



# MONETARY BULLETIN

2011 • 3

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The objective of the Central Bank of Iceland's monetary policy is to contribute to general economic well-being in Iceland. The Central Bank does so by promoting price stability, which is its main objective. In the joint declaration by the Government of Iceland and the Central Bank of Iceland on March 27, 2001, it is explained that the Central Bank's aim shall be that annual inflation, measured as the twelve-month increase in the CPI, remains as close to 2½% as possible.

Professional analysis and transparency are important prerequisites for credible monetary policy. In publishing *Monetary Bulletin*, the Central Bank attempts to fulfil these principles. Twice a year, in early May and early November, *Monetary Bulletin* includes an in-depth analysis of economic and monetary developments and prospects. In January and August, an updated forecast is published together with an abbreviated report on economic and monetary developments and prospects. The Monetary Policy Committee of the Central Bank bases its interest rate decisions on this analysis, among other things. The publication of *Monetary Bulletin* also represents a vehicle for the Bank's accountability towards government authorities and the public.

The framework of monetary policy and its implementation and instruments are described further on the Central Bank's website: [www.sedlabanki.is/?PageID=179](http://www.sedlabanki.is/?PageID=179).

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**Icelandic letters:**

ð/Ð (pronounced like th in English this)

þ/Þ (pronounced like th in English think)

In *Monetary Bulletin*, ð is transliterated as d and þ as th in personal names, for consistency with international references, but otherwise the Icelandic letters are retained.

**Symbols:**

- \* Preliminary or estimated data.
- 0 Less than half of the unit used.
- Nil.
- ... Not available.
- . Not applicable.

# Statement of the Monetary Policy Committee

## 17 August 2011

The Monetary Policy Committee (MPC) of the Central Bank of Iceland has decided to raise the Bank's interest rates by 0.25 percentage points. The current account rate will therefore be 3.5%, the maximum rate on 28-day certificates of deposit (CDs) 4.25%, the seven-day collateralised lending rate 4.50%, and the overnight lending rate 5.5%.

The interest rate increase is in accordance with recent MPC statements and reflects the fact that the inflation outlook for the coming two years has deteriorated still further since the Committee's last meeting. Furthermore, newly released data and the updated Central Bank forecast, published in *Monetary Bulletin* today, indicate that domestic demand and employment will grow more strongly in 2011 than was assumed in the last forecast.

The unrest in global financial markets and weaker-than-expected output growth in major industrial countries could in the coming period weigh against the recent strength of domestic demand and have a negative impact on the Icelandic economy over the medium term. The size of this effect is extremely difficult to estimate at this moment, however. In view of the growing momentum in the domestic economy, as is described in the Bank's updated forecast, the risk that a modest interest rate hike at the current juncture will derail the economic recovery is low, as the past few months' steep decline in short-term real interest rates is only reversed to a small degree.

Inflation has risen sharply in the past five months. Headline inflation measured 5% in July, and underlying inflation – defined as CPI inflation excluding the effects of consumption taxes, volatile food items, petrol, public services, and interest expense – was 3.3%, up from 1.2% in January. Higher inflation is due in part to a weak króna and rising house and oil prices. Contractual wage rises will raise inflation still further in the near future, in spite of the recent modest appreciation of the króna. Based on the current exchange rate, the outlook is for inflation to rise well into next year and not return to the inflation target until the latter half of 2013.

Developments in recent months have increased the risk that higher inflation expectations and a weak currency will cause inflation to become entrenched, particularly once economic recovery gains pace. In the worst-case scenario, the expectation of higher inflation, a negative real interest rate, and a narrow risk-adjusted interest rate differential with major trading partners could further undermine the króna and cause a spiral of rising inflation and falling exchange rate, although the amount of spare capacity in the economy should mitigate such a development to some extent.

In order to reduce the risk of such a turn of events, it is necessary to act now to contain inflation and reduce potential pressure on the

króna. This may call for further interest rate hikes. As always, however, monetary policy decisions will depend on recent developments and prospects.

The MPC stands ready to adjust the monetary stance as required to achieve its interim objective of exchange rate stability and ensure that inflation is close to target over the medium term.

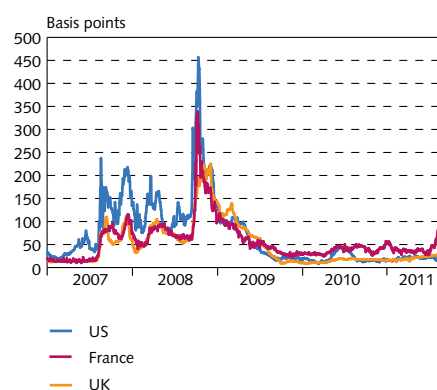
## Real economy more robust, but inflation outlook deteriorates

Uncertainty in international financial markets has escalated sharply in recent weeks, and downside risks for the world economy have increased. Concerns about a new contraction in demand in the US and Europe have increased, although official forecasts do not currently assume that a contraction will materialise. Downside risk has therefore increased, which will have adverse effects on the recovery in Iceland if a contraction should develop. Although reasonable export growth is expected over the next two years, the outlook has deteriorated somewhat since April, when the last Monetary Bulletin was published. The outlook for terms of trade has also worsened; however, this is more than offset by stronger growth in private and public consumption and a stronger recovery of business investment excluding energy-intensive industry, ships and aircraft. Consequently, output growth for 2011 as a whole is now projected at 2.8% instead of the previous 2.3%. Furthermore, the recovery in the labour market appears stronger than previously anticipated. Inflation has risen in the recent term, and much faster than was assumed in the Central Bank's last forecast. The outlook is also for significantly higher inflation in the next two years, with inflation peaking at an average of nearly 7% in Q1/2012. The deterioration of the inflation outlook is due primarily to the unexpectedly hefty pay rises negotiated in the recent wage settlements, larger-than-projected increases in oil and house prices, a weaker exchange rate, rapidly rising inflation expectations, and a swifter turnaround in domestic demand. As before, the continuing spare capacity in the economy is expected to ensure that inflation subsides again once the effects of cost increases abate, with inflation expected to return to target in the latter half of 2013. Just how persistent these cost increases will be is quite uncertain, however. The size of the economic slack is also uncertain, as is its effectiveness in preventing inflation from becoming entrenched.

### The global economy and international trade

- Turmoil has escalated in the global financial markets in recent weeks. Share prices have plunged in most markets, and uncertainty abounds. Investors have fled to safe assets, and risk premia have risen, although they remain significantly below their autumn 2008 peak.
- On 5 August, the rating agency Standard & Poor's decided to downgrade the United States' sovereign credit rating from AAA to AA+, with a negative outlook. This is the first time in history that the US Treasury has not held the highest available credit rating. While it is difficult to determine the impact that the downgrade will have, it is likely to incite further market uncertainty.
- Uncertainty related to high sovereign debt levels in the US and many euro area countries has made investors skittish, and weak growth figures in the US and a number of other industrial countries have exacerbated the situation. Investors fear that major industrial countries' growth will be disappointing in coming quarters.
- So far, the most recent forecasts from the IMF and Consensus Forecasts assume that GDP growth among Iceland's main trading partners will be broadly unchanged from the April *Monetary*

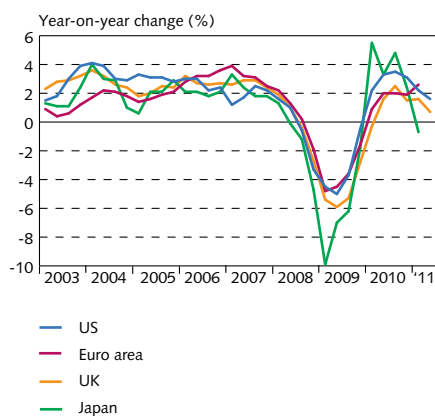
Chart 1  
Difference between interbank rates and government bond yields (TED spread)<sup>1</sup>  
Daily data 2 January 2007 - 12 August 2011



1. The differential is calculated as difference between the three-month interbank rate and three-month treasury yields.  
Sources: Macrobond, Central Bank of Iceland.

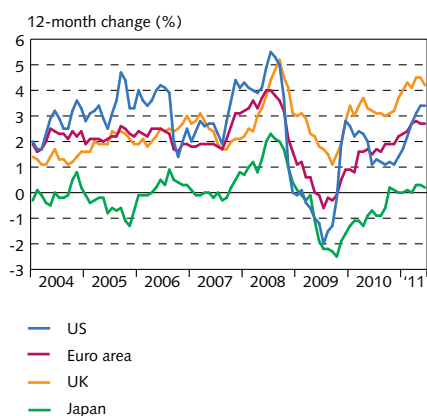
1. The analysis appearing here is based in large part on the Bank's assessment of economic developments, published in April 2011 in *Monetary Bulletin* 2011/2, and on the updated forecast presented here. It is based on data available as of mid-August.

Chart 2  
International growth  
Real GDP growth Q1/2003 - Q2/2011



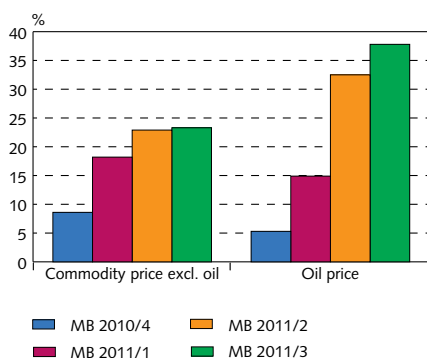
Source: Macrobond.

Chart 3  
Inflation in the US, UK, Japan and euro area  
January 2004 - June 2011



Source: Macrobond.

Chart 4  
Increase in commodity prices in 2011  
according to future prices and specialists forecast



Source: Central Bank of Iceland.

*Bulletin*. It is more likely than before, however, that the growth outlook among Iceland's trading partners will deteriorate in the near future.

- The inflation outlook for Iceland's main trading partners has changed somewhat since April. Inflation continued to rise in the euro area, the US, and the UK in April and May, reaching unexpectedly high levels. Nonetheless, it appears to have peaked in the spring, and in June it either held unchanged or tapered off slightly in the wake of declines in commodity and oil prices.
- Even though global inflation has been driven largely by rising oil and commodity prices, core inflation and inflation expectations have picked up as well in many countries. As a result, a number of central banks have responded by raising interest rates. For example, interest rates have been raised in the Nordic countries in recent months, and in July the European Central Bank raised its base rate by 0.25 percentage points for the second time in 2011. Elsewhere, policy rates have risen most decisively in Asia and South America, where output growth has been strongest.
- Global trade forecasts have changed little in the recent term. The most recent forecasts from the OECD and the IMF are broadly unchanged from previous forecasts, with both organisations projecting strong world trade for 2011 and 2012. The Central Bank's updated forecast, which is broadly unchanged since April, assumes that import growth among Iceland's main trading partners will measure about 5% per year in 2011-2013.
- Major commodity prices continued to rise into the second quarter of the year, peaking in April. They have fallen considerably since then, however, and the assumptions for commodity prices for 2011 as a whole are broadly in line with those underlying the forecast in the last *Monetary Bulletin*. On the other hand, there is the prospect of a more robust rise in crude oil prices than was assumed in April, although prices have yielded somewhat in the recent term, due to mounting pessimism about the global economy. This year's increases in oil and non-oil commodity prices are much larger than was anticipated in late 2010 and early 2011, however.
- On the other hand, the forecast for aluminium and marine product prices is virtually unchanged since April, with price increases projected at 16% for aluminium and 8% in foreign currency for marine products. Terms of trade for goods and services are therefore expected to deteriorate by just over 2% in 2011, whereas the April forecast projected an improvement of ½%. Over the coming two years, however, the outlook for terms of trade is similar to that in April.
- The real exchange rate has fallen steadily since December and, by July, was almost 6% below its November 2010 peak. The depre-

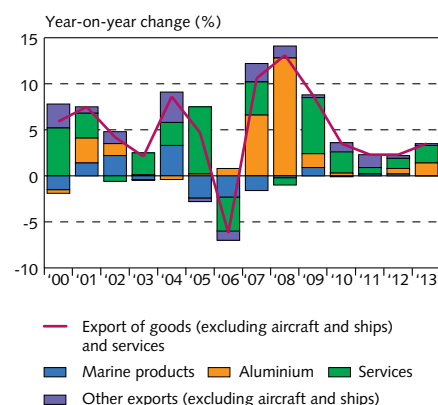
ciation of the króna at the beginning of the year is one of the main causes of the decline in the real exchange rate. As a result, the real exchange rate is still very low in historical context, about 23% below the long-term average.

- Exports of goods and services are expected to grow by 1.9% year-on-year in 2011, while the April forecast indicated an increase of 2.5%. Weaker growth is due primarily to more modest growth in services exports, which contracted in Q1/2011. The forecast for goods and services exports in 2012 is somewhat lower as well. Excluding exports of ships and aircraft, however, the outlook is broadly in line with the April forecast. Exports of goods and services are projected to grow by 3.5% in 2013, somewhat more than was anticipated in April.
- The trade surplus for Q1/2011 shrank considerably year-on-year. The goods surplus continued in Q2 but was smaller than that in Q2/2010. The forecast assumes that the trade surplus will amount to 8.6% of GDP in 2011, some 2 percentage points less than was forecast in April, due in large measure to the prospect of poorer terms of trade.
- The headline current account deficit for the year is therefore somewhat larger than was projected in the last *Monetary Bulletin*. It is estimated at 8.5% of GDP for 2011, whereas the last forecast assumed a deficit of just over 6%. Nonetheless, it is expected to be smaller than the 2010 deficit. The current account surplus excluding deposit money banks (DMBs) in winding-up proceedings will also be smaller, or just under 1% of GDP, whereas the last *Monetary Bulletin* assumed a surplus of 2.4% in 2011. It is expected to remain just under 1% on this measure in 2012, followed by a modest deficit in 2013.

## Domestic financial markets

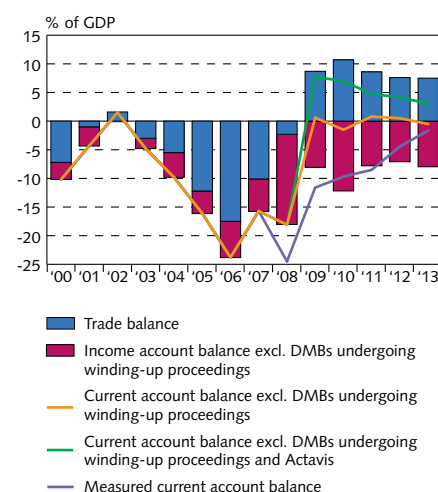
- The Central Bank Monetary Policy Committee (MPC) lowered the Bank's interest rates by 0.25 percentage points concurrent with the publication of the February 2011 *Monetary Bulletin* and then kept them unchanged at the following three rate-setting meetings. Prior to the publication of this *Monetary Bulletin*, the current account rate was 3.25%, the maximum rate on 28-day certificates of deposit (CDs) was 4.0%, the seven-day collateralised lending rate was 4.25%, and the overnight lending rate was 5.25%.
- Forward interest rates imply that market participants expect the MPC to lower interest rates by 0.25 percentage points at the policy meeting preceding the publication of this *Monetary Bulletin*. Furthermore, market participants appear to expect a rate cut of 0.25 percentage points in September, followed by unchanged interest rates through the end of the year. The collateralised lend-

Chart 5  
Export development (excl. ships and aircraft) and its main components 2000-2013<sup>1</sup>



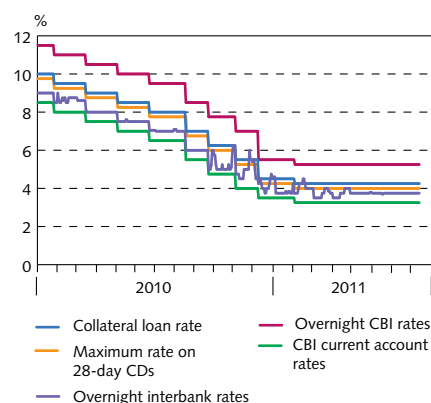
1. Central Bank baseline forecast 2011-2013.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 6  
Current account balance 2000 - 2013<sup>1</sup>



1. Net current transfer is included in the balance on income.  
Central Bank baseline forecast 2011 - 2013.  
Source: Statistics Iceland, Central Bank of Iceland.

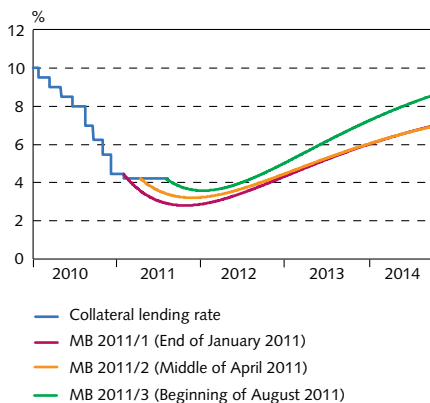
Chart 7  
Central Bank of Iceland interest rates and short-term market interest rates  
Daily data 1 January 2010 - 12 August 2011



Source: Central Bank of Iceland.

Chart 8  
Collateral lending rate and forward market interest rates<sup>1</sup>

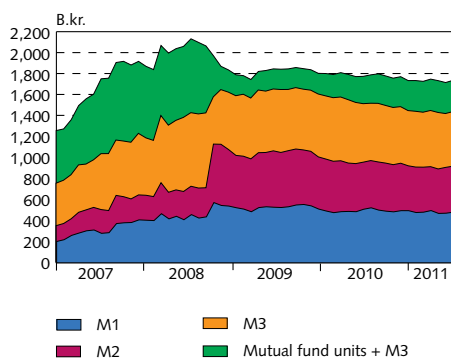
Daily data 1 January 2010 - 30 September 2014



1. The expected collateralised lending rate is compared to forward rates which are calculated from interbank and government bond rates. Source: Central Bank of Iceland.

Chart 9  
Money holdings

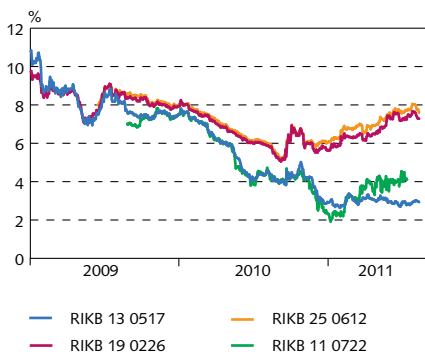
January 2007 - June 2011<sup>1</sup>



1. Data from October 2008 are preliminary. Source: Central Bank of Iceland.

Chart 10  
Long-term nominal Treasury bond yields

Daily data 2 January 2009 - 12 August 2011



Source: Central Bank of Iceland.

ing rate therefore seems to be expected to bottom out at 3.75% later in the year, as opposed to the 3.25% expected before the last *Monetary Bulletin* was published. It should be borne in mind, however, that extracting market expectations from the yield curve is particularly difficult at this juncture.

- Even though the Bank's nominal interest rates have been unchanged since February, the real rate has declined significantly. Based on the twelve-month rise in the consumer price index, the Bank's real interest rate is now -1.3%, after having declined by 2½ percentage points since April. Based on various measures of inflation and inflation expectations, the Bank's real interest rate averages -1.2%, a percentage point lower than in April and just over 3 percentage points lower than prior to the publication of *Monetary Bulletin* in early February.
- The Central Bank's base money has contracted by about 5% since the last *Monetary Bulletin* appeared. Nonetheless, the deposit institutions' liquidity position remains ample due to maturing Treasury bonds and the tax refunds disbursed at end-July, as well as the due date for value-added tax in early August. Broad money (M3) has contracted by about 14% since peaking in September 2009, although a slight increase has been discernible in recent months. There is still no measurable turnaround in domestic lending, however, which was down 4.1% year-on-year in June.
- Short-term interbank market rates have held broadly unchanged since the publication of the last *Monetary Bulletin*, fluctuating between 3.5% and 4.0%. Longer nominal interest rates have risen by approximately 1 percentage point over the same period, however. Indexed interest rates have risen as well, but by a smaller margin, only 0.1-0.3 percentage points.
- Because of the rise in domestic long-term rates, the long-term spread against German Treasury bonds has widened by 2 percentage points, to around 5%, since the April issue of *Monetary Bulletin*. The spread on short-term government bonds has changed little, however.
- The mounting unrest in the global financial markets has raised sovereign CDS spreads around the world. Iceland's CDS spread, however, is roughly the same as it was when *Monetary Bulletin* was published in April, around 2.6 percentage points. Iceland's sovereign credit rating has also withstood the turmoil. The risk premium as measured by the CDS spread remains below the premium discernible from the recent Treasury bond issue in the US, which resulted in a spread of 3.2 percentage points over interbank rates. This issue was the Treasury's first in the international financial market since before the financial crisis struck. It was well received by global investors, and demand was about twice the size of the issue.



- The króna has been stable against the euro but has fallen by almost 1% in trade-weighted terms since the publication of the April *Monetary Bulletin*. The króna has weakened by roughly 6% against the euro since the beginning of 2011, due primarily to the depreciation in the first three months of the year. The depreciation in spite of a surplus on goods and services trade can probably be attributed to several factors. Domestic firms seem to be paying down foreign debt which can weaken the króna in the short run despite being beneficial in the long run. In addition, terms of trade deteriorated somewhat in the first half of the year, on the heels of steep rises in commodity and oil prices. Moreover, the risk-adjusted interest rate differential is small. The Central Bank's regular purchases of foreign currency may have exerted some downward pressure on the currency. Finally, small currencies are generally vulnerable to increased uncertainty and risk aversion in the global financial markets, although the capital controls provide a shelter for the króna.

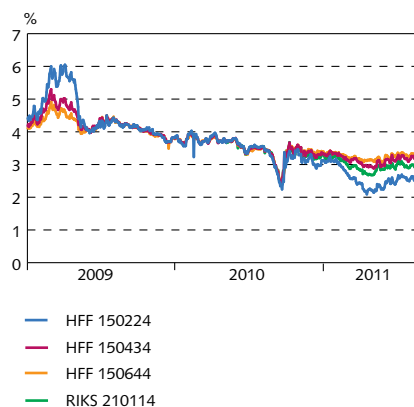
- The offshore EURISK exchange rate appreciated slightly, from 271 kr. against the euro to 250 kr. when the Central Bank published its new capital account liberalisation strategy at the end of March 2011. The offshore exchange rate then held stable before rising again to a peak of 219 kr. to the euro in May, when the Central Bank called for offers to sell Icelandic krónur in connection with the liberalisation strategy. It has fallen again in August, however, in limited trading, and measured 245 kr. to the euro prior to the publication of this *Monetary Bulletin*.

- The onshore EURISK exchange rate was 164 kr. to the euro in Q2/2011, about 2% lower than was assumed in the Bank's last forecast. According to the current forecast, the króna will remain relatively stable throughout the forecast horizon and, at the end of the horizon, will be about 2½% lower than was assumed in April.

- New lending by the Housing Financing Fund was unchanged year-on-year in the first seven months of 2011, although the total amount increased by 17%. Pension fund lending rose slightly in the first two quarters of 2011. The number of residential purchase agreements concluded in the greater Reykjavík area rose by nearly 71% over the same period. Figures from Registers Iceland imply that residential house prices in the capital area have risen by over 6% since the beginning of the year. According to the Bank's baseline forecast, house prices have bottomed out; however, no substantial rises are expected during the forecast horizon. It is assumed that real house prices will remain 35% below the levels at the end of 2007, the pre-crisis peak. In spite of this significant drop, real prices are close to the long-term average.

- According to the Director of Internal Revenue, Icelanders' debt declined marginally year-on-year in 2010. Mortgage debt changed very little; thus the reduction is due to other debt. As of end-June, just over 2,600 households' applications for

Chart 11  
Indexed long-term bond yields  
Daily data 2 January 2009 - 12 August 2011



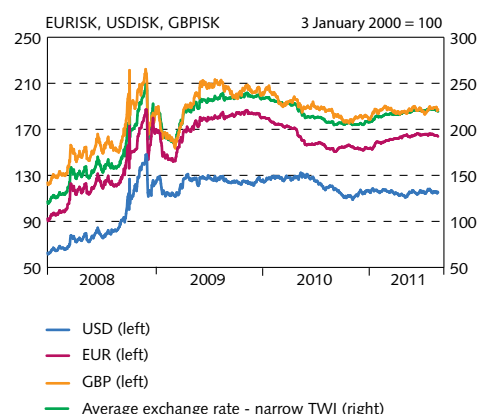
Source: Central Bank of Iceland.

Chart 12  
CDS Iceland  
Daily data 29 March 2007 - 12 August 2011



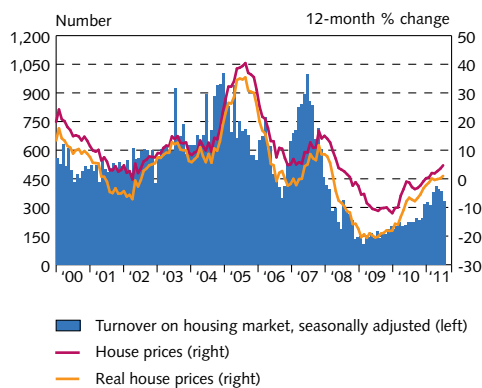
Source: Bloomberg.

Chart 13  
Exchange rate of the króna  
Daily data 3 January 2008 - 12 August 2011



Source: Central Bank of Iceland.

Chart 14  
Housing market prices and turnover  
in greater Reykjavík<sup>1</sup>  
January 2000 - July 2011



1. Turnover is based on the number of purchase agreements on the date of purchase.

Sources: Registers Iceland, Central Bank of Iceland.

mortgage write-down to a loan-to-value ratio of 110% had been approved, and a further 8,100 applications were awaiting processing. Uncertainty about household balance sheets has subsided. Increased real estate market turnover should also improve households' financial conditions, although they nonetheless remain difficult. Firms' financial conditions are tight as well, although the recent Supreme Court judgment on the illegality of multi-currency loans to companies should reduce the uncertainty regarding repayment of such loans and may ease firms' debt service burden. At the end of May, the three large commercial banks had offered debt mitigation to almost 3,500 firms, some 60% of which accepted. At that time, an estimated 3,250 more firms were considered to need debt mitigation assistance.

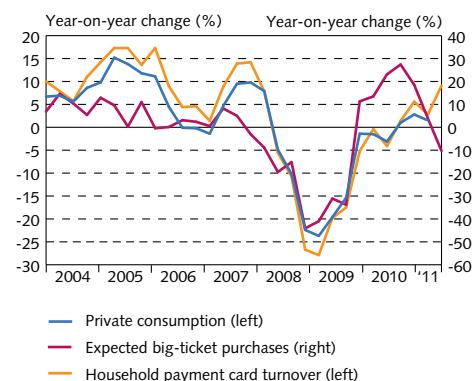
## Domestic economy and inflation

- In June, Statistics Iceland published its first national accounts estimates for Q1/2011. Year-on-year real GDP growth measured 3.4%, the highest annual growth rate since Q1/2008. Seasonally adjusted quarter-on-quarter growth measured 2%. Output growth can be attributed to a 5.5% increase in domestic demand, but the contribution from net trade was negative in the amount of 1.5% of GDP.
- As has been explained in previous issues of *Monetary Bulletin*, the Central Bank has assumed a somewhat higher level of business investment in 2010 than is implied by the preliminary Statistics Iceland figures. These estimates indicate that 2010 GDP was somewhat greater than is assumed in Statistics Iceland's preliminary figures and that year-on-year GDP growth in Q1/2011 was slightly less than according to Statistics Iceland (3.1% as opposed to 3.4%).
- This Q1 growth rate of more than 3% was considerably stronger than that forecast in the April *Monetary Bulletin*, which projected output growth at 0.8% year-on-year. At first perusal, the forecasting discrepancy emerges mostly in national expenditure, where the difference is greatest in changes in inventories, as inventory accumulation was unusually strong during the quarter. Inventories in the national accounts data consist of export products not yet exported from the country, plus stocks of imported petroleum products. To a large extent, this also explains the overestimation of exports in the April forecast. When this has been taken into account, it can be seen that the contraction in public consumption was overestimated and imports were somewhat less than forecast. Offsetting this, however, investment was weaker than according to the April forecast. As is always the case, it must be borne in mind that preliminary figures tend to underestimate the investment level.
- Private consumption rose by 1.5% in Q1, in line with the Bank's April forecast of 1.3% growth year-on-year. The outlook is for

somewhat stronger growth in Q2 than previously assumed. Transitory factors such as one-off payments related to wage settlements and extraordinary mortgage interest allowances seem to have had a stronger effect than previously estimated. In addition, indicators suggest that employment grew more during the quarter than according to the Bank's April forecast, raising households' disposable income. Household wealth also grew faster than forecast, due to steeper rise in house prices.

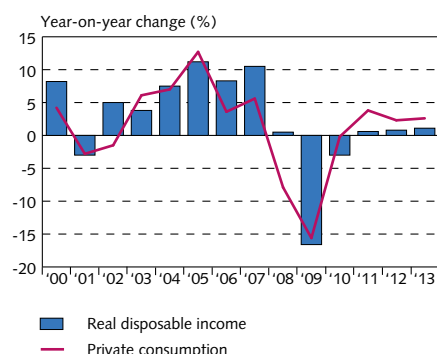
- In real terms, household payment card turnover in domestic retail stores and abroad rose by over 9% year-on-year in Q2. It appears as though the rise was concentrated in domestic retail stores, as is evidenced, for example, by a spurt in turnover among electronics and furniture stores. The updated forecast assumes that private consumption rose by nearly 7% year-on-year in Q2, the equivalent of a seasonally adjusted quarter-on-quarter increase of just over 2%. This surge in private consumption reflects transitory factors to a degree and can be expected to subside in the latter half of the year. It can also be assumed that, as the year progresses, rising inflation will cut into the increase in disposable income provided for by the recent wage settlements. The results of a survey carried out by Capacent Gallup in June indicate, for example, that households intend to cut back on big-ticket purchases in the latter half of the year. On the whole, private consumption is forecast to rise by 3.8% this year, roughly a percentage point more than according to the April forecast.
- Although the current forecast assumes more robust growth in private consumption in 2011, it is assumed that private consumption as a share of GDP will remain very low in historical context, or about 51%. The updated forecast assumes that the consumption share will remain low throughout the forecast horizon. Private consumption is forecast to grow by 2½% per year over the next two years, roughly ½ a percentage point per year less than was forecast in April.
- The statement issued by the Government in connection with the recent wage settlements will call for considerable expenditures not allowed for in the National Budget. In the absence of countervailing measures, Government expenditures are expected to exceed the budget by about 12 b.kr. The ceiling imposed on nominal expenditure over the next two years will therefore not hold unless changes are made. Furthermore, it is clear that, without further austerity measures related to the 2012 budget, it will be more difficult to reach the target of achieving an overall fiscal surplus in 2013.
- Nominal public consumption has remained unchanged since Q4/2008; however, it is expected to rise once again this year, primarily due to contractually agreed rises in nominal public sector wages. In real terms, public consumption is expected to continue

Chart 15  
Private consumption, expected big-ticket purchases and payment card turnover  
Q1/2004 - Q2/2011<sup>1</sup>



1. Figures for private consumption are only available until Q1/2011. Sources: Capacent Gallup, Statistics Iceland, Central Bank of Iceland.

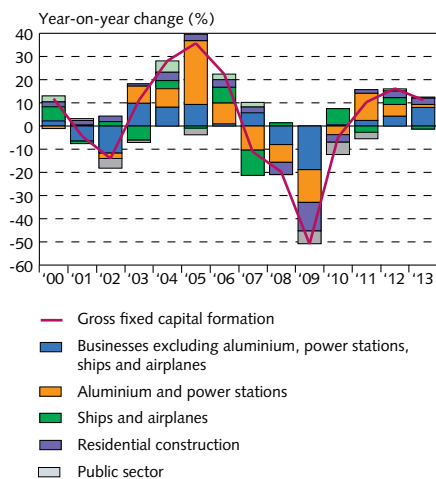
Chart 16  
Private consumption and real disposable income 2000 - 2013<sup>1</sup>



1. Central Bank baseline forecast 2011-2013. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 17

Gross fixed capital formation and contributions of its main components 2000-2013<sup>1</sup>



1. Central Bank baseline forecast 2011-2013. Sources: Statistics Iceland, Central Bank of Iceland.

contracting in 2011 and 2012, but by less than according to the Bank's last forecast.

- After last year's contraction, it is estimated that investment in energy-intensive industry and related power procurement will increase by 55% in real terms in 2011. The current forecast assumes that investment in energy-intensive industry will be slightly less throughout the forecast horizon than according to the April forecast. Some of the construction of the planned aluminium smelter at Helgúvík will be postponed beyond the forecast horizon, and investment carried out by energy company Orkuveita Reykjavíkur will be less as well. The expansion of the Becromal electrolytic capacitor plant will somewhat offset the slight decline in investment during the forecast horizon, however.

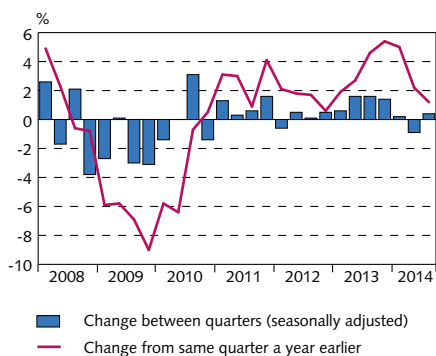
- A survey of planned investment among 114 firms, carried out by the Central Bank in the first half of the year, suggests that business investment apart from energy-intensive industry and ships and aircraft will be stronger in 2011 than in the April forecast.<sup>2</sup> Because this year's investment in ships and aircraft will be less than was projected in April, and because of delays in projects related to energy-intensive industry, overall business investment will be somewhat weaker than according to the April forecast. The updated forecast assumes 18.1% growth this year, whereas the April forecast allowed for an estimated 24.4%. Over the next two years, business investment growth is expected to be broadly in line with the April forecast, even though the investment level will be lower.

- Gross capital formation is estimated to increase by just over 10% this year. Growth will be concentrated in business and residential investment, as public investment is expected to contract by over 14%. Based on the statement issued by the Government in connection with the wage settlements, it can be assumed, however, that public investment will begin to grow again in 2012, putting an end to a three-year contraction. The forecast assumes that gross capital formation will increase by over 16% in 2012 and 11% in 2013. Growth is expected in all components of investment in both years, even though the lion's share of the increase will be due to business investment.

- Based on the Central Bank's estimate of investment in 2010, seasonally adjusted quarter-on-quarter output growth amounted to 1.3% in Q1, whereas the last forecast indicated a slight contraction. Output is expected to grow by a modest 0.3% in Q2, which corresponds to 3% growth year-on-year. For 2011 as a whole, GDP growth is forecast at 2.8%, 0.5 percentage points more than was assumed in April, due primarily to stronger private and

Chart 18

Gross domestic product  
Q1/2008 - Q3/2014<sup>1</sup>



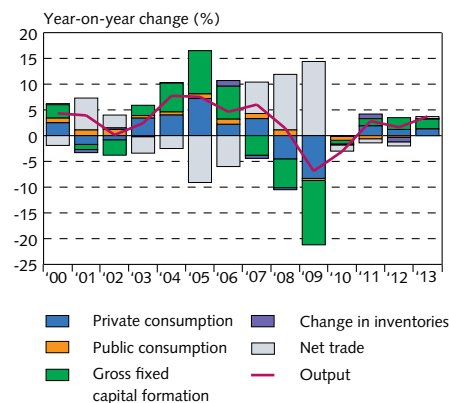
1. Central bank baseline forecast Q2/2011 - Q3/2014. Sources: Statistics Iceland, Central Bank of Iceland.

2. The investment expenses of these 114 companies, plus 13 firms engaged in energy-intensive manufacturing and energy production, account for nearly two-thirds of total business investment for the year 2010.

public consumption, and stronger business investment excluding energy-intensive industry, ships, and aircraft.

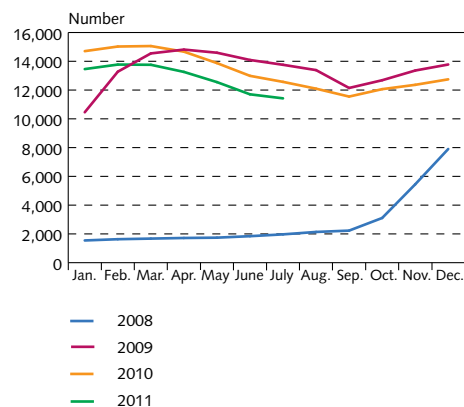
- The forecast assumes 1.6% GDP growth in 2012, which is less than was assumed in April. The downward adjustment is due mainly to a more front-loaded private consumption path and delays in projects related to energy-intensive industry. Instead, output is expected to grow by 3.7% for 2013, about a percentage point higher than according to the April forecast. Growth is driven by rising domestic demand, particularly private consumption and business investment.
- The estimate of spare capacity during the forecast horizon is broadly in line with the April forecast. The Bank's forecast is based on the assumption that potential output will grow modestly over the years to come, in line with the experience of other countries in the wake of a serious financial crisis. If potential output grows more rapidly, the economy can grow faster without causing inflationary pressures. If the loss in potential output in the wake of the crisis proves greater than is assumed in the Bank's forecast, the slack will be correspondingly less, and underlying wage and inflationary pressures will be greater.
- The recent Statistics Iceland labour market survey suggests that labour demand is on the rise again. In Q2, the number of persons in the labour market rose year-on-year, as did the average number of hours worked. The number of full-time workers rose, and the number of part-time workers fell for the second consecutive quarter. This indicates that firms are up to now responding to increased demand by utilising previously unused resources instead of hiring new employees. Thus the total number of hours worked rose by about 1% year-on-year. This is the first time since Q3/2008 that total hours worked have risen year-on-year, with the exception of a 1.1% increase in Q2/2010. That increase is attributable in large part, however, to a sharp rise in the number of employed persons in the 55-74 age group, which is unusual and most likely represent a sampling error, as has been discussed previously in *Monetary Bulletin*. It is likely that the rise in the number of hours worked was smaller in Q2/2010 than the survey indicated, which could mean that the current increase is greater than Statistics Iceland figures show.
- So far in 2011, developments in the number of unemployed persons have been in line with developments in 2010, although the jobless figures are lower, reflecting the fact that unemployment in 2011 year-to-date is almost a full percentage point lower than at the same time a year ago. Seasonally adjusted unemployment has remained unchanged at 7% since May. Unemployment turned out considerably lower in Q2 than according to the Bank's April forecast. There are a number of reasons for this difference. First, it was assumed that the restructuring of the financial posi-

Chart 19  
Output growth and contribution of underlying components 2000-2013<sup>1</sup>



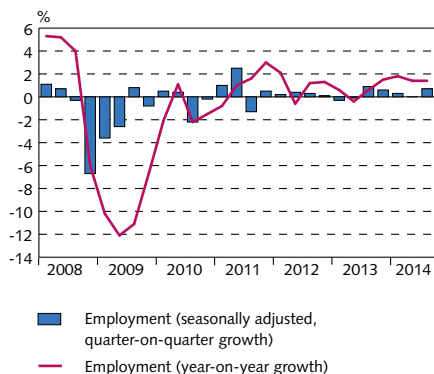
1. Central Bank baseline forecast 2011-2013.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 20  
Average number of unemployed  
January 2008 - July 2011



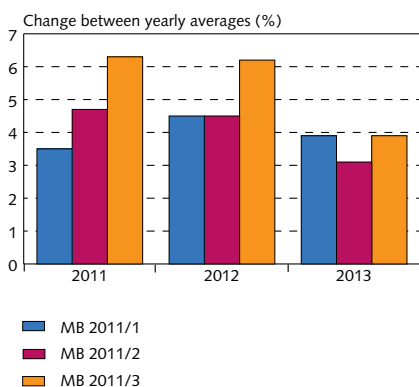
Source: Directorate of Labour.

Chart 21  
Employment  
Q1/2008 - Q3/2014<sup>1</sup>



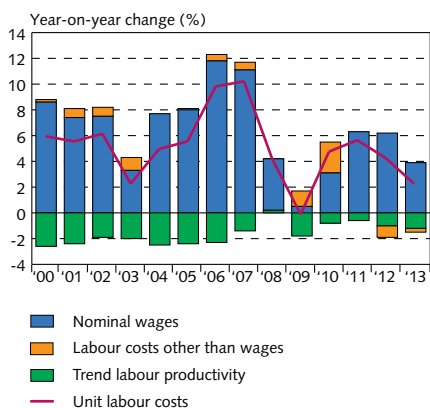
1. Central Bank baseline forecast Q2/2011 - Q3/2014.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 22  
Assumptions on wage increases in different editions of *Monetary Bulletin*



Source: Central Bank of Iceland.

Chart 23  
Unit labour costs and contributions of underlying components 2000-2013<sup>1</sup>



1. Labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2011-2013.  
Sources: Statistics Iceland, Central Bank of Iceland.

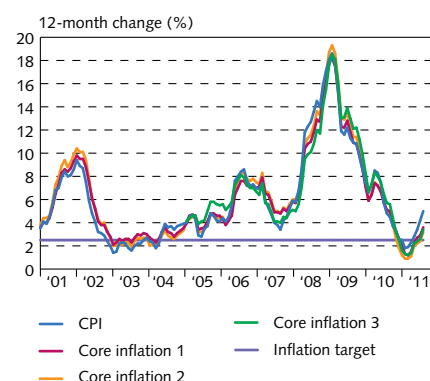
tion of small and medium-sized firms would be complete by the beginning of summer, consistent with the agreement between the business sector, financial institutions, and the Government. It was assumed that corporate restructuring would trigger a short-term spurt in unemployment, although it would strengthen the long-run employment outlook. Corporate restructuring has proceeded more slowly than expected; furthermore, it appears as though firms do not consider it necessary to shed as many jobs as was assumed when the forecast was prepared. Moreover, it was assumed that firms would respond to sharply rising wage costs by laying off staff or reducing hours, but most of the cost increase seems to have been passed through to prices.

- Although the Capacent Gallup corporate sentiment survey, carried out among Iceland's 400 largest companies in May and June, indicates that companies wishing to lay off staff in the next six months outnumber those wishing to recruit, the employment outlook has improved since April. It is assumed that unemployment will rise slightly over the winter months and average 7% for the year as a whole, or ½ a percentage point less than according to the last forecast. However, it is projected to fall back to about 4½% by the end of the forecast horizon, somewhat higher than was forecast in April.
- The results of the Statistics Iceland labour market survey indicate that employment increased by 1% year-on-year in Q2, whereas the last forecast assumed a contraction of just over 3%. The turnaround in the labour market therefore appears to be sharper than previously projected; however, it should be borne in mind that such survey results are always subject to considerable sampling uncertainty. Employment is now expected to rise by 1.2% year-on-year in 2011, whereas the April forecast assumed a contraction of 0.7%. Moderate growth is still expected during the forecast horizon.
- On 5 May, new contractual wage agreements were signed by the national member organisations and the largest unions within the Icelandic Federation of Labour and the Confederation of Icelandic Employers. Since that time, most public sector unions have signed wage agreements that are virtually identical to the agreements signed on 5 May. The wage costs associated with the settlements are considerably higher than was assumed in the April forecast. Wages are now expected to rise by an average of 5.3% per year for the duration of the contracts, while the previous forecast assumed a rise of just over 4%. The increase is especially large this year, averaging 6.3%, whereas the April forecast assumed a 4.7% increase. The payroll tax cut planned for 2012 will somewhat offset the larger wage rises in the coming two years. Because nominal wage hikes will outpace inflation during the forecast horizon, real wages will rise as well, by about 1½% per year throughout the forecast horizon.

- The outlook is for unit labour costs to rise far more during the forecast horizon than according to the last forecast. They are expected to increase by about 5.7% in 2011, some 2 percentage points more than was projected in April, and by 4.3% in 2012, about 1 percentage point more than in the April forecast. In the latter half of the forecast horizon, however, it is assumed that the increase in unit labour costs will be in line with the Central Bank's inflation target.
- Inflation measured 3.5% in Q2/2011, 0.8 percentage points higher than according to the April forecast, after rising from 2.0% in Q1.<sup>3</sup> The rapid rise in inflation in Q2 is due in large part to increases in the housing component of the CPI, increases in the price of private and public services and various imported goods, in part due to the depreciation of the króna. In addition, the recent rise in global oil and commodity prices has made a continuing impact on domestic goods and services prices.
- The CPI rose by 0.1% in July and twelve-month inflation measured 5.0%, as opposed to 2.3% in March, prior to the publication of the last *Monetary Bulletin*. Excluding indirect tax effects, inflation measured 4.8% in July.<sup>4</sup> Core inflation (inflation excluding the effects of taxes, volatile food items, petrol, public services, and interest expenses) measured 3.3% year-on-year in July, up from 1.3% in March. Underlying inflation has therefore risen rapidly in recent months, although the increase is somewhat less than the rise in headline inflation. The main drivers of the July increase in the CPI were cost increases due to housing and price hikes for private services, food, and petrol, although these were offset by the effects of summer sales.
- Several factors may explain the unexpected recent surge in inflation. Wage rises in the wake of the recent wage settlements were much larger than anticipated. The exchange rate of the króna has also been lower in recent months than was envisaged in April. Inflationary pressures have therefore been generally stronger than previously assumed, and the real estate market has continued to recover with house prices rising markedly. In addition, the impact of global price hikes has been greater than expected.
- The breakeven inflation rate in the bond market gives an indication of developments in inflation expectations, although it also reflects inflation and liquidity risk premia. The breakeven inflation rate has risen considerably since the last *Monetary Bulletin* was published, indicating that five-year inflation expectations average just over 4%, opposed to approximately 3% in mid-April. The longer-term breakeven inflation rate (five-year average inflation five years ahead, reflecting expected average inflation in 2016-

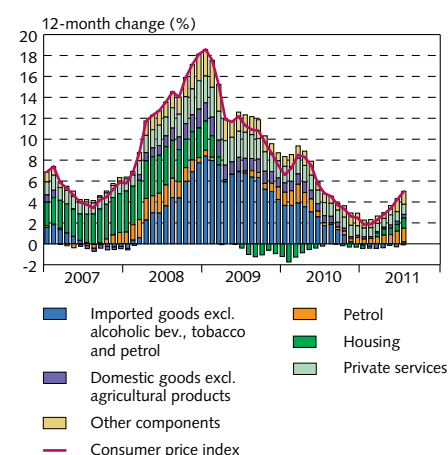
3. If broadcasting fees had not been excluded from the CPI in January 2011, inflation would have measured 2.4% in Q1 and 3.9% in Q2.  
 4. Because of adverse base effects in July, twelve-month inflation rose sharply month-on-month, about 0.8 percentage points, as the CPI declined by 0.7% in July 2010.

Chart 24  
 Inflation  
 January 2001 - July 2011<sup>1</sup>



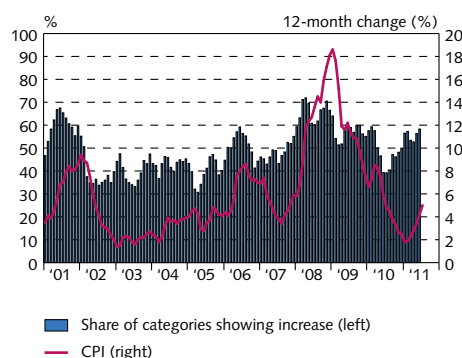
1. The core indices are compiled on the same basis as the CPI, with Core Index 1 excluding prices of agricultural products and petrol, and Core Index 2 excluding prices of public services as well. Core Index 3 also excludes the effect of changes in real rates.  
 Sources: Statistics Iceland, Central Bank of Iceland.

Chart 25  
 Components of CPI inflation  
 Contribution to inflation January 2007 - July 2011



Source: Statistics Iceland.

Chart 26  
 Distribution of price increases in the CPI<sup>1</sup>  
 January 2001 - July 2011

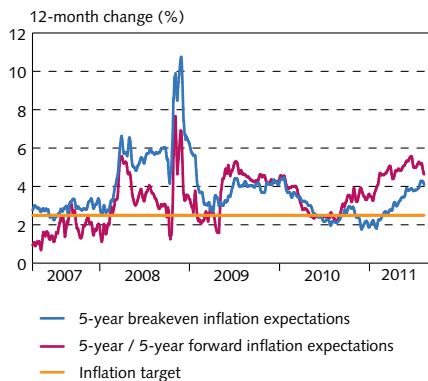


1. The percentage of goods categories that increase in price is a 3-month centered average.  
 Source: Statistics Iceland.

Chart 27

Inflation expectations according to the difference between nominal and indexed interest rates<sup>1</sup>

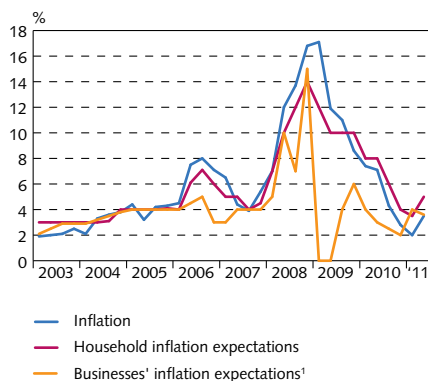
Daily data 2 April 2007 - 12 August 2011



1. Breakeven inflation expectations are calculated from yield spreads between nominal and index-linked Government and Government-backed bonds. (5-day moving averages).  
Source: Central Bank of Iceland.

Chart 28

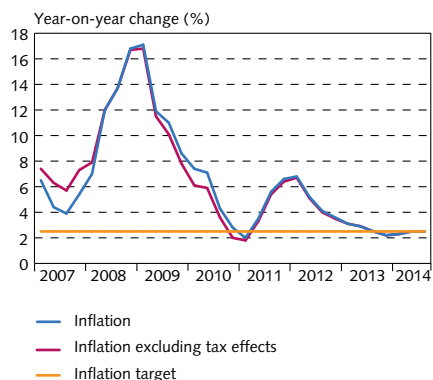
Inflation expectations of businesses and households one year ahead and current inflation



1. Businesses' inflation expectations were measured on an irregular basis before 2006/Q3 so until then measurements are interpolated.  
Sources: Capacent Gallup, Statistics Iceland.

Chart 29

Inflation including and excluding tax effects  
Q1/2007 - Q3/2014<sup>1</sup>



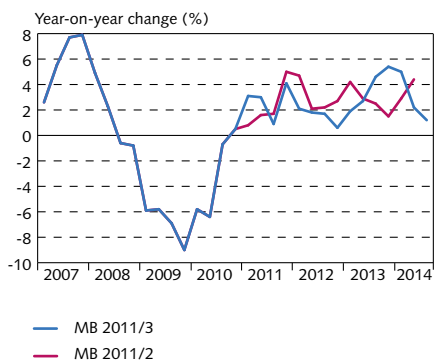
1. Central Bank baseline forecast Q3/2011 - Q3/2014.  
Sources: Statistics Iceland, Central Bank of Iceland.

2021) has risen as well, and is now just under 5%. The rise in risk premia probably explains a part of the increase. It is clear, however, that long-term inflation expectations have been sensitive to the rapid rise in current inflation and to the deteriorating short- and medium-term inflation outlook.

- Household inflation expectations have also increased considerably, according to the survey conducted by Capacent Gallup in June. Inflation expectations one year ahead measured 5%, 1½ percentage point higher than in the last survey, carried out in March. Expectations concerning inflation two years ahead had risen by 1 percentage point since the last survey, also measuring 5%. Household inflation expectations have therefore moved farther from the inflation target once again. Corporate inflation expectations, however, have subsided slightly between the last two surveys, according to the survey conducted by Capacent Gallup in May and June. The median firm's inflation expectations one year ahead measured 3.6%, down 0.4 percentage points from the previous survey, carried out in March.
- The short- and medium-term inflation outlook has deteriorated sharply since the last *Monetary Bulletin*. Inflation is likely to measure 5.6% in Q3, whereas it was projected at 3.3% in the last forecast. It is expected to peak at 6.8% in Q1/2012. Based on assumptions concerning developments in commodity and oil prices, a relatively stable exchange rate, and continued slack in the domestic economy, inflation is expected to begin to taper off again late in 2012 and reach the inflation target in the latter half of 2013, about a year later than according to the April forecast.
- The poorer inflation outlook is attributable in large part to the hefty pay hikes associated with the recent wage settlements and to higher inflation expectations. As has been stated previously, the effects of increased wage pressures have already begun to emerge. Oil prices are also expected to rise more in 2011 than was assumed in the last forecast. There is the risk that the recent rapid rise in inflation and the increases in wages and inflation expectations will cause inflation to become entrenched; furthermore, the domestic economy – private consumption in particular – is expected to be somewhat more resilient than previously assumed during the year.
- The inflation outlook is extremely uncertain at present. If the effects of wage rises prove even stronger than is assumed, inflationary pressures will turn out greater. The same is true if house prices continue to rise at a pace similar to that in recent months. As usual, the exchange rate of the króna is a major source of uncertainty, and commodity and oil prices are volatile at present, due in part to financial market unrest and a weak global economy. As a consequence, it is highly likely that inflation will be more persistent than has been assumed in the recent past.

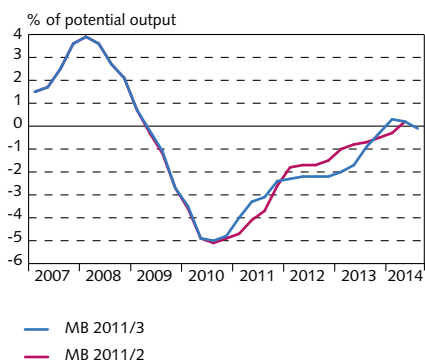


Chart 30  
Output growth - comparison with MB 2011/2



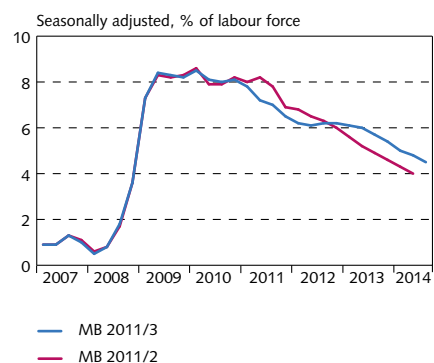
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 31  
Output gap - comparison with MB 2011/2



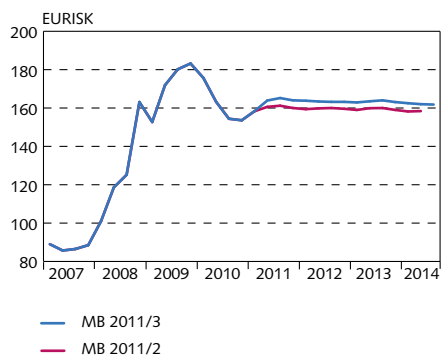
Source: Central Bank of Iceland.

Chart 32  
Unemployment - comparison with MB 2011/2



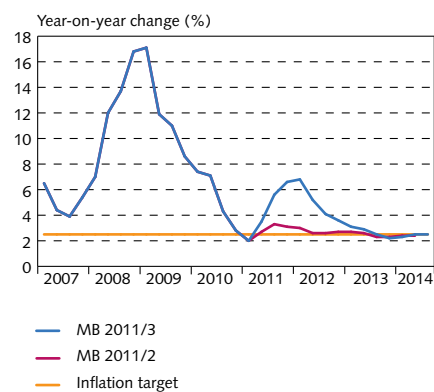
Sources: Directorate of Labour, Central Bank of Iceland.

Chart 33  
The ISK exchange rate against the euro - comparison with MB 2011/2



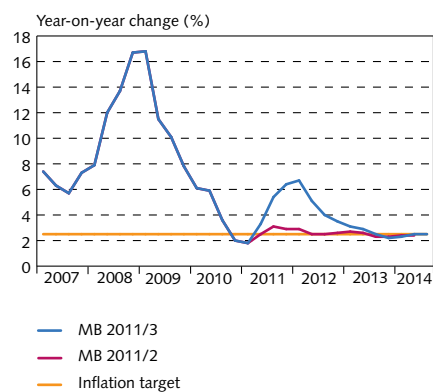
Source: Central Bank of Iceland.

Chart 34  
Inflation - comparison with MB 2011/2



Sources: Statistics Iceland, Central Bank of Iceland.

Chart 35  
Inflation excluding tax effects - comparison with MB 2011/2



Sources: Statistics Iceland, Central Bank of Iceland.

## Appendix 1

### Baseline macroeconomic and inflation forecast 2011/3

Table 1 Macroeconomic forecast<sup>1</sup>

	In b.kr.	Change from prior year (%) unless otherwise specified			
		Forecast			
	2010	2010	2011	2012	2013
<b>GDP and its main components</b>					
Private consumption	782.6	-0.2 (-0.2)	3.8 (2.7)	2.3 (3.0)	2.6 (3.2)
Public consumption	399	-3.2 (-3.2)	-2.2 (-4.1)	-1.4 (-2.8)	0.1 (0.4)
Gross capital formation	205.9	-4.9 (-4.9)	10.3 (15.8)	16.2 (16.6)	11.2 (8.5)
Business investment	129.6	6.5 (6.5)	18.1 (24.4)	18.3 (20.6)	11.8 (8.1)
Residential investment	35.5	-17.0 (-17.0)	9.2 (18.6)	16.6 (14.0)	15.3 (15.7)
Public investment	40.8	-22.4 (-22.4)	-14.3 (-14.7)	5.7 (0.0)	3.2 (1.8)
National expenditure	1,384.1	-2.1 (-2.1)	4.0 (2.9)	2.6 (3.8)	3.6 (3.5)
Exports of goods and services	869.3	1.1 (1.1)	1.9 (2.5)	1.5 (2.4)	3.5 (2.9)
Imports of goods and services	706.9	3.9 (3.9)	4.2 (3.7)	3.4 (3.9)	3.2 (4.4)
Contribution of net trade to GDP growth	-	-1.2 (-1.2)	-0.8 (-0.3)	-0.8 (-0.5)	0.4 (-0.4)
Gross domestic product	1,546.5	-3.1 (-3.1)	2.8 (2.3)	1.6 (2.9)	3.7 (2.7)
<b>Other key figures</b>					
GDP at the price level of each year (in b.kr.)		1,547 (1,547)	1,649 (1,630)	1,764 (1,738)	1,877 (1,824)
Trade account balance (% of GDP)		10.5 (10.5)	8.6 (10.5)	7.6 (10.1)	7.5 (9.2)
Current account balance (% of GDP)		-9.8 (-7.8)	-8.5 (-6.2)	-4.4 (-4.1)	-1.7 (-6.0)
Current account balance excl. DMBs undergoing winding-up proceedings (% of GDP)		-1.0 (1.7)	0.8 (2.4)	0.5 (3.3)	-0.5 (0.8)
Output gap (% of potential output)		-4.8 (-4.9)	-2.4 (-2.6)	-2.2 (-1.5)	-0.3 (-0.5)
Unit labour costs (change in average year-on-year)		4.8 (4.7)	5.7 (3.5)	4.3 (3.2)	2.3 (2.2)
Real disposable income (change in average year-on-year)		-3.0 (-3.6)	0.6 (0.3)	0.8 (0.6)	1.1 (1.2)
Unemployment (% of labour force)		8.1 (8.1)	7.1 (7.7)	6.2 (6.4)	5.8 (5.1)
EURISK exchange rate		161.7 (161.7)	162.9 (160.0)	163.4 (159.7)	163.4 (159.5)

1. Figures in parentheses from forecast in *Monetary Bulletin* 2011/2.

Table 2 Inflation forecast (%)<sup>1</sup>

Quarter	Inflation (change year-on-year)	Underlying inflation (excl. tax effects) (change year-on-year)	
		Measured value	Inflation (annualised quarter-on-quarter change)
2010:2	7.1 (7.1)	5.9 (5.9)	4.7 (4.7)
2010:3	4.3 (4.3)	3.6 (3.6)	-2.3 (-2.3)
2010:4	2.8 (2.8)	2.0 (2.0)	4.0 (4.0)
2011:1	2.0 (2.0)	1.8 (1.8)	1.8 (1.8)
2011:2	3.5 (2.7)	3.3 (2.5)	10.9 (7.5)
		Forecasted value	
2011:3	5.6 (3.3)	5.4 (3.1)	6.0 (0.1)
2011:4	6.6 (3.1)	6.4 (2.9)	8.0 (3.4)
2012:1	6.8 (3.0)	6.7 (2.9)	2.4 (1.4)
2012:2	5.2 (2.6)	5.1 (2.5)	4.6 (5.7)
2012:3	4.1 (2.6)	4.0 (2.5)	1.5 (-0.1)
2012:4	3.6 (2.7)	3.5 (2.6)	5.8 (3.8)
2013:1	3.1 (2.7)	3.1 (2.7)	0.4 (1.4)
2013:2	2.9 (2.6)	2.9 (2.6)	4.0 (5.3)
2013:3	2.5 (2.3)	2.5 (2.3)	-0.1 (-1.1)
2013:4	2.2 (2.3)	2.2 (2.3)	4.6 (3.7)
2014:1	2.3 (2.4)	2.3 (2.4)	0.9 (1.7)
2014:2	2.5 (2.4)	2.5 (2.4)	4.7 (5.4)
2014:3	2.5	2.5	-0.2
<b>Annual average</b>	<b>Inflation</b>	<b>Underlying inflation (excluding tax effects)</b>	
2010	5.4 (5.4)	4.4 (4.4)	
2011	4.4 (2.8)	4.2 (2.6)	
2012	4.9 (2.7)	4.8 (2.6)	
2013	2.7 (2.5)	2.7 (2.5)	

1. Figures in parentheses from forecast in *Monetary Bulletin* 2011/2.