Economic and monetary developments and prospects[1]

Weaker outlook and greater uncertainty

Although the Central Bank's real interest rate has continued to fall, the financial conditions of households and businesses remain difficult. It is now estimated that the economic contraction in 2010 was deeper than according to the Bank's February forecast. Domestic demand was broadly in line with the forecast, however, and the difference is largely because domestic demand was directed more towards imports than had been assumed. Stronger import growth is also the main reason the GDP growth outlook for 2011 is poorer than in February. The prospects for GDP growth in 2012 and 2013 have also deteriorated. Current data suggest that the recovery in activity began in mid-2010, yet the recovery is weak. Considerable spare capacity remains in the economy and appears likely to continue over the forecast horizon. The poorer growth outlook has implications for the labour market outlook as well, and unemployment is now expected to subside more slowly than previously forecast. In spite of weaker activity, long-term inflation expectations have risen slightly in the recent term and the inflation outlook has worsened. Inflation is now projected to peak at just over 3% later in 2011, due primarily to steep rises in commodity and oil prices. The króna is also expected to be weaker during the forecast horizon, and pay rises are expected to be larger and more front-loaded than the Bank previously assumed. Nonetheless, when the impact of these transitory factors dissipates, the slack in the economy is expected to ensure that inflation subsides to target again in the latter half of 2012. The outlook is quite uncertain, however, and uncertainty has increased significantly due to the outcome of the Icesave referendum. Even though some indicators give cause for greater optimism, the downside risks to the outlook are considered to be greater than the upside risks.

I Economic outlook and main uncertainties

Central Bank rates lower than at last *Monetary Bulletin* publication

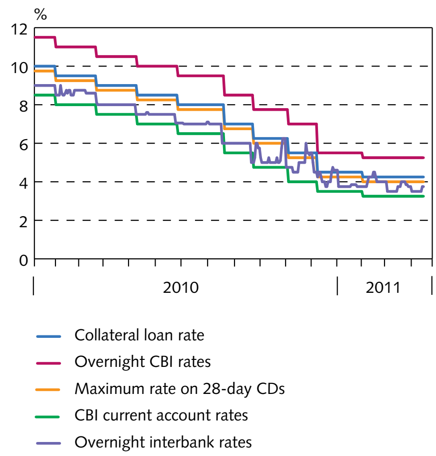
The Central Bank's Monetary Policy Committee decided to lower the Bank's interest rates by 0.25 in early February, when the last *Monetary Bulletin* was published, but then kept rates unchanged in March. As this *Monetary Bulletin* went to press, the current account rate was 3.25%, the maximum rate on 28-day CDs 4.0%, the collateralised lending rate 4.25%, and the overnight lending rate 5.25%.

Given the ample liquidity in the financial system, the Bank's effective interest rate can be considered to lie near the average of its deposit rates – currently about 3.6% – and to have recently moved closer to the CD rate and the centre of the interest rate corridor. This can be seen, for example, in the fact that short-term interbank rates have been closer to the centre of the corridor in 2011 than they were in 2010. Overnight market rates have averaged just under 4% since the rate cut in early February.

Chart I-1

Central Bank of Iceland interest rates and short-term market interest rates

Daily data 1 January 2010 - 15 April 2011



Source: Central Bank of Iceland.

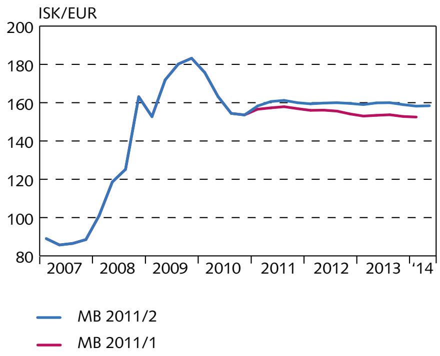
Real short-term interest rate has fallen, but financial conditions remain difficult for households and firms

Concurrent with the reduction in Central Bank rates and rising inflation expectations, the Bank's real rate has fallen markedly and is currently below 1% averaging over different measures, which is a significant decline since the publication of *Monetary Bulletin* in early February. This reduction in the Bank's real interest rate helps support recovery.

1. The analysis presented in this *Monetary Bulletin* is based on data available in mid-April.

Chart I-2

The ISK exchange rate against the euro - comparison with MB 2011/1



Source: Central Bank of Iceland.

Chart I-3

Net exports - contribution to GDP growth

Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-4

Domestic demand - comparison with MB 2011/1

Sources: Statistics Iceland, Central Bank of Iceland.

This substantial easing of monetary policy has only partially been passed through to households and businesses, as their financial conditions remain difficult. These problems in monetary policy transmission reflect, among other things, uncertainty about the financial strength of financial institutions and the quality of their assets, and higher levies on banking operations. As a result, access to credit remains tight, and lending rates are somewhat high. Interest rate developments and financial conditions are discussed in greater detail in Section III.

The króna slightly weaker than projected

The króna has weakened by about 1% in trade-weighted terms since *Monetary Bulletin* appeared in early February, due primarily to its depreciation against the euro, which more than offsets the appreciation against other major currencies.

Owing to the steep rise in global oil and commodity prices, terms of trade are expected to improve less decisively than previously forecast, and the real exchange rate is likely to be somewhat lower. Due to the prospect of a lower real exchange rate and a poorer initial position, the króna is expected to be about 2-3½% weaker during the forecast horizon than according to the February forecast. As before, it is assumed that the exchange rate will remain relatively stable during the forecast period, owing to the offsetting effects of strong fundamentals and possible short-term pressure on the króna in relation to uncertainty stemming from the Icesave dispute. Short-term pressure on the króna could also emerge in relation to the capital account liberalisation strategy, but it is more likely to surface only at the latter stages of the second phase strategy. The strategy does, not envisage any major steps towards liberalisation until the risks of a depreciation and an appreciation of the króna are broadly balanced. The timing of the second phase is extremely uncertain, however, and may need to be delayed because the Icesave dispute still is unresolved. Further discussion of developments in the foreign exchange market can be found in Sections II and III.

Improved export outlook but smaller contribution of net exports to GDP growth due to strong imports

Global economic activity has developed broadly in line with the February forecast. Increased international trade and a low real exchange rate have lent strong support to the domestic tradable sector. Export growth is projected at about 2½-3% per year in 2011-2013. The outlook has improved slightly since early February. Expected export growth is modest in historical context, however, particularly in view of the low real exchange rate and strong growth in international trade. To a large degree, this reflects the fact that a significant share of Iceland's goods exports are subject to capacity constraints that cannot be eased without further investment. By the same token, the domestic capacity to respond to increased demand for domestic production following a drop in the real exchange rate is limited as well, at least in the short run. The recovery of domestic demand has therefore surfaced to some degree in increased imports. As a result, the contribution of net trade to output growth will be limited, at least for a while. Because import growth is stronger than was projected in February, this year's contribution from net exports will be slightly negative, whereas a positive contribution was expected in February. As in that forecast, it is assumed that the contribution from net trade will continue to be negative throughout the forecast horizon. The trade surplus is expected to be large over the forecast horizon, at 9-10% of GDP, although it will be somewhat smaller than was forecast in February. Global economic developments, exports, external conditions, and the external balance are discussed more thoroughly in Sections II and VII.

Outlook for domestic demand broadly unchanged

Domestic demand is now estimated to have contracted by 2.1% in 2010, as opposed to 2.4% in the February forecast. This is somewhat less than according to Statistics Iceland's preliminary figures, which indicated a contraction of 2.5%. The main difference is due to divergent assessments of the strength of investment, as indicators such as robust growth in imports of investment goods and the results of a Central Bank survey support the assumption that 2010 investment is underestimated in the current Statistics Iceland figures.

On the whole, national expenditure is assumed to increase by nearly 3% in 2011, roughly half a percentage point more than was forecast in February. Private consumption is projected to continue growing, supported by factors such as third-pillar pension savings withdrawals, reimbursement of overpaid exchange rate-linked loans, rising asset prices, and lower interest rates. Similarly, investment is expected to be stronger due to the prospect of more investment in aluminium production and related industries than had been decided at the beginning of the year. Offsetting this, however, public consumption is expected to contract more sharply in volume terms than according to the February forecast, owing for the most part to a larger rise in the price deflator of public consumption.

Over the next two years, national expenditure is expected to grow by 3½-4% on average each year, slightly less than was forecast in February. For the forecast horizon as a whole, however, the outlook for domestic demand is similar to that in the February forecast. Further discussion of private and public sector demand can be found in Sections IV and V.

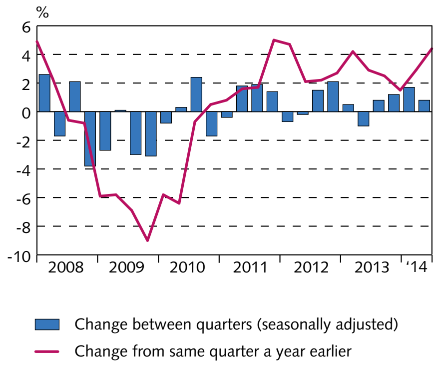
Outlook for weaker GDP growth for most of the forecast horizon

It appears that the contraction in GDP in 2010 was sharper than the Central Bank assumed in early February, or 3.1% instead of 2.7%. Statistics Iceland's preliminary figures, however, indicate an even deeper contraction, at 3.5%.

GDP is still considered to have begun growing quarter-on-quarter in mid-2010. The Central Bank's February forecast had assumed that the recovery would be uneven and that a temporary setback would occur in quarterly GDP growth in the first half of 2011. Now, however, it appears as though the setback occurred as early as Q4/2010, due mostly to stronger-than-expected spending on imports.

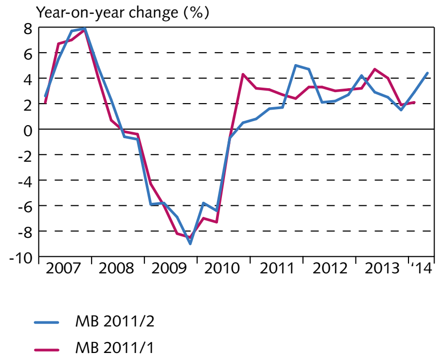
GDP is expected to grow by 2.3% this year, somewhat less than was forecast in February. It is also expected to grow less over the

Chart I-5
Gross domestic product
Q1/2008 - Q2/2014[1]



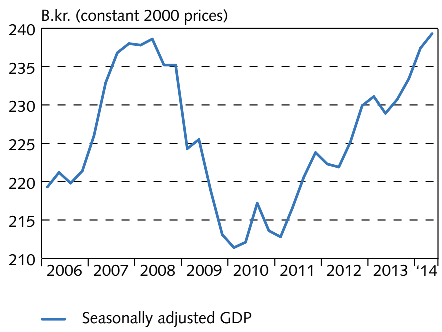
1. Central Bank baseline forecast Q1/2011 - Q2/2014.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-6
Output growth - comparison with MB 2011/1



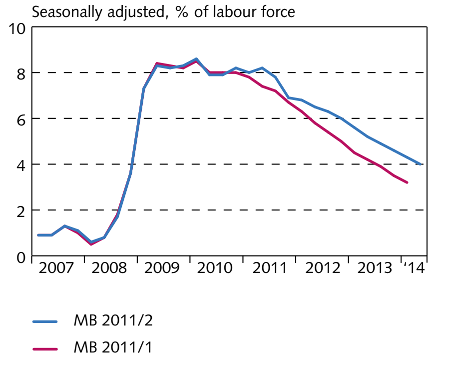
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-7
Gross domestic product
Q1/2006 - Q2/2014[1]



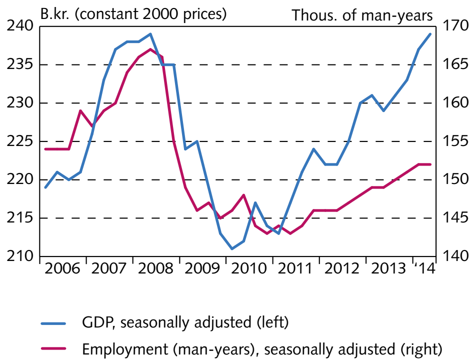
1. Central Bank baseline forecast Q1/2011 - Q2/2014.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-8
Unemployment - comparison with MB 2011/1



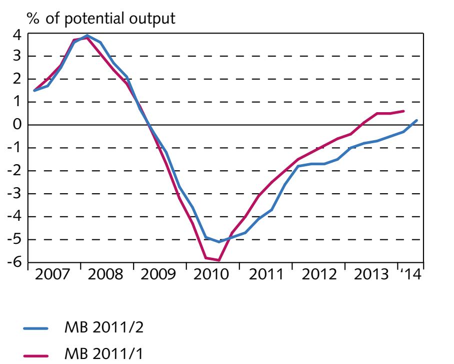
Sources: Directorate of Labour, Central Bank of Iceland.

Chart I-9
GDP and employment
Q1/2006 - Q2/2014[1]



1. Central Bank baseline forecast Q1/2011 - Q2/2014.
Sources: Directorate of Labour, Statistics Iceland, Central Bank of Iceland.

Chart I-10
Output gap - comparison with MB 2011/1



Source: Central Bank of Iceland.

ensuing two years, or just under 3% per year instead of just over 3%, in addition to the fact that last year's contraction is now considered to have been deeper. The larger import component of the domestic demand recovery explains this year's poorer GDP growth outlook, in spite of stronger growth in national spending and exports. As in the Central Bank's previous forecasts, domestic demand is expected to be the main driver of output growth in coming years, while the contribution from net trade will be negative.

At its trough in mid-2010, GDP had contracted by about 11½% from its pre-crisis peak. It is now estimated to be nearly 11% below the peak. It should be borne in mind, however, that GDP was well above sustainable levels in the run-up to the crisis. Based on the outlook for GDP growth over the next two years, this output loss should have been reversed in full by the end of the forecast horizon, around mid-2014. Section IV discusses the developments and prospects for GDP growth in greater detail.

Unemployment expected to taper off slowly

Recent developments in the labour market have been broadly in line with the Bank's February forecast. Firms considering shedding staff still outnumber those planning to recruit. Seasonally adjusted unemployment has risen marginally after a temporary dip last year. Stronger wage growth and weaker activity are expected to contribute to a persistently higher unemployment level than previously forecast. Weaker activity and higher labour costs are expected to weaken labour demand, while weaker activity may also impair labour supply through loss of skills and reduced matching ability of the labour market. It is now assumed that unemployment will average about 7.7% in 2011 and taper off to 5% in 2013, a percentage point higher than in the February forecast. Although employment is expected to begin rising again in the first half of 2011, as in the Bank's earlier forecasts, job creation will be slower than the recovery of output, and the employment rate will remain below the pre-crisis peak, as the sectors that suffered most from the crisis are quite labour-intensive. Further discussion of the labour market can be found in Section VI.

Slack in the economy more persistent than forecast in February

In mid-2010, the output slack peaked at about 5%, which is less than was assumed in the February forecast. On the other hand, it is expected to close more slowly than was projected in February, in line with poorer GDP growth prospects. It is now assumed that capacity will be more or less fully utilised again by mid-2014, roughly a year later than according to the February forecast. Further discussion of production capacity and output slack can be found in Section IV.

Inflation outlook deteriorates

Inflation proved somewhat higher in Q1/2011 than was forecast in February, due primarily to the unexpectedly strong recent upsurge in commodity and oil prices and the slight weakening of the króna. Higher imported inflation, larger and more front-loaded pay hikes, and a weaker initial position all contribute to a somewhat poorer inflation outlook. In addition, long-term inflation expectations have risen slightly above the inflation target in the recent term.

As a result, inflation is projected to be higher than previously forecast through 2013 and to peak in Q3/2011 at about 3.3%, about a percentage point higher than was forecast in February. It is still assumed, however, that once international commodity and oil price increases have passed through the retail chain, and when the impact of the recent depreciation of the króna has dissipated, the slack in the economy will ensure that inflation falls back to target late in 2012. Further discussion of global price level developments can be found in Section II, and developments in domestic inflation and inflation expectations are discussed in Section VIII.

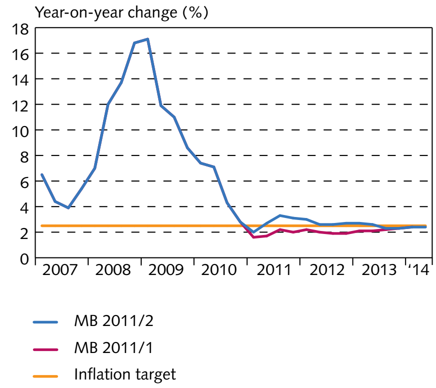
Key uncertainties

The baseline forecast reflects an assessment of the most likely economic developments over the next three years. It is based on forecasts and assumptions concerning developments in the external environment of the Icelandic economy, and the effects of those developments on the Icelandic economy. The forecast is also based on an assessment of how individual markets function and how monetary policy is transmitted to the economy. All of these factors are quite uncertain, however, partly because of the virtually unprecedented scope of the current financial crisis. The economic outlook, domestic or global, could easily diverge from the assumptions in the baseline forecast. The following discussion outlines several important uncertainties in the baseline forecast, but the possible uncertainties are obviously far greater in number. Two important uncertainties in addition to these are examined through alternative scenarios.

The economic outlook has become significantly more uncertain in the wake of the Icesave referendum. Domestic agents' access to international financial markets may become more difficult, at least for some time. Uncertainty concerning foreign direct investment and hence the status of several investment projects has therefore increased. The same applies to the capital account liberalisation strategy. The second phase of the strategy may have to be delayed, as the Treasury's access to foreign capital markets has become more uncertain. Stronger accumulation of domestic savings will be needed if the Treasury's refinancing needs must be directed more towards domestic savings. This can only happen through lower domestic spending and higher interest rates. The recovery of activity could therefore be weaker than reflected in the baseline forecast. Uncertainty about exchange rate developments has also increased, and the Central Bank may need to expedite the accumulation of foreign reserves so as to service the Government's foreign debt in late 2011 and 2012.

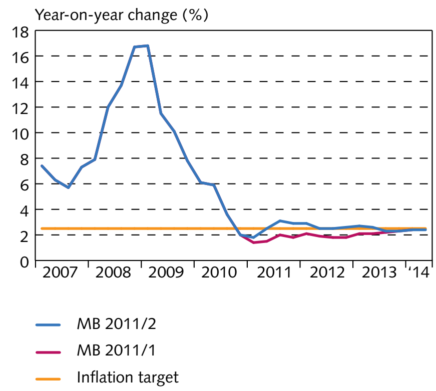
In the wake of the financial crisis, the channels through which monetary policy affects the financial system and the real economy became severely impeded. Risk premia on household and business liabilities rose sharply, and access to credit became much tighter. The baseline forecast assumes that the transmission channels will continue to be obstructed but will gradually normalise, even though risk premia will remain somewhat above pre-crisis levels for most of the forecast

Chart I-11
Inflation - comparison with MB 2011/1



Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-12
Inflation excluding tax effects - comparison with MB 2011/1



Sources: Statistics Iceland, Central Bank of Iceland.

horizon. How quickly the transmission channels normalise is subject to considerable uncertainty, however, and it could take a longer time than is assumed in the baseline forecast for laxer monetary policy to be transmitted to the real economy in the form of improved private sector financial conditions.

Private consumption began to grow year-on-year in Q3/2010, after a continuous contraction lasting over two years. Leading indicators suggest that it will continue to grow, although both the growth rate of consumption and its share in GDP will remain below historical averages. Despite declining debt levels, household debt is still elevated and household balance sheets will remain fragile for some time. The uncertain economic outlook could also lead to more precautionary saving. Moreover, there is some uncertainty about the extent to which households will use reimbursements from financial institutions and the Government to pay down debt and build up their savings instead of spending them on consumption. In the same vein, it is uncertain to what extent higher income will be directed towards imported goods and services, which will determine to some degree the impact on output growth.

Unusually large discrepancies between leading indicators and official figures on investment cause uncertainty about the investment outlook. The baseline forecast takes account of these indicators in assessing investment. It also assumes that investment will continue to recover during the forecast horizon. This assessment is uncertain, however, because corporate balance sheets are impaired and businesses' overall situation is unclear, access to credit is tight, spare capacity is considerable, and the economic environment is shrouded in uncertainty, especially in light of the status of the Icesave dispute. A more rapid turnaround is also possible if access to domestic and foreign capital markets normalises sooner, as investment is at a very low level in historical context. These uncertainties are explored in greater depth in the two alternative scenarios described below.

The baseline forecast assumes that the exchange rate will remain close to current levels for most of the forecast horizon. As always, the exchange rate outlook is extremely uncertain. As is mentioned above, the exchange rate outlook has become even more uncertain following the Icesave referendum. Uncertainty about exchange rate developments is also related to the plan for capital account liberalisation. Part of the first phase of the liberalisation strategy should be able to proceed as planned, despite the outcome of the referendum, and is not assumed to place undue strain on the Central Bank's foreign exchange reserves or the exchange rate. How long the first phase will take is unknown, but in the second phase (the removal of restrictions on residents' capital outflows) both the reserves and the exchange rate could come under pressure. On the other hand, because the timing and conditions related to liberalisation are uncertain, it is difficult to take account of the strategy in the baseline forecast. For the longer term, however, the uncertainty is greater on the upside, as the real exchange rate is at a historical low – and probably somewhat below long-term equilibrium – and a sizeable underlying current account surplus has already emerged. All of the fundamentals point towards a real exchange rate appreciation in the long run. This is reflected in the baseline forecast, although the adjustment is assumed to be slow, in part because of Iceland's substantial external debt. The speed and strength of the adjustment are quite uncertain, however, and the possibility of a rapid appreciation at some point in the next few years cannot be ruled out.

Unemployment began to rise again towards the end of 2010, although the baseline forecast assumes that it will begin to taper off later this year. How much and how fast unemployment declines is quite uncertain, though. Corporate debt restructuring is proceeding slowly, and it appears as though firms have resisted laying off employees, even though the level of activity has contracted in the wake of the financial crisis. The average number of hours worked has also fallen off significantly; therefore, it can be assumed that hours can be increased markedly before the increased activity associated with economic recovery will begin to show in a rise in the number of jobs. There is also considerable uncertainty about the supply side of the labour market. Long-term unemployment has diminished, however, probably due in large part to the increased flow of unemployed persons into the labour market. There is also the risk of loss of job skills, making it difficult both for employers to find workers with the appropriate skills and for workers to find suitable jobs. This, together with more generous unemployment benefits, could result in a permanent rise in the equilibrium unemployment rate, which would offset the drag on wage growth provided by high unemployment. As a result, there is considerable uncertainty about both the assumption in the baseline forecast that the equilibrium unemployment rate will gradually return to its pre-crisis level as the forecast horizon progresses and the effect that the current slack in the labour market has on wage developments and how it offsets wage pressures stemming from the favourable position of the tradable sector.

Potential output has been reduced by the financial crisis. The baseline forecast assumes that it will begin recovering in mid-2011. In international context, this is an unusually long adjustment. Both the historical development and the future prospects for potential output are subject to significant uncertainty because of the lack of direct measurement of potential output. It is not impossible that the adjustment could occur more rapidly than is assumed here. This would affect the assessment of the underlying output slack and the associated inflationary pressures. If potential output rises more rapidly than the baseline forecast assumes, the economy could grow more quickly without increasing inflationary pressures. Potential output could also contract more steeply and grow more slowly if demand proves weaker than is forecast here; for example, if firms consider it necessary to cut back production levels permanently; e.g., through selling machinery and equipment abroad.

Global commodity and oil prices have risen sharply in the recent term, pushing import prices upwards. The baseline forecast assumes that these increases will lose momentum in the latter half of the year and the associated inflationary pressures will ease once they have passed through the retail chain to final prices. How persistent the increases are and how strongly they affect domestic inflation – and therefore, how strongly monetary policy must respond – is highly uncertain. If the supply shock turns out short-lived, the impact will probably be relatively transitory. The increases could prove more persistent, however, if global recovery turns out stronger than assumed, or if unrest in areas such as North Africa and the Middle East escalates further. The inflationary impact could also prove greater if inflation expectations are affected and spread to wage demands and companies' pricing decisions; for example, if firms choose take the opportunity to rebuild damaged balance sheets by raising margins and passing more cost increases through to prices than is warranted by weak demand. Inflationary pressures could prove weaker than currently forecast, however, if the output slack is more pronounced, either because of weaker demand or because of more robust recovery of potential output.

Alternative scenarios

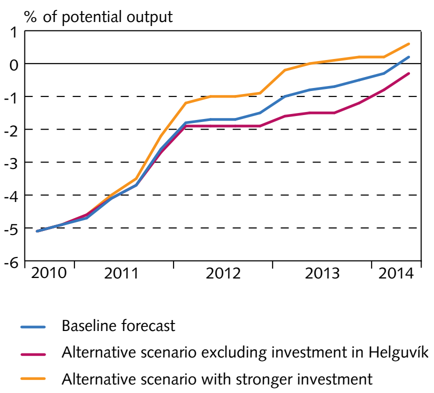
Alternative scenarios can provide useful indications of the effects of important assumptions in the baseline forecast on the economic outlook, and how these deviations interact with monetary policy. Two alternative scenarios are described below. In the first scenario, the construction of the Helguvík aluminium smelter and associated power plant does not take place, while the second assumes a more rapid recovery of investment than in the baseline forecast.

Weaker output growth if the Helguvík project does not materialise

The baseline forecast assumes that the first phase of the aluminium smelter construction at Helguvík will take place. According to the forecast, construction of the aluminium smelter and related power plant will be well underway in 2012 and will peak in 2013. As has been discussed in previous issues of *Monetary Bulletin*, the Helguvík project has been postponed numerous times due to funding difficulties, uncertainty about access to sufficient energy, and problems with planning and permits. At this point, the probability that the project will be shelved for an undetermined length of time has increased, especially after the results of the Icesave referendum. This alternative scenario therefore assumes that the Helguvík project will not be undertaken, at least not during the forecast horizon.

In comparison with the baseline forecast, this will primarily affect economic activity in 2012-13. Growth in total investment will probably be about 10 percentage points less in 2012 and 5 percentage points less in 2013. Growth in domestic demand would therefore be about 2 percentage points less in both years, and output growth would be about ½ a percentage point less. Furthermore, demand for labour will be weaker, and unemployment will be higher by ½ a percentage point in 2012 and 1½ percentage points in 2013. Exports will also suffer, although the full effect will only emerge beyond the forecast horizon. Weaker investment will also lead to lower potential output. Nevertheless, the output slack would be nearly 1 percentage point more in 2013 than in the baseline forecast (see Chart I-13). A

Chart I-13
Output gap - alternative scenarios



Source: Central Bank of Iceland.

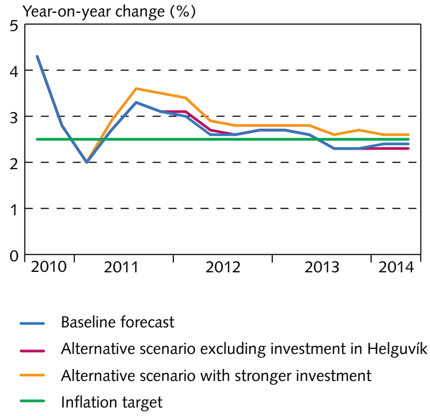
more pronounced slack in the economy also means that interest will be lower, which in turn implies a lower exchange rate than in the baseline forecast. This is offset by the effects of the slack on inflation; therefore, the inflation rate in this scenario is very similar to that in the baseline forecast (Chart I-14).

Stronger recovery of investment expedites economic recovery

Business investment is still low in historical context, and according to the baseline forecast, the recovery of general business investment will be relatively slow. Furthermore, it is assumed both that risk premia on domestic financial obligations will decline relatively slowly and that foreign direct investment will not begin to recover to any marked degree before the latter half of 2012. The alternative scenario assumes a stronger recovery of investment, which could occur if Iceland's access to global capital markets improves sooner than is currently expected. Such a development would emerge in a speedier decline in risk premia and stronger recovery of foreign direct investment. In that instance, the recovery of investment in the wake of the financial crisis would more closely resemble that in the countries that have recovered most swiftly from financial crises.

Investment as a share of GDP will therefore rise more quickly than in the baseline forecast and will have returned to its long-term average by the end of the forecast horizon; hence recovery will be stronger and more investment-driven than in the baseline forecast. Potential output will also be greater with the expansion of the capital stock. Output growth in 2011 will be about half a percentage point greater than in the baseline forecast, and about 1 percentage point more over the forecast horizon as a whole. As a result, the output slack will be somewhat smaller than in the baseline forecast, although it is offset by a stronger recovery of potential output (Chart I-13). Unemployment also declines more rapidly and will be nearly 1 percentage point lower in 2012, and about ½ a percentage point lower in 2013, than in the baseline forecast. Less spare capacity also implies higher interest rates, which, together with greater foreign investment inflows and a more rapid decline in risk premia, will contribute to a higher exchange rate than in the baseline forecast. This will offset the increased inflationary pressures resulting from a smaller output slack (Chart I-14).

Chart I-14
Inflation - alternative scenarios

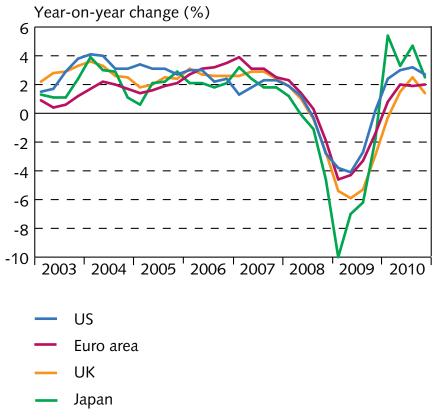


Sources: Statistics Iceland, Central Bank of Iceland.

II External conditions and exports

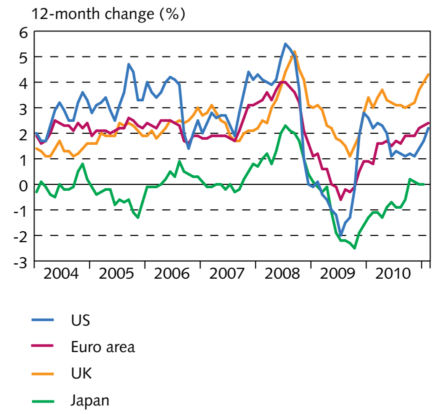
The economic outlook in Iceland's main trading partner countries is somewhat improved since the beginning of the year, but considerable uncertainty remains. Inflation has increased due to rising oil and commodity prices, yet underlying inflationary pressures are limited by high unemployment and significant spare capacity in the economy. The monetary stance has remained unchanged in most countries, although some central banks have raised interest rates in recent months. A slow recovery appears to have taken hold in foreign financial markets, although lending is still limited. Oil and commodity prices rose steeply at the beginning of 2011, and it appears as though prices for 2011 as a whole will be much higher than previously projected. The price of Iceland's main exports is rising as well, fuelling forecasts of continued improvement in terms of trade in 2011. The real exchange rate has remained low, contributing to continuing growth of exports in coming years.

Chart II-1
International growth
Real GDP growth Q1/2003 - Q4/2010



Source: Macrobond.

Chart II-2
Inflation in the US, UK, Japan and euro area
January 2004 - February 2011



Source: Macrobond.

Economic outlook broadly unchanged ...

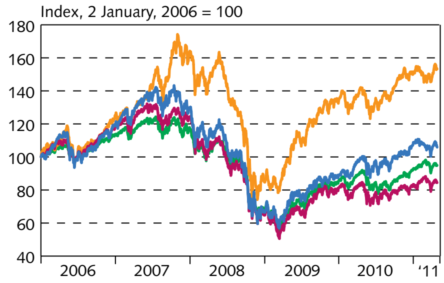
GDP growth tapered off somewhat in Iceland's major trading partner countries in Q4/2010, but the year as a whole represented a turnaround from the contraction of 2009. The global economic outlook is broadly unchanged since February, when the *Monetary Bulletin* was last published. Emerging countries continue to drive growth, although the key emerging countries have seen GDP growth figures decline. The most recent projections for 2011 from Consensus Forecasts indicate that Iceland's main trading partners will see slightly stronger GDP growth than was assumed in the last *Monetary Bulletin*, owing primarily to improved growth prospects in the US, Sweden and Norway. Some uncertainty remains, however, even though growth has been underpinned, as both private consumption and investment have begun to recover. The natural disaster in Japan has exacerbated the uncertainty about near-term developments, although most analysts believe its economic effects will be temporary.

... and underlying inflationary pressures still limited

Inflation has continued to rise in Iceland's main trading partner countries in the past few months, driven by higher oil and commodity prices. Underlying inflationary pressures appear quite limited, however, and core inflation has remained broadly unchanged since the last forecast was prepared. Core inflation appears unlikely to rise much in coming months, due to the continuing slack in the goods and labour markets. In the UK and the euro area, inflation is somewhat above the respective central banks' inflation targets, and it has risen sharply in recent months, particularly in the UK. Inflation is assumed to be somewhat higher this year in Iceland's main trading partner countries than was projected in the last *Monetary Bulletin*. It is expected to peak just after mid-year and then begin to subside again. The outlook for 2012 and 2013 is broadly unchanged, however.

The lack of underlying inflationary pressure is the reason the central banks in the UK, US and most other trading partner countries have maintained unchanged interest rates since the last publication of *Monetary Bulletin*. Some central banks have altered their monetary stance, however: the European Central Bank raised interest rates by 0.25 percentage points in early April, after keeping them constant for almost two years, and Sweden's Riksbank raised interest rates once again in February, to a level higher than at any time since the end of 2008. Interest rates have also been raised in several emerging market economies. They were cut in New Zealand in March, however, in an attempt to counteract the economic impact of the recent earthquake there.

Chart II-3
Equity prices
Daily data 2 January 2006 - 15 April 2011



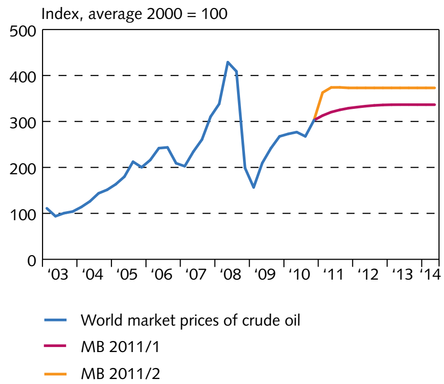
Source: Macrobond.

Global financial markets recovering slowly

Share prices around the world rose markedly in 2010, driven by low interest rates and improving corporate operating results. Among Iceland's trading partners, the increase was greatest in the Nordic region. Global market prices have continued to climb so far in 2011, although some markets have seen some weakening, particularly in March. Uncertainty is considerable in the wake of the earthquake and tsunami in Japan, which triggered the collapse of the stock market in the world's third-largest economy. The impact on share prices outside Japan is expected to be temporary, however.

The global financial markets have continued to improve, although risk premia remain higher, turnover lower, and access to credit tighter than before the financial crisis, and appear likely to remain so in the near future. Although financial conditions are gradually normalising, difficulties in the financial markets will probably impede global output growth for a while, particularly in industrial countries.

Chart II-4
Oil prices
Q1/2003 - Q2/2014

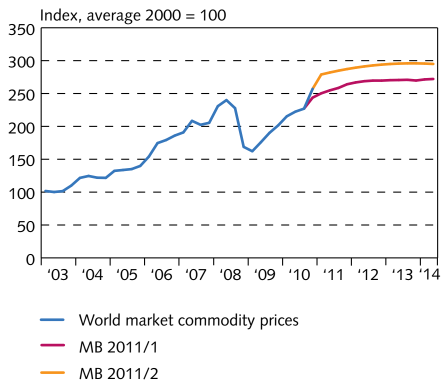


Sources: Bloomberg, Central Bank of Iceland.

Steep rises in commodity and oil prices

Oil prices increased sharply in the first months of 2011 and are now expected to rise by 33% over the course of the year, as opposed to the 15% projected in the last *Monetary Bulletin*. In its forecast, which takes account of both futures and major analysts' projections, the Central Bank assumes prices will hold unchanged in 2012 after peaking late in 2011. Commodity prices have also continued to climb, with great rises in the first two months of 2011. Early on, higher prices were fuelled by greater demand and concurrent crop failures in many parts of the world, whereas increased demand in emerging countries has been the primary driver in recent months. Changes in inventories and market expectations have also made an impact and will continue to affect the extent of the increase. The Central Bank projects a 23% rise in commodity prices in 2011, some 5 percentage points more than in its last forecast. Commodity prices are projected to continue rising next year, but far less than in 2011, as supply is expected to respond to the recent surge in prices. Uncertainty about near-term oil and commodity prices has increased, however, with the escalation of unrest in North Africa and on the Arabian peninsula.

Chart II-5
Commodity prices[1]
Q1/2003 - Q2/2014

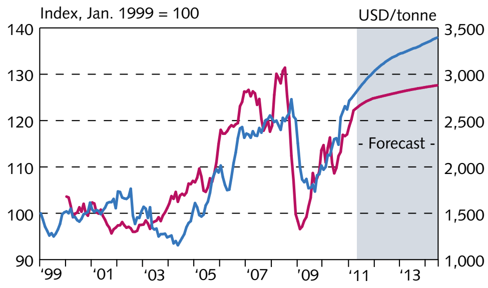


1. Non-oil commodity prices in USD.
Sources: Macrobond, Central Bank of Iceland.

Global trade one of the main drivers of world output growth

Global trade increased markedly in the latter half of 2010 and has continued to be one of the primary drivers of output growth worldwide.

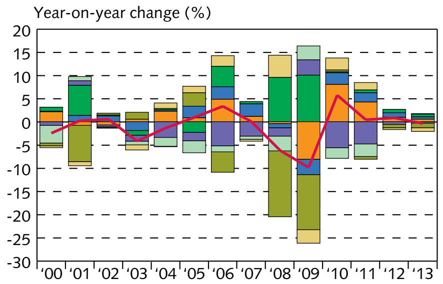
Chart II-6
Prices of marine exports and aluminium
In foreign currency



Marine products (left)
Aluminium (right)

Sources: London Metal Exchange, Statistics Iceland, Central Bank of Iceland.

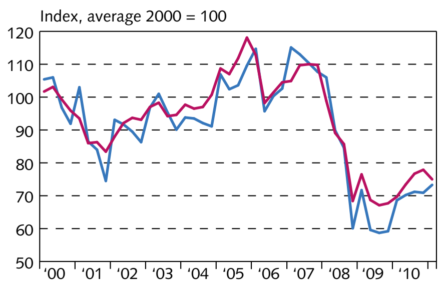
Chart II-7
Terms of trade and its main components 2000-2013[1]



Terms of trade
Marine products prices
Aluminium prices
Price of exported services
Commodity prices
Oil prices
Price of imported services
Other

1. Central Bank baseline forecast 2010 - 2013. The contribution of the main sub-indices to year-on-year changes in terms of trade is determined by weighting the annual change in the sub-index concerned together with its weight in the import or export of goods and services. The item "other" is a residual.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart II-8
Real exchange rate
Q1/2000 - Q1/2011



Relative unit labour costs
Relative consumer prices

Source: Central Bank of Iceland.

Both the IMF and the OECD forecast that global trade will continue to grow in 2011 and 2012, although by a smaller margin than in 2010, as that year's growth came on the heels of a steep contraction and was thus unlikely to be sustainable. The most recent IMF projection is virtually unchanged from the beginning of the year. The forecast published in this *Monetary Bulletin* assumes, as did the Bank's last forecast, that imports in Iceland's major trading partner countries will grow by just over 5% in 2011 and just under 5% in 2012.

Export prices rise

Marine product prices have continued to rise and have regained the levels preceding the general drop in commodity prices in the winter of 2008. Most marine products are expected to rise still further in 2011. The current forecast for marine product prices has been adjusted upwards, both for 2011 and in 2012. According to the current forecast, prices will rise by 8% year-on-year in 2011 and by 4% in 2012, whereas the last *Monetary Bulletin* assumed increases of 5% and 3%, respectively.

Aluminium prices have also continued to climb and appear set to rise more than was assumed in the last *Monetary Bulletin*. According to the current forecast, aluminium prices are expected to rise by 17% year-on-year in 2011 and by an average of 3% per year over the ensuring three years, whereas the February forecast assumed a 15% increase in 2011 and an average annual increase of just under 1% for the two years thereafter.

Terms of trade to improve less than previously expected

This year's increase in export prices, while substantial, is not expected to outweigh the rise in oil and commodity prices. As a result, terms of trade are expected to improve by just under 1 percentage point less than according to the last forecast, or by ½%. Offsetting this, however, terms of trade are now estimated to have improved by more than previously forecast in 2010, or by just under 6%. The outlook for 2012 and 2013 is broadly unchanged.

Real exchange rate remains low

The real exchange rate climbed steadily through November 2010, by which time it had risen by 15% during the year, but from then onwards it began to fall again, and by March it was almost 5% lower than in November. As a result, it remains roughly 22% below the average over the past thirty years. It is projected to hold broadly unchanged year-on-year in 2011 and then rise marginally over the subsequent two years. It is likely to remain relatively low in coming years, further supporting exports – particularly services exports – and ensuring a substantial surplus on external trade, which will improve Iceland's international investment position.

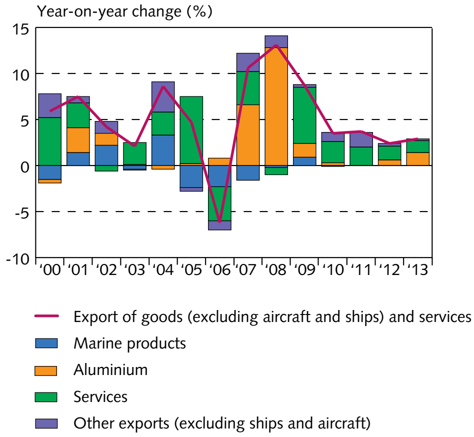
Export growth to continue in coming years

Due to an increase in the capelin quota, it is now assumed that exports of marine products and aluminium will remain unchanged in volume terms between 2010 and 2011, whereas the last forecast assumed a

2% contraction in marine product exports. The fisheries and heavy metals sectors account for 4/5 of Iceland's goods exports, with the remaining 1/5 coming mainly from exports of pharmaceuticals, medical supplies, food processing equipment, and electrolytic capacitors. The combined exports of industrial products other than aluminium are expected to increase by 11-12% in 2011. Services exports have also been growing considerably in recent years, supported by a low real exchange rate. The forecast assumes that services exports will increase by just under 6% in 2011 and by 3-4% in the two years following.

The prospects for goods export growth have improved as well, and a modest increase is now assumed instead of the slight contraction projected in the last forecast, due primarily to the improvement in the outlook for marine product exports. The outlook for the next two years has improved as well, in part because of the prospect of stronger growth in aluminium exports than was assumed at the beginning of the year. The forecast assumes that total exports will increase by 2½% in 2011 and by 2½-3% per year in 2012-2013. Excluding the effects of transactions with aircraft and ships, growth will be more in 2011, or 3.7%.

Chart II-9
Export development (excl. ships and aircraft) and its main components 2000-2013[1]



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

Table II-1 Exports and main assumptions for developments in external conditions

	Change from prior year (%) unless otherwise specified[1]			
	2010	*2011*	*2012*	*2013*
Exports of goods and services	1.1 (0.0)	2.5 (2.5)	2.4 (2.2)	2.9 (2.4)
Exports of goods and services, excl. aircraft and ships	3.5 (2.6)	3.7 (3.0)	2.4 (2.2)	2.9 (2.4)
Marine production for export	-0.4 (-1.6)	0.0 (-2.0)	0.0 (0.0)	0.0 (0.0)
Metals production for export	1.7 (3.0)	0.1 (-0.2)	2.4 (0.0)	5.3 (2.7)
Export prices of marine products in foreign currency	9.7 (9.9)	8.0 (5.1)	4.0 (3.0)	2.0 (2.0)
Aluminium prices in USD[2]	31.5 (27.9)	17.0 (14.1)	3.9 (1.1)	2.2 (0.9)
Fuel prices in USD[3]	28.0 (28.0)	32.5 (14.9)	0.2 (3.7)	0.0 (0.8)
Terms of trade for goods and services	5.8 (5.2)	0.5 (1.4)	0.9 (0.9)	-0.3 (0.0)
Inflation in main trading partners[4]	1.9 (1.9)	2.4 (2.0)	1.9 (1.8)	1.9 (1.9)
GDP growth in main trading partners[4]	2.1 (2.0)	2.1 (2.0)	2.2 (2.2)	2.3 (2.4)
Short-term interest rates in main trading partners (%)[5]	0.9 (0.9)	1.2 (1.2)	2.0 (2.0)	2.7 (2.7)

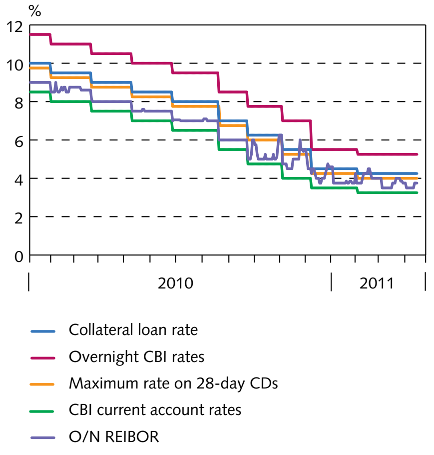
1. Figures in parentheses from forecast in *Monetary Bulletin* 2011/1. 2. Forecast based on aluminium futures and analysts' forecasts. 3. Forecast based on fuel futures and analysts' forecasts. 4. Forecast from Consensus Forecasts and Global Insight. 5. Based on weighted average forward interest rates of Iceland's main trading partner countries.

Sources: Bloomberg, Consensus Forecasts, Global Insight, IMF, Macrobond, OECD Economic Outlook, Statistics Iceland, Central Bank of Iceland.

III Financial conditions

Monetary easing has continued, and further interest rate cuts appear to be priced into long-term market rates, which have inched upwards in the recent term, however, in part due to rising inflation expectations. The financial conditions of households and firms remain difficult in spite of continued monetary easing. Increased real estate market turnover could improve the financial conditions of households that have been unable to sell property heretofore.

Chart III-1
Central Bank of Iceland interest rates and short-term market interest rates
Daily data 1 January 2010 - 15 April 2011



Source: Central Bank of Iceland.

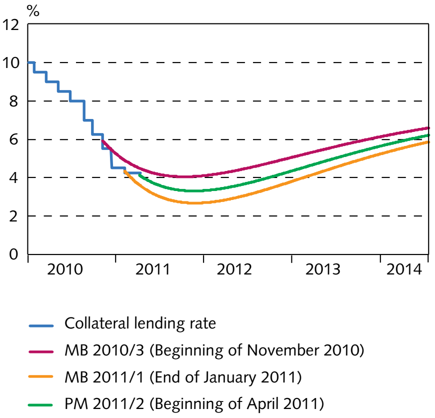
Easing cycle slows down

In early February, when *Monetary Bulletin* was last published, the Central Bank Monetary Policy Committee (MPC) lowered interest rates by 0.25 percentage points. The current account rate was reduced to 3.25%, maximum rates on 28-day certificates of deposit (CDs) to 4.0%, the seven-day collateralised lending rate to 4.25%, and the overnight lending rate to 5.25%. On the last interest rate decision date, 16 March, the Committee decided to keep the Bank's interest rates unchanged.

Overnight interbank market rates near the centre of the interest rate corridor

For most of 2010, the overnight interbank market lending rate hovered near the bottom of the interest rate corridor, just above the current account rate. So far in 2011, however, it has been closer to the centre of the corridor, in line with the MPC's declared aim of moving market rates closer to the centre. Short-term market rates still fluctuate within the interest rate corridor, as the Bank's market activity still takes place only on a weekly basis. Market trading remains relatively sparse, with lending restricted almost entirely to overnight loans, although a few seven-day loans have been granted.

Chart III-2
Collateral lending rate and forward market interest rates[1]
Daily data 1 January 2010 - 30 June 2014



1. Using interbank and government bond rates (with weekly rates as the shortest maturity) before publication of *Monetary Bulletin*.
Source: Central Bank of Iceland.

Monetary easing continues

The Central Bank's real interest rate is now just over 1% in terms of the twelve-month rise in the consumer price index (CPI), but around ½% when compared to the Central Bank's one-year inflation forecast. According to different measurements of inflation and inflation expectations, the real interest rate level has fallen and currently averages almost 1%. This is a substantial decline since just before the last *Monetary Bulletin* was published (see Table III-1).

Further interest rate reductions priced into the yield curve

Forward interest rates imply that market participants expect the MPC to keep rates unchanged in April, but to lower rates by 0.75 percentage points by the autumn and keep them unchanged for the remainder of the year. Gradual tightening is priced into the yield curve in the first half of 2012. The expected rate path is higher than it was when *Monetary Bulletin* was published in February, but lower than at the time of the November *Monetary Bulletin*.

Table III-1 Monetary stance (%)

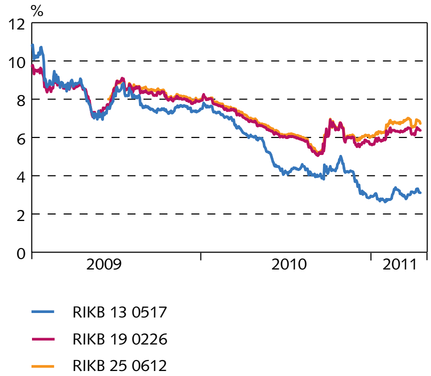
	Current stance (15 April)	*Change from MB 2011/1 (1 February)*	*Change from MB 2010/2 (4 May)*
Real interest rate based on:[1]			
Twelve-month inflation	1.3	-0.7	1.5
Three-month seasonally adjusted inflation	-4.6	-8.3	-5.5
Business inflation expectations (one-year)	-0.6	-2.4	-4.5
Household inflation expectations (one-year)	0.4	0.5	0.3
One-year breakeven inflation rate[2]	2.2	-1.5	-2.1
Central Bank inflation forecast[3]	0.6	-1.2	-4.0
Average	-0.1	-2.3	-2.4
Average excl. three-month seasonally adj. inflation	0.8	-1.1	-1.8
Risk-adjusted three-month interest rate differential based on:			
Historical exchange rate volatility[4]	0.9	0.3	-1.6
CDS spread on the Republic of Iceland[5]	1.6	0.8	-1.7

1. The effective Central Bank nominal policy rate is the average of the current account rate and the maximum rate on 28-day CDs. 2. The one-year breakeven inflation rate, based on the difference between the nominal and indexed yield curves (five-day rolling average). 3. The Central Bank forecast of twelve-month inflation four quarters ahead. 4. The ratio of the three-month interest rate differential and the three-month standard deviation of the EURISK exchange rate. 5. The interest rate differential in terms of various short-term rates in Iceland and trade-weighted foreign interest, adjusted for the difference in CDS spreads ((five-day rolling average).

Chart III-3

Long-term nominal Treasury bond yields

Daily data 2 January 2009 - 15 April 2011



Source: Central Bank of Iceland.

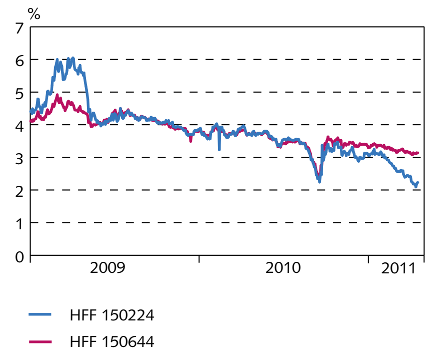
Long-term nominal interest rates have risen slightly in spite of lower Central Bank rates

Yields on Housing Financing Fund (HFF) bonds have declined by up to 0.8 percentage points so far this year. The yield on the shortest bonds has fallen by 1½ percentage points, but trading is very thin and price formation inefficient. Yields on nominal Treasury bonds have risen since the beginning of the year, however, with yields on the longest bonds rising by approximately $^2/_3$ percentage point but somewhat less on the shortest bonds. This probably mostly reflects rising inflation expectations, which stem from steep rises in commodity and oil prices and the depreciation of the króna year-to-date (See Section VIII).

Chart III-4

Yields on indexed HFF bonds

Daily data 2 January 2009 - 15 April 2011



Source: Central Bank of Iceland.

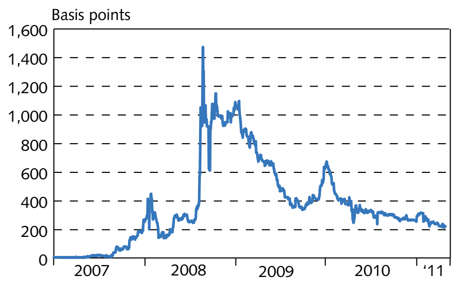
Risk premia on Treasury debt have declined in the past year

Iceland's CDS spread has fallen by half a percentage point since the last *Monetary Bulletin* appeared, and now stands at roughly 2.2 percentage points. Since February, the differential with German Treasury bonds has risen marginally, with the short-term differential about 3½% and the long-term differential about 3%. In terms of the CDS spread, the differential is therefore in the ½-1½% range.

Chart III-5

CDS Iceland

Daily data 29 March 2007 - 15 April 2011

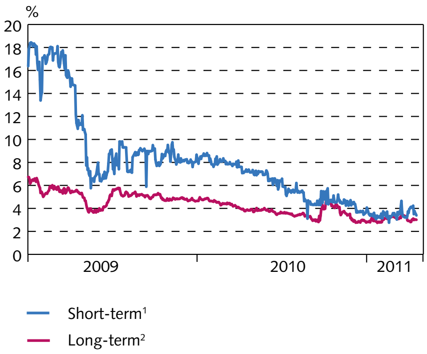


Source: Bloomberg.

Króna continues to depreciate

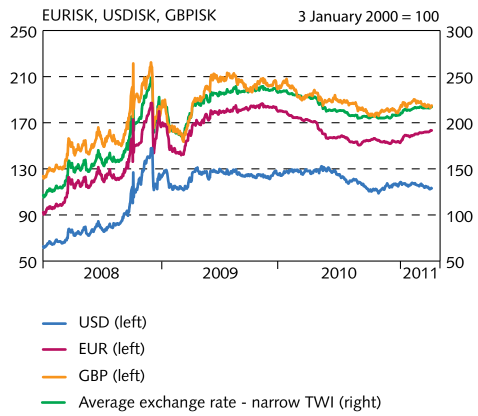
Just before the publication of this *Monetary Bulletin*, the exchange rate of the króna was about 4½% lower in trade-weighted terms, and about 6% lower against the euro, than at the beginning of 2011. The króna was trading at about 163 against the euro, which is almost 3% lower than in February, when the last issue of *Monetary Bulletin* appeared. This depreciation reflects some decline in the real exchange rate. It is likely that seasonal fluctuations in foreign currency flows made an impact, as net inflows associated with external trade are generally less during the first months of the year. The possibility cannot be ruled out, however, that rapid interest rate reduction and the diminishing interest rate differential with abroad are reflected to some degree in the depreciation of the króna; for example, non-resident owners of domestic bonds may be choosing to expatriate a larger

Chart III-6
Interest rate differential
Daily data 2 January 2009 - 15 April 2011



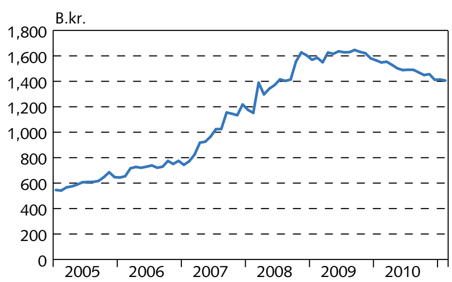
1. Differential between yields on 3-month Treasury bills in Iceland and Germany. 2. Differential between yield on RIKB 19 and 8-year Treasury bonds in Germany.
Source: Macrobond.

Chart III-7
Exchange rate of the króna
Daily data 3 January 2008 - 15 April 2011



Source: Central Bank of Iceland.

Chart III-8
Residents' DMB deposits
January 2005 - February 2011



Source: Central Bank of Iceland.

share of their interest income than before, or domestic firms with foreign exchange revenues may elect not to convert them to krónur because of lower returns on domestic króna-denominated assets.

According to the Central Bank's forecast, the króna will continue to depreciate over the next quarter but then remain broadly stable for the remainder of the forecast horizon, and will be about 3½% weaker at the end of the forecast horizon than was projected in February. This is subject to considerable uncertainty, however, due to the offsetting effects of positive fundamentals such as the outlook for improved terms of trade and sizeable trade surplus versus the short-term uncertainty associated with the Icesave dispute and the plan to begin lifting the capital controls.

Deposits have contracted

Between 2007 and 2009, residents' deposits in the domestic banking system doubled, but now they have fallen off by over 240 b.kr., or nearly 15%, since peaking in September 2009. Analysis of the money supply reveals that this is due in large part to substitution between different asset classes and a run-down of precautionary savings. Broad money (M3) has been contracting since October 2009 and had declined 8.5% year-on-year by February 2011. Narrower forms of money (M1 and M2) peaked in October 2008, however.

As Chart III-9 shows, deposits have been shifted to less liquid forms, such as shares in mutual funds. The supply of investment funds has been on the rise in the past two years, particularly those funds that invest only in Treasury bonds. Their structure is reminiscent of the money market funds that were closed in the wake of the banking collapse, although those money market funds invested primarily in corporate bonds.[1] The sharp decline in deposit rates has certainly fuelled this trend. In addition, it could be that investment risk is being reassessed, as most types of investment appeared risky at the height of the financial crisis. It seems that investors' interest in real estate and equities has risen. Investment in unlisted assets has increased as well.

Credit creation remains limited

Even though housing market activity is still limited in historical context, recent months have seen rising turnover. This spurt in activity appears not to have been accompanied by an increase in mortgage lending, however. The Housing Financing Fund (HFF) and the pension funds, currently Iceland's main mortgage lenders, have more stringent collateral requirements than the banks did before the crisis; thus it is clear that purchasers must have more equity than they did previously. In spite of this, it can be seen that HFF loaned more to households in Q1/2011 than in the same period a year ago. The number of properties sold currently exceeds the number of new mortgage loans. This is probably due in part to swap agreements, although housing swaps have declined as a share of total turnover over the past year. The main explanation, however, appears to be that investors are bringing increased equity into the real estate market because of the dearth of

1. A dramatic reduction took place in the wake of the banks' collapse, when many of the funds were dissolved.

investment options in an environment of capital controls and impaired domestic financial markets. To the extent that the banks are selling off property to the private sector from their own balance sheets, this would coincide with a contraction in deposits and money supply as long as the banks do not redirect these funds again to the non-financial private sector through new lending.

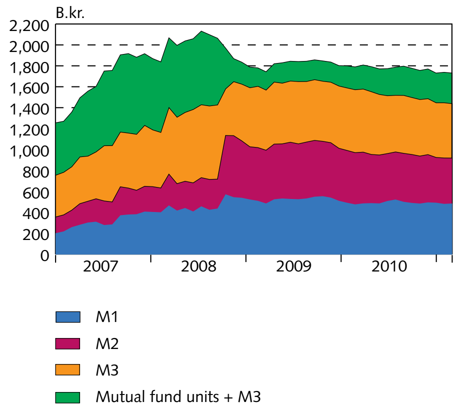
Real estate market turnover on the rise

Turnover in the real estate market has crept upwards in recent months. A livelier housing market could ease financial conditions of households, for example those that wish to move into smaller housing but have been unable to sell their property. If house prices rise notably in the wake of increased demand, this could also strengthen households' financial position and improve financial institutions' balance sheets, thus enabling them to begin lending once again. The Capacent Gallup Consumer Sentiment Index for the month of March reveals that the subindex for planned house purchases has virtually stood still since December but has risen year-on-year. In real terms, house prices in the greater Reykjavík area rose marginally between January and February and were up year-on-year for the first time since March 2008. According to the baseline forecast, real house prices will bottom out in the latter half of 2011 and then begin to recover slowly. By the end of the forecast horizon, however, real house prices will still be 35% below the pre-crisis peak at the end of 2007.

Financial conditions of households and businesses remain difficult

Households' financial conditions remain difficult, even though the resolution of exchange rate-linked loan agreements doubtless reduces many households' debt service burden and many borrowers have been reimbursed by their financial institutions for overpayments of the loans in question and loans have been written down. Households that took exchange rate-linked loans have received an estimated 8.5 b.kr. in reimbursements from financial institutions, most of it payable at the end of 2010. In addition, a special interest rebate will be paid out in 2011 and 2012. The amount will be calculated as 0.6% of the outstanding balance of mortgage loans as of year-end 2010 and 2011. The interest rebate is not income-linked, but payments are limited to the recipient's net equity. Total payments are expected to equal about 12 b.kr. Among the measures to assist distressed households is the reduction of outstanding loan principal to 110% of the value of the mortgaged property. HFF estimates the cost of writing down individuals' loan principal to 110% of the property value to be 22.8 b.kr. Deposit money banks are also offering such a write-down, but no information on the total volume is available at present. This measure is available to borrowers until 1 July 2011. In addition, a number of households have utilised the authorisation to withdraw third-pillar pension savings. Since such withdrawals were authorised, over 45 b.kr. have been paid out, with another 10 b.kr. in payouts approved through February 2013. These factors may explain the increase in HFF lending to households, although such lending is still limited in a historical context.

Chart III-9
Money holdings
January 2007 - February 2011[1]



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

Chart III-10
Mutual fund units
January 2000 - February 2011

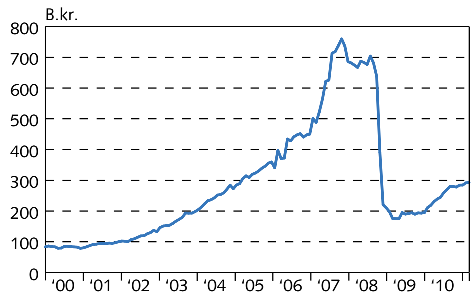
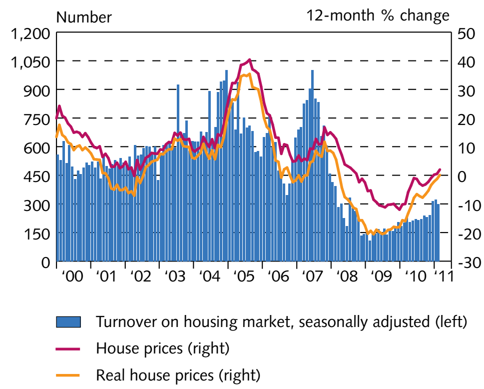
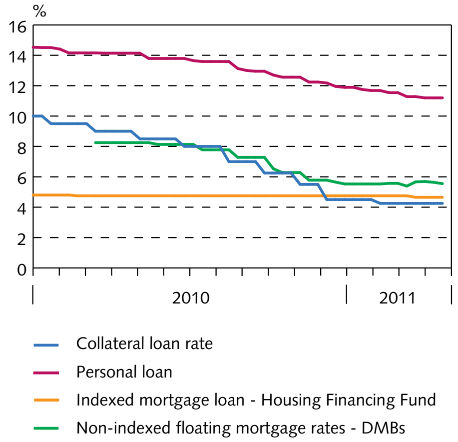


Chart III-11
Housing market prices and turnover in greater Reykjavík[1]
January 2000 - February 2011



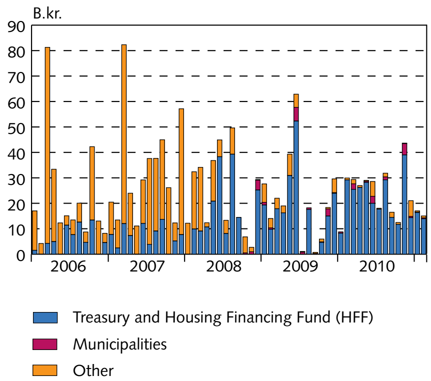
1. Turnover is based on the number of purchase agreements on the date of purchase. Monthly data.
Sources: Registers Iceland, Central Bank of Iceland.

Chart III-12
Collateral loan rate and retail lending rates
1 January 2010 - 15 April 2011



Source: Central Bank of Iceland.

Chart III-13
Bond auctions
January 2006 - February 2011



Source: Central Bank of Iceland.

Households' access to credit remains tight and lending rates are relatively high, even though the Central Bank has lowered its interest rates significantly. A number of factors may play a role in this. Uncertainty about the quality of the banks' loan portfolios and the general economic outlook probably makes financial institutions reluctant to begin lending to any marked degree and stands in the way of a more rapid reduction in lending rates. In addition, increased capital adequacy and liquidity requirements make financial institutions' funding more expensive and call for higher lending rates than would otherwise be necessary.

As a consequence, interest on general consumer loans and mortgages has not declined to the same degree as Central Bank interest rates. For example, the listed interest rate for general consumer loans still averages over 11%, whereas the Central Bank's collateralised lending rate is 4.25%. Indexed mortgage interest has declined little: for instance, interest on new loans taken from the HFF has fallen by only 0.15 percentage points since the beginning of 2010, even though HFF bond yields have fallen by nearly 1 percentage point on average. This growing discrepancy between central bank rates and retail lending rates is not restricted to Iceland, however, and larger spreads can even be found in some neighbouring countries. Interest on general consumer loans in the UK and Germany is about 8-9% and nominal interest on two-year fixed-rate mortgages is in the 4-6% range, whereas the two countries' policy rates are 0.5-1.25%.

Businesses' financial conditions are difficult as well, and there is little new lending for new projects. Corporate debt restructuring has been delayed. The implementation of the so-called "Straight Path," a mid-December agreement providing for co-ordinated action to resolve the debt problems of small and medium-sized companies, is proceeding slower than originally expected.[2] Firms' lack of confidence in credit institutions and the uncertainty about the legality of exchange rate-linked loan agreements have deterred borrowers from participating in the programme, although this uncertainty should not impede the progress of the Straight Path, as participating firms do not relinquish any rights by availing themselves of the solutions offered.[3] Most likely, the increased number of unsuccessful distraint cases in the past few months is a normal after-effect of the financial crisis rather than a sign of increased corporate financial distress. Unsuccessful distraint is a more accurate gauge of small and medium-sized companies' problems than bankruptcy is, as many smaller companies have no assets and are therefore not subjected to bankruptcy proceedings.

Larger companies have found it difficult to obtain new capital through bond issues, and the corporate bond market is largely inactive. As Chart III-13 shows, the Treasury and the HFF have virtually taken over the market for initial bond issues.

2. This information emerged at a conference on the progress of the Straight Path, held on 22 March 2011. The conference was sponsored by the Iceland Chamber of Commerce, Confederation of Icelandic Employers, Icelandic Financial Services Association, Ministry of Economic Affairs, and Ministry of Finance.

3. It should be borne in mind that corporate debt restructuring is a time-consuming and costly process that is particularly difficult for small companies. Presumably, small companies fear the cost that could accrue upon repeating the process once updated information is available.

When the international financial crisis began in late summer 2007, real house prices (deflated by the CPI) had been rising steeply for about a decade. In Iceland, real house prices rose by about 120% from the trough in 1997 to the peak in 2007, an increase of 8% per year on average. Similar developments could be seen around the world. In the US, for example, real house prices rose 81% from trough to peak (1997-2006), or an average of 7.2% per year. As Chart 1 shows, the rise in Iceland and the US was far larger than could be explained by increases in construction costs.[1]

A number of other countries saw similar trends. Of the countries compared in Chart 2, Iceland experienced the smallest price increases in the early part of the last decade. In 2005, however, real prices in Iceland rose by one-fourth, the largest increase by far. It is logical to link this surge in house prices to the structural changes in the market at the time: the Housing Financing Fund (HFF) raised its loan-to-value (LTV) ratio to 90% in late 2004, real mortgage rates fell from 5.1% to 4.15% at the same time, and the banks began competing with the HFF and in a short period of time acquired a sizable share of the mortgage lending market.[2] At the same time, loan terms were also very attractive in the US and other countries, output growth was strong, unemployment low, wages on the rise, and equities and real estate values soaring, all of which fuelled optimism and demand. As Chart 2 shows, the downturn was a global phenomenon as well. Of the countries in Chart 2, the US was first, with prices beginning to fall in early 2006. However, prices continued to rise until end-2007 in the UK and Iceland, which were last to see their housing markets collapse.

Can bubbles be prevented?

Economists generally agree that asset price bubbles are harmful.[3] They disagree, however, on whether bubbles can be prevented and what tools are best suited to the job. The disagreement centres in part on whether it is possible to identify price bubbles. It is usually easy to pinpoint bubbles after the fact. The question is, however, whether it is possible to identify them during the upswing, and well before they burst. Although it is desirable that action be taken in order to prevent severe imbalances in asset markets, it is also important to prevent bubbles from bursting with a bang; i.e., to ensure that the actions taken do not lead to a steep, abrupt decline in prices, with the associated implications for the entire economy. It is also important to bear in mind that attempts to contain price developments driven by fundamentals could be costly. The soaring house prices in the US after World War II are an obvious example of rising prices that did not reflect a housing bubble.

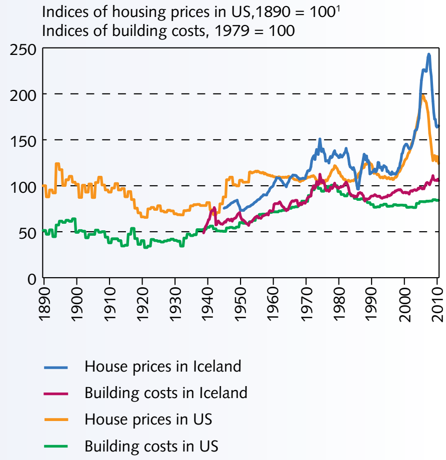
1. Robert Shiller's index of real US house prices is used in the United States, while the Icelandic index is compiled using data from Statistics Iceland. The real building cost index for the US is also obtained from Shiller, whereas the Statistics Iceland building cost index and the CPI are used for Iceland. The Shiller Home Price Index for the US is assigned a value of 100 for the year 1890. The Icelandic index was assigned a value of 107.9 as of Q1/1970, aligning it with the Shiller index value for that period. The Icelandic building cost index is assigned a value of 100 for 1979, aligning it with the Shiller index for the US.
2. See, for example, Lúdvík Elíasson and Thórarinn G. Pétursson (2009), "The residential housing market in Iceland: Analysing the effects of mortgage market restructuring", *Housing Studies*, 24, 25-45, which analyses the impact of these factors on house prices in Iceland. According to their findings, the reduction in mortgage lending rates and increased access to credit through laxer lending requirements led house prices to rise by 25% more than they would have otherwise and prompted a similar increase in residential investment. They found these effects to reverse over a period of 3-5 years, over which time house prices fell again and residential investment contracted.
3. This is discussed in the report compiled by the Central Bank of Iceland for the Minister of Economic Affairs, "Monetary policy in Iceland after capital controls," Central Bank of Iceland, *Special Publication* no. 4., pp 29-30.

Box III-1

Housing bubbles

Chart 1

Real house prices and building costs in the US 1890-2010 and Iceland 1945-2010

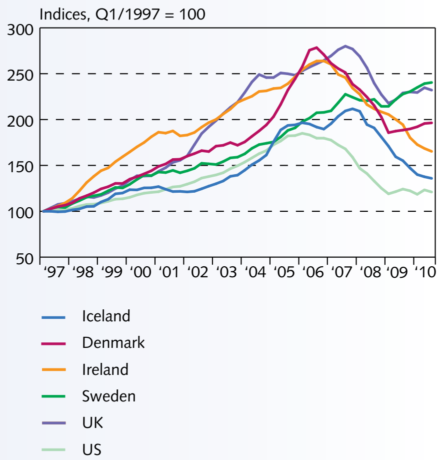


1. The Icelandic index was assigned a value of 107.9 as of Q1/1970, aligning it with the housing price index in the US.
Sources: Roberts J. Shiller's webpage, http://www.econ.yale.edu/~shiller/data.htm, Statistics Iceland, Central Bank of Iceland.

Chart 2

Real house prices in selected countries

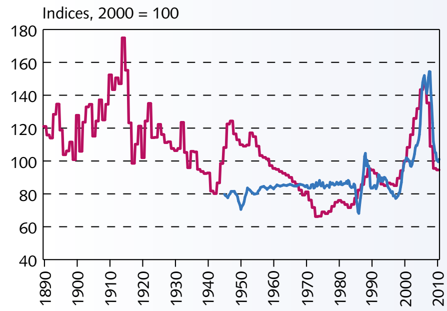
Q1/1997 - Q3/2010



Sources: Macrobond, Statistics Iceland.

Chart 3

The ratio of real house prices and building costs in the US 1890-2010 and Iceland 1945-2010

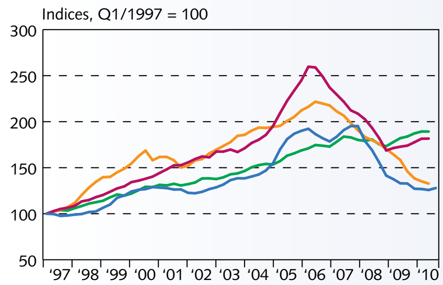


Sources: Roberts J. Shiller's webpage, www.econ.yale.edu/~shiller/data.htm, Statistics Iceland, Central Bank of Iceland.

Chart 4

The ratio of house prices to building costs in selected countries

Q1/1997 - Q4/2010



Sources: Macrobond, Statistics Iceland.

Measures to combat asset price bubbles – whether these include interest rate hikes, reduction of LTV ratios, or actions to reduce the credit system's lending capacity – all have a direct effect on lending and demand, but they also make an indirect impact by affecting expectations of house price developments and other economic variables in the future. Once an asset price bubble is well established, strong faith in its longevity begins to take hold – until the bubble bursts and the market collapses. It appears that this belief is not limited to the general public but extends as well to market analysts, brokers, and financial institution staff. After the bubble bursts, it usually appears obvious in retrospect that different decisions would have been more beneficial to investors trading in the market shortly before the collapse. It is often extremely uncertain when bubbles will burst, but an examination of Charts 1 and 2 shows clearly that it would have been appropriate to warn of a potential housing bubble well before the financial crisis struck.

Many economists are of the opinion that central bank interest rates are a blunt tool in the fight to contain housing bubbles. When annual house price increases are as large as they were in many markets before the current crisis, modest interest rate hikes are of limited use. Consequently, in order to control bubbles, it is necessary to use policy instruments that affect banks' lending capacity and/or borrowers' ability to borrow. The success of such measures depends to a large degree on individuals' and analysts' understanding of the measures and the authorities' ability to apply the correct tools in a timely manner. If the authorities apply policy incorrectly and/or the general public does not understand the measures used, the public could become convinced that the authorities are keeping prices low with restrictive measures in order to prevent a bubble that never developed.

Has the housing market normalised?

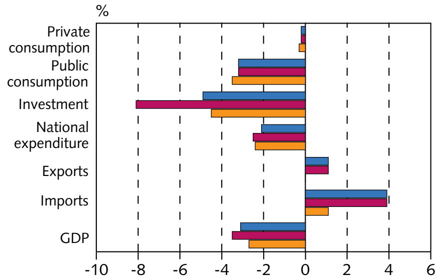
Chart 1 shows that, even though house prices have fallen sharply from their peak, real prices are still much higher than in 1997, when the upswing began, and well above historical averages. Chart 2 reveals that real house prices have fallen farther towards equilibrium in Iceland and the US than in the other countries included in the chart.

One way to gain a more accurate view of whether house prices are approaching equilibrium is to compare them with construction costs. If house prices are low relative to building costs, construction will not be overly profitable and investment in the sector will be limited. When house prices are high relative to building costs, however, profitability is considerable. According to Chart 3, the ratio of house prices to building costs is still above the long-term average in both the US and Iceland. Chart 4, which illustrates developments in Iceland, Ireland, Denmark, and Sweden from 1997 onward, indicates that this ratio is still dozens of percentage points above 1997 levels, in spite of the recent plunge in house prices. The chart shows that prices are now rising again in Denmark and Sweden. They rose in the UK as well, as can be seen in Chart 2. In Sweden they dropped slightly during the financial crisis but have already risen above pre-crisis levels.

IV Domestic demand and production

A shift towards a better balanced economy continued in 2010, after the abrupt adjustment in 2009. Even though GDP continued to contract, the economy seems to have turned around in the latter half of the year. The conditions for lasting recovery developed during the year: interest rates were lowered significantly, inflation fell sharply and now lies near the Central Bank's inflation target, and both house prices and the exchange rate have been relatively stable. GDP is assumed to grow by 2-3% in 2011 and the following two years, driven primarily by domestic private sector demand. The contribution of net trade to GDP growth will be negative, however, and fiscal austerity measures will hold back demand growth through 2012.

Chart IV-1
National accounts 2010 and
Central Bank estimate

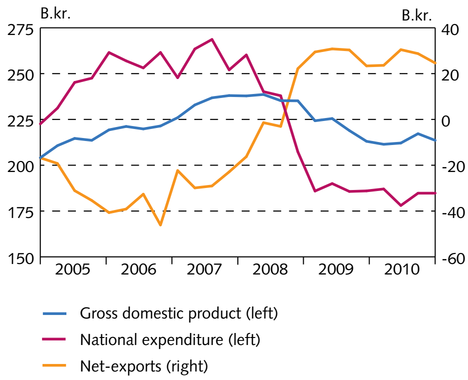


Sources: Statistics Iceland, Central Bank of Iceland.

Contraction in investment in 2010 appears sharper than forecast but less than indicated by preliminary Statistics Iceland figures

In March, Statistics Iceland published its first national accounts estimates for the full year 2010. According to those figures, investment contracted somewhat more during the year than the Central Bank estimated in February. The greatest difference is in growth in business investment, which the Bank's February forecast estimated at 14.4%, whereas Statistics Iceland's preliminary numbers indicate 0.9% growth. As in February, however, the Bank expects Statistics Iceland's preliminary figures to be revised upwards. This is based in part on the fact that imports of investment goods excluding heavy industry increased by nearly 20% in 2010. By the same token, the results of a survey the Bank conducted among Iceland's 56 largest firms (which account for about 60% of total business investment) suggest that general business investment grew by just over 8% in real terms in 2010 (see Box IV-1). Based on these findings, the Capacent Gallup corporate survey from February and March, and indications from simple statistical models, the Bank estimates that business investment in 2010 was some 7 b.kr. greater than according to Statistics Iceland estimates and that it increased by about 6.5% year-on-year in volume terms.[1] Total investment is therefore estimated to have contracted by 4.9%, as opposed to 8.1% according to Statistics Iceland. This is slightly more than the 4.5% contraction the Bank projected in February.

Chart IV-2
GDP, national expenditure and net-exports
Seasonally adjusted at year 2000 prices[1]



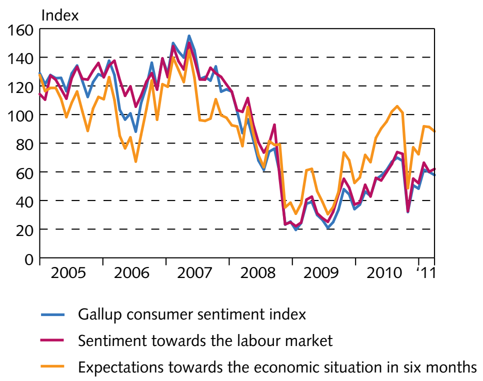
1. Figures for GDP and national expenditure are seasonally adjusted by the Central Bank. Because of the chain linkage, the sum does not necessarily add up to GDP.
Sources: Statistics Iceland, Central Bank of Iceland.

2010 GDP contraction outstrips previous forecast despite smaller decline in domestic demand

According to Statistics Iceland's preliminary figures, private and public consumption were slightly stronger than the Central Bank forecast in February. After adjusting for the Bank's estimate of developments in investment during the year, the contraction in national expenditure was 2.1% in 2010, instead of the 2.4% projected in February. The contraction in GDP is estimated to have been somewhat larger, how-

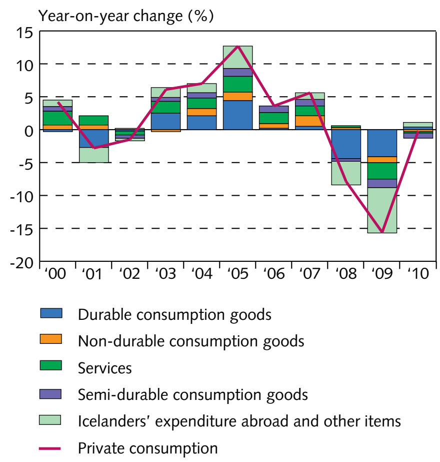
1. Capacent Gallup conducts a quarterly survey of the status and future prospects of Iceland's 400 largest firms. Two of the surveys are rather broad in scope and are carried out in February/March and September each year, while the other two, carried out in May/June and December, are more limited.

Chart IV-3
Consumer confidence indices
January 2005 - March 2011



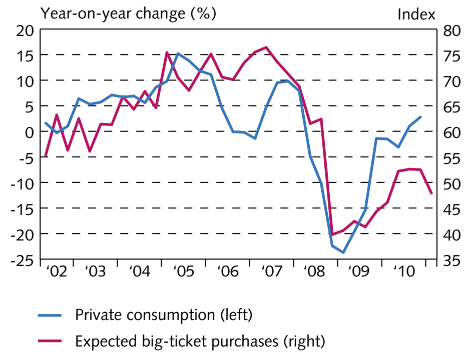
Source: Capacent Gallup.

Chart IV-4
Private consumption development
and main components 2000-2010



Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-5
Private consumption and expected
big-ticket purchase index
Q2/2002 - Q1/2011[1]



1. Figures for private consumption are only available until Q4/2010.
Sources: Capacent Gallup, Statistics Iceland.

ever, or 3.1%, as opposed to the 2.7% in the February forecast.[2] A larger contraction in GDP despite a smaller contraction in national expenditure is due to the fact that the contribution of net trade to output growth was more strongly negative than previously expected. Export growth proved stronger than forecast, however; thus the deviation stemmed from an unexpected surge in imports, which in turn was due largely to the revision of Statistics Iceland figures on services imports in the first three quarters of the year. Thus domestic demand has been directed more outside the domestic economy than was assumed in the February forecast.[3]

Household spending rose as 2010 progressed …

After a long contractionary period, private consumption began growing again in Q3/2010. In terms of seasonally adjusted quarter-on-quarter growth, it rose still more in Q4. Also in the latter half of the year, private consumption grew year-on-year for the first time since Q1/2008. Conventional factors such as a rise in real wages or asset prices cannot be identified as the drivers of increased private consumption. A more likely explanation is a cutback in households' precautionary saving, which rose in the wake of the banks' collapse. It is well known that consumers step up their saving in times of great uncertainty about economic developments and labour market prospects. As time passes and private sector balance sheets are clarified, this uncertainty diminishes. In the latter half of 2010, for instance, consumers' assessment of the labour market and the economic outlook six months ahead indicated increased optimism about the future. This should lead to a decline in precautionary saving and a pickup in spending.

The recovery of private consumption in the second half of 2010 was probably directed mainly towards durable and semi-durable consumer goods, as spending on these items contracted sharply in the wake of the financial crisis and the collapse of the króna. The Icelandic Centre for Retail Studies' examination of trends in sales of electronic equipment and furniture during 2010 supports this conclusion. In addition, the Capacent Gallup surveys of planned big-ticket purchases show that, in 2010, planned motor vehicle purchases and overseas travel rose markedly from their post-crisis trough. Statistics Iceland's preliminary figures on private consumption, itemised by major consumption categories, reveal a similar trend.

Households were also able to ease temporary financial problems by tapping into third-pillar pension savings. Furthermore, it can be assumed that the Supreme Court rulings on the illegality of exchange-rate linked loans and the reimbursement of overpayments on such loans supported this development. The reduction of loan principal and

2. This is a smaller contraction than the 3.5% indicated by Statistics Iceland figures, however. The stronger contraction in Statistics Iceland numbers is due entirely to an extremely weak fourth quarter, as measured annual growth in the first three quarters of the year according to Statistics Iceland figures is greater than was assumed in the Bank's February forecast.

3. In the national accounts for 2010, it is also interesting to note how widely changes in inventory fluctuate within the year. Statistics Iceland figures include inventories of aluminium, ferrosilicon, marine products, and imported petroleum products. Imports and exports of these products take place in very large units. As a result, the date of their import or export could make a decisive difference in inventory figures.

debt service contributes as well, as does the fact that a great deal of the uncertainty about household balance sheets has been eliminated. Another indicator of increased consumer spending is the rise in real estate market turnover and planned big-ticket purchases. Further discussion of households' financial conditions can be found in Section III.

… and slow recovery of private consumption is expected to continue

Private consumption is expected to continue growing in 2011, albeit slowly. In examining year-on-year growth in private consumption, it is necessary to consider the base effects of private consumption in the prior year. Owing to the developments within the last year, a comparison of annual averages reveals a considerable increase in 2011 even though quarter-on-quarter growth is moderate. It can be assumed, then, that the year-on-year change in Q2/2011 reflects to some extent the base effects from last year. Because of the timing of last year's Easter holidays, many purchases related to Easter took place in Q1, whereas most of the same purchases will be made in Q2 this year.

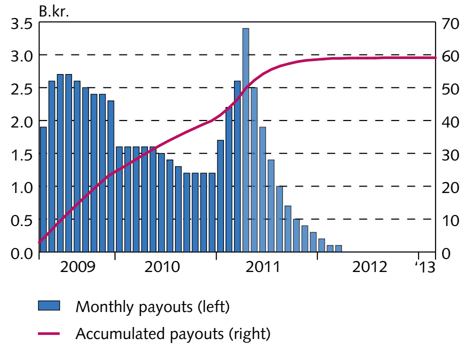
Leading high-frequency indicators for Q1/2011 indicate that private consumption declined somewhat quarter-on-quarter. However, payment card turnover figures, which suggest a slight decline, are offset by groceries turnover figures, which indicate a slight increase. In the forecast presented here, seasonally adjusted private consumption is projected to decline by 0.5% quarter-on-quarter in Q1/2011 but to increase by 1.3% year-on-year. The forecast assumes 2.7% growth for the year as a whole, but unlike earlier recoveries, sharp rises in real income or asset prices are not the drivers of the increase. Most likely, the spurt in household spending is due to the reduction of uncertainty about households' financial position and the reimbursements of overpaid exchange rate-linked loans. Real disposable income is projected to rise slightly in 2011, after a 3.6% contraction last year and a 20% contraction over the past two years. In this respect, the projected recovery of consumer spending is considerably more fragile than growth driven by a sound recovery of income.

Further along in the forecast horizon, real disposable income is projected to grow by about 1% on average over the next two years, as unemployment declines and household wealth begins to rise again. These factors will support private consumption, which is projected to grow by approximately 3% per year in the next two years, slightly below historical averages. Private consumption as a share of GDP will therefore remain somewhat below the average of recent decades over the next two years. The forecast assumes that the share of private consumption in GDP will be just over 50% during the forecast horizon, as opposed to an average of over 58% during the period 1980-2008.

Fiscal restraint contains domestic demand

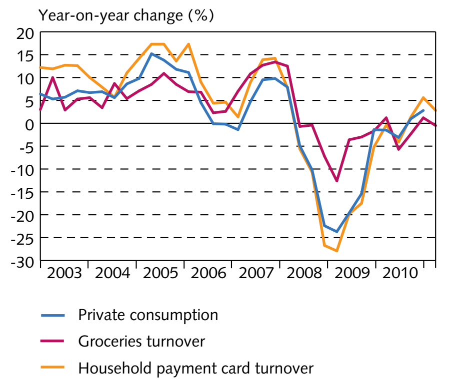
Domestic demand contracted steeply in the wake of the financial crisis. In spite of fiscal austerity measures, public expenditure in real terms contracted much less than private expenditure in 2009. The reduction in private expenditure totalled 26%, whereas public

Chart IV-6
Third-pillar pension fund payouts[1]
April 2009 - February 2013



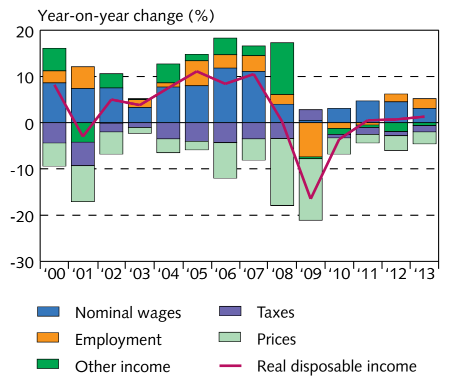
1. The chart shows monthly payouts and accumulated payouts from third-pillar pension funds according to applications filed by end-Marcht 2011.
Sources: Directorate of Internal Revenue, Central Bank of Iceland.

Chart IV-7
Private consumption, groceries and household payment card turnover
Q1/2003 - Q1/2011[1]



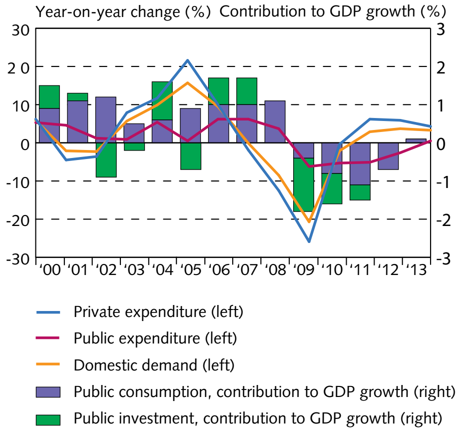
1. Figures for private consumption are only available until Q4/2010.
Sources: Centre for Retail Studies, Statistics Iceland, Central Bank of Iceland.

Chart IV-8
Developments in real disposable and its main components 2000-2013[1]



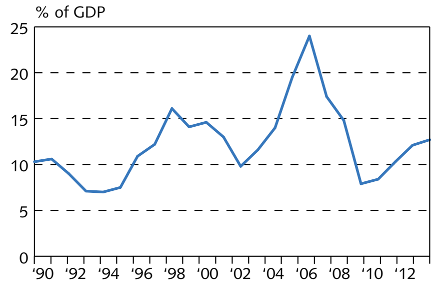
1. Central Bank baseline forecast 2011-2013. The contribution of the main underlying factors in the yearly changes in real disposable income is calculated based on each factor's weight in disposable income. The combined contribution of underlying factors does not add up to the total change due to rounding and incomplete income accounts for households from Statistics Iceland.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-9
Private and public expenditure and domestic demand
2000-2013[1]



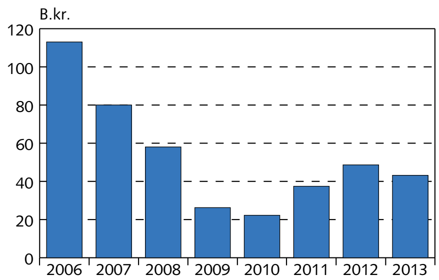
1. Central Bank baseline forecast 2011-2013
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-10
Business fixed investment 1990-2013[1]



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

Chart IV-11
Large scale investment 2006-2013[1]



1. Constant 2000 prices. Central Bank baseline forecast 2011-2013.
Source: Central Bank of Iceland.

expenditure contracted by 6%. As a result, the fiscal deficit moderated the contraction in 2009, but this was reversed in 2010 when private expenditure declined by only 0.4% year-on-year, concurrent with a 5.2% drop in public expenditure.[4]

Public expenditure is expected to contract still further in 2011. Public consumption is projected to contract by over 4% and public investment by nearly 15%. In 2012, public consumption is expected to continue to decline, whereas public investment is expected to remain broadly flat. Beginning in 2013, however, public expenditure will begin to rise again in volume terms. If the forecast materialises, the contribution of public expenditure to GDP growth will remain negative in 2011 and 2012, even though improved public sector performance will probably make a positive impact on the economy through other factors such as lower risk premia and lower interest rates.

Outlook for stronger business investment than previously forecast

The present forecast assumes considerably more investment in energy-intensive industry than did the February forecast. The increase is due primarily to two factors. The first is the new silicon plant that the Icelandic Silicon Corporation plans to build at Helguvík. Construction is expected to begin this year and continue until 2013. The annual production value of the plant is estimated at 10 b.kr. The second is the expansion of the Alcoa-Fjarðaál plant in Reyðarfjörður, which will add increased production capacity for export in 2013-2014. The growth in investment due to both projects totals some 35 b.kr., with a portion occurring in 2011 and the bulk occurring in 2012. On the whole, it is estimated that investment in energy-intensive industry, together with initial investments those sectors, will increase by 68% in volume terms and equal about 74 b.kr. in 2011. For 2012, this investment is estimated to total almost 97 b.kr., which corresponds to a 30% volume increase. In comparison, the February forecast assumed a 36% increase in energy-intensive investment in 2011 and a 27% increase in 2012.

According to the Bank's survey of larger firms' investment plans (see Box IV-1), business investment apart from heavy industry, ships, and aircraft is assumed to contract in 2011. On the other hand, a substantial increase in investment in energy-intensive industry is expected. Based on the survey and other indicators, total business investment can be expected to increase by 24½% this year and by 21% in 2012. Growth is expected to slow down to just over 8% in 2013, however, by which time the energy-intensive investment projects will be more or less complete.

4. Here private expenditure is the sum of expenditure for private consumption, business investment, residential investment, and inventory changes. Public expenditure is therefore the sum of expenditure for public consumption and public investment.

Box IV-1

Survey of large corporations' investment

Business investment is unusually uncertain at the present juncture. The Central Bank's analysis has usually been based on information on investment goods imports and the Capacent Gallup survey among Iceland´s 400 largest firms of investments in 2011 and 2012, but it is difficult to draw conclusions about the scope of investment based on these data. As a result, the Bank carried out its own survey among firms whose turnover exceeded 4 b.kr. in 2009. Respondents were asked for information on investment in the past two years and planned investments in 2011. A total of 43 firms were selected, and all of them submitted responses. In addition, over the past several years the Central Bank has compiled detailed information on investments by Iceland's 13 energy producers, utility companies, and companies in energy-intensive industries. This information provides an important indication of developments in investment in 2010 and planned investment for 2011, as the firms participating in the survey, together with energy producers, utility companies, and companies in energy-intensive industries, accounted for about 60% of total business investment in 2009.

Table 1 Nominal corporate investment 2009-2011

Largest 43 firms (number) *Amounts in ISK millions*	*2009*	*2010*	*2011*	*Change between '09-'10, %*	*Change between '10-'11, %*
Fisheries (10)	5,638	6,743	3,820	19.6	-43.3
IT and communications (6)	4,392	4,476	3,683	1.9	-17.7
Wholesale and retail sales (10)	4,222	2,185	2,400	-48.2	9.8
Manufacturing (9)	2,441	3,106	3,312	27.2	6.6
Services, transport, etc. (8)	7,389	8,065	11,170	9.1	38.5
Total (43)	24,082	24,575	24,385	2.0	-0.8

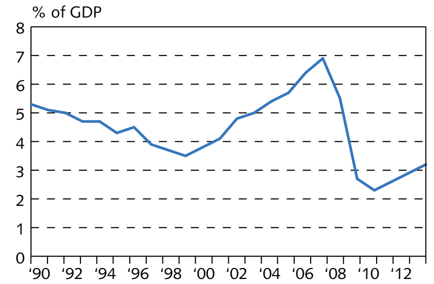
Indications for 2010

Investment by the 43 firms in the survey accounted for about one-fifth of business investment in 2009. The survey shows that these companies' investment rose by about 2% in nominal terms between 2009 and 2010. Twenty-one firms invested more in 2010 than in 2009, whereas 18 invested less. If it is assumed that general investment followed roughly the same pattern between the two years, and if investment in energy-intensive industry, the Harpa concert and conference centre, and ships and aircraft is included as well, total business investment rose by over 8% in real terms in 2010.

Indications for 2011

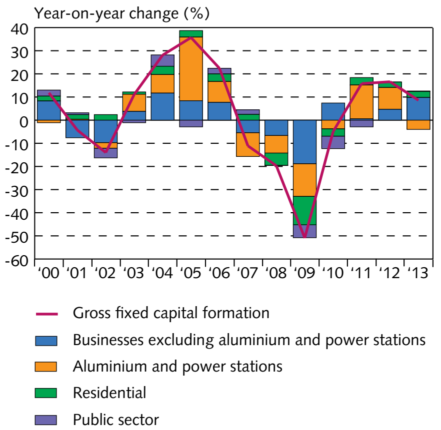
The results of the survey of the 43 firms' investment plans for 2011 indicate that nominal investment will be nearly 1% less this year than in 2010. A breakdown by sector reveals that fisheries' planned investments for 2011 will be about half of last year's total. A contraction is indicated in the information technology and communications sector as well. On the other hand, the survey suggests a marked increase in investment by companies in transport, retail and wholesale trade, manufacturing, and miscellaneous other operations. According to the findings, 19 firms intend to step up investment, while 11 intend to reduce it. It is also revealed that average growth in investment during the year is considerably below the median, indicating that the average is lower because a small number of firms intend to scale down investment significantly. When the plans of energy producers, utility companies, and companies in energy-intensive industries are added, together with ships, aircraft, and the Harpa concert and conference centre, the survey suggests that business investment will increase by nearly 23% in real terms in 2011.

Chart IV-12
Investment in residential housing 1990-2013[1]



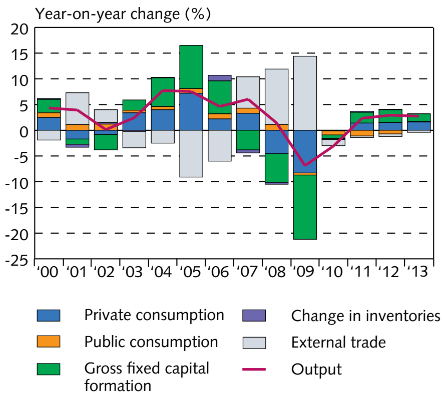
1. Central Bank baseline forecast 2011-2013.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-13
Gross fixed capital formation and contributions of its main components 2000-2013[1]



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

Chart IV-14
Output growth and contribution of underlying components 2000-2013[1]



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

Residential investment at a low ebb

Residential investment contracted steeply in 2009 and continued to decline in 2010. According to preliminary figures from Statistics Iceland, last year's contraction amounted to 17%, slightly less than according to the February *Monetary Bulletin*. A marked year-on-year increase was then measured in Q4/2010, but it should be borne in mind that, in the deep slump that has characterised the housing market since the onset of the crisis, the amounts behind these percentage increases are not large in a national accounts context. Residential investment was at a historical low in 2010, as was other investment. Residential investment has long hovered around 4-5% as a share of GDP, peaking at nearly 7% in 2007. By 2010, it was down to 2.3%, its lowest point in recent history.

The number of homes under construction rose dramatically around the middle of the last decade. During the financial crisis, the trend turned around and, in 2009, construction began on only 155 homes and only 484 were completed during the year. During the period 1983-2000, however, between 1,100 and 1,200 properties on average were begun and completed. At year-end 2009, 3,549 homes were under construction. Sources from the master carpenters' labour union indicate that few new construction projects began in early 2010 and that continuing work on unfinished property was very limited. The work available centred on repair and maintenance, due in part to the stimulus provided by recent tax incentives. Later in 2010, demand for new housing increased, and contractors began work on some of the homes under construction, in a bid to finish them. The outlook is for new construction to remain limited in 2011 and for emphasis to be on completion of buildings currently under construction. The present forecast assumes that residential investment will gradually recover in the next few years, rising to just over 3% of GDP by the end of the forecast horizon.

Total investment projected to grow markedly in 2011 and 2012

Investment is expected to grow by nearly 16% in 2011, whereas the February forecast assumed just under 10%. For 2012, it is assumed to remain broadly in line with the February forecast, or about 16½%. According to the forecast, growth is expected to slow down to about 8½% in 2013, slightly less than was projected in February. The forecast assumes that investment growth will be driven primarily by investment in energy-intensive industry. Investment in other sectors will support overall investment growth in 2012 and will be the main driver of growth in 2013.

Negative contribution of net trade to GDP growth despite low real exchange rate

The steep decline in the real exchange rate called for a major rebalancing of the economy, mainly through reduced imports of goods and services. In 2010, imports totalled 33½% of GDP at constant exchange rates, as opposed to an average of 41½% during the period 2000-2008. Imports showed increasing signs of recovery later in the year, however, growing by nearly 4% year-on-year. The recovery of domestic demand that became more and more evident as the year passed was directed in ever greater measure towards imports, whereas domestic suppliers' ability to meet increased demand was somewhat limited, at least in the short run.

As Section II explains, exports have not increased to the same degree, as a large share of Iceland's goods exports are limited either by capacity constraints that take time to address or by fishing quotas. As a result, the contribution of net trade to GDP growth was negative last year and appears set to remain negative in 2011 and 2012.

Slow GDP growth on the horizon

National expenditure is projected to increase by nearly 3% in 2011 and by 3½-4% per year in the two years following. The growth forecast for 2011 is roughly ½ a percentage point more than was projected in February, while slightly weaker growth is expected for 2012 and 2013.

According to the forecast, GDP growth will be about 2.3% this year. In 2012 and 2013, the continued recovery of domestic demand is expected to be the main driver of 3% output growth for each of the two years. This forecast is an average of ½ a percentage point lower per year than was projected in February, due primarily to a more negative contribution from net trade.

Implications of the economic slump generate uncertainty about estimates of potential output

The Icelandic economy has contracted sharply since the onset of the financial crisis in 2008, and a substantial slack has developed. The clearest manifestation of this is an unemployment rate well above any estimate of its natural level. Assessments of potential output are generally subject to considerable uncertainty, but after turmoil like that reigning in Iceland in the past few years, there is particular uncertainty about how potential output has developed and is likely to develop in the short and long term. The labour market is undergoing a sharp adjustment, but when output begins to increase, employment is expected to start rising again, reducing the jobless rate. Exactly how much potential output has been lost permanently as a result of the past few years' contraction is highly uncertain. It will be determined in part by the long-term effect on labour supply and skills, and how successful the authorities are in protecting the human resources that are not utilised during a period of high unemployment. As regards the capital stock, it is clear that considerable capital exists, both production machinery and buildings, although a part of the capital stock has been lost; for example, through sales abroad. As is shown in Chart IV-15, the remaining production capital has been underutilised in the past two years, and it can be time-consuming to shift those factors into use in competitive sectors. As a result, the speed of the recovery will depend greatly on how successful this rebalancing of production factors towards the tradable sector proves to be.

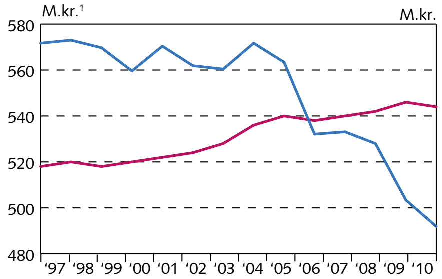
Sizeable output slack

In spite of great uncertainty, the Central Bank considers it likely that the past two years' GDP contraction did not emerge fully in the out-

Chart IV-15

Capital and labour productivity 1997-2010

Constant 2000 prices



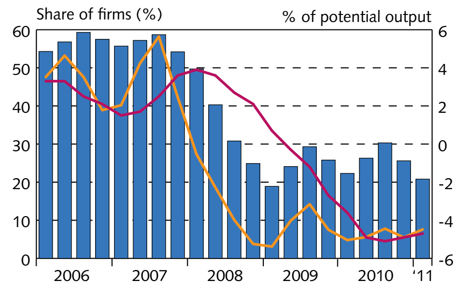
GDP per capital unit (left)
GDP per man-year (right)

1. GDP in m.kr. per b.kr. of capital excluding residential housing capital.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-16

Indicators of use of production factors and output gap[1]

Q1/2006 - Q1/2011



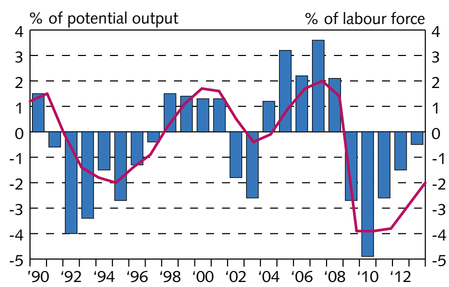
Have difficulty responding to unexpected demand (left)
Output gap (right)
Shortage of labour (left)

1. According to Capacent Gallup Sentiment Survey among Iceland's 400 largest firms. Data on the difficulty of responding to unexpected demand are reported semiannually; and therefore a linear interpolation is used to generate quarterly data. Output gap is the Central Bank's estimate.
Sources: Capacent Gallup, Central Bank of Iceland.

Chart IV-17

Output and employment gap

1990-2013[1]



Output gap (left)
Employment gap (right)

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

put slack because some potential output has been lost, both in terms of declining labour supply and reduction of the capital stock, and in terms of weaker total factor productivity. The results of the Capacent Gallup opinion survey among Iceland's 400 largest firms suggest a sizeable output slack. Only a small percentage of firms indicate that they would have difficulty responding to unexpected demand, and even fewer say they are short-staffed. As is mentioned above, output growth is projected at just over 2% in 2011. Consequently, the output slack is forecast to diminish slightly during the year, to about 2½% of potential output, although it will continue until the latter half of 2014, by which time the remaining spare capacity will have disappeared.

V Public sector finances

The Government-IMF programme for balanced public sector finances has included expense related to the Icesave dispute in accordance with the draft agreement as current at any given time. The Central Bank's current assessment of the Treasury's debt and interest expense does not include obligations related to Icesave, however, because the agreement was rejected in the 9 April referendum. Given the scope of the uncertainty about the ultimate conclusion of the dispute, it would be difficult to try to estimate the final expense. Government sector performance therefore improves in the short run, but in other respects, the outlook is broadly in line with previous Central Bank forecasts.

Fiscal plan on track …

The adjustment of public sector finances to a reduced tax base and increased debt continues and was broadly on schedule in 2010. The Government's plan assumes that a primary surplus will be achieved this year through broad-based austerity measures. The surplus is expected to be less than 1% of GDP for 2011. The last time the primary balance was positive was in 2007, when it amounted to 5.7% of GDP. The primary deficit was largest in 2009, at 6.5% of GDP.

… but further austerity measures will be necessary in the next two years

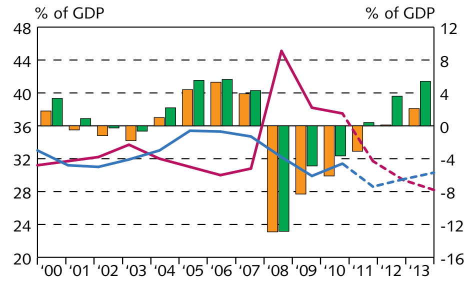
The Government-IMF plan to achieve a fiscal balance provides for further measures to bring about a primary surplus amounting to 6% of GDP in 2013, the plan's final year. If this is successful, the overall balance will be positive by 2.1% of GDP, preventing further debt accumulation and securely anchoring expectations of fiscal sustainability.

Nominal public consumption unchanged since crisis struck

Since Q4/2008, public consumption – consumption by the Treasury, the municipalities, and the social security system – has remained unchanged in nominal terms, at close to 100 b.kr. each quarter. This is a dramatic turnaround from the decade before the crisis, when nominal public consumption growth averaged nearly 11% per year. If current plans materialise, nominal public consumption will remain unchanged for at least the next two years but will decline as a share of GDP.

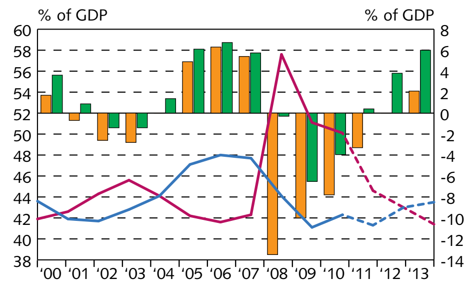
Public consumption contracted by 3.2% in volume terms in 2010, as opposed to the 3.5% assumed in the last *Monetary Bulletin*. The forecast for a contraction this year is broadly unchanged, but in 2012 the contraction is expected to be larger than previously assumed because of the increase in the price of public consumption. Public consumption has been unchanged in nominal terms for the past two years but has declined in real terms because of price level changes. This trend is assumed to continue over the next two years. Changes in the forecasted volume change of public consumption do not imply a changed assessment of fiscal policy or a different interpretation of the budget proposal, but rather a change in the outlook for public

Chart V-1
Treasury finance 2000-2013[1]



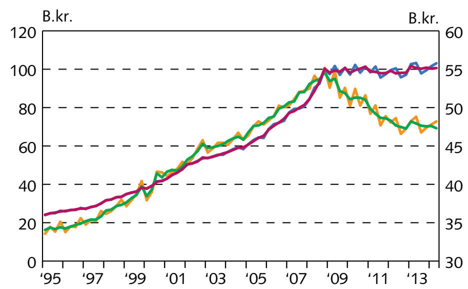
1. Central Bank baseline forecast 2011-2013.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-2
Government sector finance 2000-2013[1]



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

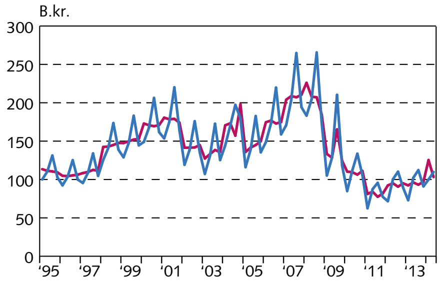
Chart V-3
Nominal and real public consumption growth
Q1/1995 - Q2/2014[1]



1. Central Bank baseline forecast Q1/2011 - Q2/2014.
Sources: Statistics Iceland, Central Bank of Iceland.

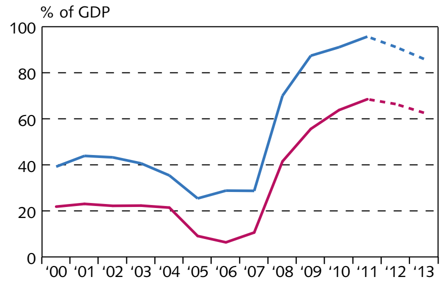
consumption prices. The outlook for nominal consumption spending over the forecast horizon is broadly unchanged since the last forecast.

Chart V-4
Real public investment growth
Q1/1995 - Q2/2014[1]



1. Central Bank baseline forecast Q1/2011 - Q2/2014.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-5
Government sector debt
2000-2013[1]



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

Investment continues to contract sharply

The Association of Local Authorities in Iceland estimates that municipal investment will contract by as much as 30% year-on-year in nominal terms in 2011, and according to the National Budget, nominal Treasury investment is estimated to contract by 24%. Two factors raise the projected investment level over and above the last forecast. First, the Vaðlaheiðar tunnel is included in the forecast, as construction is to begin this year. Second, the new coast guard vessel, Þór, is expected at the end of August, but it will not be included in the national accounts until delivery, although payments for its construction have been included in the National Budget in recent years. As a result, the Q3 national accounts specify investment in the amount of 4.9 b.kr., even though the 2011 National Budget only allows 530 m.kr. for the construction of the ship.

Total public investment for 2011 is therefore estimated at 35 b.kr., as opposed to 41 b.kr. for 2010. When public investment peaked in 2008, it amounted to 64 b.kr. at that year's price level. At the 2008 price level, investment for this year totalled 28 b.kr., which is equivalent to a 56% contraction in volume terms over three years.

Negative contribution of investment and public consumption to GDP growth

The contribution of public investment and public consumption to GDP growth has been negative since 2009. Other things being equal, cumulative GDP growth for the years 2009 to 2013 is nearly 3 percentage points less due to the contraction in public consumption and 2½ percentage points less due to the contraction in investment. The contribution of the public sector to GDP growth is assumed to be neutral or slightly positive in 2013.

Treasury debt level still unclear

The last *Monetary Bulletin* presented the public sector debt position without the possible Icesave obligation because of the uncertainty about its size. That uncertainty still exists even though the Icesave agreement was rejected in the recent referendum.

The net public debt ratio is projected to peak this year at nearly 69% of GDP and then, beginning in 2012, decline gradually to 51% of GDP in 2015. The assessment of net debt includes only the public sector's cash assets. This is the method used by the IMF for countries that have received emergency loan facilities from the Fund. It is intended to show what the financing need would be if it should prove necessary to pay off the debt over a short period of time. As a result, net debt is not considered comparable to net debt in other countries, where it is the custom to include other monetary assets excluding capital stock, equity holdings, and initial capital. If Iceland's net public sector debt is calculated in this manner, it amounts to about 45% of GDP. It is also assumed that gross public debt will peak this year at slightly under 100% of GDP.

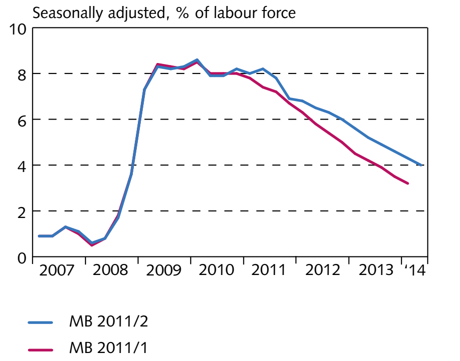
Relatively favourable funding conditions

The increase in external debt since 2006 stems solely from the expansion of the Central Bank of Iceland's foreign exchange reserves, as the deficit operations of the Treasury and the municipalities have been funded entirely in the domestic bond market. This has not led to a marked rise in domestic real interest rates, however, in part because of the reduction of Central Bank interest rates and declining inflation and also because of the capital controls, as capital that would otherwise have been invested abroad has been invested in Treasury and municipal bonds.

VI Labour market and wage developments

So far this year, unemployment has been in line with the February forecast. There are indications that unemployment has yet to rise. The current forecast assumes that it will peak in the first half of the year, with employment starting to rise at the same time. The negotiated pay rises in the upcoming wage settlements will probably be larger and more front-loaded than was assumed in the February forecast, and unit labour costs will therefore increase somewhat more than is consistent with the Central Bank's inflation target over the longer term. The prospects for employment growth and declining unemployment have deteriorated since February, due to a poorer output growth outlook and larger increases in wage costs than was previously forecast.

Chart VI-1
Unemployment - comparison with MB 2011/1

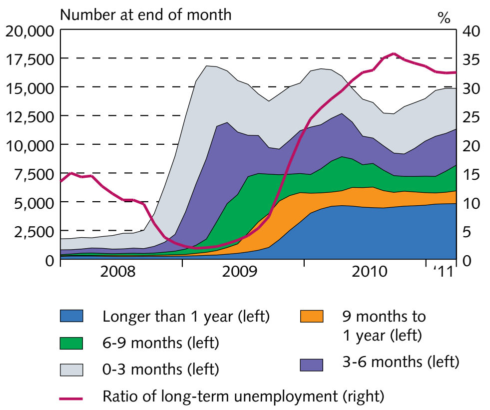


Sources: Directorate of Labour, Central Bank of Iceland.

Unemployment broadly in line with the February forecast

Unemployment as recorded by the Directorate of Labour (DoL) measured 8.6% in Q1/2011, which is in line with the forecast published in the February *Monetary Bulletin* and somewhat lower than the 9.2% measured at the same time a year ago. The number of long-term unemployed has remained broadly unchanged in the past year, with an average of 4,700 persons unemployed for more than one year. Among workers aged 16-24, it has been stable as well, at about 500 persons.

Chart VI-2
Unemployment by duration
January 2008 - March 2011



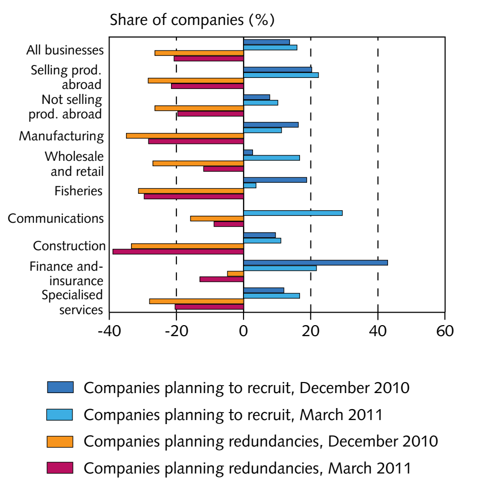
Source: Directorate of labour.

Firms considering redundancies outnumber those interested in recruiting

Households' expectations concerning the employment situation are broadly unchanged, although slightly more upbeat than in December, according to the Capacent Gallup Consumer Sentiment Index. The same is true of corporate expectations, according to Capacent Gallup in the survey carried out among Iceland's 400 largest firms in February and March. Slightly fewer firms expressed an interest in laying off staff in the February-March survey than in the December survey. The results of the survey indicate, however, that the labour market has yet to weaken somewhat, as firms wanting to shed staff in the next six months outnumber those wanting to recruit by about 5 percentage points. Over 40% of firms in the construction sector are interested in laying off workers, however. Exporters of goods and services are more likely to want to add on staff than are other firms.

The so-called "Straight Path", a joint Bank-Government debt restructuring programme for small and medium-sized companies, which is to be completed by the beginning of the summer, will probably raise unemployment temporarily, although it could secure a higher employment rate in the long run.

Chart VI-3
Companies planning to change staffing levels during the next 6 months



Source: Capacent Gallup.

Labour market outlook deteriorates

Indicators of developments in unemployment over the next few months suggest that unemployment has yet to rise. According to the baseline forecast, seasonally adjusted unemployment is expected to peak in Q2/2011 and then gradually taper off as economic activity increases, to just over 4% by mid-2014. The outlook for the next two years is somewhat worse than according to the last forecast, which projected that unemployment would fall to about 3% by the end of the forecast horizon. The difference stems from several factors: economic recovery is now expected to be slower; pay increases are larger than previously forecast; and the equilibrium unemployment rate, which is assumed to have risen temporarily following the crash, is expected to be slower to return to its previous level. It is likely that persistent unemployment has caused a loss of skills and that it will be more difficult to match workers with given skills and employers needing those skills. This problem may also lengthen the time it takes for the output slack to close (see Section IV).

Employment to rise slower than GDP during the forecast horizon

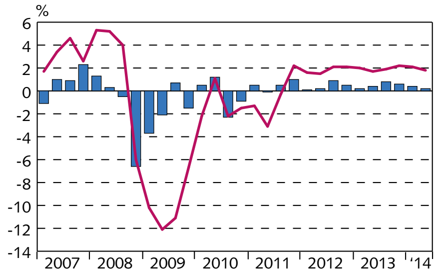
Employment is assumed to begin rising quarter-on-quarter in the first half of 2011, similar to the last forecast. On the other hand, it is expected to rise somewhat slower over the forecast horizon than was assumed in February. The number of jobs will therefore rise later and more slowly than GDP growth throughout the forecast horizon. The baseline forecast assumes that the employment rate (employed persons as a percentage of the population aged 16-64) will be somewhat lower than according to the February forecast throughout the forecast horizon, and 6-7 percentage points below the 2006-2007 peak at the end of the horizon, as the sectors hardest hit by the crisis are quite labour-intensive. Labour participation will therefore remain broadly in line with the previous forecast throughout the forecast horizon, about 3 percentage point less in 2013 than in 2007.

Unit labour costs set to rise more than in February forecast

So far this year, wage developments have been in line with the last forecast. Revised national account data shows, however, that wages rose more in 2007 and 2008, and less in 2009, than previous figures had indicated. The first numbers for 2010 suggest that wages rose slightly less than the Central Bank had projected. It is assumed that the figures for the past two years will be adjusted upwards once updated information is available from firms (see also the discussion of preliminary figures on investment in Section IV).

In mid-April, contractual wage negotiations between the Icelandic Federation of Labour and the Confederation of Icelandic Employers came to a halt after failing to produce a consensus, although draft short-term and long-term contracts had been under discussion. As a result, wage increases in coming years are highly uncertain. Based on the information currently available, wage increases appear likely to be larger and more front-loaded than was assumed in the February *Monetary Bulletin*. This would result in a larger increase in unit labour costs than was provided for in the last forecast. Unit labour costs are assumed to rise by about 3½% in 2011 and 2012, and by just over 2% in 2013. The increase in 2011 and 2012 is therefore somewhat more than is consistent with the Central Bank inflation target in the long run. Because nominal wage hikes will slightly outpace inflation during the forecast horizon, real wages will rise as well, most decisively in 2011, or 2%, and then by an average of 1% per year in 2012 and 2013.

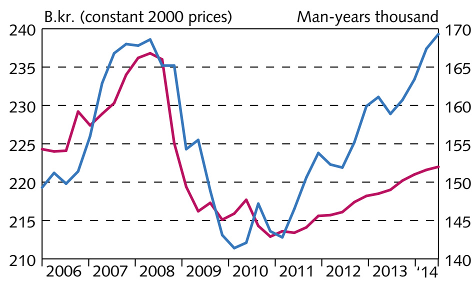
Chart VI-4
Employment
Q1/2007 - Q2/2014[1]



Employment (seasonally adjusted, quarter-on-quarter growth)
Employment (year-on-year growth)

1. Central Bank baseline forecast Q1/2011 - Q2/2014.
Sources: Statistics Iceland, Central Bank of Iceland.

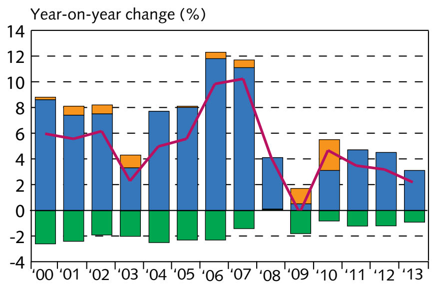
Chart VI-5
GDP and employment
Q1/2006 - Q2/2014[1]



GDP, seasonally adjusted (left)
Employment (man-years) seasonally adjusted (right)

1. Central Bank baseline forecast Q1/2011 - Q2/2014.
Sources: Statistics Iceland, Central Bank of Iceland.

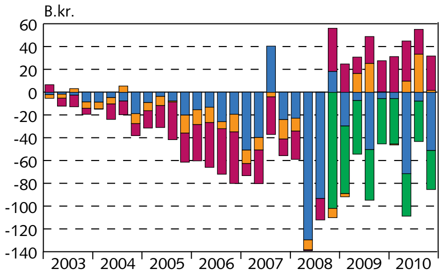
Chart VI-6
Unit labour costs and contributions
of underlying components 2000-2013[1]



Nominal wages
Labour costs other than wages
Trend labour productivity
Unit labour costs

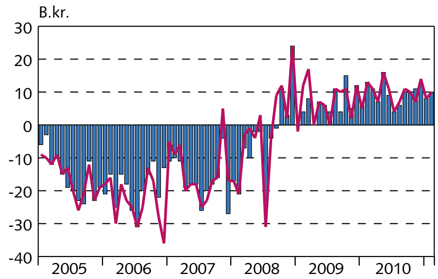
1. Positive labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2011-2013.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VII-1
Current account balance components[1]
Q1/2003 - Q4/2010



1. Net current transfer is included in the balance on income.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VII-2
Merchandise account balance
At fixed exchange rate, January 2005 - February 2011



Sources: Statistics Iceland, Central Bank of Iceland.

VII External balance

The current account balance was negative by roughly 8% of GDP, or 120 b.kr., in 2010, a considerably smaller deficit than in 2009. The trade account showed a surplus, while there was a 274 b.kr. deficit in the balance on income. The income account figures include accrued interest income and expenses due to deposit money banks (DMBs) in winding-up proceedings. As the majority of these will never be paid and will simply be eliminated when the estates are settled, it is appropriate to ignore them in analysing the external balance. If they are excluded, the balance on income shows a deficit of 128 b.kr., and the current account balance was therefore positive by 1.7% of GDP in 2010. The outlook is for a continued surplus on the current account after adjusting for the DMBs in winding-up proceedings.

Continued trade surpluses

The balance of trade was positive each month in 2010 and has been so since early 2009. The goods surplus for 2010 was almost 119 b.kr. Goods imports have been on the rise year-on-year since March 2010; they were up by over 11% year-on-year at constant exchange rates, and by nearly 4% in volume terms for 2010 as a whole. Exports also rose markedly in 2010, or by 16.5% at constant exchange rates, fuelled by a steep rise in aluminium and marine product prices during the year. In volume terms, however, goods exports contracted by 1.6%, due in particular to a downturn in exports of irregular items such as aircraft, although there was also a small contraction in marine product exports. Goods imports and exports have continued to rise in value so far in 2011, with a 25 b.kr. surplus in external goods trade in the first quarter of the year.

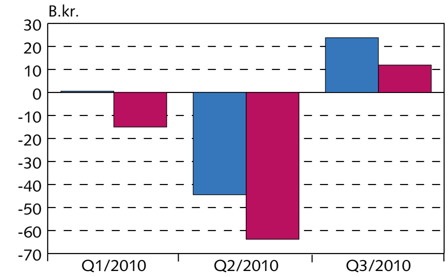
The services trade balance was positive by 44 b.kr. in 2010, a considerably larger surplus than in 2009. The first quarter saw a slight deficit, but the second and third quarters showed strong surpluses. Increased revenue from transport is the main cause of last year's larger service account surplus.

The outlook is for a surplus on the trade account this year. It is expected that export prices will keep rising, the real exchange rate will remain low, and demand for imports among Iceland's main trading partners will increase. Foreign payment card use in the first two months of the year suggests that the current tourist season has begun rather slowly as compared with 2010, although figures from the Icelandic Tourist Board suggest a year-on-year increase in the number of tourists in the first few months of 2011. The outlook is for a strong spring and summer in the tourism sector. The dramatic increase in air travel to Iceland should encourage rising revenues from service exports, and bookings have been going well so far. In spite of stronger import growth, the trade surplus is projected at 10.5% of GDP for 2011 as a whole, roughly 1½ percentage points lower than in the last forecast. Imports are expected to grow more rapidly than exports during the forecast horizon, spurred by increased domestic demand, yet the trade surplus is forecast at 9-10% of GDP for the next two years.

Revised figures reveal a larger current account deficit in 2010

The Central Bank's previously released income account figures for the first three quarters of 2010 have undergone major revision since *Monetary Bulletin* was published in February. The changes can be attributed to the receipt of new information, particularly concerning foreign direct investment, which strongly affected factor income, as expatriated reinvested earnings were much higher than previous figures suggested. Losses incurred by non-resident-owned domestic firms were much less than previously assumed; thus reinvested earnings were higher and the deficit in the balance on income correspondingly greater. It is worth mentioning that factor income figures for 2010 are not yet final and revisions often prove to be sizable. Services trade figures were also revised for the first three quarters of the year, resulting in a smaller surplus than previous numbers indicated. According to official data, the current account deficit for the first three quarters of 2010 was roughly 47 b.kr. less than previously expected, or about 3% of GDP.

Chart VII-3
Current account Q1-Q3/2010



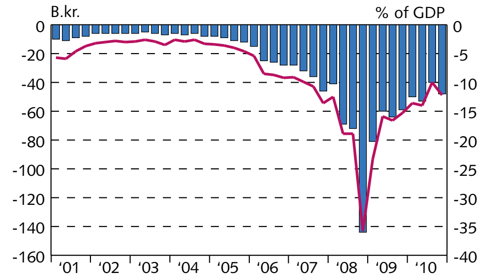
Sources: Statistics Iceland, Central Bank of Iceland.

Balance on income shows large deficit

In spite of a large surplus on the trade account in 2010, there was a large deficit on the income account. The deficit amounted to 274 b.kr., due primarily to a sizeable interest deficit. It was negative by 191 b.kr., and in addition dividends and reinvested earnings were negative by 85 b.kr. On the whole, the deficit in the balance on income was nearly 17% of GDP, which is almost the same as in the previous year. Nonetheless, the interest deficit narrowed by about 28% year-on-year, although it was more than offset by negative returns on dividends and reinvested earnings.

The deficit in the balance on income excluding DMBs in winding-up proceedings was much smaller, however, or 128 b.kr., because the interest deficit was only 45 b.kr., down substantially from 73 b.kr. in the previous year. Excluding the DMBs being wound up, returns on dividends and reinvested earnings were by far the largest negative item in 2010.

Chart VII-4
Net foreign interest payments
Q1/2001 - Q4/2010



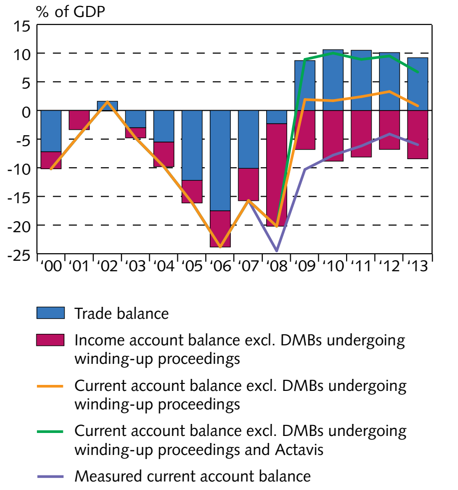
Sources: Statistics Iceland, Central Bank of Iceland.

Increased trade surplus in 2010 after adjusting for income and expenses of DMBs in winding-up proceedings

The balance on the trade account was positive by almost 162 b.kr. in 2010, while the deficit in the balance on income plus transfers totalled 283 b.kr. The current account balance was therefore negative by 120 b.kr., or 7.8% of GDP, but after adjusting for accrued interest due to the DMBs being wound up, it is positive by just over 26 b.kr., or 1.7% of GDP.

In spite of increased imports, the outlook is for a substantial surplus on the goods and services accounts in 2011, as the low real exchange rate supports continued export growth, particularly in the tourism sector. This will be offset by the negative balance on income. For the year as a whole, it is assumed that the official current account balance will be negative by nearly 102 b.kr., or 6.2% of GDP. After adjusting for the failed DMBs' accrued income and expenses, however, the current account balance turns positive by 39 b.kr., or 2.4%

Chart VII-5
Current account balance 2000-2013[1]



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

of GDP. As in recent years, unpaid accrued interest due to the banks being wound up weighs heavily in official current account balance statistics.

A recent *Economic Affairs* paper estimates the current account balance excluding both the DMBs being wound up and the international pharmaceutical company Actavis.[1] Because of the significant foreign borrowing undertaken by this international company headquartered in Iceland, Actavis' accrued interest has a strong effect on the balance on income. Clearly, the company's ability to service its debt will be determined by foreign sales and will therefore not affect the domestic foreign exchange market. For this reason, it is considered appropriate to ignore its factor income and expense when assessing the external position of the Icelandic economy. These conclusions have no effect, of course, on the importance of Actavis to the Icelandic economy and the value of the work done there.[2] If Actavis is excluded, the deficit in the balance on income is much less for 2011. Moreover, the current account balance excluding both Actavis and the DMBs being wound up is positive by 8.9% of GDP, instead of 1.7% of GDP if Actavis is included.

Underlying current account balance to remain positive in coming years

Interest income and interest expense are by far the largest items in the balance on income, if both Actavis and the failed DMBs are excluded, and their development will be an important determinant of developments in the current account balance over the next few years. Interest on foreign loans has declined steeply in recent years, as is reflected in falling interest expense. The current baseline forecast assumes, other things being equal, that international interest rates will rise gradually in coming years and that the interest balance will therefore deteriorate.

It is assumed that the deficit in the balance on income will narrow in 2011 and 2012, mainly because of lower interest payments. On the other hand, the deficit is projected to grow once again in 2013 due to rising interest rates in Iceland's main trading partners. The calculation of the balance on income is also based on the assumption that the settlement of the DMBs being wound up will be largely complete by 2013 and that an increased negative external balance will have developed, on which interest and dividends must be paid.

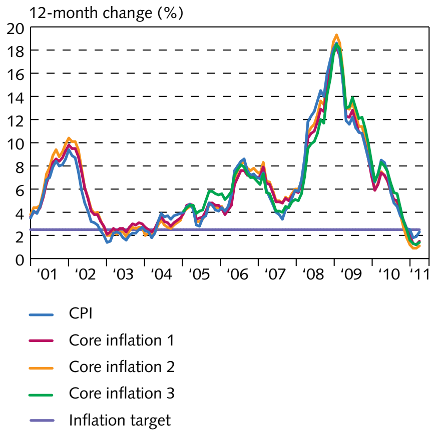
The official current account deficit will fall to around 4% of GDP in 2012 and then rise to 6% of GDP in 2013. The current account balance excluding the DMBs in winding-up proceedings is expected to remain positive in coming years. It is projected to grow to 3.3% of GDP in 2012 and then decline to less than 1% in 2013. If Actavis is excluded

1. Arnór Sighvatsson, Ásgeir Daníelsson, Daníel Svavarsson, Freyr Hermannsson, Gunnar Gunnarsson, Hrönn Helgadóttir, Regína Bjarnadóttir, and Ríkardur B. Ríkardsson (2011), *Economic Affairs* no. 4, February 2011.

2. Actavis also has a significant effect on figures on residents' foreign debt, and because there are few assets to offset the debt, the company has a strong negative impact on Iceland's international investment position. This is partly because the assets of a knowledge-based company such as Actavis are intangible and are thus not included in official figures. Such figures therefore give an incomplete view of the company's assets and liabilities. Consequently, there are grounds for ignoring this large company when assessing Iceland's future debt position.

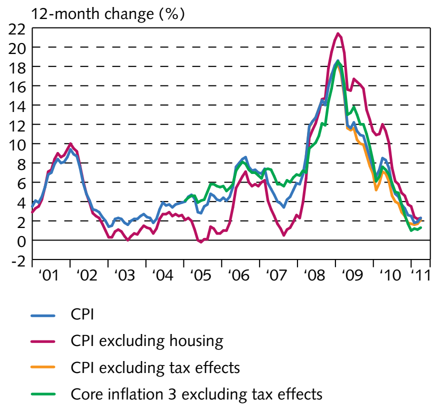
as well, the current account balance is even more strongly positive, or about 10% of GDP in 2012 and then declining to roughly 7% in 2013. This large surplus has a positive impact on the balance of payments and facilitates the rapid reduction of debt in coming years.

Chart VIII-1
Inflation
January 2001 - March 2011[1]



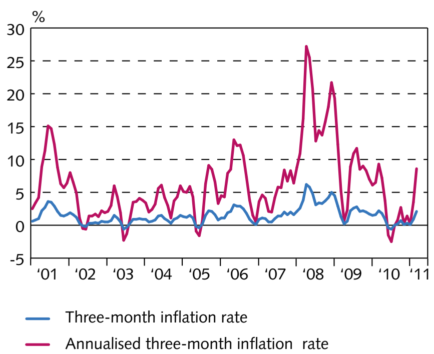
1. The core indices are compiled on the same basis as the CPI, with Core Index 1 excluding prices of agricultural products and petrol, and Core Index 2 excluding prices of public services as well. Core Index 3 also excludes the effect of changes in mortgage rates.
Sources: Statistics Iceland, Central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

Chart VIII-2
Various inflation measurements
January 2001 - March 2011



Source: Statistics Iceland.

Chart VIII-3
Seasonally adjusted inflation
January 2001 - March 2011



Sources: Statistics Iceland, Central Bank of Iceland.

VIII Price developments and inflation outlook

Inflation measured 2% in Q1/2011, somewhat above the forecast in the last *Monetary Bulletin*. The outlook is for higher inflation during the forecast horizon as well. Higher global oil and commodity prices, a weaker króna, and larger and more front-loaded wage rises during the forecast period leads to increased inflationary pressures, particularly in the short run. House prices have also begun to edge upwards. Inflation is forecast to average 2.8% in 2011, and 2.6% excluding consumption tax effects. Inflation expectations have risen by most measures, reflecting both a poorer inflation outlook and, to some extent, uncertainty about capital account liberalisation and its effect on the exchange rate. Uncertainty about the inflation outlook centres particularly on developments in inflation expectations, the exchange rate, and foreign price developments.

Inflation has risen again in recent months

At the beginning of this year, twelve-month inflation fell off sharply, to 1.8% in January, after reaching the 2½% inflation target at year-end 2010. It has eased upwards again in the past two months, however, showing the first increase in annual inflation since March 2010. The consumer price index (CPI) rose by 0.95% in March, and twelve-month inflation measured 2.3%. Underlying inflation – which excludes the effects of taxes, volatile items, public services, and interest expense – measured only 1.3%.

Inflation was 2% in Q1/2011, as opposed to 7.4% for the same period in 2010. Excluding tax effects, it measured 1.8% during the quarter. Consequently, inflation is still below the inflation target in spite of the recent increase. It should be noted, however, that because broadcasting fees were excluded from CPI measurements as of January 2011, this year's inflation is somewhat lower than it would otherwise have been. Other things being equal, inflation would have been 2.4% in Q1 if broadcasting fees were still included in the calculation of the CPI.

Several explanations for increased inflation

Several factors explain the past few months' rise in inflation. First of all, global oil prices have soared, pushing domestic petrol prices up by over 12% in the past three months (see Section II). The króna has depreciated by 4½% in trade-weighted terms since the beginning of the year, but the depreciation has not passed through to domestic food prices to any discernible degree. The contribution of petrol prices to 2.3% twelve-month inflation amounted to 0.7 percentage points in March. Only private services (CPI effect 0.8 percentage points) contributed more to inflation. The only component that has reduced twelve-month inflation is the price of other imported goods such as clothing, furniture, and miscellaneous housewares, which contributed to a 0.5 percentage point decline.

Another important factor in the recent rise in inflation is house prices. The twelve-month increase in house prices nationwide was 3½% in March, the highest measurement since before the banks collapsed.[1] Housing market turnover has risen somewhat in recent months, and the market appears to be perking up, although it is too early to say how lasting the trend will be. On the other hand, it is possible that support measures for indebted households, third-pillar pension payouts, and reimbursement or netting of overpayments of exchange rate-linked loans have clarified many households' financial position, thus facilitating housing market recovery (see Sections III and IV).

The price of private services has also risen somewhat since January, with the twelve-month increase measuring 3.8% in March. The price increase is due mainly to a rise in airfares, usually a very volatile item, and price hikes in telephone services and miscellaneous recreational activities. The effect of these price increases on the CPI in the past two months totals 0.3 percentage points, virtually the same as the effect of house price increases over the same period.

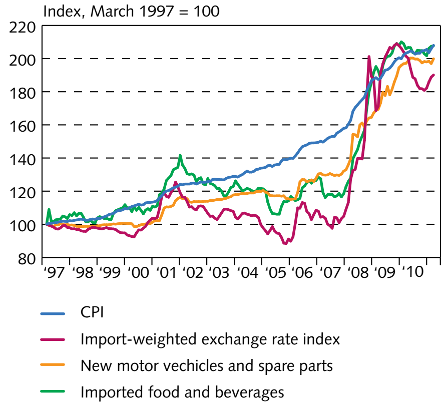
Inflation expectations have risen by most measures

Short-term inflation expectations have risen by most measures in the recent term, since the inflation outlook is poorer than generally expected. Inflation expectations based on the breakeven inflation rate, which is the spread between indexed and nominal bond yields, have risen since the last *Monetary Bulletin* was published, particularly for the long term. Based on the breakeven inflation rate, the expected average inflation rate in the next five years measures almost 3%, while the expected five-year average inflation rate five years ahead (expected average inflation in 2016-2021) is currently almost 5%. At the end of January 2011, long-term inflation expectations according to this measurement were 3.8%, after having been close to the inflation target last September.

The Central Bank has used the breakeven inflation rate as a means of assessing investors' inflation expectations. It should be borne in mind, however, that the yield spread reflects not only inflation expectations but also risk premia, reflecting uncertainty about factors such as inflation and liquidity risk. For example, it is not impossible that an increase in the yield spread could be related to fear of possible short-term selling pressure on nominal Treasury bonds in connection with capital account liberalisation or its effect on the inflation risk premium rather than a rise in inflation expectations. In addition, it is particularly difficult to assess inflation expectations based on bond market spreads at the present time because of the lack of marketable indexed short- and medium-term bonds. Market making with the Housing Financing Fund (HFF) bond series maturing in 2014 is very limited, affecting price formation for the series. The yield spread has increased enough in the recent term, however, that there is reason to suspect that long-term inflation expectations are above the inflation target and have risen recently. Thus it is clear that further work must be done in order to anchor inflation expectations securely. Such anchoring can be achieved only if the Central Bank is successful in keeping inflation at target for a sufficiently long period of time.

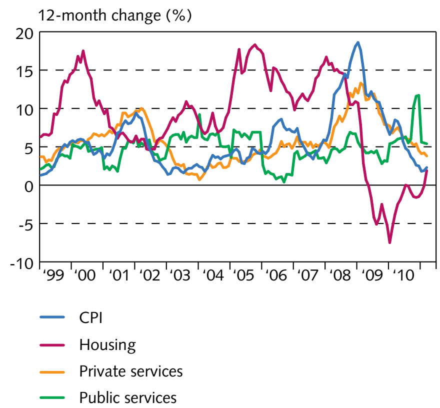
1. In the greater Reykjavík area, the price of condominium housing rose 1.9% year-on-year in March, and single-family home prices rose 1.2%. In regional Iceland, the annual increase was 8%.

Chart VIII-4
Import-weighted exchange rate and import prices
March 1997 - March 2011



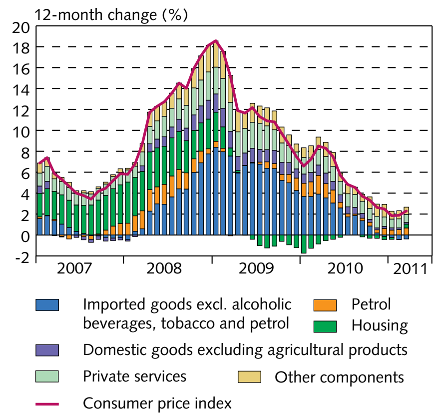
Source: Statistics Iceland.

Chart VIII-5
Consumer prices: housing and services
January 1999 - March 2011



Source: Statistics Iceland.

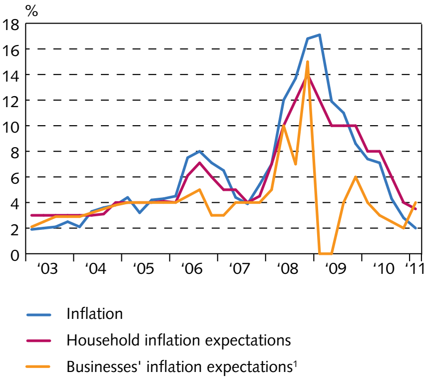
Chart VIII-6
Components of CPI inflation
Contribution to inflation
January 2007 - March 2011



Source: Statistics Iceland.

Chart VIII-7

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

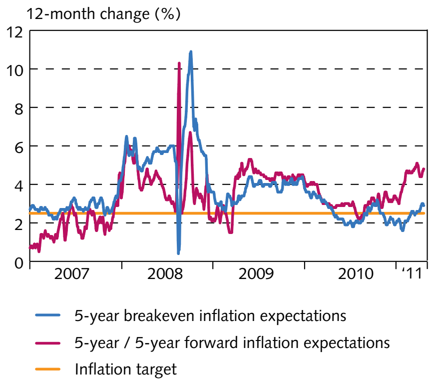


1. Businesses' inflation expectations were measured on an irregular basis before 2006/Q3 so until then measurements are interpolated.
Sources: Capacent Gallup, Statistics Iceland, Central Bank of Iceland.

Chart VIII-8

Inflation expectations according to the difference between nominal and indexed interest rates[1]

Daily data, 2 April 2007 - 15 April 2011

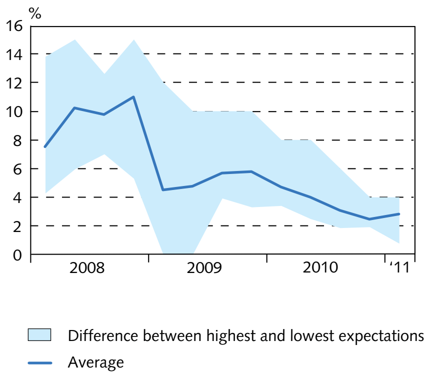


1. Breakeven inflation expectations are calculated from yield spreads between nominal and index-linked Government and Government-backed bonds (5-day moving averages).
Source: Central Bank of Iceland.

Chart VIII-9

Inflation expectations one year ahead according to various measurements[1]

Q1/2008 - Q1/2011



1. Based on corporate, household, and bond market inflation expectations one year ahead and the Central Bank inflation forecast one year ahead.
Sources: Capacent Gallup, Central Bank of Iceland.

According to the median response in Capacent Gallup's quarterly survey of corporate inflation expectations, last carried out in February and March, corporate executives' inflation expectations one year ahead had risen by two percentage points, to 4%, since the December 2010 survey. Executives also expect inflation to remain at 4% in two years' time, as they did in the September 2010 survey. Inflationary pressures appear to have mounted, according to corporate executives, as 45% of them indicated that the price of their company's goods and services would increase over the next six months, as opposed to one-third in September. This may be due in part to recent oil price hikes, however.

Unlike other indicators of inflation expectations, the March Capacent Gallup survey showed that household inflation expectations one year ahead declined by 0.5 percentage points since the December 2010 survey, to 3.5%. Expectations concerning inflation two years ahead had fallen by 1 percentage point since the last survey, measuring 4%. In spite of rapid disinflation and an improved inflation outlook in 2010, household inflation expectations remained elevated for a long time and subsided rather slowly. Perhaps, then, it is not surprising that they should continue to decline in March, contrary to other indicators. As a result, household and corporate inflation expectations are closely aligned at present. The difference between their inflation expectations one year ahead has not been smaller since Q2/2008.

Outlook for higher inflation

Inflation measured 2% in Q1/2011, 0.4 percentage points more than was forecast in the last *Monetary Bulletin*. Underlying inflation (excluding the effects of changes in consumption taxes) measured 1.8% in Q1, while the last forecast assumed 1.4%. The forecasting error is due primarily to unexpectedly steep increases in global oil prices and domestic real estate prices.

The outlook is for higher inflation in the short term than previously forecast. Underlying inflation appears set to measure 2.5% in Q2/2011, approximately 1 percentage point more than in the last forecast, and to peak at around 3% in Q3.[2] Simple statistical models indicate slightly higher inflation, between 2.3% and 3%, in Q2. Unexpectedly high inflation can be attributed to several factors. The initial position is poorer after the unexpected increase in inflation over the past two months. The recent spike in oil and commodity prices was unexpected as well. As is discussed above, the surge in oil prices has largely passed through to domestic petrol prices, while commodity price increases have not passed through to imported food prices to any marked degree. The full extent of these effects is still uncertain, however. The króna is expected to be weaker than was projected in the last forecast, possibly exacerbating the effects of global price hikes. In addition, wage increases will probably be somewhat larger and more front-loaded than was assumed in the February forecast (see Section VI). Orkuveita Reykjavíkur announced increase in hot water prices

2. If the broadcasting fee had not been excluded from CPI calculation in January, the outlook would be for underlying inflation to approach 3% in Q2, other things being equal.

and drainage fees will also raise the CPI by approximately 0.14 percentage points in May 2011. Finally, inflation expectations have crept upwards. It appears as though most of the near-term uncertainties discussed in the last *Monetary Bulletin* in relation to developments in inflation are now creating increased inflationary pressures.

Inflation near target during the forecast horizon

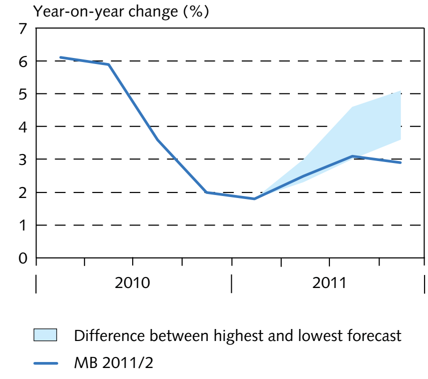
Due to the factors mentioned above, inflation is expected to be slightly higher for the majority of the forecast horizon. It is expected to subside again, however, after peaking later this year, owing to the continued slack in the economy, and to hover near the inflation target beginning in mid-2012. Headline inflation is projected at 2.8% this year and 2.7% in 2012, whereas underlying inflation is expected to be 2.6% in both years. The long-term inflation outlook is therefore relatively benign despite the prospect of a temporary rise above the inflation target.

Various risks present

The temporary spike in inflation due to external shocks need not cause grave concerns in and of itself. There is always the risk, however, that inflation caused by price hikes abroad will become entrenched and spread to inflation expectations, and from there to corporate pricing decisions and wage formation.

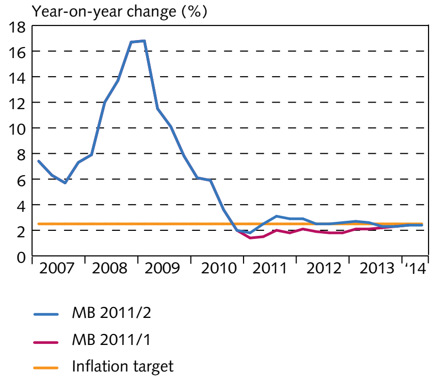
The uncertainties that will probably affect near-term inflation developments most strongly are the exchange rate, on the one hand, and global oil and commodity prices, on the other, as they pass quickly through to domestic prices (see Box VIII-1). It is also uncertain whether house prices will continue to rise and, if so, how much. The housing component weighs heavily in the CPI and would have a marked effect if the market were to strengthen. Other uncertainties centre on the risk that wage pressures will prove even stronger than is assumed in the forecast. There is also the possibility that economic recovery will be slower than according to the forecast, and inflationary pressures correspondingly weaker. Further discussion of major uncertainties can be found in Section I.

Chart VIII-10
Inflation forecasts using different models
Inflation excluding tax effects Q1/2010 - Q4/2011



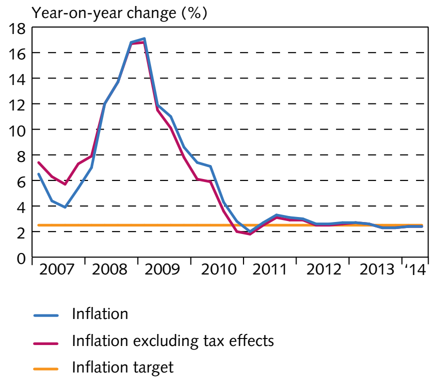
Sources: Statistics Iceland, Central Bank of Iceland.

Chart VIII-11
Inflation excluding tax effects - comparison with MB 2011/1



Sources: Statistics Iceland, Central Bank of Iceland.

Chart VIII-12
Inflation including and excluding tax effects
Q1/2007 - Q2/2014[1]



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

Box VIII-1

Exchange rate pass-through

The Central Bank of Iceland's December 2010 report *Monetary Policy in Iceland after Capital Controls* explores the main reasons for Iceland's poor track record in controlling inflation in recent years. Among other things, the report seeks to explain why exchange rate pass-through is more pronounced in Iceland than in other inflation-targeting countries. Furthermore, the pass-through effect appears not to have diminished in Iceland since the adoption of the inflation target, as it has in other countries (see Pétursson, 2010).[1]

This Box presents a brief outline of leading economic theories on the determinants of exchange rate pass-through and attempts to shed light on which ones might explain the difference between Iceland's experience and that of other countries. The theories fall into three broad categories: those that seek explanations in competition in the domestic market, those based on the share of marketing and distribution costs in domestic consumer prices, and those that link the level of pass-through to the credibility of monetary policy.

Competition theories

According to competition theories, more active competition in domestic markets prompts foreign manufacturers to raise import prices less (or makes them less likely to raise them) in the wake of a currency depreciation (see, for example, Dornbusch, 1987, and Bacchetta and van Wincoop, 2005). As a result, the price of imported goods and consumer goods rises less than it would otherwise and exchange rate pass-through is less pronounced.

It can be concluded from these theories that the exchange rate affects domestic consumer prices through prices of imported consumer goods and competing domestic goods. Presumably, then, the greater the competition in the domestic market, the weaker the pass-through.

Based on competition theories, it can also be assumed that exchange rate movements affect domestic consumer prices because they affect the price of imported inputs used in domestic production. Thus it can be assumed that, the more competitive the domestic input market is, the less impact exchange rate movements will have on domestic input prices and the less the overall exchange rate pass-through.

Cost theories

According to cost theories, incomplete exchange rate pass-through – that is, when a 1% currency depreciation leads to less than a 1% rise in domestic prices – can be explained by domestic marketing and distribution costs, which are an important factor in domestic consumer prices. Penetration from currency depreciation to price increase is therefore dependent upon marketing and distribution costs relative to the price of the product; that is, the greater these costs are as a share of the product price, the weaker the pass-through will be.

According to Burstein, Neves, and Rebelo (2003), for example, marketing and distribution costs for a typical consumer product in the US constitute about 40% of the retail price of that product.

Credibility of monetary policy

According to Taylor (2000), lower and more stable inflation is likely to lead to weaker exchange rate pass-through. An example of a

1. According to Pétursson (2010), the level of pass-through in Iceland is 0.4. In other words, other things being equal, a 1% currency depreciation leads to a 0.4% rise in inflation. The level of pass-through has changed very little in Iceland in recent years, while it is much weaker and has been on the decline in other countries. The average level of pass-through in the 42 countries surveyed in Pétursson's study has declined from 0.36 to 0.11 in the past several years.

model that explains this is Gestsson's (2010) general equilibrium model, where uncertainty about monetary policy affects wage formation and therefore domestic production costs. Increased uncertainty reduces the number of domestically produced goods priced with reference to domestic market conditions. This, in turn, strengthens the exchange rate pass-through into prices of imports and consumer goods. Devereux, Engel, and Storgaard (2004) came to a similar conclusion. In their model, uncertainty about monetary policy can affect whether producers decide to determine their prices in domestic or foreign currency. As uncertainty about domestic monetary policy escalates, it becomes more likely that foreign producers will choose to price their goods in foreign currency. This, in turn, strengthens the pass-through to the price of imports and consumer goods. These results indicate that a lack of monetary policy credibility exacerbates exchange rate pass-through. The theory is strengthened by the fact that it can be supported using a number of different models.

Application to Iceland

Iceland is a small, open economy. It is smaller than most others, so it can be assumed that foreign producers are faced with less competition in the Icelandic market than in comparison markets. This is reflected in a relatively homogeneous domestic manufacturing sector, which often necessitates importation of a rather large proportion of necessities for domestic consumption, ranging from foodstuffs and other consumer goods to inputs for domestic production. Because of the nature of these goods, domestic demand for them is likely to be relatively immune to price movements. The homogeneity of domestic production also makes it likely that importers of goods to small countries are in competition not with domestic producers of comparable products but with other importers of the same products, which will be affected in the same way by exchange rate movements. Domestic purchasers therefore have greater difficulty switching their demand towards comparable domestic goods when the currency depreciates. Presumably, it is proportionally more expensive for foreign sellers of a product to survey market conditions in small countries, and therefore more common that goods are priced in the producer's currency than it would be in larger markets. This tendency tends to exacerbate exchange rate pass-through.

The main reason that exchange rate pass-through has not diminished in Iceland, as it has elsewhere, appears to be the relative lack of credibility (and success) of domestic monetary policy. Moreover, it could be that the limited competition in Iceland delays the dampening impact of enhanced credibility on pass-through. In any event, it appears unlikely that the explanation lies in a decline in competition (for other reasons) or a lower share of marketing and distribution costs in domestic consumer prices.

Sources

Bacchetta, P., and E. van Wincoop (2005). A theory of the currency denomination of international trade, *Journal of International Economics*, 67, 295-319.

Burstein, A. T., J. C. Neves and S. Rebelo (2003). Distribution costs and real exchange rate dynamics during exchange-rate-based stabilizations, *Journal of Monetary Economics*, 50, 1189-1214.

Central Bank of Iceland (2010). Monetary policy in Iceland after capital controls, Central Bank of Iceland, Special Publication no. 4.

Devereux, M. B., C. Engel and P. E. Storgaard (2004). Endogenous exchange rate pass-through when nominal prices are set in advance, *Journal of International Economics*, 63, 263-291.

Dornbusch, R., (1987). Exchange Rates and Prices, *American Economic Review*, 77, 93-106.

Gestsson, M. H., (2010). Monetary Uncertainty, Trade and Pricing in General Equilibrium, Doctoral dissertation, University of Århus.

Pétursson, T. G., (2010). Inflation control around the world: Why are some countries more successful than others? In *Twenty Years of Inflation Targeting: Lessons Learned and Future Prospects*. Eds. D. Cobham, Ø. Eitrheim, S. Gerlach and J. F. Qvigstad. Cambridge: Cambridge University Press.

Taylor, J. B., (2000). Low inflation, pass-through, and the pricing power of firms, *European Economic Review*, 44, 1389-1408.

Appendix 1

Baseline macroeconomic and inflation forecast 2011/2

Table 1 Macroeconomic forecast[1]

		Volume change on previous year (%) unless otherwise stated			
	B.kr.		Forecast		
GDP and its main components	*2010*	*2010*	*2011*	*2012*	*2013*
Private consumption	782.6	-0.2 (-0.3)	2.7 (3.1)	3.0 (2.9)	3.2 (2.2)
Public consumption	399.0	-3.2 (-3.5)	-4.1 (-4.1)	-2.8 (-2.2)	0.4 (0.5)
Gross capital formation	205.9	-4.9 (-4.5)	15.8 (9.6)	16.6 (17.1)	8.5 (14.2)
Business investment	129.6	6.5 (14.4)	24.4 (17.8)	20.6 (18.4)	8.1 (15.2)
Residential investment	35.5	-17.0 (-25.2)	18.6 (14.7)	14.0 (17.5)	15.7 (18.1)
Public investment	40.8	-22.4 (-30.9)	-14.7 (-24.8)	0.0 (9.1)	1.8 (2.0)
National expenditure	1,384.1	-2.1 (-2.4)	2.9 (2.4)	3.8 (4.0)	3.5 (4.0)
Exports of goods and services	869.3	1.1 (0.0)	2.5 (2.5)	2.4 (2.2)	2.9 (2.4)
Imports of goods and services	706.9	3.9 (1.1)	3.7 (1.6)	3.9 (3.6)	4.4 (3.2)
Contribution of net trade to growth		-1.2 (-0.5)	-0.3 (0.7)	-0.5 (-0.3)	-0.4 (-0.1)
Gross domestic product	1,546.5	-3.1 (-2.7)	2.3 (2.8)	2.9 (3.2)	2.7 (3.4)
Other key aggregates					
GDP at current prices (in b.kr.)		1,547 (1.563)	1,630 (1.639)	1,738 (1.730)	1,824 (1.820)
Trade account balance (% of GDP)		10.5 (11.0)	10.5 (12.0)	10.1 (11.5)	9.2 (10.9)
Current account balance (% of GDP)		-7.8 (-3.5)	-6.2 (-1.0)	-4.1 (-0.9)	-6.0 (-1.3)
Current account balance excl. DMBs undergoing winding-up proceedings (% of GDP)		1.7 (6.6)	2.4 (8.3)	3.3 (8.0)	0.8 (6.1)
Output gap (% of potential output)		-4.9 (-4.7)	-2.6 (-2.0)	-1.5 (-0.6)	-0.5 (0.5)
Unit labour costs (change in average year-on-year)		4.7 (6.3)	3.5 (2.5)	3.2 (3.1)	2.2 (1.8)
Real disposable income (change in average year-on-year)		-3.6 (-7.7)	0.3 (0.4)	0.6 (1.5)	1.2 (2.1)
Unemployment (% of labour force)		8.1 (8.1)	7.7 (7.3)	6.4 (5.6)	5.1 (4.0)
EURISK exchange rate		161.7 (161.7)	160.0 (157.2)	159.7 (155.5)	159.5 (153.2)

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

Table 2 Inflation forecast (%)[1]

Quarter	*Inflation (change year-on-year)*	*Inflation excluding tax effects (change year-on-year)*	*Inflation (annualised quarter-on-quarter change)*
		Measured value	
2010:1	7.4 (7.4)	6.1 (6.1)	4.9 (4.9)
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 (1.6)	1.8 (1.4)	1.8 (0.0)
		Forecasted value	
2011:2	2.7 (1.7)	2.5 (1.5)	7.5 (5.2)
2011:3	3.3 (2.2)	3.1 (2.0)	0.1 (-0.1)
2011:4	3.1 (2.0)	2.9 (1.8)	3.4 (3.0)
2012:1	3.0 (2.2)	2.9 (2.1)	1.4 (0.8)
2012:2	2.6 (2.0)	2.5 (1.9)	5.7 (4.4)
2012:3	2.6 (1.9)	2.5 (1.8)	-0.1 (-0.4)
2012:4	2.7 (1.9)	2.6 (1.8)	3.8 (3.0)
2013:1	2.7 (2.1)	2.7 (2.1)	1.4 (1.5)
2013:2	2.6 (2.1)	2.6 (2.1)	5.3 (4.5)
2013:3	2.3 (2.2)	2.3 (2.2)	-1.1 (0.0)
2013:4	2.3 (2.3)	2.3 (2.3)	3.7 (3.4)
2014:1	2.4 (2.4)	2.4 (2.4)	1.7 (1.7)
2014:2	2.4	2.4	5.4

Annual average	*Inflation*	*Inflation excl. tax effects*
2010	5.4 (5.4)	4.4 (4.4)
2011	2.8 (1.9)	2.6 (1.6)
2012	2.7 (2.0)	2.6 (1.9)
2013	2.5 (2.2)	2.5 (2.2)

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