Q1/2000, although this may possibly be the product of temporary factors. The bottom line is that macroeconomic imbalances in Iceland that need to be unwound are much larger. This invites the conclusion that, however worthwhile it may be for the USA to attempt to stave off a recession by easing the monetary stance, it should not be taken for granted that such an objective is realistic or even desirable in Iceland. Given the scale of the overheating of the Icelandic economy in recent years, a temporary contraction of output may regrettably be the price that has to be paid for the excesses of the past, in order to prevent inflation from becoming too entrenched and to secure that the Central Bank's inflation target is attained within an acceptable horizon.

exchange rate depreciation at the same time as the Central Bank policy interest rate remained unchanged. Towards the end of April the inflation premium on 2-3-year government bonds was around 5%, then fluctuated in the range 5½-6½% in May and June. Measured against this inflation premium, the Central Bank's real rate of interest was just over 6½% immediately following the cut in its policy rate by half a percentage point near the end of March, but was down to 5½% by the end of April. It then fell further in line with higher inflation expectations to reach 4½% around mid-June. By then the króna was 8.4% weaker than had been assumed in the inflation forecast the Bank had published in May. In July, however, inflation expectations have diminished somewhat and the exchange rate has strengthened. On July 20 the inflation premium on government bonds was just over 5% and the Central Bank's real rate of interest had risen back to 5½%. The króna had then strengthened by 3.1% since mid-June.

The slacker monetary stance caused by lower real interest rates and the exchange rate depreciation has been offset by the fact that other financial conditions affecting demand have either remained relatively stable since the Central Bank published its assessment of the economic outlook and monetary developments in Monetary Bulletin in May, or have had a tightening effect. Tighter liquidity has meant that interest rates in the domestic inter-bank market have fallen by less than the Central Bank's interest rate cut on March 27 could have warranted. Indexed long-term interest rates are now similar to or higher than their level towards the end of April, except for the very shortest instruments. In addition, borrowers now probably rate foreign credit terms higher than a few months previously, because of the recent depreciation and greater swings in the exchange rate. It can also be pointed out that equity prices have continued to slide and the ICEX-15 index is now 9% down from the end of April. The Central Bank began lowering interest rates towards the end of March in response to signs that the economy was beginning to cool and the outlook for economic growth to drop over the coming period below its long-term equilibrium level. The weakening of the króna in recent weeks and greater inflation expectations fuelled by higher measurements, however, halted this development for the time being, as explained in depth in the

report to the government published in this Monetary Bulletin. Further to this, recent statistics suggest that economic activity is still much more robust than is widely claimed, as outlined earlier, leaving it uncertain as to whether growth has dropped below its equilibrium level yet.

In accordance with the agreement between the government and Central Bank of Iceland on March 27, the Bank's interest rate decisions in the next few months will be primarily determined by the target of achieving a rate of inflation in the region of 2½% no later than the end of 2003. The inflation premium on longer government bonds (5-7 years) suggests that this target is still some way from enjoying the confidence of market participants. The Central Bank therefore has less scope than normal for employing interest rate cuts to soften the landing in the near term. If the króna strengthens in the near future and/or longer-term inflation expectations move closer in line with the target, the scope for lowering interest rates will increase. On the other hand, a greater likelihood of a wage, price and exchange rate spiral could force the Central Bank to raise its policy rate in order to keep the monetary stance sufficiently tight, even though this would be accompanied by a harder landing. The only consideration that could restrain the Bank from such intervention is if the stability of the financial system would be endangered by such an interest rate rise, since a financial crisis would eventually cause demand to contract and thereby bring down inflation anyway.

Calls have been made from various quarters for the Central Bank to go on cutting interest rates immediately even though inflation has been on the increase and forecasts suggest that it will not return to within the tolerance limits until the middle of next year at the earliest. Such demands cite the fact that the Icelandic economy has entered a period of contraction which will intensify in the near future. Some critics even allege that the Central Bank is out of touch with the pulse of the economy and that others have a better overview of the economy. This is wrong, since the Bank does strive to keep a close watch on economic developments in Iceland as the Bank's duties require. This topic is dealt with in more depth in Box 2 on p. 18.

In the debate on economic policies there has been a tendency to compare Iceland's monetary policy

with that of the USA and point out how much more reluctant the Central Bank of Iceland is to cut interest rates under what to a large extent appear to be similar conditions. As pointed out in Box 3 on p. 20-21, such a claim is unfounded, since the economic circumstances are actually quite different. A number of points can be identified. In several respects the Icelandic economy has been much more overheated than the US economy, and the imbalances more pronounced. Released statistics indicate that a down turn in the US economy is at an advanced stage and recession may be pending. A depreciation of the dollar is desirable and will have far less inflationary impact than a weakening of the Icelandic króna. Inflation is much lower in the USA too. Moreover, two factors are crucially different. Firstly, the Federal Reserve has much more scope to engineer a soft landing than the Central Bank of Iceland has, since the former's monetary policy enjoys much greater credibility. The Federal Reserve's interest rate cuts do not cause a substantial weakening of the currency and soaring inflation expectations, due to the deeply rooted view that, in the long run, it will keep inflation in check. Secondly, there is a difference in the banks' legally stipulated objectives. The Central Bank of Iceland has price stability as the single main objective of its monetary policy, while the Federal Reserve is equally committed to price stability and low unemployment.

The Central Bank has also been criticised for being insufficiently forwardlooking in its rate decisions, i.e. not taking sufficient account in its monetary policy decisions of the fairly long lag before

interest rates begin to have an effect on the economy. Generally speaking this criticism is unjustified. The Bank is fully aware of lags in monetary policy implementation, which is of course the main reason that inflation forecasts and the Central Bank's assessment of the economic outlook play a key role in its formulation. All the same, a difference of opinion concerning the economic outlook and public discussions of them is perfectly normal.

On closer scrutiny the dispute between the Central Bank and advocates of immediate interest rate cuts appear to revolve around two main issues. One is the assessment of the current situation, which then affects the outlook. As pointed out in this article, the latest statistics suggest that the economy has been more robust recently than even the Central Bank foresaw. Secondly, the argument appears to hinge on whether it is possible and desirable to prevent a recession or at least very low economic growth as is the case at present. In this context it should be pointed out that without a substantial strengthening of the króna, disinflation can only occur through two channels: Firstly, the depreciation of the exchange rate and high wage growth which feeds current inflation could stop or be reversed so that the fuel for further price increases dries up. Secondly, a smaller positive output gap and/or slack in the goods and labour market could ease inflationary pressures. Dis-inflation through the latter channel will occur only if economic growth slows down for a while below its equilibrium rate. It is highly risky to rely solely on the former channel of adjustment.