MONETARY BULLETIN

2014•4

Contents

The objective of the Central Bank of Iceland's monetary policy is to contribute to general economic well-being in Iceland. The Central Bank does so by promoting price stability, which is its main objective. In the joint declaration made by the Government of Iceland and Central Bank of Iceland on 27 March 2001, this is defined as aiming at an average rate of inflation, measured as the 12-month increase in the CPI, of as close to 2½% as possible.

Professional analysis and transparency are prerequisites for credible monetary policy. In publishing *Monetary Bulletin* four times a year, the Central Bank aims to fulfil these principles.

Monetary Bulletin includes a detailed analysis of economic developments and prospects, on which the Monetary Policy Committee's interest rate decisions are based. It also represents a vehicle for the Bank's accountability towards Government authorities and the public.

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Icelandic letters:

ð/Ð (pronounced like th in English this)
þ/Þ (pronounced like th in English think)
In *Monetary Bulletin*, ð is transliterated as d and þ as th in personal names, for consistency with international references, but otherwise the Icelandic letters are retained.

Statement of the Monetary Policy Committee 5 November 2014

The Monetary Policy Committee (MPC) of the Central Bank of Iceland has decided to lower the Bank's interest rates by 0.25 percentage points.

According to the Bank's forecast, published in *Monetary Bulletin* today, the outlook for 2014 is for somewhat weaker output growth than was forecast in August. Domestic demand growth is still expected to be strong, with robust GDP growth in the next three years. The recovery of the labour market continues as well, although growth in labour demand has lost pace somewhat.

Inflation has been below the inflation target for nine consecutive months and has fallen still further this autumn. Rising house prices have been the main source of inflation, while low global inflation and a stable króna have contributed to low inflation in spite of considerable wage increases. The short-term inflation outlook has therefore improved since August. According to the Bank's forecast, inflation is likely to fall further in the next few months and remain at or below target through mid-2015. Inflation expectations have fallen in recent months and are approaching the inflation target.

Increased national saving and a larger current account surplus than foreseen in previous forecasts have contributed to continued strong foreign currency inflows, and the Bank has leaned against excessive appreciation of the króna and helped to stabilise the exchange rate.

The Central Bank's nominal interest rates have been unchanged for two years, but the Bank's real rate has risen more than previously anticipated, owing to a more rapid decline in inflation and inflation expectations. The monetary stance has therefore tightened more than is warranted by the current business cycle position and the near-term outlook. Containing the rise in the real rate is therefore appropriate.

As always, developments in nominal interest rates will depend on developments in demand and inflation. If pay increases in upcoming wage settlements are consistent with the inflation target, conditions for further reductions in nominal interest rates could develop. Large pay increases and strong growth in demand could undermine the recently achieved price stability, however, and require that interest rates be raised again.

Economic recovery slows in Iceland and abroad, and inflation subsides

Global output growth has proven weaker than was forecast in the August Monetary Bulletin. *A gradual recovery is still expected, but the outlook is poorer and uncertainty is greater. Although Iceland's terms of trade turned around in Q2/2014 after a three-year slide, the outlook for both terms of trade and exports has somewhat deteriorated. Domestic demand still looks set to grow strongly, although investment growth is now expected to be weaker than was projected in August, and the GDP growth forecast for 2014 has been revised downwards since August, from 3.4% to 2.9%. GDP growth is expected to pick up again in 2015, rising to 3.5%, and then fall below 3% in 2016, when the demand-side effects of the Government's debt relief package subside and the growth rate of energy-intensive investment eases. If the forecast materialises, output growth will average just under 3% per year over the forecast horizon, slightly above the thirty-year average and well above the average for Iceland's main trading partners. The recovery of the labour market continues, with growth in employment and total hours worked, and unemployment as measured by the Statistics Iceland labour force survey is expected to fall below 4% in the latter half of the forecast horizon. As a result, the slack in the economy is expected to disappear soon and give way to a small positive output gap that will narrow again towards the end of the forecast horizon. The outlook is for inflation to remain below target (and below the August forecast) well into next year and then inch upwards, aligning with the August forecast by the end of the forecast horizon. If the forecast materialises, inflation will lie in the 2-3% range for most the forecast horizon.*

I Economic outlook and key uncertainties

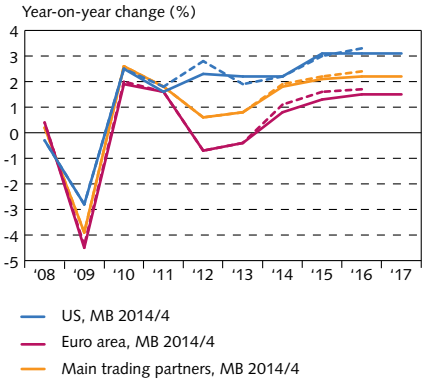
Central Bank baseline forecast[1]

Recovery continues, but weaker than was forecast in August ...

Global GDP growth turned out weaker than previously projected in H1/2014, and the International Monetary Fund (IMF) now forecasts it at only 3.3% for the year as a whole, nearly ½ a percentage point below the Fund's spring 2014 forecast. The unexpected weakness year-to-date is due in part to temporary factors such as inclement weather in the US early in the year, and growth is still expected to pick up in coming quarters. The recovery will be a gradual one, however, particularly in the euro area, Iceland's most important export market.

Overall, the GDP growth outlook for Iceland's main trading partners is poorer for H2/2014 and the upcoming three years than it was in August (Chart I-1). This is due mainly to the bleaker outlook for emerging economies and the eurozone, although prospects have improved for the UK, the US, and the Nordic countries. Trading partners' GDP growth is projected at 1.8% for 2014 and just over 2% per year in the next three years. The global economic outlook is more uncertain as well, although somewhat less so than it was a year ago. Further discussion of the global economy can be found in Section II, and uncertainties in the global outlook are discussed later in this section.

Chart I-1
Global output growth 2008-2017[1]



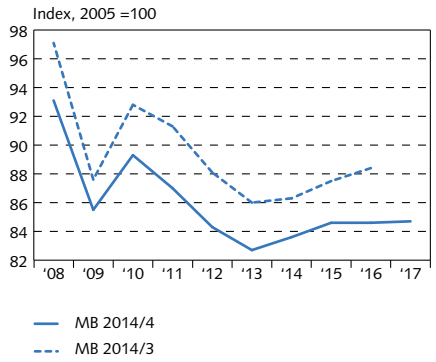
1. Central Bank baseline forecast 2014-2017. Broken lines show forecast from MB 2014/3.
Sources: Macrobond, OECD, Statistics Iceland, Central Bank of Iceland.

... with a poorer outlook for terms of trade and exports

In September, Statistics Iceland published the national accounts for Q2/2014 and a revision of historical figures, using new national accounts standards (see Box 1). According to the revised figures, Iceland's terms of trade have deteriorated by 20% since 2006 instead

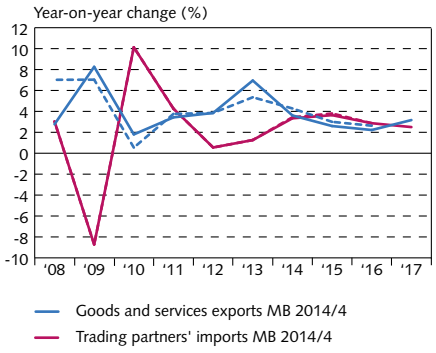
1. The analysis presented in this *Monetary Bulletin* is based on data available in early November.

Chart I-2
Terms of trade for goods and services 2008-2017[1]



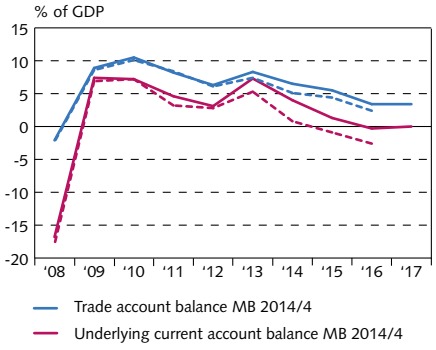
1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-3
Exports of goods and services 2008-2017[1]



1. Central Bank baseline forecast 2014-2017. Broken lines show forecast from MB 2014/3.
Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

Chart I-4
Current account balance 2008-2017[1]



1. Central Bank baseline forecast 2014-2017. Broken lines show forecast from MB 2014/3.
Sources: Statistics Iceland, Central Bank of Iceland.

of the previously estimated 17% (Chart I-2). As was projected in August, terms of trade began to improve in Q2/2014, after a continuous erosion dating back to early 2011. They are now estimated to improve by some 1% this year, which is more than was forecast in August. The outlook for the next three years is somewhat poorer than was projected in August, however.

Statistics Iceland's revised year-2013 export figures show considerably stronger growth than previously estimated. This year's weaker growth therefore reflects negative base effects to some extent. In line with the poorer global GDP growth outlook, exports are forecast to grow more slowly than was assumed in August, with growth projected to average just under 3% per year, broadly in line with trading partners' import growth (Chart I-3).

The surplus on goods and services trade was just over 8% of GDP in 2013, or about 1 percentage point more than was assumed in August (Chart I-4). It is expected to shrink to about 3½% of GDP by 2017. The current account surplus for 2013 also turned out materially stronger than previously estimated, and the outlook for coming years has improved markedly. Further discussion of terms of trade can be found in Section II, and exports and the external balance are discussed in Section IV.

Outlook for robust near-term growth in domestic demand

Following modest growth in 2013, private consumption increased strongly in the first half of the year, supported by growth in real wages, the recovery of the labour market, and rising household net worth. Year-on-year growth in private consumption measured 4% in H1/2014, well in line with the August forecast. Growth for the remainder of the year and next year is projected at just over 4%, as was forecast in August. The rate of growth will ease somewhat in 2016, as the demand-side effects of the Government's debt relief package taper off.

Domestic firms have had to step up investment as demand has recovered and the margin of spare capacity narrowed. Investment growth nevertheless proved weaker in the first half than was forecast in August, and the Central Bank's recent survey of domestic firms' investment plans implies that it will also be somewhat weaker for the year as a whole. Other indicators, such as investment goods imports and executives' expectations about the economic outlook and their own firms' profit levels, could suggest that investment has been underestimated in both historical figures and in the assessment of the near-term outlook. Investment is expected to grow by nearly 18% this year and at a broadly similar pace for the next two years, owing to robust growth in general business investment and strong activity in the energy-intensive sector, particularly in the next two years. The outlook for residential investment is good as well. If the forecast materialises, the ratio of investment to GDP will be close to its historical average by the end of the forecast horizon.

On the whole, domestic demand is expected to grow by 5% or more per year in 2014-2016 (Chart I-5). It is assumed that the

pace will slow somewhat in 2017, as energy-intensive development projects wind down. Further discussion of private and public sector demand can be found in Sections IV and V.

GDP growth above its long-term average during the forecast horizon, but outlook has deteriorated from August

GDP growth measured 2.4% in Q2/2014, about ½ a percentage point above the August forecast. Following Statistics Iceland's revision of previous figures, however, H1/2014 GDP growth was slightly below the forecast, at 0.6% instead of the previously projected 0.9%. This is a marked slowdown from 2013, when it measured 4.5% in the second half and 3.5% for the year as a whole. The turnaround is due primarily to declining inventories in export industries combined with strong imports, particularly services imports.

In line with the outlook for more moderate domestic demand growth, the GDP growth outlook for 2014 as a whole has deteriorated somewhat since August. GDP growth is now expected to measure just over 5% in the latter half of the year and 2.9% for the year as a whole, about ½ a percentage point below the August forecast (Chart I-6). As in August, it is expected to pick up again next year, rising to 3.5%, and then subside to just under 3% in 2016 and just under 2½% in 2017.

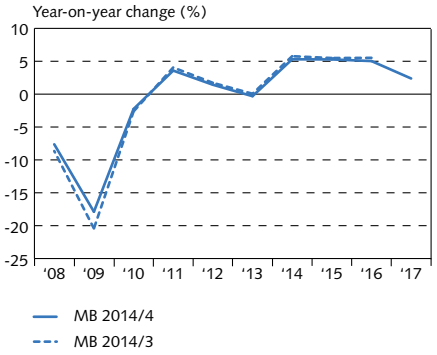
As before, it is expected that GDP growth will be driven primarily by growth in private sector demand and that the contribution from net trade will be negative during the forecast horizon. If the forecast materialises, output growth will average about 2.9% per year over the forecast horizon, slightly above the thirty-year average and well above the forecasted 2.1% average for Iceland's main trading partners. Further discussion of developments in GDP growth can be found in Section IV.

Labour market recovery continues, albeit at a reduced pace

According to the Statistics Iceland labour force survey, seasonally adjusted unemployment measured 5.2% in the third quarter, down by 0.2 percentage points from Q3/2013. Unemployment as registered by the Directorate of Labour (DoL) declined more, however, falling 0.8 percentage points to 3.8%. Employment continued to increase, but at a somewhat slower pace than in the past two years. It rose 1.4% year-on-year in Q3, whereas total hours worked rose by only 0.7%, somewhat below the August forecast. The employment rate therefore remained virtually unchanged year-on-year during the quarter, after having risen 0.6 percentage points in Q2.

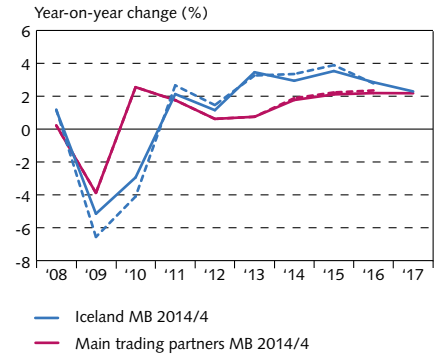
The slack in the labour market is still expected to disappear in the near future. Unemployment continues to decline and is projected to measure around 4% in coming years (Chart I-7). Registered unemployment is also falling, but a bit more slowly than was forecast in August. Hours worked are expected to increase by an average of nearly 2% per year in the next three years, and the employment rate is projected to reach 77½% by the end of the forecast horizon (Chart I-8). Productivity growth over the three-year period will average only

Chart I-5
Domestic demand 2008-2017[1]



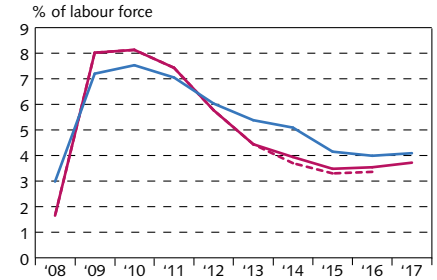
1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-6
GDP growth in Iceland and trading partners 2008-2017[1]



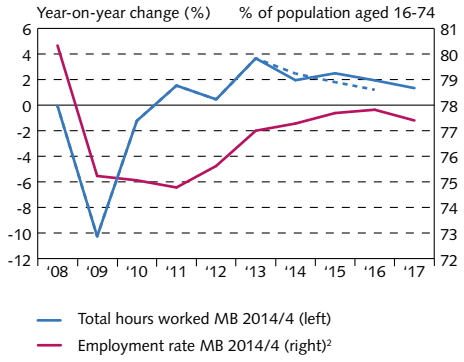
1. Central Bank baseline forecast 2014-2017. Broken lines show forecast from MB 2014/3.
Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

Chart I-7
Unemployment 2008-2017[1]



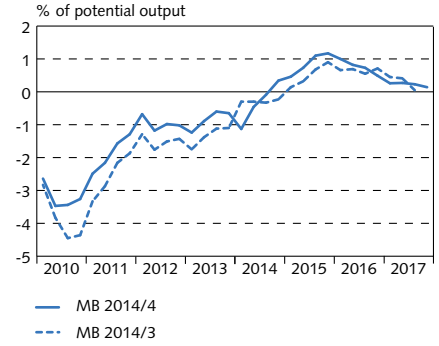
1. Central Bank baseline forecast 2014-2017. Broken lines show forecast from MB 2014/3. 2. The Central Bank did not publish a forecast of developments in unemployment according to the labour force survey (LFS) in MB 2014/3.
Sources: Directorate of Labour, Statistics Iceland, Central Bank of Iceland.

Chart I-8
Total hours worked and employment rate 2008-2017[1]



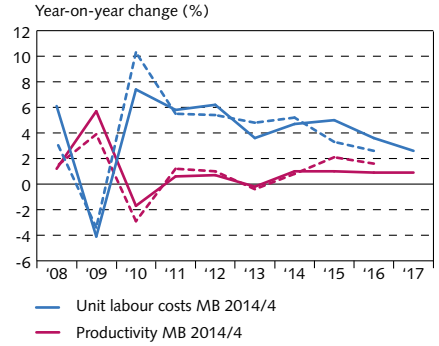
1. Central Bank baseline forecast 2014-2017. Broken lines show forecast from MB 2014/3. 2. The Central Bank did not publish a forecast of developments in the employment rate in MB 2014/3.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-9
Output gap[1]
Q1/2010-Q4/2017



1. Central Bank baseline forecast Q3/2014-Q4/2017.
Source: Central Bank of Iceland.

Chart I-10
Unit labour costs and productivity 2008-2017[1]



1. Productivity measured as the ratio of GDP to total hours worked. Central Bank baseline forecast 2014-2017. Broken lines show forecast from MB 2014/3.
Sources: Statistics Iceland, Central Bank of Iceland.

1% per year, however, which is somewhat below the August forecast and just over half the historical average (see Chart I-10 later in this section). Further discussion of the labour market can be found in Section IV.

Slack in the economy somewhat smaller than assumed in August

As is discussed in Box 1, Statistics Iceland's revision of historical figures led not only to a marked increase in the real value of GDP but also to a re-evaluation of recent developments in GDP growth. The revision and the uncertainty it generates complicates the assessment of potential output, and therefore of the margin of spare capacity in the economy. By and large, the revision is considered to call for a corresponding revision of potential output, but the assessment of the output gap changes somewhat. The slack in the economy is now thought to have been somewhat smaller in 2013 than was assumed in August, and it is projected to disappear in the latter half of this year, somewhat earlier than was forecast then (Chart I-9). The positive output gap expected in coming quarters is also projected to be slightly larger than was forecast in August, although smaller than in the May forecast. The output gap is forecast to average just under 1% over the next two years and then begin to diminish. It will have all but disappeared by the end of the forecast horizon. Further discussion of potential output and output slack can be found in Section IV.

Inflation close to target throughout the forecast horizon

Inflation measured 2.1% in Q3 and 1.9% in October. It has remained at or below target since February 2014. Excluding the housing component, it is lower still, and measures of underlying inflation point in the same direction. The slowdown in inflation therefore appears to be relatively broad-based, which gives cause to believe that inflation will remain low. Both long- and short-term inflation expectations have come down as well and have moved closer to the inflation target. Inflationary pressures appear to be rising in the labour market, however, as is reflected in unit labour cost increases persistently above the inflation target and the relatively high wage demands expected in upcoming wage negotiations. Unit labour costs are expected to rise by nearly 5% this year and by an average of 3½% over the next three years, or about ½ a percentage point more than was forecast in August (Chart I-10).

Offsetting the inflationary pressures from the labour market, imported goods prices have declined in the recent term, owing to low trading partner inflation and a roughly 6% appreciation of the króna in the past year. The exchange rate is marginally lower than was assumed in the August forecast, but this is counterbalanced by lower global inflation during the forecast horizon. As has been discussed previously, the margin of spare capacity in the economy is also thought to be somewhat smaller than was forecast in August. Because of a more favourable initial position, the outlook through the end of next year is for lower inflation than was projected in August, excluding the effects of indirect taxes on the price level (Charts I-11

and I-12).[2] Over time, pressures from the labour market and a diminishing slack in the economy will cause inflation to rise again. As in the August forecast, it is expected to measure 2½-3% in the latter half of the forecast horizon. There are numerous uncertainties in the forecast, as is discussed below. 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 V.

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, as well as assessments of the functioning of individual markets and on the transmission of monetary policy to the real economy. All of these factors are subject to uncertainty. The following is a discussion of several important uncertainties.

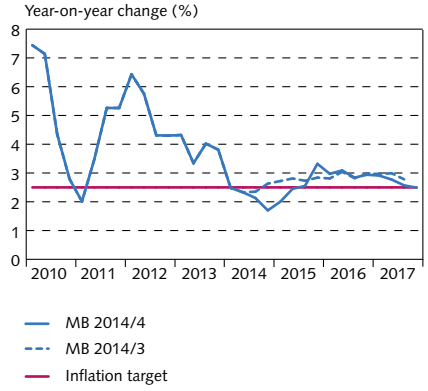
The global economic recovery could prove weaker than expected

Although the global economy was somewhat weaker than expected in H1/2014, a gradual recovery is still expected in coming quarters. The recovery is fragile nonetheless, and there is increased risk of a setback in connection with the conflicts in Eastern Europe and the Middle East, for example, and heavy indebtedness and weak demand in many developed countries. In spite of this, it appears that uncertainty about global GDP growth forecasts has not risen, and risk premia on global financial markets are close to their pre-crisis lows (Chart I-13). Protracted conflict and the unrest associated with it could become a more severe drag on global output growth than is assumed in the baseline forecast, and an abrupt correction in the financial markets could exacerbate those effects still further.

In addition, unusually low inflation and falling long-term inflation expectations in major industrialised countries could indicate that the global GDP growth outlook is overestimated and that a prolonged period of stagnation lies ahead, with weak private sector demand, sluggish global GDP growth, and low inflation. Chart I-14 illustrates the situation that could result if annual GDP growth among Iceland's main trading partners turns out ½ a percentage point per year weaker during the forecast horizon than is assumed in the baseline forecast. Other things being equal, if demand in Iceland's key export markets turns out weaker, annual export growth will be 0.3 percentage points lower per year than in the baseline forecast, and year-2015 GDP growth will be nearly 0.3 percentage points weaker. The exchange rate will absorb a portion of the adjustment, however, and will be some 4½% lower compared to baseline by 2017. This will support exports and cut into imports, which will offset the effects of weaker global output growth.

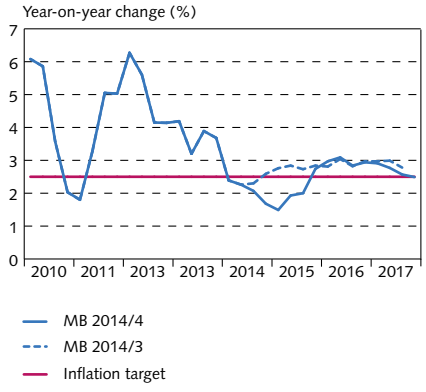
2. One of the reasons for reduced inflation through Q1/2015 is the planned cancellation of excise taxes, which was not assumed in the last forecast. To the extent that the proposed cancellation has already begun to affect prices, it could be a part of the reason for the improved initial position.

Chart I-11
Inflation[1]
Q1/2010 - Q4/2017



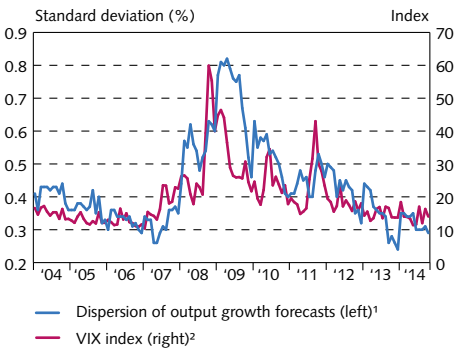
1. Central Bank baseline forecast Q4/2014 - Q4/2017.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-12
Inflation excluding effects of indirect taxes[1]
Q1/2010 - Q4/2017



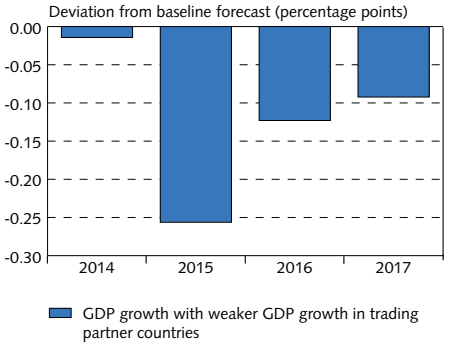
1. Central Bank baseline forecast Q4/2014-Q4/2017.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-13
Dispersion of output growth forecasts and implied stock price volatility
January 2004 - October 2014



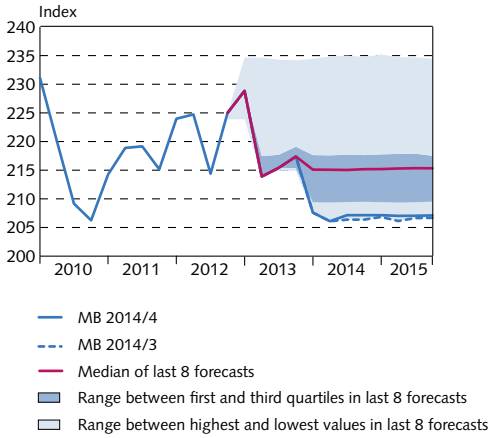
1. Weighted average of standard deviation in output growth forecasts compiled by Consensus Forecasts for the G7 (weighted with PPP-adjusted GDP). 2. Implied Volatility Index (VIX) of S&P 500 (Chicago Board Options Exchange).
Sources: Consensus Forecasts, Macrobond.

Chart I-14
Alternative scenario with weaker GDP growth in trading partner countries



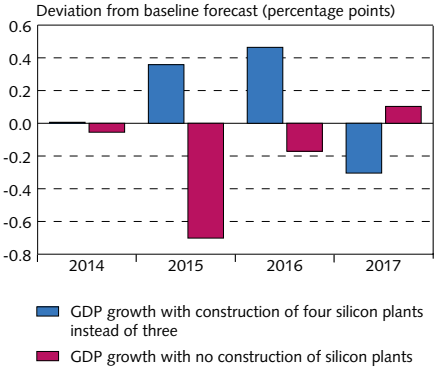
Source: Central Bank of Iceland.

Chart I-15
Exchange rate assumptions in Central Bank baseline forecasts – range of last eight forecasts[1]



1. The chart shows the exchange rate assumptions in the baseline forecasts in *Monetary Bulletin* 2012/4-2014/3 over the horizon of the oldest forecast (through Q4/2015).
Source: Central Bank of Iceland.

Chart I-16
Alternative scenarios with differing scope of silicon plant construction projects



Source: Central Bank of Iceland.

Exchange rate developments uncertain due to the potential effects of settling the failed banks estates and lifting the capital controls

As before, the baseline forecast assumes that the exchange rate of the króna will remain stable throughout the forecast horizon. This assumption is highly uncertain, however. Increased domestic economic activity and improvements in terms of trade could cause the króna to appreciate, for instance, while other factors could cause a depreciation. Chief among these is probably the uncertainty associated with the potential effects of the resolution of Iceland's balance of payments problem; that is, the possibility of sudden capital outflows upon the settlement of the failed banks' estates and the liberalisation of the capital controls (for further discussion, see *Financial Stability* 2014/1 and 2014/2). As Chart I-15 indicates, the current assumption is that the exchange rate will remain broadly similar to that in the August forecast. This is a higher exchange rate than has been used as a basis for the past two years' forecasts, which shows how much this assumption can change between forecasts.

The economic outlook will be determined in part by the scope of energy-intensive development projects

As is discussed in the August *Monetary Bulletin*, the Bank's baseline forecast no longer assumes that construction related to the Norðurál aluminium smelter at Helguvík will take place during the forecast horizon. What is assumed, however, is construction in connection with three silicon plants that are scheduled to begin production in 2016-2017. Currently under consideration is the construction of a fourth silicon plant, somewhat larger than the other three. If that project materialises, the plant will commence production at about the same time. If all of these projects are implemented as planned, investment in the energy-intensive sector could prove to be much stronger in coming years than is assumed in the baseline forecast. Domestic demand growth could therefore be some 1-1½ percentage points stronger per year in the next two years, but the GDP growth effects would be somewhat weaker, as these projects will generate strong investment goods imports, and a higher exchange rate and interest rates will have an offsetting effect. GDP growth could therefore be as much as ½ a percentage point higher per year in the next two years (Chart I-16). Further development would also stimulate exports once production begins, but the effects of this would not begin to surface until very late in the current forecast horizon.

Experience of repeated delays in the Helguvík aluminium smelter project shows that the baseline forecast could easily be based on excessively optimistic assumptions about energy-intensive development. Therefore, Chart I-16 also describes a scenario assuming that none of the silicon plant projects will materialise during the forecast horizon. Other things being equal, investment would be weaker than in the baseline forecast and domestic demand growth more sluggish as well. The impact on GDP growth would be less pronounced, as imports would be weaker, and lower interest rates and a weaker króna would have an offsetting effect. GDP growth could be roughly 0.7 percentage points less in 2015, however.

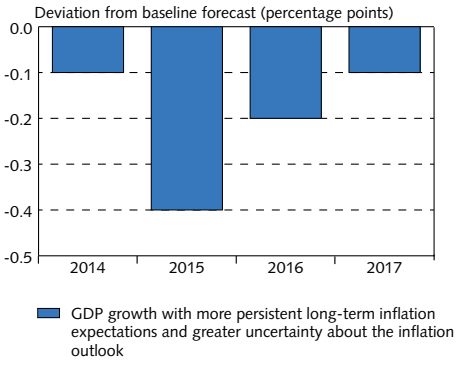
Persistent inflation expectations could undermine the economic recovery

From the adoption of the inflation target (spring 2001) until recently, the Central Bank has had limited success in ensuring price stability. Inflation has repeatedly risen above target – sometimes far above it.[3] This indifferent performance has compromised the credibility of monetary policy, and its legacy is still affecting policy implementation (see Section III).

The baseline forecast assumes that long-term inflation expectations will develop in line with the inflation target for most of the forecast horizon. It is possible that this assumption is too optimistic and that it will take a longer time to anchor inflation expectations. As a result, underlying inflationary pressures could be underestimated. If inflation expectations prove more persistent, the Bank's interest rates would have to be higher than is set forth in the baseline forecast, other things being equal. GDP growth would then be weaker and the slack in the economy larger, so as to ensure that inflation remains close to target in spite of persistent inflation expectations. This is illustrated in Chart I-17: if long-term inflation expectations remain close to 4% during the forecast horizon and the risk premium due to uncertainty about the inflation outlook is higher than in the baseline forecast, the Bank's interest rates would have to be somewhat higher as well. In this case, domestic demand growth could turn out weaker by about ½ a percentage point per year over the next two years, and GDP growth could be 0.3 percentage points weaker. The cost of keeping inflation close to target would therefore be greater than in the baseline scenario.

Chart I-17

Alternative scenario with slower decline in inflation expectations and greater inflation uncertainty



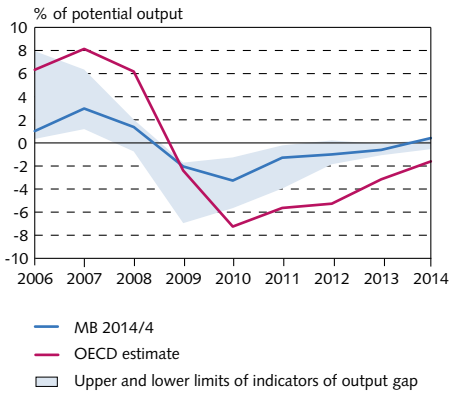
Source: Central Bank of Iceland.

Pay increases in forthcoming wage settlements could prove larger than is assumed in the baseline forecast

Negotiated wages have risen somewhat more in the recent term than has been assumed in the Bank's last few forecasts, and the current baseline forecast provides for relatively large pay increases for most of the forecast horizon. Nonetheless, pay hikes are not expected to be large enough to jeopardise price stability. Past experience shows, however, that there is a significant risk of even larger pay rises. If wages should rise considerably more than is assumed in the baseline forecast – and well in excess of productivity growth – the inflation outlook would deteriorate markedly. Increased wage costs would probably be passed through to prices, and there would be greater pressure on the exchange rate. Firms would then be likely to respond to the rise in wage costs by cutting back on recruitment or even laying off staff and scaling down investment plans. The Central Bank's interest rates would have to be higher in order to counteract increased inflationary pressures, further exacerbating the adverse effects of higher wage costs. The economic recovery could suffer a setback, with reduced output growth and elevated unemployment. As is described in the alternative scenario in Section I of *Monetary Bulletin* 2013/4,

3. For further discussion of the success of monetary policy, see Chapter 3 of Central Bank *Special Publication* no. 7, "Iceland's currency and exchange rate policy options".

Chart I-18
Various estimates of output gap 2006-2014[1]



1. Two measures of the deviation of unemployment from equilibrium unemployment (see Box VI-1 in MB 2013/4), the wage share, as well as two questions from the Capacent Gallup survey on firms' ability to meet unexpected production increases and whether they are short-staffed (the deviation from the average is rescaled so that the standard deviation is the same as that for the estimated output gap).
Sources: Capacent Gallup, OECD, Statistics Iceland, Central Bank of Iceland.

inflation could rise by up to an additional 1 percentage point in two years' time if pay rises equal the average increase of the past quarter-century. At the same time, employment could be 2% lower than it would otherwise.

Difficulty in estimating the margin of spare capacity

According to the baseline forecast, the slack in the economy has all but disappeared, and the outlook is for a positive output gap that will not diminish until late in the forecast horizon. This assumption is somewhat uncertain, of course (see Box IV-1 in *Monetary Bulletin* 2011/4 and Box IV-2 in *Monetary Bulletin* 2013/4). As is discussed above, the global output growth outlook is uncertain; furthermore, major changes in the scope of energy-intensive development projects could affect the estimation of spare capacity. A prohibition on long-term indexed mortgage lending could also reduce private consumption in coming years, in which case the slack in the economy would be larger, other things being equal, than is assumed in the baseline forecast (see *Monetary Bulletin* 2014/2).

The assessment of the current situation and developments in the recent past is no less uncertain, as the recent revision of historical national accounts figures shows. Most of the indicators the Bank considers in its assessment of the output gap suggest that the slack has virtually disappeared or is about to do so (Chart I-18). For example, indicators from the labour market – either the deviation of unemployment from equilibrium or the deviation of the wage share from its long-term average – imply that the slack in the labour market is almost fully absorbed. Other indicators could suggest that it has been underestimated, however. For example, survey responses from corporate executives indicate that some slack still exists, although even by this criterion it appears to be disappearing. The Organisation for Economic Co-operation and Development's (OECD) recent assessment also indicates that some slack still exists but that it will disappear next year.

Upside risks for inflation in the latter half of the forecast horizon

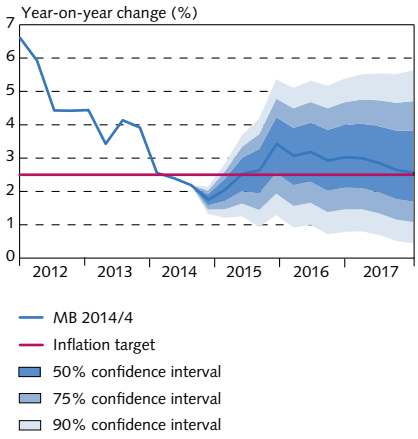
The uncertainties described above show clearly that the inflation outlook for the next three years could easily deviate from the scenario presented in the baseline forecast. If the exchange rate proves lower or pay rises larger than in the baseline forecast, the Central Bank interest rate required in order to keep inflation at target will probably be higher than that presented in the baseline forecast.[4] The same is true if the slack in the economy is overestimated or if energy-intensive development activity turns out stronger in coming years than the forecast indicates. Because long-term inflation expectations are still insufficiently anchored, the deviations could prove larger than they would otherwise. Inflation could turn out lower than forecast, however, if the slack in the economy is underestimated, if domestic demand proves weaker than assumed, or if the global economic outlook is poorer than currently expected. The same applies if weaker global output

4. The baseline forecast is based on the assumption that monetary policy will be applied so as to ensure that inflation remains close to target over the business cycle.

growth also entails larger declines in global oil and commodity prices, at least insofar as the króna does not weaken as a result.

Chart I-19 illustrates the above-mentioned uncertainties in the inflation forecast by showing the inflation outlook according to the baseline forecast together with the confidence intervals for the forecast; i.e., the range in which there is considered to be a 50-90% probability that inflation will lie over the next three years (the methodology is described in Appendix 3 in *Monetary Bulletin* 2005/1). The uncertainty is considered broadly similar to that described in the August forecast, but the shape of the probability distribution has changed slightly. The risks are now considered tilted to the downside over the short term, but for the latter half of the forecast horizon it is still considered likelier that inflation has been underestimated rather than overestimated. There is a roughly 50% probability that inflation will be in the 2½-4% range in one year and in the 1⅔-3⅔% range by the end of the forecast horizon.

Chart I-19
Inflation forecast and confidence intervals
Q1/2012 - Q4/2017



Sources: Statistics Iceland, Central Bank of Iceland.

II The global economy and terms of trade

The economic recovery has continued in Iceland's main trading partner countries but remains uneven and fragile. It has tapered off in the euro area, particularly in core member countries, while gaining ground west of the Atlantic. The global output growth outlook has deteriorated since August, as has the outlook for trading partners' imports. Growth prospects are more ambiguous than in August, with risk tilted to the downside. Inflation is below target in many countries and, in some economies – the euro area in particular – appears likely to remain there for some time. A continuous three-year erosion in Iceland's terms of trade came to a halt in the first half of this year, and the outlook for 2014 as a whole has improved in comparison with the August forecast. Considerable uncertainty is present, however, particularly in view of recent market unrest.

Global economy

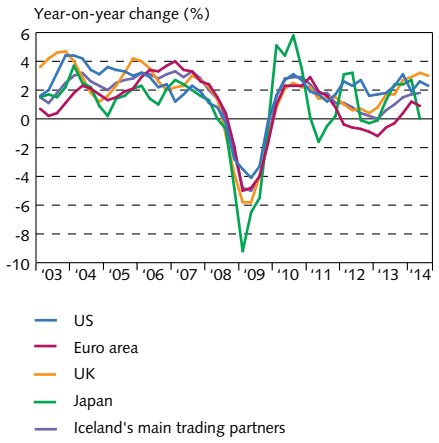
Growth outlook weaker and more ambiguous for Iceland's main trading partners …

Among Iceland's main trading partners, the economic recovery gained some traction in mid-2013 and continued apace in the first half of this year (Chart II-1). GDP growth measured 1.7% in H1/2014, some 0.3 percentage points more than in H2/2013. The foundations of the recovery appear to be stronger in the US and the UK than in the euro area, where GDP grew by 0.1% in the second quarter of 2014 from the previous quarter. Weak growth in the eurozone's core countries is cause for particular concern and has generated some unrest in the global financial markets. In Q2, GDP contracted in Italy and Germany and remained flat in France. Investment has grown less than anticipated, the contribution of exports to GDP growth has been weaker, and job creation has lost pace. In half of the eurozone countries, however, GDP growth equalled or exceeded 1% in the first half of the year. Germany was the only core country among them. Four countries in the euro area are still battling a contraction. In Japan, stimulative measures have increased GDP growth and inflation, although H1 growth was weaker than expected. The economic recovery in the Nordic countries has also varied: Norway and Sweden recorded GDP growth of just over 2% in H1, while growth was about 1% in Denmark and flat in Finland. Reasonable GDP growth is measured in various emerging market countries, while growth has been weaker than expected in Latin America and has slowed down somewhat in China.

… and signs of growing divergence in GDP growth east and west of the Atlantic

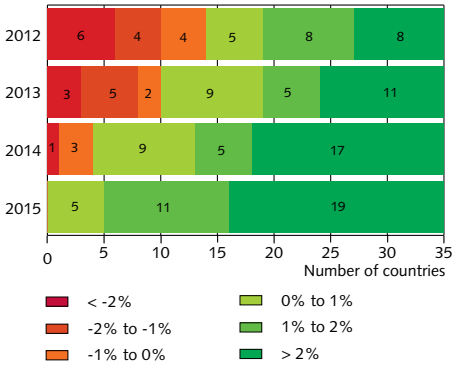
According to the International Monetary Fund's (IMF) October forecast, world output growth will measure 3.3% this year, as it did in 2013. This is a downward revision of 0.4 percentage points from the Fund's April forecast. The GDP growth outlook is poorer in both

Chart II-1
Global growth
Q1/2003 - Q3/2014



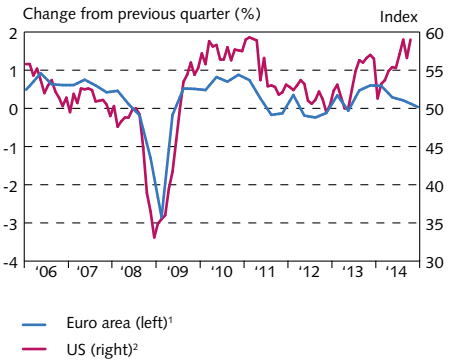
Sources: Macrobond, Central Bank of Iceland.

Chart II-2
Distribution of GDP growth among 35 industrialised countries



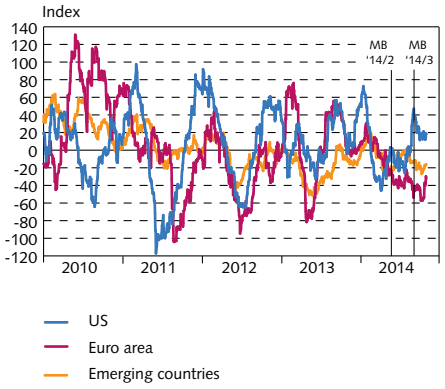
Source: IMF, *World Economic Outlook*, October 2014.

Chart II-3
Leading indicators of GDP growth
January 2006 - December 2014



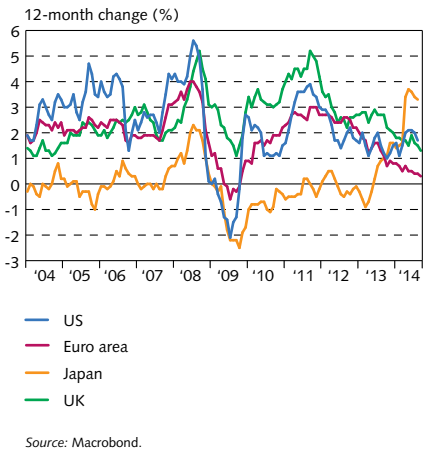
1. The GDP growth indicator devised by OFCE and EUROFRAME estimates quarterly output growth in the euro area two quarters ahead. Monthly index obtained through linear interpolation of quarterly data. 2. In the US, the seasonally adjusted Manufacturing Purchasing Managers' Index (PMI) is published monthly. An index value above 50 indicates month-on-month growth, and a value below 50 indicates a contraction.
Source: Macrobond.

Chart II-4
Economic surprise index[1]
Daily data 1 January 2010 - 31 October 2014



1. When the index is lower than 0, the indicators are more negative than expected; when the index is higher than 0, the indicators are more positive than expected. The index does not imply that the indicators are positive or negative.
Source: Macrobond.

Chart II-5
Inflation in selected industrialised countries
January 2004 - September 2014



Source: Macrobond.

developed countries and emerging and developing economies, but the IMF still assumes that the growth rate will improve among the former group and lose momentum in the latter. As Chart II-2 shows, the number of countries with GDP growth in excess of 2% is expected to rise. A contraction is expected in four developed countries this year, and in none next year.

Leading indicators imply that the recovery in the euro area will lose momentum in the latter half of 2014 (Chart II-3). There is considerable uncertainty about the GDP growth outlook for the euro area, as well as how quickly the recent measures undertaken by the European Central Bank (ECB) will generate results and whether fiscal policy and other reforms will support monetary policy enough to secure the economic recovery in the region. Economic indicators for the eurozone have been below market expectations for about half a year, and the divergence between expectations and actual outcomes appears to be growing wider (Chart II-4). In the US, however, indicators have generally exceeded expectations, suggesting that the recovery there is continuing. The fiscal consolidation and tax increase phase is coming to an end, and the US Federal Reserve Bank's monetary policy remains accommodative.

Forecasts of world trade and trading partner demand revised downwards

Owing to the slowdown in the global economic recovery, forecasts now project weaker growth in world trade. Trading partners' imports will be weaker as well, with growth projected at 3.3% for this year, slightly below previous estimates. The main factor here is the weaker growth outlook for the euro area.

Inflation declines more than expected and is below target in many countries

Inflation has subsided still further in Iceland's main trading partner countries, partly because many of these economies have a substantial slack in output, particularly Europe and the US. Concerns about potential deflation in the euro area have mounted as economic indicators have turned out poorer than expected, and inflation is well below target. In Q3, euro area inflation measured only 0.4%, after having fallen by 0.2 percentage points quarter-on-quarter (Chart II-5). Deflation has already set in in four euro area countries, and in a total of 19 European countries inflation is below 0.4%. Long-term inflation expectations have fallen below the ECB's inflation target. The ECB's September forecast assumes that eurozone inflation will be below target until at least 2017, and the bank, in common with the IMF, encourages Member States to apply fiscal and economic policy measures in support of recovery, particularly in view of widespread unemployment and the low cost of funding throughout much of the region.

In the UK, inflation has been below the Bank of England's (BoE) 2% inflation target since January, dipping to a five-year low of 1.2% in September. In the US, inflation has been more stable and closer to target, however. Japan has seen a rise in inflation due to increases in

value-added tax, which are expected to continue. Underlying inflation has risen as well and is projected to measure 1.1% this year. In Iceland's main trading partner countries, inflation is forecast to average 1.3% in H2/2014, slightly less than was assumed in August. The outlook for the forecast horizon as a whole has also been revised downwards slightly and is now considered more uncertain than before.

Interest rates to remain low for a longer period than previously expected, with increasing divergence in developed countries' monetary stance

These divergent developments in growth and inflation in developed economies will lead to greater divergence in the monetary stance from one country to the next in the near future. The US Federal Reserve Bank concluded its bond purchase programme in October, as expected, and is preparing to start raising rates, while the ECB has cut rates to its declared minimum twice since June and has announced various measures designed to support the economic recovery and bring inflation back to target. The measures entail buying various privately issued asset-backed securities in an attempt to stimulate lending to the non-financial private sector in the euro area (Chart II-6). The bond purchase programme will supplement the bank's targeted long-term loans to financial institutions. The success of the measures is somewhat in doubt. In general, forecasts assume that they will ultimately prove successful and will prevent a further decline in long-term inflation expectations, which would otherwise tighten the monetary stance and undermine economic recovery.[1] According to forward interest rates, market agents generally expect lower rates than in May. They expect the BoE to raise rates next spring and the US Federal Reserve to follow suit at mid-year, but they expect interest rates to be kept low in the euro area for some time (Chart II-7).

Risk aversion has grown in financial markets, in tandem with rising uncertainty about global developments, not the least in the eurozone. Global asset markets have softened as a result (Charts II-8 and II-9). Capital has been flowing out of the eurozone, European share prices are at their lowest in about a year, and the euro is at a two-year low against the US dollar. The depreciation of the euro is likely to boost the competitive position of the euro area, however.

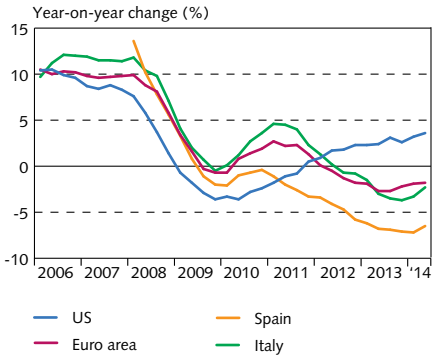
Export prices and terms of trade

Export prices up more than expected in 2014

Foreign currency prices of marine products have risen by nearly 10% since February, when the price slide dating from late 2012 came to a halt. The price of pelagic species has risen most, although demand for demersal fish products has grown as well. On the whole, the outlook is similar to that in August, but because increases have come

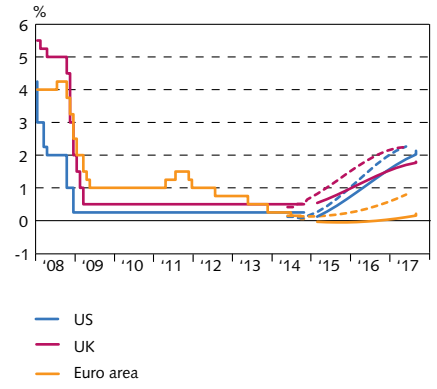
1. With nominal rates at the zero lower bound, a decline in inflation expectations would lead to rising real rates. See, for example, Box 1.3 in International Monetary Fund (2014), "Anchoring inflation expectations when inflation is undershooting", *World Economic Outlook*, April 2014.

Chart II-6
Credit growth in the US and the euro area[1]
Q1/2006 - Q2/2014



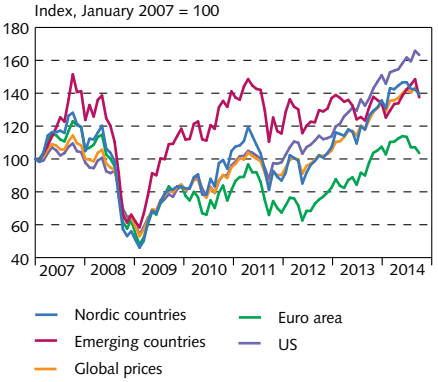
1. Non-financial companies and households.
Source: IMF.

Chart II-7
Policy rates and forward rates in the US, UK, and euro area[1]
Daily data 1 January 2008 - 31 October 2014, quarterly data Q4/2014 - Q4/2017



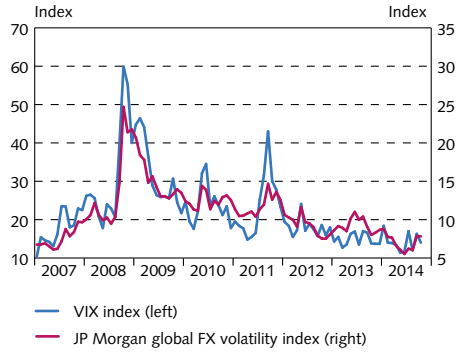
1. Forward rates are based on 6-month overnight index swaps (OIS). Solid lines show forward rates from 31 October 2014 but broken lines from 2 May 2014.
Sources: Bloomberg, Macrobond.

Chart II-8
Equity prices in selected markets[1]
January 2007 - October 2014



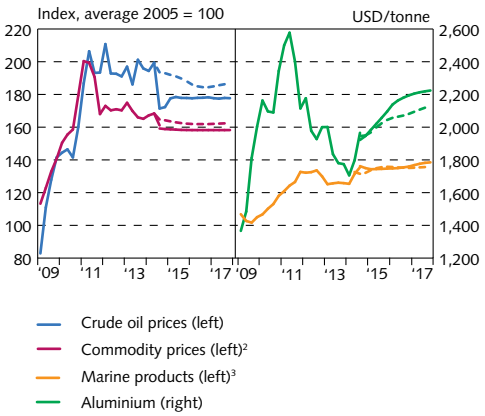
1. Monthly averages.
Source: Macrobond.

Chart II-9
Implied stock price and currency volatility[1]
January 2007 - October 2014



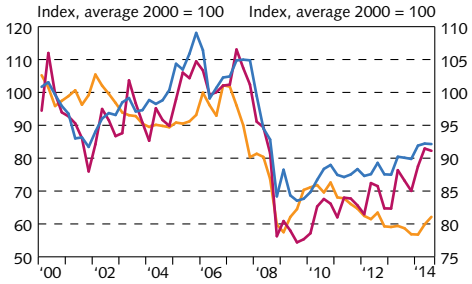
1. Implied volatility of the S&P 500 share price index (Chicago Board Options Exchange) and implied volatility of calculated on the basis of currency options pricing (JP Morgan VXYGL index).
Sources: Bloomberg, Macrobond.

Chart II-10
Prices of marine exports, aluminium, oil, and commodities[1]
Q1/2009 - Q4/2017



1. Central Bank baseline forecast Q4/2014 - Q4/2017. Broken lines show forecast from MB 2014/3. 2. Non-oil commodity prices in USD. 3. Foreign currency prices of marine products are calculated by dividing marine product prices in Icelandic krónur by the export-weighted trade basket.
Sources: London Metal Exchange, Macrobond, Statistics Iceland, Central Bank of Iceland.

Chart II-11
Real exchange rate and terms of trade
Q1/2000 - Q3/2014



Source: Central Bank of Iceland.

to the fore sooner than previously anticipated, marine product prices are now expected to rise by 1 percentage point more in 2014 than according to the August forecast (Chart II-10).

Aluminium prices have risen since mid-year and, in August, reached their highest point in 1½ years. The rise has been driven by a contraction in production, which is due in turn to smelter closures that have reduced global aluminium inventories by a fifth year-to-date. Forward prices and international forecasts suggest that aluminium prices will rise by ½% this year, as opposed to the 1% decline forecast in August.

Outlook for continued decline in commodity prices

Oil prices were down 7% quarter-on-quarter in Q3. They have continued to fall in Q4 and have reached their lowest point since the beginning of 2011. Supplies have grown steadily throughout the year, particularly due to increased oil production in the US and several OPEC countries. A fundamental change has taken place in the US, where domestic use is now met almost entirely with domestic production instead of imports, as has been the case for years. In addition, the weak economic recovery in developed countries has reduced demand for oil more than previously anticipated.

The price of non-oil commodities has also continued to decline, falling by about 4% quarter-on-quarter in Q3 and reaching a three-year low. Food prices in the US declined by 11% between quarters, owing in part to the weak global economic recovery and the appreciation of the US dollar. The Russian embargo on the US, Australia, Canada, the eurozone, and Norway could cause a further decline in commodity prices. As in August, both oil and commodity prices are expected to continue falling through this year, although the decline is now expected to be somewhat larger than previously forecast. Commodity prices are forecast to fall by nearly 3½% this year and oil prices by roughly 5½% (Chart II-10).

Terms of trade set to improve this year, after three years' deterioration

As was expected, terms of trade for goods and services began improving in Q2, after having deteriorated by some 20% since 2006 (Chart II-11).[2] They are now expected to improve more this year than was anticipated in August, owing to this autumn's marked rise in export prices, as well as declining import prices. In all, they are expected to improve by just over 1% this year.

Real exchange rate at post-crisis high

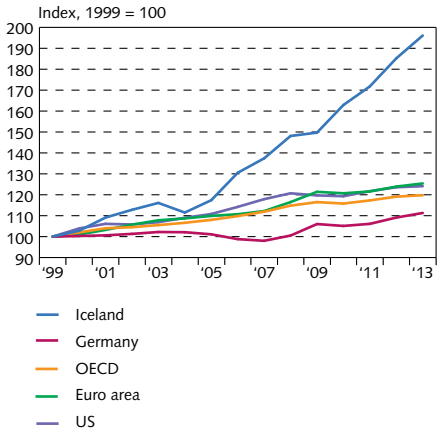
The real exchange rate of the króna reached a post-crisis high in Q2 and then tapered off slightly in Q3. In terms of relative prices, it rose by just over 5% year-on-year in Q3 (Chart II-11). The increase is due primarily to a higher nominal exchange rate, although inflation has

2. This is a deterioration of 3 percentage points more than previous figures had indicated, reflecting in part the changes in national accounts standards (see Box 1). For a more detailed discussion of the reasons for the post-crisis deterioration in terms of trade, see Box II-1 in *Monetary Bulletin* 2013/4.

also been just over a percentage point higher in Iceland than in trading partner countries. In terms of relative prices, however, it is now nearly 11% below the thirty-year average.

In terms of relative wage costs, the real exchange rate rose sharply in the prelude to the financial crisis, as wage costs rose considerably more in Iceland than in trading partner countries, with a corresponding deterioration of Iceland's competitive position (Chart II-12). The competitive position improved in the wake of the crisis, but since 2009, unit labour costs have been rising faster in Iceland than in other countries, and the real exchange rate therefore risen and Iceland's competitive position has begun to worsen again. In terms of relative unit labour costs, the real exchange rate is 12½% below its thirty-year average.

Chart II-12
Unit labour costs in developed countries



Sources: Macrobond, Central Bank of Iceland.

III Monetary policy and domestic financial markets

Although the effective Central Bank nominal interest rate has not changed in the recent past, the monetary stance has tightened somewhat since the publication of the August *Monetary Bulletin*, and market agents appear to expect a tighter stance next year than they did previously. Risk premia on the Treasury's foreign obligations have declined, which should ease domestic borrowers' access to global capital markets. The exchange rate of the króna has been relatively stable, and the Central Bank has bought a substantial amount of foreign currency in the market. Growth in money holdings is still fairly strong but appears to be well in line with growth in economic activity. Net new lending to firms has increased year-on-year, whereas new lending to households has lost pace somewhat. On the whole, private sector financial conditions have improved. Net private sector wealth has increased in line with rising asset prices and reduced debt, and the private sector equity ratio has not been higher since 2005.

Monetary policy

Nominal Central Bank interest rates unchanged ...

At its August and September meetings, the Central Bank of Iceland Monetary Policy Committee (MPC) decided to hold the Bank's interest rates unchanged. Central Bank rates have now been unchanged for nearly two years. Prior to the publication of this *Monetary Bulletin*, the Bank's effective rate was about 5.4%.[1]

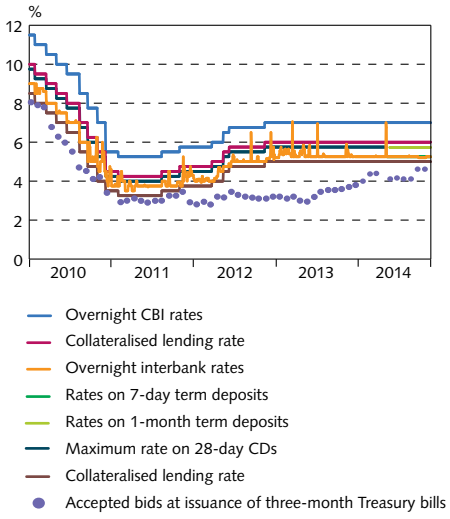
Interest rates in the interbank market for krónur have developed in line with the Bank's effective rate. Overnight interbank rates have changed little since the August *Monetary Bulletin* and have remained below the centre of the interest rate corridor (Chart III-1), but turnover has been extremely limited. The rates accepted in Treasury bill auctions have risen, however, and although they remain below the floor of the interest rate corridor, they have moved towards it.

... but the real Central Bank rate has risen

Although the Central Bank's effective nominal interest rate has not changed, the monetary stance in terms of the average of various measures of inflation and inflation expectations has tightened since the August *Monetary Bulletin* (Table III-1). By this criterion, the real rate is now about 2.4%. It has risen by roughly 0.2 percentage points since August and by a percentage point in the past year. The rise is somewhat larger, however, in terms of measured twelve-month inflation, which has subsided somewhat in the recent term. This increase in the Bank's real rate has passed through to other real market rates to a large extent, although it has affected indexed mortgage rates the least (Chart III-2). As Chart III-3 indicates, the Bank's real rate is somewhat higher than that in most other industrialised countries,

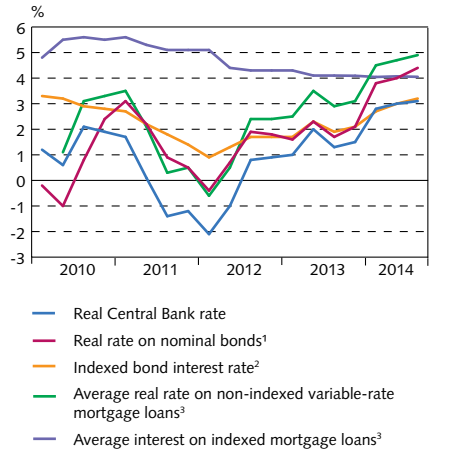
1. The simple average of the interest rates on financial institutions' sight deposits and term deposits (previously certificates of deposit) with the Central Bank. This rate is considered the most appropriate measure of the nominal policy stance.

Chart III-1
Central Bank of Iceland interest rates and short-term market rates
Daily data 1 January 2010 - 31 October 2014



Source: Central Bank of Iceland.

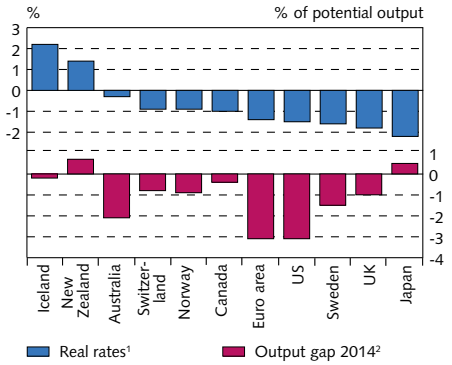
Chart III-2
Real Central Bank interest rate and real market rates
Q1/2010 - Q3/2014



1. Five-year rate estimated from the nominal yield curve. 2. Five-year rate estimated from the real yield curve. 3. Weighted average lending rates from the three largest commercial banks. Fixed-rate period of five years or more on indexed mortgage loans.
Source: Central Bank of Iceland.

Chart III-3

Effective real interest rates and output gap in selected industrialised countries

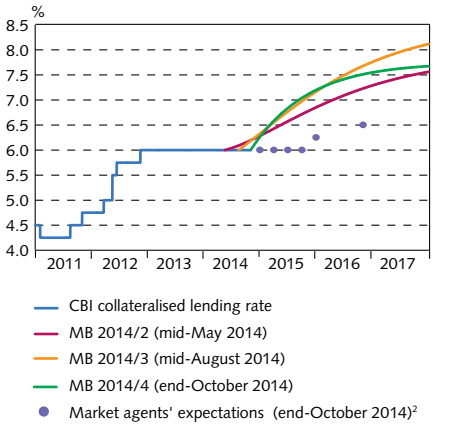


1. Effective real interest rates in terms of inflation expectations 1-2 years ahead, based on surveys of market agents and analysts. 2. For countries other than Iceland, the output gap is based on OECD estimates.
Sources: Central banks' websites, Consensus Forecasts, IMF, Macrobond, Central Bank of Iceland.

Chart III-4

Collateralised lending rate, forward market interest rates, and market agents' expectations concerning collateralised lending rate[1]

Daily data 1 January 2011 - 31 December 2017

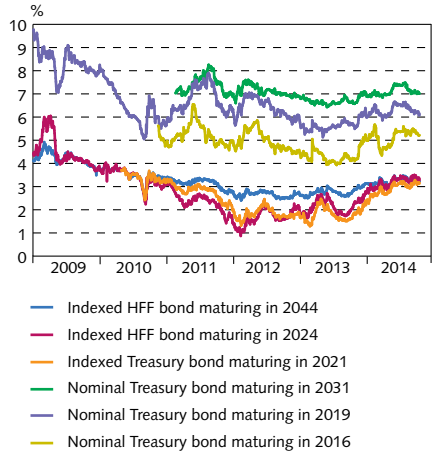


1. Interbank interest rates and Treasury bonds were used to estimate the yield curve. 2. According to the median response in the Central Bank's market expectations survey for the period 29-31 October 2014.
Source: Central Bank of Iceland.

Chart III-5

Nominal and indexed bond yields

Daily data 2 January 2009 - 31 October 2014



Source: Central Bank of Iceland.

largely because inflation expectations have not yet been securely anchored. Furthermore, the slack in the economy is less in Iceland than in major industrialised countries (see also Box I-1 in *Monetary Bulletin* 2013/2).

Table III-1 The monetary stance (%)

Real interest rates based on:[1]	*Current stance (31/10 '14)*	*Change from MB 2014/3 (15/8 '14)*	*Change from MB 2013/4 (1/11 '13)*
Twelve-month inflation	3.4	0.5	1.6
Business inflation expectations (one-year)	2.3	0.0	0.9
Household inflation expectations (one-year)	1.3	0.0	0.9
Market inflation expectations (one-year)[2]	2.5	0.5	1.1
One-year breakeven inflation rate[3]	2.6	0.3	0.8
Central Bank inflation forecast[4]	2.7	0.2	0.6
Average	2.4	0.2	1.0

1. The Bank's effective rate is measured as the simple average of the interest rates on financial institutions' sight deposits and term deposits (previously certificates of deposit) with the Central Bank. 2. Based on survey of market participants' expectations. 3. The one-year breakeven inflation rate based on the difference between the nominal and indexed yield curves (five-day rolling average). 4. The Central Bank forecast of annual inflation four quarters ahead.
Source: Central Bank of Iceland.

Market agents expect higher real interest rates

According to the Bank's survey of market agents' expectations, carried out in late October, respondents expect the nominal Central Bank rate to be lower in 2015 than according to the August survey (Chart III-4). The survey results indicate that market agents expect the Bank's collateralised lending rate to remain unchanged until Q4/2015, then rise by 0.25 percentage points, to 6.25%, and project it at 6.5% in two years' time. Both figures are 0.25 percentage points lower than those from the August survey. The survey also suggests that expectations concerning the Bank's real rate one and two years ahead have risen since August. However, as in August, forward rates suggest that market agents expect a 0.25 percentage point rise in the Bank's collateralised lending rate this year and another one in Q1/2015, bringing it to 6.5%.[2] According to the yield curve, they expect fewer rate hikes later in the forecast horizon than they did in August.

Market interest rates and risk premia

Yields on long nominal Treasury bonds have fallen ...

Yields on nominal Treasury bonds fell slightly following the MPC's August announcement that the Central Bank policy rate would remain unchanged and the simultaneous publication of the Bank's updated baseline forecast (Chart III-5). This could reflect market agents' confidence that the inflation outlook had improved, as the forecast showed, and that the current interest rate level was sufficient to keep inflation close to target. Yields on longer bonds have fallen even further in the wake of favourable inflation measurements and are up to ½ a percentage point lower than in mid-August. They are still higher than in late October 2013, however. Real bond yields have risen in line with the rise in the real Central Bank rate.

2. Measurement problems at the short end of the yield curve introduce a measure of uncertainty into the indications provided by the yield curve. For further discussion, see Box III-1 in *Monetary Bulletin* 2013/4.

… as well as yields on indexed bonds

Yields on indexed Housing Financing Fund (HFF) and Treasury bonds have fallen slightly since the issue of the August *Monetary Bulletin*, but are still almost 1.3 percentage points higher than in October 2013. This reflects in part the aforementioned rise in the real Central Bank rate but may also reflect the still-extant uncertainty about the future structure of mortgage lending and the court cases centring on whether indexation clauses in consumer loan agreements are in compliance with Icelandic law. However, the uncertainty may have been eased somewhat by the EFTA Court's advisory opinion on the indexation case, published in late August.

Marginal decline in risk premia on Treasury obligations

The risk premium in terms of the spread on the Treasury's foreign bonds had declined by nearly ½ a percentage point between mid-August and end-September but has risen slightly since then, concurrent with rising risk aversion in global financial markets (Chart III-6) (see Section II). The spread between the Treasury's recently issued Eurobond and a comparable German bond is now 1.9 percentage points, roughly 0.2 percentage points less than in August. In addition, an interest rate swap agreement was recently negotiated with the aim of mitigating interest rate risk and reducing the interest expense on the issue. The narrowing of the spread between the Treasury's US dollar bonds and comparable bonds issued by the US Treasury has mostly reversed, however, and as in August, the spread now measures about 1½-2 percentage points. It is now just under 1½ percentage points less than it was in October 2013, due almost entirely to lower yields on Icelandic Treasury bonds. The CDS spread on five-year Treasury obligations measures about 1.4%, which is similar as when the August *Monetary Bulletin* was published, but 0.2 percentage points lower than in October 2013.

International rating agency Standard & Poor's has affirmed the three large banks' credit ratings and has recently changed the outlook on the ratings from stable to positive. These rating actions, together with the aforementioned interest rate swap and the reduced risk premium on the Treasury's foreign obligations, should have a positive effect on resident borrowers' access to global capital markets and on the terms offered to them. On the other hand, the recent rise in risk premia on American and European firms and banks with similar credit ratings could have a negative impact, as the terms on Icelandic banks' foreign bond issues have tended to reflect these risk premia (Chart III-7).

Exchange rate of the króna

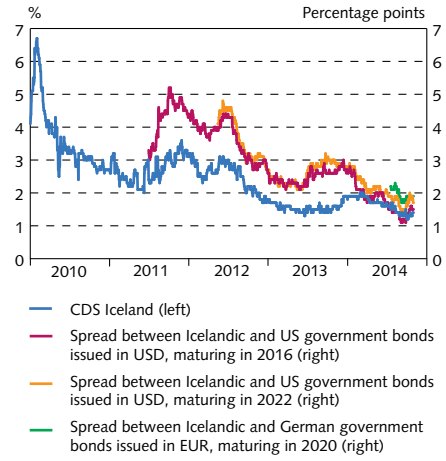
Króna relatively stable this year

The króna has remained relatively stable since the publication of the August *Monetary Bulletin*, as it did in the first half of the year (Chart III-8). It is virtually unchanged in trade-weighted terms and has appreciated against the euro but has fallen against the pound sterling and the US dollar. In trade-weighted terms, the exchange rate is 1½%

Chart III-6

Risk premia on the Icelandic Treasury

Daily data 1 January 2010 - 31 October 2014

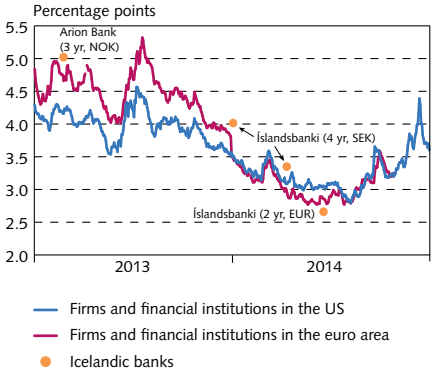


Source: Bloomberg.

Chart III-7

Risk premia on international firms and financial institutions and Icelandic banks[1]

Daily data 1 January 2013 - 31 October 2014



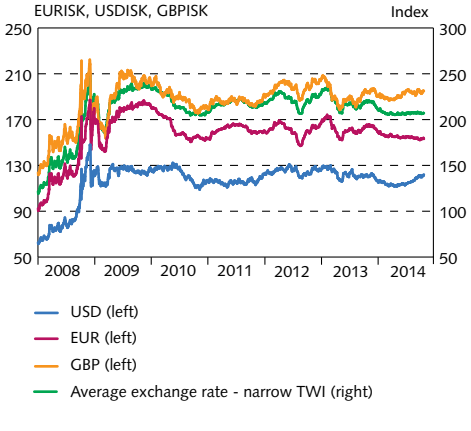
1. Credit spreads on bonds issues in domestic currency for firms and financial institutions with credit ratings from BB+ to B-. For Icelandic banks, credit spreads at issuance of foreign-denominated bonds.

Sources: Arion Bank, BIS, Íslandsbanki, Federal Reserve Bank of St. Louis.

Chart III-8

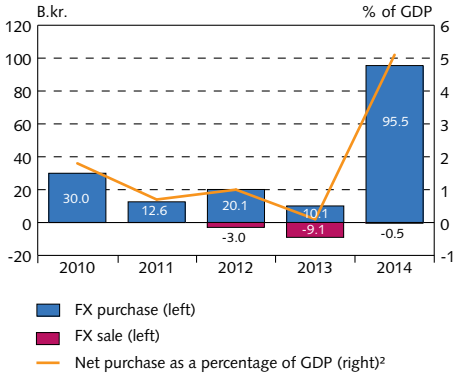
Exchange rate of the króna

Daily data 3 January 2008 - 31 October 2014



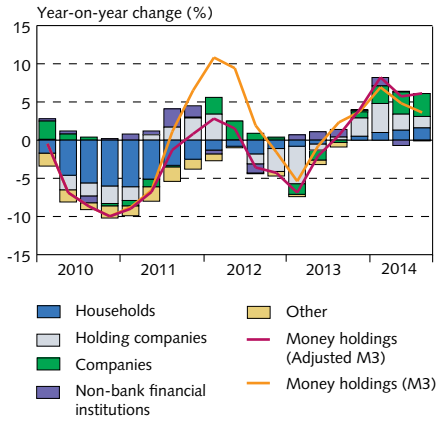
Source: Central Bank of Iceland.

Chart III-9
Central Bank transactions in the Icelandic interbank foreign exchange market
2010-2014[1]



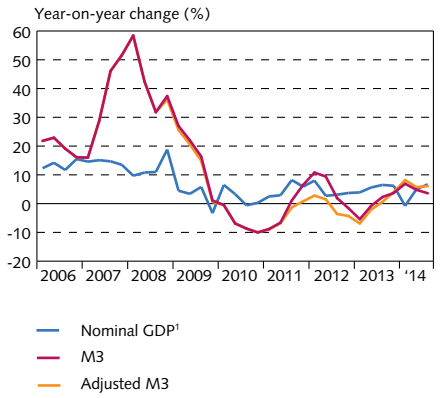
1. Based on data until 31 October 2014. 2. GDP in 2013 used for 2014.
Source: Central Bank of Iceland.

Chart III-10
Components of money holdings - Adjusted M3[1]
Q1/2010 - Q3/2014



1. Adjusted for deposits held by failed banks' winding-up committees and special purpose entities owned by commercial banks.
Source: Central Bank of Iceland.

Chart III-11
Nominal GDP and M3
Q1/2006 - Q3/2014



1. Central Bank estimate for Q3/2014.
Source: Statistics Iceland, Central Bank of Iceland.

higher than at the beginning of the year and roughly 6% higher than at end-October 2013. Continued growth in tourist visits to Iceland, with the associated payment card turnover and resulting foreign currency inflows, has combined with improving terms of trade to support the króna. Furthermore, there have been fewer foreign exchange transactions stemming from interest payments to non-residents, which has eased pressure on the exchange rate. On the other hand, the Central Bank has bought substantial amounts of foreign currency in regular and *ad hoc* transactions, so as to prevent undue currency appreciation and mitigate exchange rate volatility. So far this year, the Bank's net foreign currency purchases in the interbank market have totalled just over 5% of year-2013 GDP (Chart III-9).

Money and credit

Money holdings are well in line with nominal GDP growth

M3 grew by 3.6% year-on-year in Q3, and by 6.1% after adjusting for deposits held by the failed banks' winding-up committees and special purpose entities owned by commercial banks (Chart III-10).[3] The increase is still driven largely by growth in deposits held by businesses, particularly service companies, but also fisheries, utilities and transport and transit companies. This indicates that their capacity to invest has increased, as the majority of corporate investment in recent years appears to have been funded from companies' own operations. Households' deposits have also grown in recent months, with the increase measuring 3.7% year-on-year in Q3.

Growth in narrower measures of money holdings has slowed down markedly between years, with year-on-year growth deriving primarily from an increase in term deposits. M1 and M2 grew 1-2% year-on-year in Q3, and Central Bank base money was up 12.8%, including certificates of deposits issued by the Bank and term deposits owned by financial institutions. The year-on-year increase is partly due to the Central Bank's increased foreign currency purchases through sterilised intervention.

The rate of growth of money holdings was well in line with nominal GDP growth in Q2, following somewhat stronger growth in Q1 (Chart III-11). However, growth in money holdings had continuously been outpaced by GDP growth since Q1/2010.

Increase in corporate lending ...

Net new lending from deposit money banks (DMB) to resident borrowers was up 4.3% year-on-year in the first nine months of 2014. As is reflected in the composition in M3 growth, the increase is due largely to growth in lending to non-holding companies, particularly foreign-denominated lending to fisheries and companies in the transport and transit sector (Chart III-12). Net new non-indexed lending to service companies and construction firms has also increased.

3. M3 thus adjusted gives a more accurate estimate of money holders' spending potential and is therefore a better approximation of broad money holdings.

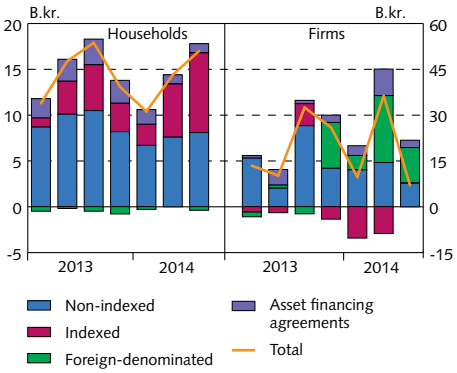
... and slowdown in new lending to households

Net new DMB lending to households has accelerated year-to-date, and the monthly pace is now similar to that in mid-2013, following a strong contraction at the end of the year. The rise is due to an increase in indexed loans – mortgage loans in particular – which, in Q3, accounted for a larger share of total net lending to households than did non-indexed loans. For the first nine months of the year, the accumulated increase in DMB lending to households was slightly smaller than over the same period in 2013. On the other hand, the contraction in Housing Financing Fund (HFF) lending has gained pace this year, which indicates that an increasing number of households are refinancing existing HFF mortgage loans with new DMB loans (Chart III-13). Total net new lending to households by DMBs and the HFF amounted to about 26 b.kr. in the first nine months of the year, an increase just under three-fourths of that during the same period in 2013.

Chart III-12

Net new lending[1] from DMBs to households and firms[2]

Q1/2013 - Q3/2014



1. New loans net of prepayments. 2. Excluding holding companies.
Source: Central Bank of Iceland.

Asset prices and financial conditions

House prices have risen but are in line with key economic variables

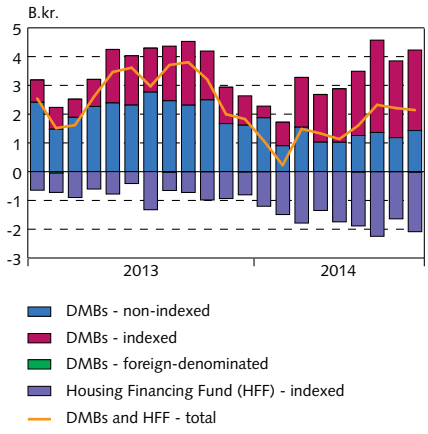
In the first three quarters of the year, the number of registered house purchase agreements was up by just under 9% and house prices rose in real terms by just over 6% year-on-year. The increase is due primarily to a rise in condominium prices, owing to particularly strong demand for smaller flats.

The rise in house prices is in line with the Bank's August forecast and developments in economic fundamentals. The ratio of house prices to income was close to its long-term average in 2013, unlike the situation in many other OECD countries (Chart III-14). Building costs per square metre, based on the simple average of common types of residential property, were nearly 10% higher than house prices in Q3, according to information from consultancy firm Hannarr ehf. Furthermore, the ratio of purchase price to rent per square metre is relatively low at present, which indicates that it is more economical to buy a home than to rent one.

Chart III-13

Net new mortgage lending from DMBs and the Housing Finance Fund to households[1]

January 2013 - September 2014



1. New loans net of prepayments.
Source: Central Bank of Iceland.

Equity market turnover rises in October

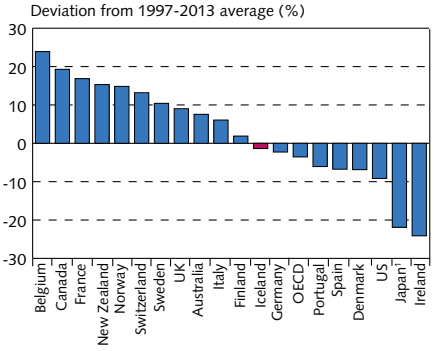
The OMXI8 index has risen by 3.1% since the last *Monetary Bulletin*. Share prices were broadly unchanged in Q3, and turnover was limited. The market livened up somewhat in October, spurred by several large trades and the publication of earnings reports, but turnover for the first ten months of 2014 was only up 2% year-on-year.

Private sector debt levels still on the decline ...

The decline in private sector debt, which began in 2009, is still underway. Household debt declined by about 5 percentage points of GDP in H1/2014, to 97% of GDP (Chart III-15).[4] Over the same period, non-financial corporate debt fell by 8 percentage points of GDP, to

Chart III-14

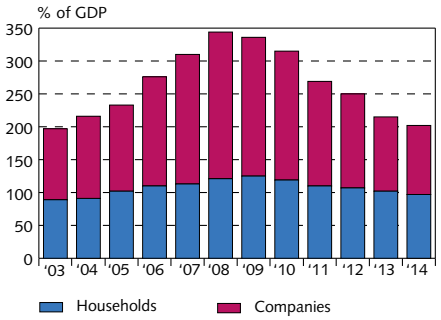
Current house price-to-income ratio in selected OECD countries[1]



1. The ratio for Japan is for 2012 and based on the 1997-2012 average = 100.
Sources: OECD, Statistics Iceland, Central Bank of Iceland.

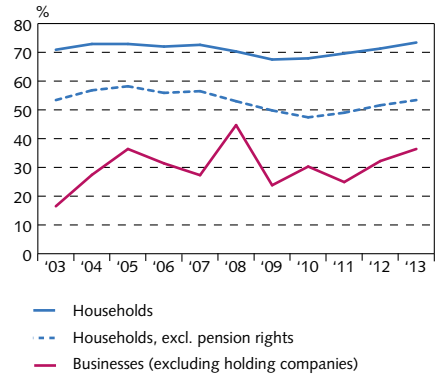
4. The implementation of new national accounts standards and other changes made by Statistics Iceland have resulted in an increase in nominal GDP dating back to 1997, thus lowering debt ratios (see also Box 1).

Chart III-15
Household and non-financial corporate debt[1]
2003-2014[2]



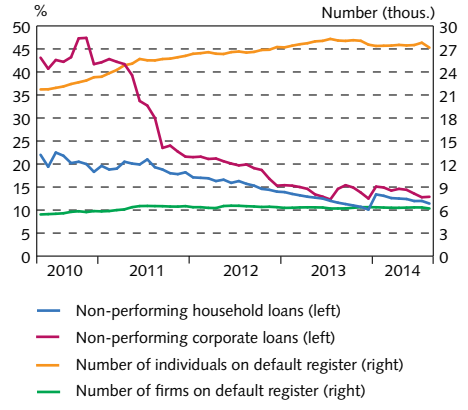
1. Debt owed to financial undertakings and market bonds issued. Excluding holding companies. 2. End-June 2014. Central Bank estimate for GDP in 2014.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart III-16
Estimated household and corporate equity ratios 2003-2013[1]



1. Estimates based on data from Statistics Iceland and the Central Bank of Iceland. Non-consolidated.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart III-17
Number of borrowers on the default register and non-performing loan[1] ratios of the three largest commercial banks and the Housing Financing Fund[2]
May 2010 - August 2014



1. Non-performing loans are defined as loans that have not been paid in more than 90 days or those for which payment is deemed unlikely. If one loan taken by a customer is in arrears by 90 days or more, all of that party's loans are considered non-performing (cross-default). The January 2014 increase in almost entirely due to recent improvements to the HFF's loan portfolio report and therefore does not reflect an actual increase. 2. Parent companies, book value.
Sources: CreditInfo, Financial Supervisory Authority, Central Bank of Iceland.

105% of GDP, by end-June. Private sector debt therefore totalled 202% of GDP at mid-year, close to the level seen in the latter half of 2004 and about 170 percentage points below the autumn 2008 peak.

... and net private sector wealth is on the rise

According to recent figures from Statistics Iceland, total household assets amounted to 396% of GDP at year-end 2013 (226% excluding pension assets), an increase of roughly 11 percentage points of GDP from the previous year (Chart III-16). Non-financial corporate assets totalled 444% of GDP as of end-2013 and have declined continuously since 2008.[5] However, debt reduction has increased households' and firms' equity and reduced the number of households with negative equity, although the proportion of households that are underwater is still high in comparison with the pre-crisis period (see also *Financial Stability* 2014/2).

Net private sector wealth has therefore increased by 65 percentage points of GDP from the 2011 trough and is now close to 2006 levels. The private sector equity ratio has also risen to its highest level since 2005.

Private sector financial conditions have improved

The number of individuals on the default register has declined year-to-date but is still high in comparison with the pre-crisis situation. The default ratios of the three large commercial banks and the HFF have declined as well, after adjusting for recent improvements to the HFF's loan portfolio report (Chart III-17) (see *Financial Stability* 2014/2). Individuals with adequate capital and debt service capacity still appear to have relatively easy access to credit. Furthermore, one of the commercial banks has begun to offer first-time buyers additional financing to supplement their conventional 80% mortgages, thereby enhancing credit market access. Even though the maximum loan-to-value ratio has thereby been raised to 90% of the purchase price, the ceiling on the supplemental loan is 1.5 b.kr.; therefore, lending criteria have not been relaxed excessively. As is discussed earlier in this section, real rates on indexed mortgage loans have also continued to decline. On the other hand, real rates on non-indexed mortgages have risen as the monetary stance has tightened, even though nominal interest rates on the loans have changed very little this year.

Firms' position has also changed for the better. The number of bankruptcies has declined year-on-year, and the large banks' default ratios have fallen, particularly for small and medium-sized companies. Companies have continued to issue bonds, and their financing from the commercial banks has increased; however, the number of firms on the default register is broadly unchanged.

5. According to the new national accounts standards, holding companies are now classified as financial institutions in Statistics Iceland's financial accounts, whereas in previous issues they were included with non-financial companies. For further information, see Statistics Iceland, "Financial Accounts 2003-2013", *Statistical Series*, 99, 28 October 2014.

IV The domestic real economy

GDP is roughly back to its pre-crisis level. Domestic demand has gained traction while the export sector has grown in importance, reflecting the domestic economy's adaptation to external circumstances unlike those Iceland has generally faced in the past. Surveys indicate that both households and businesses consider economic conditions and the employment outlook to have improved in recent quarters. The fiscal deficit has narrowed over the same period. Although GDP growth slowed markedly year-on-year in the first half of 2014, the outlook for the second half is for robust growth driven by domestic private sector demand. The contribution from net trade to output growth is expected to be negative, however. The GDP growth outlook for the year as a whole is poorer than in August, however, largely due to weaker investment growth than was assumed then. The slack in the labour market continues to narrow but at a slower rate than before. The output slack that developed in 2009 is now considered to be more or less fully absorbed, and a small positive output gap is gradually emerging.

GDP growth and domestic private sector demand

Outlook for a somewhat slower growth rate this year compared to the August forecast

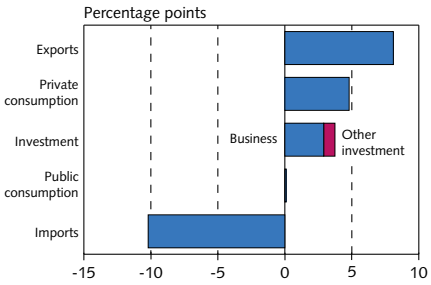
Statistics Iceland published the national accounts for Q2/2014 in September, together with revisions of figures extending back to 1997. The accounts were published in accordance with new standards and contained other revisions as well. The changes have a substantial impact on measurements of GDP (see Box 1).

Seasonally adjusted GDP was up 2.2% quarter-on-quarter in Q2 and has risen by over 9% from the post-crisis trough in Q1/2010.[1] Exports, private consumption, and business investment have played a major role in the recovery (Chart IV-1). According to Statistics Iceland figures, annual GDP growth in Q2 exceeded the August forecast by ½ a percentage point, measuring 2.4%. Q1 figures were revised downwards however, and as a result, output growth for the first half measured only 0.6%, or 0.3 percentage points less than was forecast (Chart IV-2). The deviation was due primarily to investment, which grew less than previously projected. Domestic demand was the main driver of GDP growth in the first half of 2014, rising by 2.8% year-on-year. This is a turnaround from last year, when net trade was the principal contributor to GDP growth. GDP growth is forecast to gain momentum in the second half of the year, measuring 5.2% for the period and bringing growth for the year as a whole to 2.9%, about ½ a percentage point below the August forecast. As was projected at that time, private consumption and investment will be the main drivers of output growth. If the forecast materialises, GDP growth

1. Based on seasonally adjusted Central Bank figures. As is discussed in Box IV-1 in *Monetary Bulletin* 2012/4, Statistics Iceland's method for seasonal adjustment does not appear suitable for interpreting intrayear economic developments; therefore, the Central Bank chooses to seasonally adjust the GDP data directly.

Chart IV-1

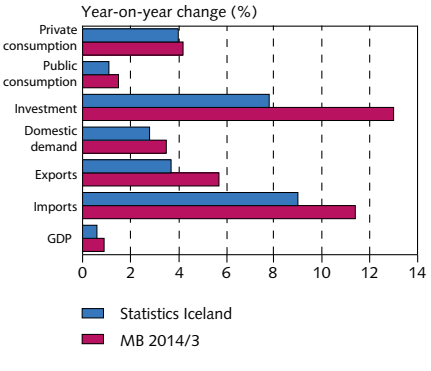
Contribution of GDP components to economic recovery[1]



1. Seasonally adjusted. From H1/2010 - H1/2014
Sources: Statistics Iceland, Central Bank of Iceland.

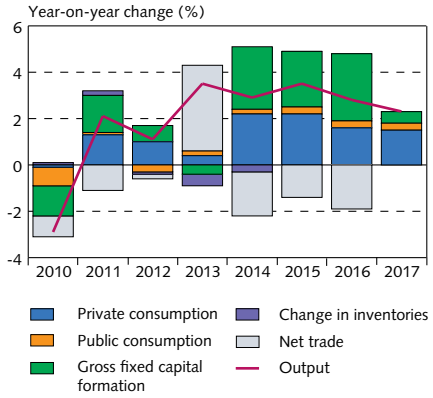
Chart IV-2

National accounts for H1/2014 and Central Bank estimate



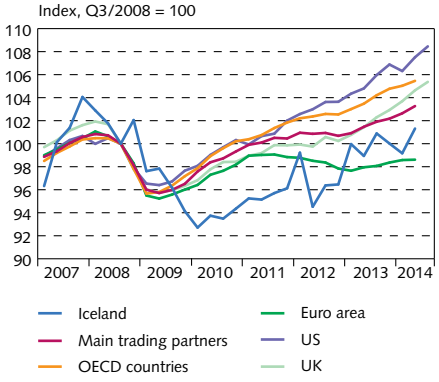
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-3
GDP growth and contribution of underlying components 2010-2017[1]



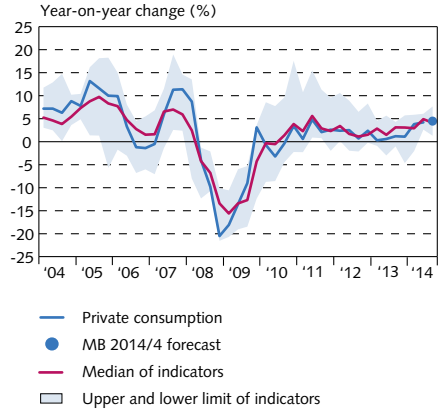
1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-4
Post-crisis GDP development[1]
Q1/2007 - Q3/2014



1. Seasonally adjusted data for Iceland are from the Central Bank of Iceland.
Sources: Macrobond, OECD, Central Bank of Iceland.

Chart IV-5
Indicators of private consumption[1]
Q1/2004 - Q3/2014



1. Upper and lower limit of eight indicators of private consumption. Indicators are payment card turnover, groceries turnover, share prices, housing prices, consumer goods imports, new motor vehicle registrations, wages, and unemployment. The indicators are rescaled so that their average and standard deviation are the same as those for private consumption.
Sources: Centre for Retail Studies, Statistics Iceland, Central Bank of Iceland.

will range between 2½% and 3½% during the forecast horizon, with offsetting contributions from private consumption and investment, on the one hand, and net trade, on the other (Chart IV-3).

Statistics Iceland has revised year-2013 GDP growth upwards by 0.2 percentage points, to 3.5%. Growth for the year appears to have been relatively broad-based: while a fairly large share stemmed from the tourism industry, there were positive contributions from other sectors as well, including construction, fisheries, and financial services. This is a somewhat stronger rate of growth than among other developed countries; for example, GDP growth measured 2.2% in the US and 1.7% in the UK, whereas the euro area recorded a contraction of 0.4% (see Section II). Since the economic recovery began, GDP among Iceland's principal trading partners has grown by nearly 8%, as opposed to the aforementioned 9% in Iceland (Chart IV-4).

Household demand gains strength year-to-date

According to Statistics Iceland's revised figures, private consumption grew by only 0.8% in 2013, somewhat less than according to the first figures from Statistics Iceland but in line with the October figures on disposable income, which indicate that real disposable income rose by only 0.7% last year.[2] In the first half of 2014, however, private consumption began to grow strongly, as previously forecast. The 4% growth rate probably reflects rising real incomes, an improved employment situation, increased household equity, and rising consumer confidence. Indicators imply that consumption growth centred largely on durables such as electrical equipment, and new motor vehicle registrations are on the rise as well. Increased demand for such goods suggests that households consider their financial position stronger than before. This is also reflected in consumer sentiment, as can be seen in Capacent Gallup's consumer surveys so far this year, which shows an improved net balance between respondents who consider the current economic situation good and those who consider it poor. The same is true for the balance between the respondents who think their possibilities in the labour market have improved and those who think their employment options have deteriorated. In both cases, however, the pessimists still outnumber the optimists.

Private consumption growth outlook the strongest in six years

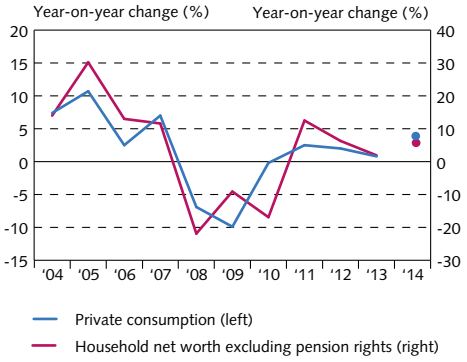
Key indicators of developments in private consumption suggest that the pattern from the first half of the year will continue in Q3 (Chart IV-5). Real house prices have continued to rise, improving households' equity position (see Section III), and real wages have kept rising as well. This is reflected in the Capacent Gallup survey among consumers, which suggests that households are more likely than before to purchase big-ticket items, with the index of planned big-ticket purchases reaching its six-year high in September. These indicators are in line with expectations; therefore, the outlook for 2014 is broadly unchanged from the August forecast, with private consumption projected to grow by nearly 4½% year-on-year. It is

2. This is a smaller increase than was forecast in August, which indicates that household saving did not increase as much in 2013 as was previously estimated.

assumed that increased household purchasing power and higher asset prices will stimulate demand in coming quarters (Charts IV-6 and IV-7). Consumers' response to the Government's debt relief package will be a major factor as well; indeed, it is likely that these effects have already surfaced to some extent (see Appendix 2 in *Monetary Bulletin* 2014/1). Some of the measures will be implemented later than was estimated when they were announced last year. Furthermore, it is assumed that allocation of third-pillar pension savings towards debt reduction and accumulation of savings for house purchases will be considerably smaller in scope than previously anticipated. This means that the estimated reduction in household cash position due to increased saving will be less early on, whereas later, the reduction in debt service will be less. Nevertheless, household saving is expected to increase during the forecast horizon.

Chart IV-6

Private consumption and household net worth 2004-2014[1]



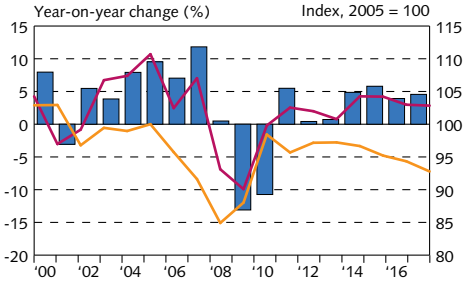
1. Bullets show MB 2014/4 forecast.
Sources: Statistice Iceland, Central Bank of Iceland.

Changes in national accounts standards affect measurements of investment

As is mentioned above, the changes to the national accounts affect previous Statistics Iceland figures, including those on investment. The main change to this part of the national accounts is that expenses for research and development (R&D) are now included with investment and considered an addition to the capital stock, whereas they were previously included with inputs used by companies in their activities during the year and therefore did not appear in the expenditure accounts. With this change, the year-2013 investment-to-GDP ratio rose from about 13½% to just over 15%, and the thirty-year average rose from 20% to 21½%. This increase is probably due in large part to the changes in the standards.

Chart IV-7

Private consumption and real disposable income 2000-2017[1]



1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

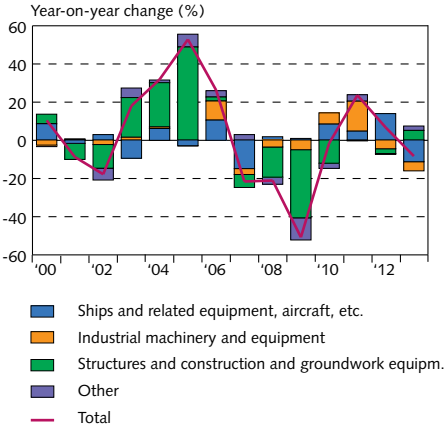
Construction grew in 2013 and is projected to continue growing

Business investment contracted by over 10% in 2013, owing to a contraction in investment in ships and aircraft and in industrial machinery and equipment (Chart IV-8). In recent years, business investment has been characterised by wide swings in investment in ships and aircraft, on the one hand, and in energy-intensive industry, on the other, while construction has been at a low ebb. Construction-related investment began to contract in 2006 and did not begin to grow again until 2013, when investment in both construction activities and equipment turned upwards. Indicators imply that this positive trend will continue. For example, according to the Capacent Gallup survey conducted among executives from Iceland's largest firms, construction companies considering adding on staff outnumber those planning redundancies, and a majority of them expect domestic demand for the sector's goods and services to grow rather than shrink.

Chart IV-8

Business investment classified by type 2000-2013

Contribution to change



Sources: Statistics Iceland, Central Bank of Iceland.

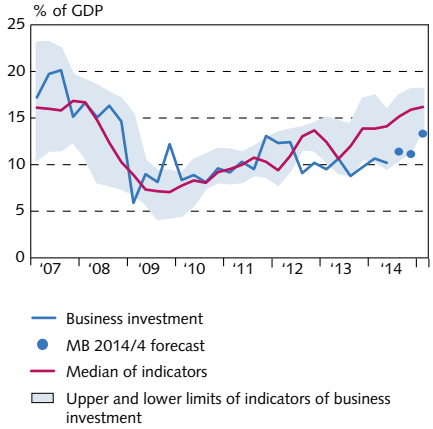
Business investment up in 2014, but less than previously forecast

The Central Bank's October 2014 survey of 102 firms revealed that respondents had scaled down their 2014 investment plans since the previous survey (Table IV-1). This is in line with developments in investment as presented in the national accounts so far this year. According to the national accounts, survey participants' planned

increase in investment is about 7 percentage points less than it was half a year ago. The change is most pronounced among firms in transport and tourism and in wholesale and retail sale.

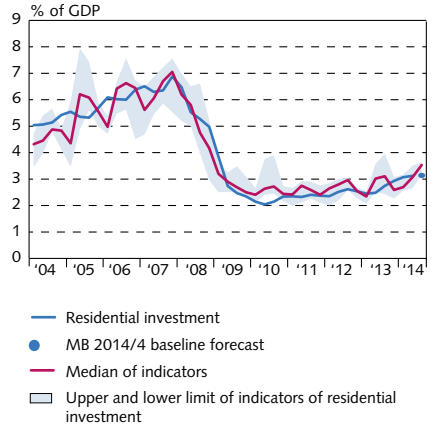
Based on indications from this survey and information suggesting reduced investment in the energy-intensive sector and ships and aircraft, in addition to a lower investment level in Q3/2014 (the beginning of the forecast horizon), it is assumed that business investment will increase by almost 18% in 2014 and not 23%, as was forecast in August. This could be an underestimation, however, in view of various indications of firms' improved financial position and information on investment goods imports, which could imply that Statistics Iceland has underestimated business investment growth in the recent term (Chart IV-9).

Chart IV-9
Indicators of business investment[1]
Q1/2007 - Q1/2015



1. Upper and lower limits of five indicators of business investment. The indicators are imports of investment goods at constant prices and responses to four questions from the Capacent Gallup survey of Iceland's 400 largest companies. The questions centre on executives' assessment of (a) the economic outlook six months ahead, (b) how they expect demand for their goods or services to develop in the next six months, (c) whether they expect their company's investment to increase year-on-year in the current year, and (d) whether they expect their margins to increase year-on-year. In assessing the range, all variables are rescaled so that their average and standard deviation are the same as those for business investment. The shaded area shows a two-quarter moving average of investment indicators, with a two-quarter time lag.
Sources: Capacent Gallup, Statistics Iceland, Central Bank of Iceland.

Chart IV-10
Indicators of residential investment[1]
Q1/2004 - Q3/2014



1. Upper and lower limit of three indicators of residential investment. the indicators are imports of reinforcing steel, imports of other construction materials, and cement sales to buyers other than energy-intensive firms. In assessing the range, the variables are rescaled so that their average and standard deviation are the same as those for measured residential investment. The chart shows a two-quarter moving average.
Sources: Statistics Iceland, Central Bank of Iceland.

Table IV-1 Survey of corporate investment plans (excluding ships and aircraft)[1]

Amounts in ISK billions	*2013*	*2014*	*2015*	*Change 2013-2014 (previous survey, %)*	*Change between 2014-2015 (%)*
Fisheries (16)	9.2	8.2	6.8	-10.7 (-2.7)	-16.9
Industry (18)	4.9	4.4	3.6	-11.5 (-17.5)	-17.9
Wholesale and retail sale (22)	5.7	4.7	4.8	-17.4 (-1.7)	2.3
Transport and tourism (10)	9.8	14.3	20.4	45.3 (73.7)	43.0
Finance/Insurance (10)	4.5	6.0	6.4	31.9 (12.1)	6.8
Media and IT (12)	8.7	10.3	8.5	19.3 (19.7)	-17.7
Services and other (14)	5.6	6.4	7.2	14.8 (23.5)	12.5
Total (102)	48.4	54.3	57.7	12.1 (19.1)	6.3

1. In parentheses is a comparison with the last survey, in which respondents from 129 firms were asked about investment plans for 2013-2014 (*Monetary Bulletin* 2014/2).
Source: Central Bank of Iceland.

Residential investment up a fourth year-on-year, as projected in August ...

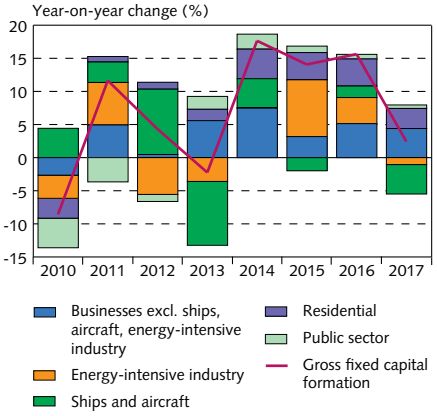
Developments in construction company executives' expectations are due partly to the upturn in the housing market. Residential investment has been growing steadily since it bottomed out in Q2/2010. This positive trend has continued, even gaining pace in the first half of this year, when residential investment grew 26% year-on-year. Key indicators suggest that the pace of growth is accelerating (Chart IV-10), which accords with the above-mentioned optimism in the construction sector. The incentive to build common types of residential housing either already exists or is developing, if information on construction costs is any indication. Therefore, for the year as a whole, year-on-year growth in residential investment is projected at 26%, marginally below the estimate in the Bank's August forecast, due to somewhat weaker-than-expected growth in the first half of the year.

... but total investment will be somewhat weaker than previously forecast

In spite of various positive signs relating to investment, total investment was somewhat weaker in H1/2014 than was forecast in the last *Monetary Bulletin*. It grew by just under 8% year-on-year during the half, as opposed to the 13% in the August forecast. All

subcomponents were weaker than expected, but the reduction in energy-intensive investment weighed heaviest in the slowdown in total investment. If the forecast materialises, the outlook is for total investment to grow by just under 18% this year instead of nearly a quarter, as in the August forecast. As in the Bank's previous forecasts, business investment is assumed to be the main driver of investment during the forecast horizon (Chart IV-11).

Chart IV-11
Gross fixed capital formation and contribution of its main components 2010-2017[1]



1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

Public sector

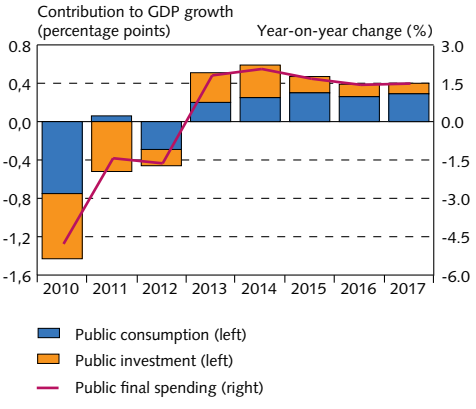
Public consumption projected to continue growing and public investment to rise from historical low

Public consumption grew by 0.8% in 2013 and just over 1% in H1/2014. Growth for the year as a whole is projected at 1%, assuming that developments in public sector wages over the remainder of the year are broadly in line with those in 2013. Although wage developments for next year are uncertain, the forecast assumes that growth will be stronger in 2015 than in 2014, reflecting a higher public consumption price deflator. As was forecast in the last *Monetary Bulletin*, it is assumed that municipalities' trade in goods and services will increase at constant prices and that central government and social security system spending will contract in line with the consolidation targets provided for in the 2015 fiscal budget proposal. The years thereafter are expected to develop in a like manner.

In 2012, public investment fell to an all-time low of only 2.5% of GDP, after declining by 2 percentage points since 2008. The medium-term plan accompanying the fiscal budget proposal does not include plans to increase central government investment, although problems that have arisen in connection with the Vaðlaheiðargöng tunnel project will probably delay the construction and increase the cost associated with it. The outlook is for public investment to measure about 3% of GDP this year and remain at that level throughout the forecast horizon.

Last year the contribution of public expenditure to GDP growth was positive for the first time since post-crisis consolidation measures were introduced. If the forecast materialises, the contribution from public expenditure in coming years will be similar to that in 2013, or about ½ a percentage point per year (Chart IV-12).

Chart IV-12
Public consumption and investment 2010-2017[1]



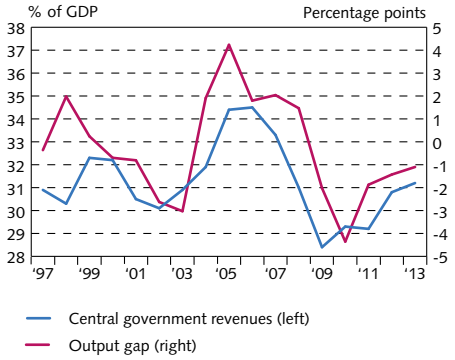
1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

2014 fiscal surplus larger than indicated in the National Budget

The fiscal budget for 2014 was approved with a surplus of 0.9 b.kr., but the budget proposal for 2015 assumes a 2014 surplus of just over 38 b.kr.[3] The difference stems from two main sources: net revenues from the Central Bank of Iceland were 24 b.kr. higher and the dividend payment from Landsbankinn 14 b.kr. higher than previously estimated. The new medium-term plan assumes no such revenues from these sources. On the other hand, it assumes higher interest payments from the Treasury during the term of the bond used to

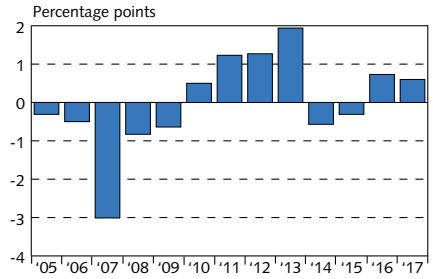
3. The fiscal budget proposal is discussed in greater detail in Box 2.

Chart IV-13
Central government revenues and the output gap



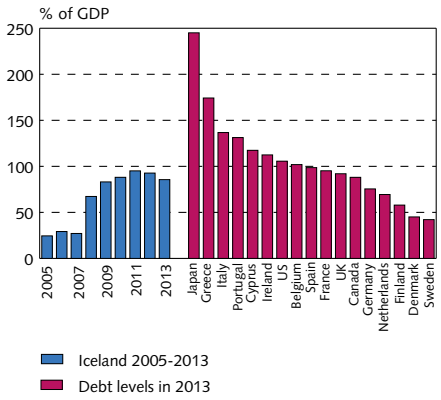
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-14
Change in central government cyclically adjusted primary balance 2005-2017[1]



1. Central Bank baseline forecast 2014-2017.
Sources: IMF, Financial Management Authority, Central Bank of Iceland.

Chart IV-15
General government gross debt



Sources: IMF, Central Bank of Iceland.

recapitalise the Central Bank of Iceland in 2008.[4] The medium-term plan accompanying the 2015 budget proposal assumes a balanced budget in coming years.

Overall surplus to increase slightly between 2015 and 2018

The fiscal budget proposal for 2015 provides for a surplus of 4 b.kr., or just over ½% of estimated Treasury revenues for the year. The medium-term plan accompanying the budget proposal assumes that the overall balance will improve steadily. Revenues are projected to decline relative to GDP, but because expenditures relative to GDP are estimated to decline more, the overall balance will improve as a result, if the assumptions prove accurate. Treasury expenditures have been declining as a share of GDP since 2010. Revenues, however, have been on the rise since 2011. As Chart IV-13 shows, revenues relative to GDP generally rise during upswings; however, according to the projections in the budget proposal, it is assumed that they will decline from just over 31% of GDP in 2013 to 29½% by 2018, with tax cuts accounting for a portion of the reduction amounting to about 1 percentage point of GDP.[5] Revenues could therefore prove higher than the medium-term plan indicates if the macroeconomic assumptions underlying the plan are borne out. On the other hand, there is some uncertainty about the financing of the Government's debt relief package, revenues from the sale of a 30% stake in Landsbankinn, dividends from the State's holding in Landsbankinn, and conventional expenditure pressures related to pay rises and increases in total hours worked. All of these factors could erode performance.

Fiscal policy to ease into 2015 before tightening again

Although the overall surplus will increase in coming years, the outlook is for fiscal policy to ease into 2015 before tightening again in 2016. For the period 2013-2017, the primary balance is projected to improve by 0.7 percentage points of GDP as the margin of spare capacity disappears and a positive output gap develops (for further discussion, see below). The cyclically adjusted primary balance will deteriorate by a total of 0.9 percentage points in 2014 and 2015 and then improve by 1.3 percentage points in 2016-2017 (Chart IV-14).

Public sector debt has declined

Public sector debt totalled 86% of GDP in 2013, having declined by 10 percentage points from its 2011 peak. This is slightly less than was projected in May, as nominal GDP rose as a result of the changes in national accounts standards. It remains rather high in international context, however (Chart IV-15). Gross and net public sector debt are expected to continue declining relative to GDP, to 70% and 53%, respectively, by 2017. The legislative bill on public sector finances assumes that net debt will not exceed 45% of GDP.[6]

4. Changes in the financial interactions between the Central Bank and the Treasury have yet to be finalised; therefore, the outcome could differ from that assumed in the 2015 fiscal budget proposal.
5. On a budgetary basis according to the fiscal budget supplement. Capitalisation of the revaluation of the stake in Landsbankinn is not included.
6. Total debt is defined here as total liabilities net of pension obligations and accounts payable, but including cash and bank deposits.

External trade and the current account balance

Exports grow less in 2014 than assumed in August

For 2014 as a whole, total exports are projected to rise by about 3½% year-on-year, nearly 1 percentage point below the August forecast. Prospects for the year are weaker because H1 export growth measured just over 3½% year-on-year, about 2 percentage points weaker than was forecast in August. The deviation is due primarily to changes in national accounts standards, but in addition, ship exports previously projected for H1/2014 are now assumed to take place in the latter half of the year. Manufacturing services,[7] which were previously included with imports and exports, also contracted sharply, causing services exports to rise less than projected. In addition, export revenues from tourism were somewhat weaker than expected. In line with the August forecast, marine product exports contracted by 10% year-on-year in H1, and the outlook for the second half is broadly unchanged. The decline in catches in the first half has come to a halt, and catches were unchanged year-on-year in Q3. Aluminium exports year-to-date have also been in line with previous forecasts, increasing by 6% year-on-year. The outlook for the second half of the year has improved, however, owing to increased added value in aluminium production. In addition, tourist visits to Iceland continued to rise during the quarter.

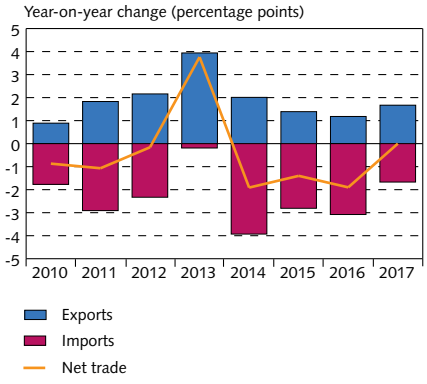
Imports driven by consumer goods and Icelanders' overseas travel

For the year as a whole, imports are also forecast to grow less strongly than was projected in August, or just over 8% instead of nearly 9% in the last forecast. Developments in the first half of the year are the main reason for weaker growth during the year as a whole. They reflect both weaker growth in domestic demand year-to-date and the shift of ship and aircraft imports to the latter half of the year. Goods and services imports were up 9% year-on-year in H1, however, owing largely to consumer goods and transport equipment – motor vehicles in particular – and a relatively strong increase in Icelanders' travel abroad. Indications based on Statistics Iceland's external trade figures, Icelandic Tourist Board figures on Icelanders' departures via Keflavík Airport, and the Capacent Gallup survey of overseas travel plans suggest that imports will continue to grow strongly in Q3, although growth in goods imports will probably taper off somewhat because of a contraction in imports of fuel and lubricants.

Contribution of net trade to output growth positive in 2013 but negative in 2014

During the economic recovery, the contribution of net trade to output growth was negative until last year, in spite of strong export growth during the period; however, net trade was the main driver of GDP growth in 2013 (Chart IV-16). The turnaround in 2013 is due to strong services exports, base effects from imports of ships and aircraft

Chart IV-16
Contribution of net trade to GDP growth 2010-2017[1]



1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

7. Manufacturing services are included with services trade. Exports of manufacturing services represent the value added by residents when producing goods for non-residents who own the main inputs and receive the final product (see Box 1).

in 2012, and a contraction in services imports. The situation turned around again in the first half of this year, however, due in particular to strong import growth, which reflects increased private consumption and investment. The contribution from net trade was negative by just over 2 percentage points of GDP in H1/2014 and is forecast to remain negative in the near future in spite of robust export growth, owing to even stronger import growth fuelled by increased domestic demand.

Surplus on goods and services trade larger than previous figures showed

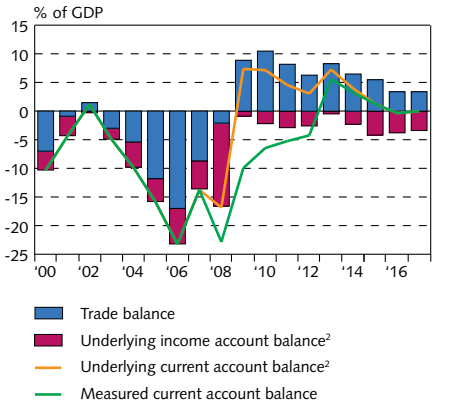
Last year's trade surplus amounted to 8.3% of GDP and is now estimated to be 1 percentage point larger than previous figures indicated, primarily due to the aforementioned change in national accounts standards. The surplus in the first half of 2014 was somewhat smaller than that in H1/2013 but larger than was forecast in August, or just over 3% of GDP. The outlook for the year as a whole is for a surplus amounting to 6½% of GDP, which is roughly 1½ percentage points more than was forecast in August. The outlook for 2015-2017 has improved as well (Chart IV-17).

Favourable developments in the underlying current account balance

The underlying deficit on primary income[8] measured 3.9 b.kr. in the first half of the year, or about 0.4% of GDP, which is broadly similar to that for H1/2013. The deficit is about 19 b.kr. smaller than was projected in August, however, and the deviation is due largely to higher wage income earned by Icelanders abroad[9] and larger losses recorded by foreign-owned domestic companies. Because of the larger surplus on goods and services trade and the smaller primary income deficit, the underlying current account balance showed a surplus of 1.3% of GDP in H1/2014, instead of the 1% deficit forecast in August. The improved outlook for the latter half of the year and the remainder of the forecast horizon is due to the same factors. The underlying current account balance is projected to be positive by 4% of GDP in 2014 instead of showing a 1% deficit, as was forecast in August. It is also expected to be an average of 2 percentage points more favourable throughout the forecast horizon (Chart IV-17). If this forecast materialises, national saving will hover around 20% of GDP during the forecast horizon (see Table 1 in Appendix 1).

Chart IV-17

Current account balance 2000-2017[1]



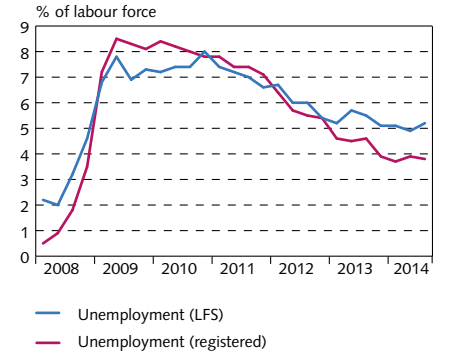
1. Secondary income is included in the balance on income. Central Bank baseline forecast 2014 - 2017. 2. Excluding the calculated income and expenses of DMBs in winding-up proceedings but including the estimated effects of the settlement of their estates, and excluding the effects of pharmaceuticals company Actavis on the balance on income until 2012. Also adjusted for the failed DMBs' financial intermediation services indirectly measured (FISIM).

Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-18

Seasonally adjusted unemployment

Q1/2008 - Q3/2014



Sources: Directorate of Labour, Statistics Iceland, Central Bank of Iceland.

Labour market

Slower narrowing of labour market slack

The pace of labour demand growth was slower in Q3 than it has generally been since it began to pick up in late 2012. Seasonally adjusted unemployment according to the Statistics Iceland labour force survey (LFS) measured 5.2% in Q3, up slightly between quarters but down

8. For consistency with the changed national accounts standards, the term *primary income* will be used instead of the previously used *income*.
9. Because of improvements in data compilation methods, Icelanders' wage income abroad is now estimated to be just over 5 b.kr. more than non-residents' wage income in Iceland in each quarter of 2014. This difference was previously estimated at 0.2 b.kr.

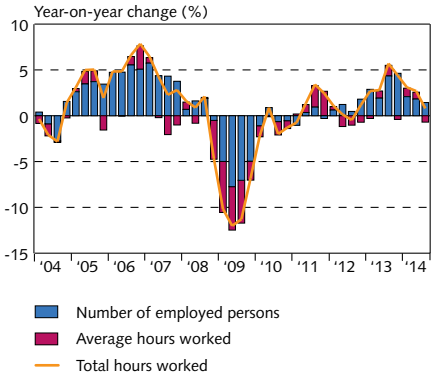
by 0.2 percentage points year-on-year (Chart IV-18).[10] The rise in total hours worked was at its slowest rate in almost two years, and slower than was forecast in August. This is due entirely to a reduction in average hours worked, as the number of employed persons continued to rise (Chart IV-19). The participation rate and the employment rate were broadly unchanged year-on-year, whereas the number of persons outside the labour market increased. This could suggest a reversal of the labour market recovery, but closer inspection shows that these developments are explained in full by a strong September outlier. Therefore, examining developments in the labour market over the first three quarters gives a clearer view of whether the labour market slack continues to narrow (Chart IV-20). If this is done, it appears that there is no discernible turnaround in the labour market, even though indicators imply that the recovery has lost pace in comparison with the same time in 2013. In terms of part-time employment the slack in the labour market narrowed significantly, and the ratio of part-time employed persons to all employed persons was somewhat below its historical average. In terms of the employment rate, average hours worked and unemployment, however, the slack in the labour market diminished slightly year-on-year in the first three quarters of 2014, but all of these indicators are still below their historical averages. These results indicate that there may still be some scope to increase total hours worked without creating substantial wage pressures, although that scope is diminishing. As is discussed below, employers now consider it more difficult to respond to a shortage of staff than they have in the recent past, but they still believe some scope exists. They appear to be able to import labour if needed, as can be seen in recent figures showing that net immigration stems entirely from foreign nationals moving to Iceland.

Problems in matching supply and demand in the labour market?

Unemployment still appears to be above its equilibrium level, which is estimated at 4½-5%, but the pace of the decline in unemployment has slowed slightly as it has approached equilibrium. The slowdown in the reduction in unemployment could be a sign of problems in matching supply and demand in the labour market. Joblessness does not appear to have become entrenched, however, as long-term unemployment has declined in line with overall unemployment (Chart IV-21). Furthermore, inflows and outflows from the unemployment register appear to be keeping pace with one another, as the number of persons without work for six to twelve months has remained relatively stable. On the other hand, developments in unemployment among the university-educated could indicate a matching problem, as unemployment rose among this group while declining among workers in other education categories. A rise in unemployment among the university-educated in spite of an increased number of jobs is prob-

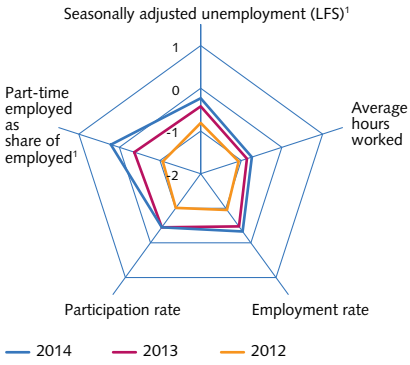
10. Unemployment as registered by the Directorate of Labour (DoL) was lower, or 3.8%, in Q3, after adjusting for seasonality. It had declined marginally between quarters and by 0.8 percentage points between years. The divergent developments in the LFS and DoL unemployment rates are probably due in large part to unemployed persons who have exhausted their unemployment benefits. These workers drop off the DoL unemployment register but are still considered unemployed according to the LFS.

Chart IV-19
Changes in employment and hours worked
Q1/2004 - Q3/2014



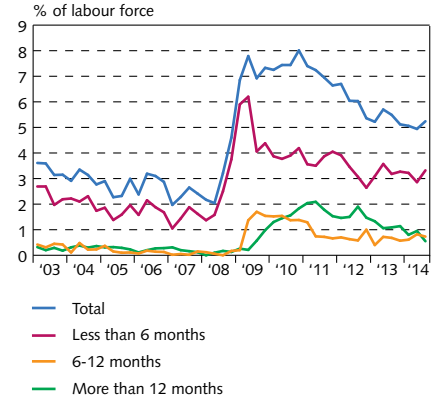
Source: Statistics Iceland.

Chart IV-20
Indicators of labour market tension in the first three quarters
Difference in number of standard deviations from their 2003-2014 averages



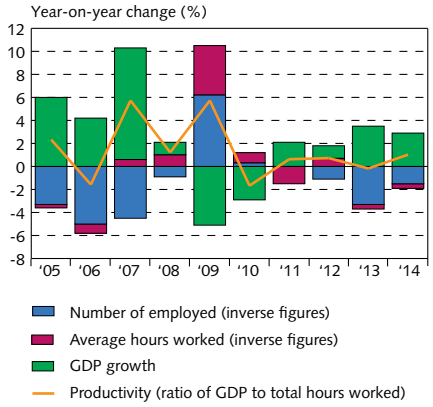
1. Multiplied by -1 so that a negative deviation from averages indicates greater tension.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-21
Unemployment by duration[1]
Q1/2003 - Q3/2014



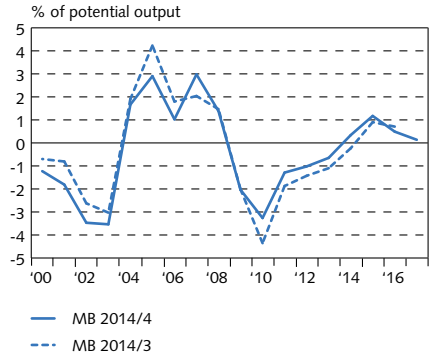
1. Seasonally adjusted.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-22
Labour productivity and the contribution of its subcomponents 2005-2014[1]



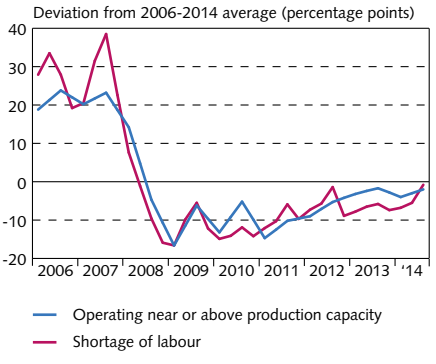
1. Average for 2014 based on baseline forecast in MB 2014/4.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-23
Output gap 2000-2017[1]



1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart IV-24
Indicators of factor utilisation[1]
Q1/2006 - Q3/2014



1. According to Capacent Gallup Sentiment Survey among Iceland's 400 largest firms. Twice a year respondents are asked if their production is near or above capacity; therefore, a linear interpolation is used to generate quarterly data.
Sources: Capacent Gallup, Central Bank of Iceland.

ably due to two interrelated factors: on the one hand, many recently created jobs have been in sectors requiring limited education, which accords with the recent importation of labour and the changed composition of GDP, with the tourism sector carrying greatly increased weight; and on the other hand, the large number of workers who went to school after the banks failed are entering the labour market and are having trouble finding suitable employment.

Modest productivity growth

Productivity growth has been relatively slow since the economic recovery began in 2010, as total hours worked have risen in line with GDP – and even outpacing it in 2013 (Chart IV-22). This is somewhat slower than in past recoveries but is in line with the post-crisis experience of most other developed countries. The reasons are probably similar as well: weak demand growth and heavily leveraged firms, which combine to keep post-crisis investment levels low. Another factor of possible significance for Iceland is the change in the composition of output, with lower-productivity sectors gaining in importance. The slow growth in productivity due to a strong increase in total hours worked is somewhat surprising, as real wages have risen markedly from their mid-2010 trough. Productivity growth is projected to be slightly weaker this year than was forecast in August despite slower growth in total hours worked, as output growth is forecast to be weaker as well.

Indications of factor utilisation

Revision of historical national accounts figures changes estimates of potential output and the output gap

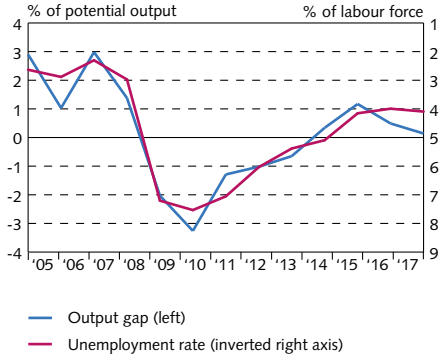
As is discussed in Box 1, the revision of the national accounts led to a marked increase in the real value of GDP and a re-evaluation of historical developments in GDP growth. The revised figures indicate that the output gap immediately preceding the onset of the financial crisis was somewhat more pronounced than previously thought (Chart IV-23). This implies that the increased GDP growth indicated by new Statistics Iceland figures for 2007 (9.7% instead of the previously estimated 6%) was not due entirely to increased potential output, as the output gap was larger than previously assumed. The post-crisis slack is also estimated to have been less pronounced than previously thought, as the contraction in GDP in 2009-2010 is smaller according to the revised figures.

Spare capacity to disappear this year

The output slack in 2013 is estimated at ½% of potential output, about half of what was forecast in August. The Bank's last forecast provided for a slight slack this year which would disappear early in 2015, but spare capacity is now projected to vanish in the latter half of this year, with output measuring just shy of ½% above potential output by the year-end. This assessment appears to accord well with the results of the Capacent Gallup survey among executives from Iceland's largest companies, which shows that the share of firms that are short-staffed has risen slightly, as has the share of executives who

consider their operations at or above capacity (Chart IV-24). As is discussed above, indicators also imply that the slack in the labour market is disappearing, albeit slower than was previously assumed and that it will close later than the output slack. Unemployment is probably close to its equilibrium (Chart IV-25), and the wage share is projected to return to its long-term average this year (see Section V).

Chart IV-25
Output gap and unemployment 2005-2017[1]



1. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

V Inflation

Inflation has remained below the Central Bank's inflation target since early 2014, and the short-term inflation outlook has improved. Twelve-month inflation measured 1.9% in October 2014. Most measures of underlying inflation are close to target and have declined since the last *Monetary Bulletin*. The recent disinflation episode has been driven largely by declining imported goods prices. The króna has appreciated since last year, and this, together with reduced exchange rate volatility, has created the conditions for declining prices. By the same token, the relatively modest nominal pay increases provided for in the most recent wage settlements have contributed to low inflation and boosted real wages. The rise in house prices has pulled in the opposite direction, however. There are signs of unrest in the labour market, and inflationary pressures from that source may be underestimated; however, both short- and long-term inflation expectations have fallen by most measures since the last *Monetary Bulletin*. The durability of the recent disinflation episode will depend primarily on wage increases in line with underlying productivity, inflation expectations close to target, and continued exchange rate stability.

Recent developments in inflation

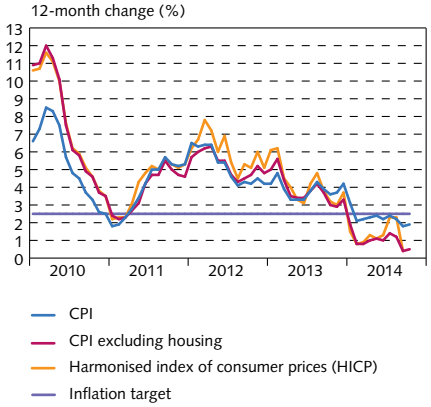
Inflation below target for the past nine months

Inflationary pressures have diminished markedly in the past year. Inflation measured 2.1% in Q3, some 0.2 percentage points below forecast in the August *Monetary Bulletin*, mainly because of the unexpected dip in the CPI in September, when reduced international airfares more than offset house price increases and seasonal end-of-sale effects.[1]

The CPI rose by 0.14% in October, and twelve-month inflation measured 1.9%, as compared with 1.8% in September and 3.6% in October 2013 (Chart V-1). The decline in petrol prices had the strongest effect, and rising house prices pulled in the opposite direction. The cancellation of excise taxes planned for the beginning of 2015 also had some downward effect in October.[2] Inflation excluding housing was significantly lower, or 0.5%, down from 1.4% before the publication of the last *Monetary Bulletin*. It is now at its lowest point since summer 2005. The Harmonised Index of Consumer Prices (HICP), which is compiled by the European Union's statistical bureau and also excludes housing costs, has developed in a like manner. The twelve-month rise in the HICP measured 0.4% in September, as opposed to 3.8% in September 2013.

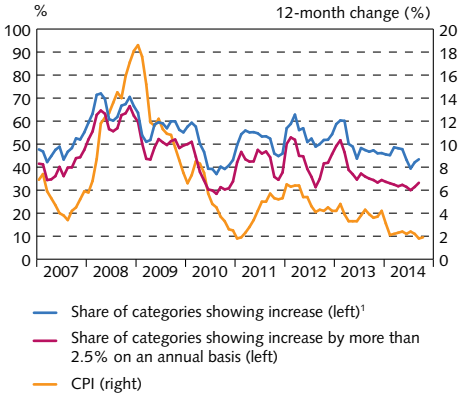
1. As is stated in a press release published by Statistics Iceland in October, an error in the calculation of international airfares for September was corrected in October. Furthermore, a methodology change in the calculation of this component was adopted in April 2014. From that time, the price of air travel is included in index calculation during the month in which the planned travel takes place, in accordance with new guidelines on HICP calculation in the European Economic Area (EEA).
2. The 2015 national budget proposal provides for the cancellation of general excise taxes as of January 2015. For further information, see Box 2.

Chart V-1
Various measures of inflation
January 2010 - October 2014



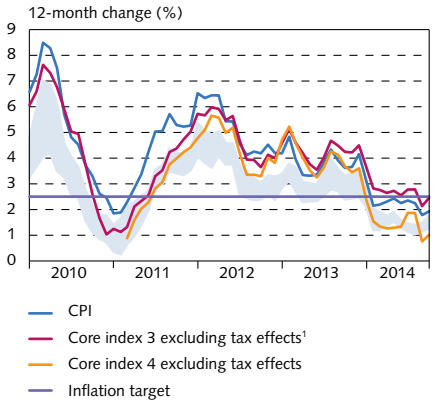
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-2
Distribution of price increases in the CPI
January 2007 - October 2014



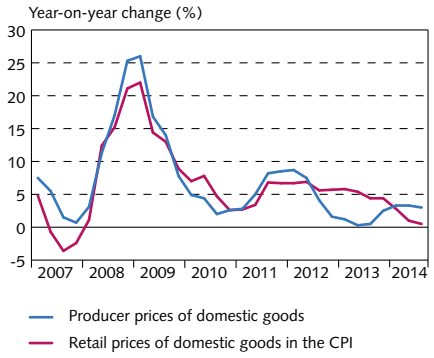
1. The share of goods categories that rise in price is a 3-month centred average.
Source: Statistics Iceland.

Chart V-3
Various measures of underlying inflation
January 2010 - October 2014



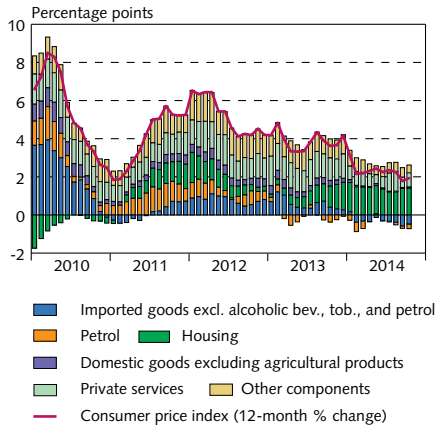
1. Core index 3 is the CPI excluding prices of agricultural products, petrol, public services, and the cost of real mortgage interest. Core index 4 excludes the market price of housing as well. 2. Underlying inflation is measured as the weighted median and as the trimmed mean, excluding 5%, 10%, 15%, 20% and 25% of components with the largest price changes.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-4
Producer and retail prices of domestic goods
Q1/2007 - Q3/2014



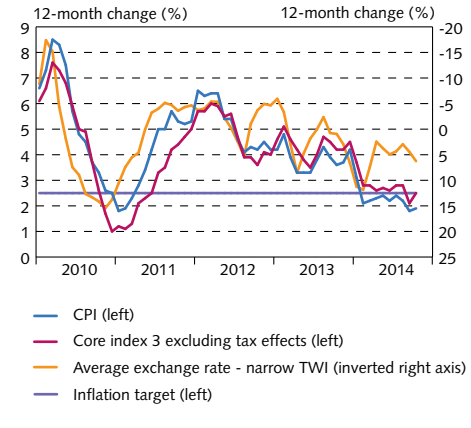
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-5
Components of CPI inflation
Contribution to inflation January 2010 - October 2014



Source: Statistics Iceland.

Chart V-6
Inflation, core inflation, and the exchange rate of the króna
January 2010 - October 2014



Sources: Statistics Iceland, Central Bank of Iceland.

Underlying inflation and other indications of inflationary pressures

Limited overall inflationary pressures

The recent disinflation episode appears to be relatively broad-based. As such, the percentage of goods categories with an annualised price rise exceeding 2.5% month-on-month has declined steadily in the recent term (Chart V-2). Underlying inflation also appears to have tapered off since the last *Monetary Bulletin*. Underlying twelve-month inflation as measured by core index 3 (which excludes the effects of indirect taxes, volatile food items, petrol, public services, and real mortgage interest expense) measured 2.5% in October, down from 2.8% in July (Chart V-3). In terms of core index 4, which also excludes the effects of changes in the market value of housing, underlying inflation measured 1% in October. Inflation according to core index 4 has fallen most sharply in recent months. Statistical measures of inflation also indicate limited underlying inflation, although they have risen slightly in the recent term. Using the weighted median and trimmed mean measures gives an underlying inflation figure of 1.3-1.7% in October, an average of 1½ percentage points less than in October 2013.

Producer prices of goods sold domestically were up 3% year-on-year in Q3. The increase in domestic goods prices in the CPI measured only 0.5% over the same period, however. These two measures of domestic inflation have diverged somewhat (Chart V-4). Another way to measure domestic inflation is to track private services prices, which were up 3.4% year-on-year in October and had therefore risen more than the CPI. Although the short-term inflation outlook has improved since the last *Monetary Bulletin*, the above-mentioned factors could indicate that domestic inflationary pressures are slightly stronger than is indicated by the general slowdown in inflation.

Exchange rate stability and relatively moderate pay hikes important contributors to disinflation

The composition of inflation has changed markedly in the past year, as rising house prices are now the major contributor. In October, nearly three-fourths of annual inflation were due to the rise in the housing component, as opposed to about one-third a year ago (Chart V-5). Imported goods prices have fallen by 1.8% in the past twelve months, as compared with 0.8% in July, and the contribution of this component over the past year to a decline in the CPI measured 0.6 percentage points in October. Over the same period, the króna has appreciated by roughly 6% in trade-weighted terms (Chart V-6).

The disinflation episode of the past few months has been driven largely by declining imported goods prices, although domestic inflation (excluding housing) has subsided as well (Chart V-7). Although the Bank's intervention in the foreign exchange market hindered the appreciation of the króna, thereby delaying the decline in traded inflation, the enhanced stability it afforded probably expedited the pass-through of the higher exchange rate and low foreign inflation to the general price level. Another important factor is the relatively moderate

pay rises negotiated in this year's wage settlements, as can be seen clearly in the slowing of domestic inflation. Similarly, exchange rate stability and modest pay increases in upcoming wage negotiations are of key importance in keeping inflation low and stable.

Inflationary pressures from the labour market may be underestimated

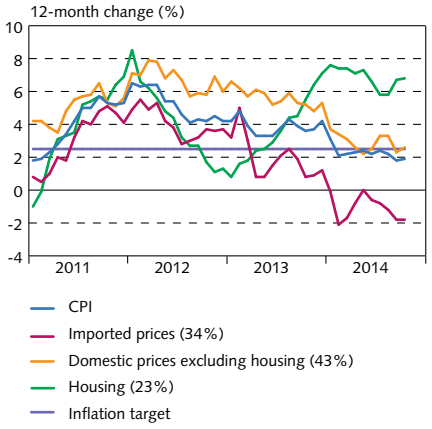
In September, Statistics Iceland published revised wage cost figures based on the national accounts for 2007-2013. As is customary, national accounts figures on wages and related expenses change somewhat upon revision, but on this occasion new standards were adopted and other modifications made as well (Box 1). The revision shows that, on average, wages per man-year were broadly similar to previous figures during the period in question, but the impact of the revision varies from year to year. In 2013, the year-on-year increase in wages per man-year was 3.5%, or 1 percentage point less than previously assumed. The share of wages in gross factor income changed as well (Chart V-8). It rose slightly more in 2013 than previous figures had indicated and was just over half a percentage point below its historical average. If the forecast in this *Monetary Bulletin* materialises, it will be nearly a percentage point above the historical average this year.[3]

In Q3, the wage index had risen about 5.1% since the Q4/2013 round of wage negotiations, and because inflation subsided over the same period, real wages grew strongly, or by 3.7%. According to the wage index, wages rose slightly more in Q3 than was provided for in the Bank's last forecast. It also appears that an increasing number of groups are demanding larger pay hikes than were agreed during the last negotiations. As a result, wages are now forecast to rise somewhat more during the forecast horizon than was projected in August, although it is still assumed that a front-loaded three-year agreement similar to that from December 2013 will be negotiated early next year. This could prove optimistic, however, given that the output slack has all but disappeared and the wage share is expected to rise to its historical average this year. Inflationary pressures from the labour market could therefore be underestimated in the Bank's forecast.

Owing to the revision of wages and related expenses, unit labour costs have risen slightly less, on average, in recent years, although the revision of GDP growth has also affected historical developments in productivity (see Section IV). It is assumed that this year's increase in unit labour costs will be broadly in line with the August forecast, or just under 5%, as weaker productivity growth will offset smaller pay increases (Chart V-9). The outlook is for growth to exceed the August forecast in the next two years, when larger pay increases and weaker productivity growth both pull in the same direction. If the forecast materialises, however, growth in unit labour costs will have aligned with the inflation target by 2017.

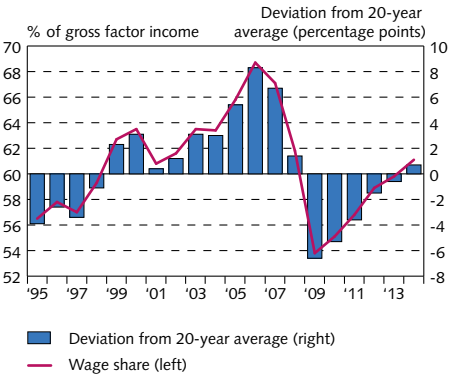
3. New figures show that the wage share declines somewhat and its twenty-year historical average falls from just over 63% to 60.4%. For further information, see the discussion of recent developments in the wage share in Section VI of *Monetary Bulletin* 2014/2.

Chart V-7
Imported and domestic inflation[1]
January 2011 - October 2014



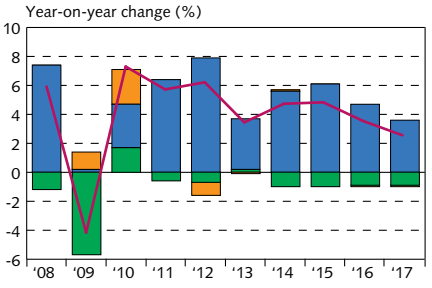
1. Imported inflation is estimated using imported food and beverages and the price of new motor vehicles and spare parts, petrol, and other imported goods. Domestic inflation is estimated using the price of domestic goods and the price of private and public services. The figures in parentheses show the current weight of these items in the CPI.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-8
Wage share 1995-2014[1]



1. 20 year average is 60.4% (base 1997). The 2014 annual average is based on the Central Bank's baseline forecast in MB 2014/4.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-9
Unit labour costs and contribution of underlying components 2008-2017[1]

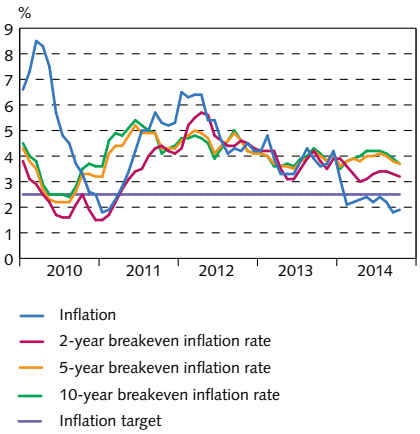


1. Labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2014-2017.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart V-10
Inflation and inflation expectations one year ahead
Q1/2010 - Q4/2014

Sources: Capacent Gallup, Statistics Iceland, Central Bank of Iceland.

Chart V-11
Inflation and indicators of medium- and long-term inflation expectations[1]
January 2010 - October 2014



1. Annual CPI inflation. Breakeven inflation rate based on nominal and indexed yield curves (monthly averages).
Sources: Statistics Iceland, Central Bank of Iceland.

Inflation expectations

Short-term inflation expectations have declined by most measures …
Inflation has been controlled successfully in the recent term. The durability of this success will depend to a large degree on developments in inflation expectations. There are signs that most measures of short-term inflation expectations have moved closer to the inflation target since the last *Monetary Bulletin*. The two-year breakeven inflation rate in the bond market, as calculated from the spread between interest on indexed and non-indexed bonds, averaged just over 3% in October, as compared with just under 3½% in August.[4] The Central Bank's October survey of market agents' expectations tells a similar tale, with respondents expecting inflation to measure 2.8% after one year and 3% after two years, a decline of ½ a percentage point from the August survey and roughly 1 percentage point from October 2013 (Chart V-10). Corporate executives' inflation expectations two years ahead have also fallen by ½ a percentage point, to 3%, according to Capacent Gallup's quarterly survey from September. Both corporate and household inflation expectations one year ahead are still unchanged from the last survey, however; households still project inflation at 4% in one year's time, and executives project it at 3%, or 1 percentage point lower than in September 2013. Uncertainty about inflation one year ahead appears to have diminished as well, as can be seen in the reduced variation in the responses of survey participants.

The results of the Capacent survey show that over half of firms expect their input prices to rise in the next six months, which is a slight increase from the March survey. A somewhat larger share of executives expect the price of their products and services to rise during the period, or 35% instead of 30% in March. Nonetheless, the majority of firms expect their product prices to remain unchanged.

… as have long-term inflation expectations
Long-term inflation expectations also appear to have subsided since the publication of the last *Monetary Bulletin*, after having remained stubbornly high in the past year. The five- and ten-year breakeven inflation rate in the bond market averaged 3.7% in October, down ½ a percentage point since August (Chart V-11). Because the breakeven rate includes a risk premium reflecting uncertainty about inflation and a risk premium related to bond liquidity, it is conceivable that a rate of around 3% could actually be consistent with the inflation target.[5] Therefore, long-term inflation expectations in the bond market

4. Because of a shortage of short-term indexed bonds, caution should be exercised in interpreting short-term inflation expectations based on the breakeven inflation rate in the bond market.

5. International research suggests that the risk premium on long-term bonds could be in the ½-1 percentage point range, and that it grows higher as inflation grows more volatile (see, for example, A. Buraschi and A. Jiltsov (2005), "Inflation risk premia and the expectations hypothesis", *Journal of Financial Economics*, 75, 429-490; J. Durham (2006), "An estimate of the inflation risk premium using a three-factor affine term structure model", Federal Reserve Board, FEDS Paper 2006-42; A. Ang, G. Bekaert, and M. Wei (2008), "The term structure of real rates and expected inflation", *Journal of Finance*, 63, 797-849; and S. D'Amico, D. Kim, and M. Wei (2008), "Tips from TIPS: the informational content of treasury inflation-protected security prices", *BIS Working Papers*, no. 248).

appear to be approaching the Bank's inflation target. Market agents' long-term inflation expectations have also subsided. According to the survey carried out by the Bank in October, respondents expect inflation to average 3% over the next five years and 3.2% over the next ten years, which is about 0.8 percentage points lower than according to the August survey and almost 1 percentage point lower than in October 2013.

Box 1

New national accounts standards

On 19 September, Statistics Iceland published the national accounts for Q2/2014, together with revisions of figures extending back to 1997. The revision was due in part to the new national accounts standards implemented under the European System of National and Regional Accounts, commonly referred to as ESA 2010. The ESA 2010 standards provide for a number of changes in accounts preparation, the most important of which are discussed in this Box. First, research and development costs are now classified as investment and are added to the capital stock. Second, purchases of fixed military assets such as military ships and aircraft are no longer recorded directly under public consumption for the year but are recorded as investment and included in the capital stock. Third, goods sent abroad for processing are no longer included with goods imports and exports; instead, the contribution from the foreign company is classified as an imported service (and an exported service in the foreign company's home country). And fourth, accrued pension obligations are recognised as expenses in the payer's accounts and as households' assets, irrespective of whether the obligation in question has been paid. The ESA 2010 standards contain various other provisions as well, including provisions on data sources and processing and those pertaining to publication and revision of national accounts statistics. Statistics Iceland has extended its revisions to other items in addition to those that are new features of ESA 2010, as statistical offices in other European countries have done. Illegal activities such as prostitution, smuggling, and drug sales are now included for the first time, and items such as financial intermediation services indirectly measured (FISIM) and housing costs have been changed significantly.[1]

For the period 1997-2007, measured nominal GDP increased upon revision by an average of 3.1% in comparison with the national accounts published in March. For the period 2008-2013, it increased by an average of 4.9%. The increase in GDP at constant prices is larger, at 3.6% for 1997-2007 and 8.5% for 2008-2013. The increase in Iceland's nominal GDP is similar to that in many other countries. In the UK, measured nominal GDP increased by an average of 3.6% for the period 1997-2009; in France, it rose by 3.2% in 2010 (including 2.4% due to ESA 2010); in the Netherlands, it increased by 7.6% in 2010 (including 3% due to ESA 2010); and in Denmark, where the national accounts have been revised back to 1966, measured GDP rose by between 1.6% and 3.1%.

Principal changes in methodology

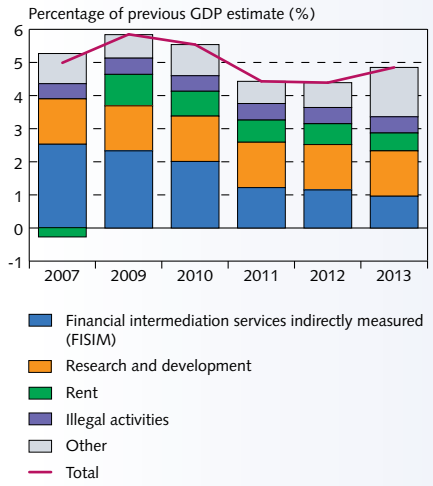
The items that cause the greatest changes in the expenditures side of the national accounts are as follows:

Research and development expense (R&D) is now classified as investment, whereas it was previously included with intermediary goods. This change increases measured GDP by 1.4%. It increases investment by 14-16% for the past five years, and as a substantial portion of R&D was previously classified as public consumption, public consumption declines by 2½% over the same period. The change increases end-2012 capital stock by 5.3%.

Financial intermediation services indirectly measured (FISIM) – that is, the portion of financial services that customers pay for through interest rate spreads rather than through explicit service charges – have been re-evaluated. The re-evaluation results in a 2.5% increase in year-2007 GDP and a 1% increase in 2013. It shows as an increase in private and public consumption, as well as

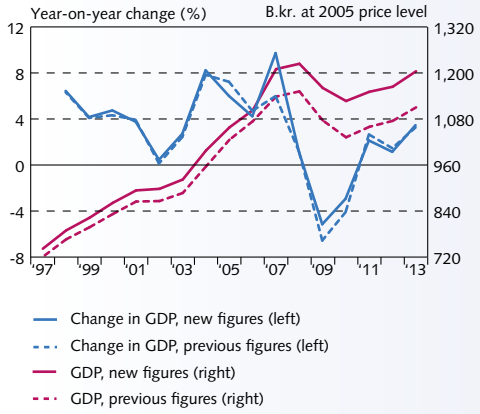
1. For further information, see *Statistical Series* 2014:10, Statistics Iceland, 19 September 2014.

Chart 1
Contribution to increase in nominal GDP 2007-2013



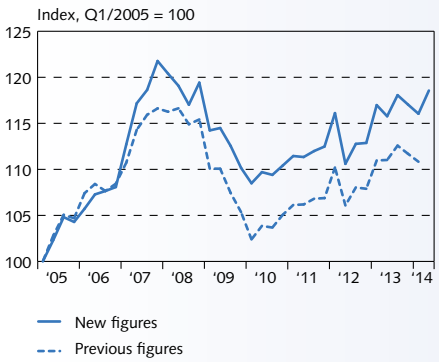
Source: Statistics Iceland.

Chart 2
GDP at constant prices and GDP growth 1997-2013



Source: Statistics Iceland.

Chart 3
Seasonally adjusted GDP
Q1/2005 - Q2/2014



Sources: Statistics Iceland, Central Bank of Iceland.

improving the trade balance and eroding the primary income balance by equal amounts.

Rent has been re-evaluated, causing GDP to rise by ½-1% over the past five years but to decline by 0.3% in 2007.

Illegal activities such as prostitution and drug sales are now included for the first time with GDP in Iceland. According to the national accounts standards, GDP should measure all legal and illegal economic activities involving the sale of goods and services in the market. This item increases GDP by 0.5% and private consumption by just under 1%.

Chart 1 illustrates the contribution of these four items to the changes in GDP estimates from 2007 onwards. As the chart shows, FISIM weighs heaviest early on, although the reclassification of R&D as investment has a strong effect as well.

The ESA 2010 provision classifying the purchase of military assets such as ships and aircraft as investment rather than immediate public consumption has significant effects in many countries but has little impact in Iceland. The provision excluding goods imported for processing and re-exported to their foreign owners from imports and exports has a significant impact on imports and exports of goods and services but does not affect GDP or the trade balance. The rules on treatment of pension savings will have a substantial impact on household net worth but will have no effect on measured GDP and GDP growth.

Revision of developments in GDP growth

As a result of these changes, GDP growth in Iceland is now considered to be somewhat stronger than previously estimated for the period 1997-2008, or 4.7% per year on average instead of the previous 4.4%. This is due primarily to the substantial revision of year-2007 GDP growth, which is now estimated at 9.7% instead of the previous 6% (Chart 2). This is Iceland's highest GDP growth figure since 1971, when it measured 13.1%.

The economic contraction of 2008-2010 is now considered smaller than before: GDP is estimated to have contracted by 5.1% in 2009 and another 2.9% in 2010, as opposed to Statistics Iceland's previous figures of 6.6% and 4.1%, respectively. According to the new figures, GDP growth during the period 2011-2013 is slightly weaker than previously projected, averaging 2.3% per year instead of the previous 2.4%.

Revision of quarterly figures

As in the previous figures, seasonally adjusted GDP peaks in Q4/2007 and bottoms out in Q1/2010 (Chart 3). The timing of the turnaround in the domestic economy is therefore unchanged. The contraction is smaller, however, at 10.9% instead of the previous 12.2%.[2] Since the economic recovery began in 2010, GDP is now estimated to have increased by 9.3%, or 1.8 percentage points less than previously projected.

Revisions of individual expenditure items

Upon revision, nominal private consumption rises by an average of 4.3% in 2009-2013, with the largest increase in 2009 (6.2%). Nominal public consumption declines by 2.4% for 1998 and is virtually unchanged for 2009-2013. The most pronounced change is in investment, which rises in nominal terms by 17.3% in 2010 and by

2. Based on direct seasonal adjustment of GDP, not Statistics Iceland's seasonally adjusted figures. The difference between the Central Bank and Statistics Iceland's methods for seasonal adjustment is discussed in Box IV-1 in *Monetary Bulletin* 2012/4.

an average of 15.8% in 2009-2013. Total imports and exports are broadly unchanged, but there are significant changes in which imports and exports are classified as imports and exports of goods, on the one hand, and services, on the other, due to the aforementioned change in the treatment of transactions with goods without transfer of ownership.

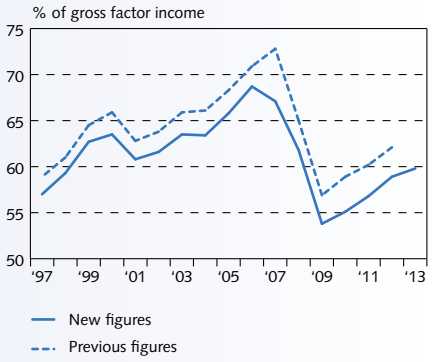
Measured growth in individual expenditure items changes as well. The contraction in private consumption from 2008 to 2010 now measures 10.1% instead of the previous 14.9%, with the change due primarily to the effects of FISIM, particularly in 2009. Private consumption growth during the period 2010-2013 is now estimated at 5.4% instead of the previous 6.3%. Measured growth in investment and public consumption has changed less markedly.

Changes in key ratios

The above-described changes in the national accounts have caused changes in a number of key ratios. For example, the ratio of investment to GDP has increased by 1.4 percentage points, both in terms of the average over the last five years and for the entire period since 1997. The ratio of private consumption to GDP has declined by an average of 0.4 percentage points over the past five years, and the public consumption-to-GDP ratio by 1.2 percentage points. Exports as a share of GDP have fallen by 2.7 percentage points and imports as a share of GDP by 3 percentage points, on average, over the past five years, owing primarily to the increase in GDP. The trade balance improves by 1.9 percentage points for 2007 and by 0.3 percentage points, on average, for the period 2009-2013, due mainly to a re-evaluation of FISIM. Debt-to-GDP ratios decline with the increase in nominal GDP.

The changes in the expenditure accounts also appear in Statistics Iceland's production and income accounts. In the production accounts, revenues from the additional activities now included are entered with gross operating revenues, while wages are broadly unchanged. In the production accounts, income earned by sole proprietors, including many farmers, small-scale fishermen, and tradesmen, is recorded with operating surpluses. This causes the wage share to decline. The estimated ratio for 2007 declines from 72.8% to 67.1%, or by 5.7 percentage points, and the ratio for 2008-2012 declines by an average of 3.2 percentage points. It is now estimated at an average of 58.9% over the 2008-2012 period and 59.8% in 2013 (Chart 4).

Chart 4
Wage share 1997-2013



Source: Statistics Iceland.

Box 2

National budget proposal 2015

The medium-term fiscal plan included with the national budget proposal for 2015 assumes a balanced budget through 2018 and a stronger performance than was provided for in last year's budget proposal. The medium-term plan is summarised in Table 1. The budget proposal provides for an overall surplus amounting to 0.2% of GDP on an accrual basis in 2015. On a cash basis, however, the overall balance will be negative in the amount of 6.5 b.kr.

According to the assumptions underlying the budget proposal, the Treasury debt-to-GDP ratio will decline markedly in coming years, due primarily to growth in nominal GDP. According to the 2015 budget proposal, Treasury performance in 2014 will be much stronger than was assumed in the National Budget for the year. A surplus of 2% of GDP is now expected instead of the 0.1% provided for in the Budget. The budget proposals for 2012 and 2013 assumed a surplus of 1% of GDP in 2014. The reason for the considerable improvement is that dividend payments from the Central Bank of Iceland and Landsbankinn were much larger than previously estimated. In the budget proposal for 2015, the Treasury will still rely on dividends from these sources in order to generate a surplus, but the dividends will be considerably smaller, or about 15 b.kr., as opposed to this year's 57 b.kr.

Table 1 Estimated central government performance through 2018

B.kr.	*2015*	*2016*	*2017*	*2018*
Total revenues	644.5	665.1	701.1	715.5
Tax revenues	591.1	609.2	644.2	656.7
Total expenditures	640.5	658.0	677.0	679.4
Operating expenses	258.0	269.2	280.1	290.4
Interest	84.2	84.3	83.8	86.7
Transfer outlays	249.8	259.0	268.8	278.1
Maintenance	9.2	9.4	9.7	9.9
Investment	39.3	36.1	34.7	14.4
Overall Treasury balance	4.1	7.1	24.1	36.0
as % of GDP	0.2	0.3	1.1	1.5
improvement from prior year	-1.8	0.1	0.7	0.4
Primary revenues	626.3	646.6	682.1	696.0
Primary expenditures	556.3	573.7	593.2	592.7
Primary Treasury balance	70.1	72.8	88.9	103.3
as % of GDP	3.5	3.4	3.9	4.3
improvement from prior year	-1.8	-0.1	0.5	0.4
Interest income	18.2	18.5	19.0	19.4
Interest expense	84.2	84.3	83.8	86.7
Financing balance	-66.0	-65.8	-64.8	-67.3
as % of GDP	-3.3	-3.1	-2.8	-2.8

Source: Ministry of Finance and Economic Affairs.

Economic developments year-to-date have been more favourable than was assumed in the 2014 National Budget. Domestic demand, both investment and consumption, is stronger than previously estimated. This has made a positive impact on Treasury revenue generation, but the reduction in revenues resulting from the tax system changes approved at the spring legislative session counteract this. The main economic assumptions underlying the new budget proposal are broadly in line with the baseline forecast in this *Monetary Bulletin*.

The estimates of Treasury debt contained in the budget proposal assume that developments will be more favourable than previous plans provided for, due in part to plans to sell a 30% stake in Landsbankinn in 2015 and 2016 and use the proceeds to pay down

debt. It is also assumed that only half of the Treasury's USD 1 billion bond maturing in 2016 will be refinanced and that the Central Bank's foreign exchange reserves will be used to pay the remainder. In addition, it is assumed that major steps will be taken to lift the capital controls in coming quarters and that it will therefore be possible to repay the loans from the International Monetary Fund (IMF) from the foreign reserves. If this assumption is not borne out, these obligations must be refinanced, which will increase Treasury debt. In nominal terms, gross debt at year-end 2018 is estimated at 1,418 b.kr., or 59% of GDP, as opposed to 1,489 b.kr. (79% of GDP) at the end of 2014.

The budget proposal assumes that domestic and foreign interest rates will rise somewhat and that the króna will depreciate, eroding the interest balance over the time horizon for the medium-term plan. The deficit is estimated to increase from 60 b.kr. this year to 65-67 b.kr. in 2015-2018. The increased deficit in the interest balance is due also to the conversion of the Treasury bond in the Central Bank from an indexed to a non-indexed bond. Furthermore, interest income on Treasury accounts with the Central Bank will decline 4-10 b.kr. per year in comparison with the previous estimate, owing to a revaluation of some of the accounts.[1] Paying half of the aforementioned loan in US dollars will save the Treasury about 1.6 b.kr. in interest expense in 2016 and 3.2 b.kr. per year in 2017 and 2018. Furthermore, the debt reduction achieved with the sale of the State's 30% holding in Landsbankinn will save the Treasury an estimated 3 b.kr. in interest expense in 2016 and just over 4.5 b.kr. [per year] in 2017 and 2018. However, dividends from Landsbankinn will decline as a result.

The revenues side

The changes from previous estimates on the revenues side are due to changes in the tax system and re-evaluation of tax revenues on the basis of the new macroeconomic forecast underlying the budget proposal. Estimated total revenues for 2015 increase by 38.5 b.kr. from the estimates in the 2014 fiscal budget proposal, to a total of 644.5 b.kr. The main sources of increased revenues are the changes in the bank levy, approved in December 2013 (23 b.kr.), re-evaluation of tax bases (18 b.kr.), and an increase in dividends on the State's holdings in the commercial banks (4.2 b.kr.). On the other hand, revenues decline by 1.7 b.kr. because of changes in the fishing fee system, the effects of measures related to household mortgage debt write-downs. Because of changed assumptions concerning interest income, revenues decline by 3.9 b.kr. Furthermore, revenues will decline by 3.7 b.kr. because of planned changes to the value-added tax system and the cancellation of general excise taxes. Other changes to the tax system will reduce revenues by another 0.9 b.kr. The general tax base increase according to the new assumptions in the macroeconomic forecasts contained in the budget proposal would have increased tax revenues by 33 b.kr., other things being equal, but because of the above-described measures, revenues will rise by only 17.3 b.kr. in nominal terms, or by 3% year-on-year. Tax revenues will shrink in real terms by 0.4% and will decline as a share of GDP from 30.5% to 29.2%. After adjusting for irregular items, total revenues increase by 4.5 b.kr. year-on-year but decline relative to GDP by 2 percentage points, to 31.6%. The revenue estimates are summarised in Table 2.

1. The financial interactions between the Central Bank and the Treasury are discussed in Section V of *Monetary Bulletin* 2014/2.

Table 2 Summary of Treasury revenue estimates on an accrual basis, 2014-2018

% of GDP	*2014*	*2015*	*2016*	*2017*	*2018*
Total revenues	35.5	31.9	30.9	30.7	29.6
Tax revenues	30.5	29.2	28.4	28.4	27.3
Primary revenues	34.6	31.0	30.0	29.9	28.8
Interest income	1.0	0.9	0.9	0.8	0.8
Revenues net of irregular items[1]					
Total revenues	33.6	31.6	30.6	30.4	29.3
Tax revenues	30.0	29.0	28.2	28.1	27.1
Primary revenues	32.7	30.7	29.7	29.6	28.5

1. Irregular items are the Treasury's investment income, revenues from asset sales, capital gains, and revaluation of ownership shares. Also classified as an irregular item in 2014 is the capitalisation of an estimated 26 b.kr. for the reduction of the Treasury's debt to the Central Bank, in connection with the amendment of the Central Bank Act and the changes in the financial interactions between the two institutions.

Source: Ministry of Finance and Economic Affairs.

The combined effect of the various tax cuts approved at the last legislative session will be to reduce revenues by 16.2 b.kr. once the cuts have taken full effect in 2016. The reduction in the fishing fee will first surface in full during fiscal year 2015, as will the 1% price list reductions passed at the spring 2014 legislative session. The estimated reduction in revenues from fishing fees from 2014 onwards will total just under 2 b.kr. The payroll tax will decline from 7.59% to 7.49% in 2015 and then to 7.35% in 2016. The effect of revoking the exemptions previously enjoyed by financial institutions in winding-up proceedings from 2014 onwards will taper off, thereby reducing revenues from the bank levy from 39 b.kr. this year to 4.5 b.kr. by 2018. Table 3 summarises the tax system changes since the autumn 2013 legislative session.

Table 3 Summary of revenue effects of tax system changes in autumn 2013 during the period 2015-2018

B.kr.	*2015*	*2016*	*2017*	*2018*
Tax changes from autumn 2013 legislative session	29.5	15.3	15.2	-7.9
– increase in bank levy	38.0	25.9	26.1	3.3
– various tax reductions	-8.6	-10.6	-10.9	-11.1
Tax reductions from spring 2014 legislative session	-5.5	-5.6	-4.6	-2.1
Tax changes in 2015 budget proposal	-0.5	0.7	0.2	-0.3
Total tax changes	23.5	10.4	10.8	-10.2
– increase in bank levy	38.0	25.9	26.1	3.3
– other	-14.6	-15.5	-15.3	-13.5
Previous measures				
Revocation of wealth tax and energy tax	-10.5	-12.7	-12.8	-12.9
Tax changes and tax revocation combined	13.0	-2.4	-2.0	-23.1
– other than bank levy	-25.1	-28.2	-28.0	-26.4

Source: Ministry of Finance and Economic Affairs.

The expenditures side

The austerity measures implemented in 2009-2013 required more operational streamlining than had been previously done based on the volume change in public consumption. The authorities have stated that they do not think it advisable to consolidate much further, as direct consolidation measures account for only 3.4 b.kr. according to the budget proposal, or 0.6% of primary expenditure, as opposed to 28 b.kr. in 2011. Central government debt remains the principal problem. Debt can be paid down with operating surpluses

and with asset sales, and the current Government has plans to sell assets to reduce debt.

According to the budget proposal for 2015 and the revised estimates for 2014, primary expenditures will total 556 b.kr. in 2015, an increase of less than 1% year-on-year in nominal terms and a contraction of 2% in real terms, excluding wage and price increases. They are projected to increase by 3% per year in 2016 and 2017 and remain unchanged in 2018, as the 20 b.kr. in expenditures due to mortgage debt write-downs will expire that year. The small year-on-year change is due in part to the fact that primary expenditures are higher this year than was assumed in the 2014 Budget. Estimated primary expenditures therefore increase in 2015 by 13 b.kr. from the estimate in the 2014 budget proposal. In 2015, it is assumed that expenditures for social assistance and payments to old-age and disability pensioners will rise by 2.4 b.kr. over and above price increases, or a total of 5.4 b.kr. To offset the effects that changes in the lower value-added tax bracket will have on prices and living expenses, it is

Table 4 Changes in 2015 performance between last year's and this year's budget proposals

Accrual basis	*B.kr.*
Treasury performance in 2015 according to budget proposal plan autumn 2013	
Primary balance	61.2
Interest balance	-58.7
Overall balance	2.6
Changes in Treasury performance in 2015 from budget proposal plan autumn 2013	
1. Changes in primary income	
Tax base re-evaluation	14.9
Dividend payments	3.9
Fishing fee reduction	-1.8
System changes	2.2
Other	2.8
Total changes in primary income	22.0
2. Changes in primary expenditure	
Increased contributions to healthcare, esp. LSH and FSA hospitals	4.6
Changed price level assumptions (employee compensation and Social Security benefits increase by 0.9 percentage points)	2.4
Real growth in functions in excess of assumptions in previous fiscal plan	1.0
Cancellation of contribution to VIRK occupational rehabilitation fund	-1.3
Reduction of contribution to Housing Financing Fund for changes in Fund operations	-2.5
Treasury pension obligations	2.5
Write-offs of tax claims and unforeseen expenditure	2.6
Increased real growth and other changes	3.8
Total changes in primary expenditure	13.1
3. Changes in interest balance	
Amendment of Central Bank bond (non-indexed interest, etc.)	8.1
Other changes in interest expense (retirement of foreign loan and smaller debts)	-4.1
Reduced interest income on FX accounts with Central Bank	3.4
Other changes in interest income	-0.1
Total changes in interest balance	7.3
4. Adjustment of indexed household mortgage debt	
Increase in bank levy and side-effects of income tax and payroll tax	19.7
Net expenditure due to adjustment of indexed household mortgage debt	19.8
Total adjustment of indexed household mortgage debt	-0.1
Total changes in overall balance	1.5
Treasury performance in 2015 according to fiscal plan autumn 2014	
Primary balance	70.1
Interest balance	-66.0
Overall balance	4.1

Source: Ministry of Finance and Economic Affairs.

assumed that mitigating measures will be applied through individual income taxes, costing the Treasury about 1 b.kr. in 2015. The wage and price increases provided for in the 2015 budget proposal total 15.3 b.kr, including 2.4 b.kr. due to a higher inflation forecast than before. To counteract this, expenditures will be cut by reducing contributions to the Housing Financing Fund (HFF) during 2015-2018. Next year's HFF contribution is estimated at 2.5 b.kr., whereas previous plans had provided for an annual contribution of 4.5 b.kr. during the 2015-2018 period. Furthermore, the budget proposal assumes that plans for a 1.3 b.kr. contribution to occupational rehabilitation funds in 2015 will be abandoned. Primary expenditures net of expenditures for household mortgage write-downs are estimated to decline from 25.1% of GDP in 2015 to 23.2% by 2018, or nearly 2 percentage points.

The budget proposal assumes that central government wages will increase by 3.5% in 2015 and by 3.6-4.4% per year in 2016-2018. This is an increase of about 1% over and above the inflation forecast for the 2016-2018 period. The results of upcoming wage negotiations are highly uncertain. This is why a new budgetary allocation has been created so as to provide the scope to absorb deviations – particularly in wage, exchange rate, and price assumptions – and fulfil unforeseen obligations that may accrue each year. This allocation amounts to 6 b.kr. each for 2015 and 2016. It then increases by 0.5 b.kr. per year in 2017 and 2018, when it will total 7 b.kr. Irregular items in the budget proposal are estimated at 165 b.kr. Table 4 shows the changes in year-2015 performance according to the budget proposals for 2014 and 2015.

Legislative bill for new law on public sector finances submitted again

The Minister of Finance has submitted a bill of legislation on public sector finances. The aim of the proposed legislation is to enhance enforcement of budget execution by adopting fiscal rules providing for performance targets and reference debt levels. The bill also states that, after a Government is appointed, it shall issue a five-year fiscal policy for the entire public sector, plus a fiscal plan to be presented at the legislative session each spring. An independent fiscal council is to provide commentary on whether the budget and overall fiscal policy are being implemented in accordance with fiscal policy as issued. Further discussion of these changes can be found in Box V-1 in *Monetary Bulletin* 2014/2.

Box 3

The Central Bank of Iceland forecasting record

Forecasting errors are inevitable. Some stem from errors in the models used for forecasting, others are due to inaccurate information on the economic variables on which the models are based – measurement errors, for instance – and still others can be caused by unforeseen factors. Examining errors in previous forecasts can shed light on the uncertainties in the current forecast, as well as providing important information on possible mistakes in forecast preparation and unforeseen structural changes in the economy. Both can be used for further development of the Bank's economic models, in forecast preparation, and overall improvements in analysis and forecast presentation. Finally, it should be borne in mind that the primary objective of the Central Bank's forecasts is to support monetary policy formation; therefore, it is most important to minimise the forecasting errors that complicate monetary policy implementation.

Macroeconomic and inflation forecasts

Four times a year, the Central Bank prepares macroeconomic and inflation forecasts covering a forecast horizon of three years. The forecasts are based on an in-depth analysis of the state of the economy at the time they are prepared. The assumptions concerning global economic developments are based, among other things, on international forecasts and the information implied by forward commodity prices. The national accounts provide the main foundation for the assessment of the state of the economy. In addition, Bank staff prepare an independent assessment of the state of the economy through surveys; discussions with corporate executives, institutional directors, and labour market institutes; and statistical analysis of developments in key variables. The Central Bank's quarterly macroeconomic model (QMM) is the tool used to manage this information. Some of the equations in the model are accounting equations, while others are behavioural equations that are evaluated using econometric methods. The Bank's forecast – particularly for the recent past and immediate future – is determined not least by staff assessments, various simple statistical models, and a variety of information not included in the QMM.

Monetary policy during the forecast horizon is a key factor in the preparation of each forecast. In the QMM, monetary policy is set with a forward-looking monetary policy rule wherein Central Bank interest rates are determined by the expected deviation of inflation from the inflation target and the current output gap. This rule ensures that the Bank's interest rates ultimately bring inflation back to target and keep it close to target, on average, over the business cycle. The monetary policy rule in the model was selected from a group of such rules and is considered the one that minimises the sacrifice cost in ensuring that inflation is at target.[1]

Central Bank inflation forecasts for 2013

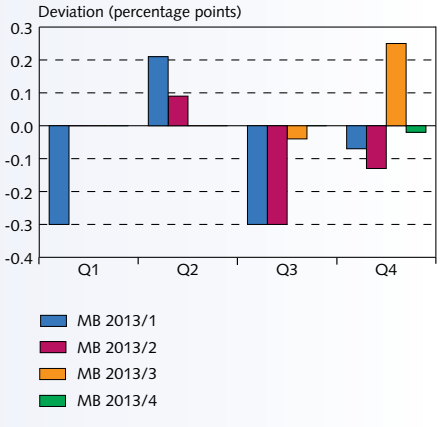
Twelve-month inflation averaged 3.9% in 2013, whereas inflation excluding the effects of indirect taxes was slightly lower, or 3.7%. The main drivers of inflation were of domestic origin: rising house prices and private services prices. Together, these items explained, on average, more than half of the rise in the CPI during the year.

Chart 1 illustrates the forecasting record for the inflation forecasts within the year. As the chart indicates, inflation was underfore-

1. See Ásgeir Daníelsson, Magnús F. Gudmundsson, Svava J. Haraldsdóttir, Thorvardur Tjörvi Ólafsson, Ásgerdur Ó. Pétursdóttir, Thórarinn G. Pétursson and Rósa Sveinsdóttir (2009), "QMM: A quarterly macroeconomic model of the Icelandic economy", Central Bank of Iceland, *Working Paper*, no. 41. The most recent version of the handbook for the model can be found here: http://www.sedlabanki.is/lisalib/getfile.aspx?itemid=9132.

Chart 1

Quarterly inflation 2013 and forecasts in *Monetary Bulletin*



Source: Central Bank of Iceland.

cast in Q1, whereas the opposite was true in Q2. In the latter half of the year, inflation was underforecast as well. But for the year as a whole, the Bank's forecasts were quite accurate (Table 1): early on, average inflation was slightly underforecast, but the deviation was only 0.1 percentage points.

Table 1 Inflation forecast for 2013

Year-on-year change (%)	*MB 2013/1*	*MB 2013/2*	*MB 2013/3*	*MB 2013/4*	*Final result*
Inflation	3.8	3.8	3.9	3.9	3.9
Inflation excl. effects of indirect taxes	3.6	3.6	3.8	3.7	3.7

Errors in inflation forecasts over a longer period

In assessing long-term inflation forecasts, it is important to consider the mean deviation and the root mean square error (RMSE) of the forecasts concerned. The mean forecast error shows the average deviation of the forecast from observed inflation. It gives an indication of whether inflation is being systematically over- or underforecast. The RMSE is a measure of the variability of the forecast error and therefore of the uncertainty in the forecast itself. The error or deviation can generally be expected to increase as forecasts extend further ahead in time.

Table 2 Central Bank of Iceland inflation forecast errors since Q1/1994

%	*One quarter*	*Two quarters*	*Three quarters*	*Four quarters*
Mean forecast error	0.0	-0.2	-0.7	-1.1
RMSE	0.6	1.6	2.3	2.6

Table 2 shows the mean forecast error and RMSE in the Bank's inflation forecasts up to four quarters ahead, from 1994 through August 2014 (74 forecasts in all). By this criterion, inflation has been underforecast two to four quarters ahead, to an increasing degree as the forecast horizon is extended. The mean deviation of the forecasts three and four quarters ahead proved to be statistically significant from zero based on a 5% threshold, which means that the forecasts were skewed to the downside. The forecast errors one and two quarters ahead were not significant from zero, however. The mean forecast error three and four quarters ahead has been strongly affected by the years 2008 and 2009. Excluding the forecasts prepared for those years reduces the mean error by 0.4 percentage points for the forecasts three quarters ahead and by 0.3 percentage points for the forecasts four quarters ahead. Furthermore, the mean forecast error for the forecasts three quarters ahead becomes statistically insignificant from zero based on a 5% threshold, although the mean error for the four-quarter forecasts is still significant.

Table 3 Central Bank of Iceland inflation forecast errors since Q2/2001

	No. of measurements	*Mean forecast error (%)*	*RMSE (%)*
Four quarters ahead	48	-1.4	2.8
Eight quarters ahead	40	-2.7	4.3
Twelve quarters ahead	18	-1.7	2.2

After adopting the inflation target in March 2001, the Central Bank published inflation forecasts two years ahead, and since March 2007, it has published forecasts over a horizon of three years. Table 3 shows the mean forecast error and the RMSE for the period since the introduction of the formal inflation targeting regime. The RMSE for the one-year forecasts can be seen in Tables 2 and 3. Compar-

ing these shows that the RMSE for the one-year forecast has been greater since the Bank adopted the inflation target than it was for the entire period. From the time the króna was floated until recently, fluctuations in inflation were much greater than they were under the fixed exchange rate regime of the 1990s.[2] It should also be borne in mind that the QMM was not used until the beginning of 2006. Furthermore, the Bank did not forecast the exchange rate or the policy interest rate until 2007; therefore, the forecasts did not make full use of Bank staff's assessments of the likely developments in these variables.[3] This is still the case to an extent, because in recent years the Bank's macroeconomic and inflation forecasts have been based on the assumption that the exchange rate of the króna will remain broadly unchanged over the forecast horizon. Experience shows that large errors in inflation forecasts in Iceland are usually related to exchange rate volatility, as can be seen in Chart 2, as the correlation between mean absolute errors in inflation and exchange rate forecasts is 0.64.

Comparison of selected inflation forecasting methods

Simple time series models that forecast inflation are also used in forecast preparation. To evaluate how good the Bank's forecasts are, it is possible to compare them to the results generated by such models (Chart 3).[4] Three ARIMA models, a simple cost-push model, a random walk, and a VEC model are used for the comparison.[5] A review of 2013 shows that the Bank's forecasts had the second-smallest error, irrespective of the forecast horizon. For forecasts one quarter ahead, the cost-push model produced the smallest errors, while the ARIMA 3 model generated the smallest errors for forecasts two, three, and four quarters ahead.

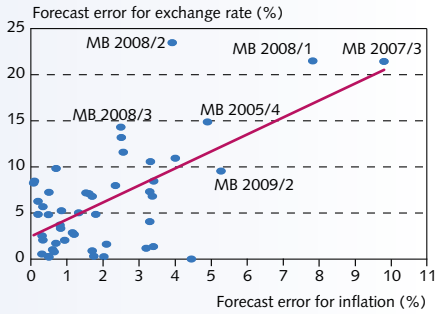
It can also be informative to compare the forecasts with forecasts assuming that inflation will be the same as in the previous quarter throughout the forecast horizon. Such forecasts would generate the smallest errors if changes in inflation were a random variable with an expected value of zero; i.e., if inflation followed a so-called random walk process. Simple forecasting methods of this type are often used for reference in assessing forecast quality. In the vast majority of cases, a good forecast should be more accurate than a simple random walk forecast. For forecasts one quarter ahead, all of the models performed better than the random walk forecast. For

2. See Central Bank reports "Monetary policy in Iceland after capital controls", *Special Publication* no. 4, and "Iceland's currency and exchange rate policy options", *Special Publication* no. 7 (Chapters 3, 4, and 12).
3. See Thorvardur Tjörvi Ólafsson (2007), "Publication of its own policy rate path boosts the effectiveness of central bank monetary policy", *Monetary Bulletin* 2007/1, pp. 71-86.
4. In all models, care is taken to ensure that they have the same information on inflation when the forecast is prepared. In comparing them, it should be borne in mind that the forecasts are not entirely unrelated, as the Bank's final forecast each time frequently takes account of the results obtained with simple time series models, particularly for short-term forecasts.
5. According to the simple cost-push model, inflation is determined by historical developments in unit labour costs and the import price level in domestic currency. The ARIMA 1 model draws on forecasts for the principal subcomponents of the consumer price index and weights them together to create a single overall index. The twelve subcomponents of the consumer price index are as follows: agricultural products less vegetables, vegetables, other domestic food and beverages, other domestic goods, imported food and beverages, new cars and spare parts, petrol, other imported goods, alcohol and tobacco, housing, public services, and other services. ARIMA 2 forecasts the CPI directly, and ARIMA 3 forecasts the overall index excluding indirect taxes and then factors in the estimated tax effects. A discussion of the use of ARIMA models for inflation forecasting can be found in A. Meyler, G. Kenny, and T. Quinn (1998), "Forecasting Irish inflation using ARIMA models", Central Bank of Ireland, *Technical Paper*, no. 3/RT/98. The VEC (vector error correction) model is a multivariate time series model that takes account of developments in import prices, output gap, and wage costs.

Chart 2

Forecast error for inflation in *Monetary Bulletin* and deviation of average exchange rate from forecast 2001-2013

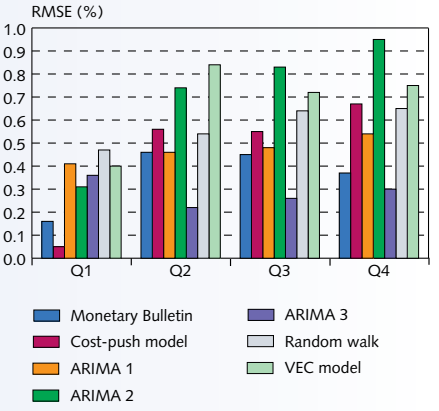
Forecast one year ahead



Source: Central Bank of Iceland.

Chart 3

Forecasting errors for inflation in *Monetary Bulletin* and from simple models in 2013[1]

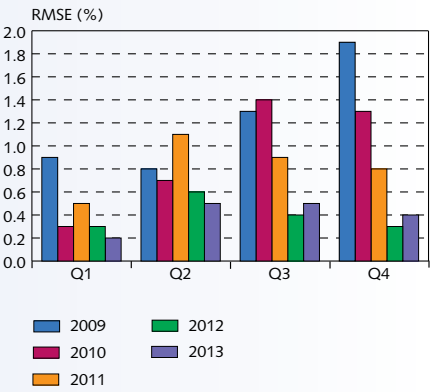


1. Q1 is the quarter in which the report is published or the first quarter forecasted; Q2 is the quarter after the report has been published; Q3 is the following quarter.

Source: Central Bank of Iceland.

Chart 4

Forecasting errors for inflation in *Monetary Bulletin* 2009-2013[1]



1. Q1 is the quarter in which the report is published or the first quarter forecasted; Q2 is the quarter after the report has been published; Q3 is the following quarter.

Source: Central Bank of Iceland.

forecasts over a longer horizon, the Bank's baseline forecasts and the ARIMA 1 and 3 models generated smaller errors, while the results of the cost-push model were similar to the random walk results and the ARIMA 2 and VEC models were less accurate.

The Bank's forecasts in recent years are compared in Chart 4. The RMSE has declined markedly, from an average of 1.2% in 2009 to the 2013 average of 0.4%. Over the period under scrutiny, errors in forecasts one and two quarters ahead were smallest in 2013. The errors in 2013 forecasts three and four quarters ahead were also somewhat low, although the 2012 forecast errors were lower. The increased stability of the domestic economy is probably a major reason for the greater forecasting accuracy during this period.[6]

Central Bank GDP growth forecasts for 2013

In order to obtain a clearer view of the Central Bank's success in inflation forecasting, it is necessary to examine the Bank's success in forecasting economic developments. For example, the Bank is likely to underforecast inflation during periods when it underforecasts growth in demand or overforecasts the slack in the economy.

Statistics Iceland publishes national accounts estimates for each quarter about two months after each quarter-end. The first estimates for Q4/2013 and the full year 2013 were published in March 2014, and revised figures were published in September. This time it is more difficult to compare the forecasts with final Statistics Iceland figures because of the changes in national accounts standards in September.[7] Statistics Iceland's forecasts and estimates of changes in key macroeconomic variables from the previous year can be seen in Table 4. At the top of the columns is the first quarter for which a forecast is prepared. Statistics Iceland's national accounts estimates for Q3/2012 were available in February 2013, when *Monetary Bulletin* 2013/1 was published. As a result, the Bank had to base its forecast for 2013 on the forecast for Q4/2012.

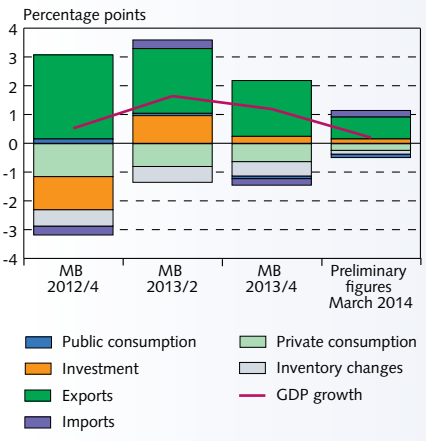
Table 4 *Monetary Bulletin* – Macroeconomic forecasts for 2013

Forecast horizon from:	*2012/4*	*2013/1*	*2013/2*	*2013/3*	*2013/4*	*Preliminary figures (March 2014)*	*Revised figures (Sep. 2014)*
% change from prior year	*MB 2013/1*	*MB 2013/2*	*MB 2013/3*	*MB 2013/4*	*MB 2014/1*		
Private consumption	2.5	2.2	2.0	1.9	1.6	1.2	0.8
Public consumption	0.1	0.5	1.2	1.2	1.2	1.3	0.8
Gross fixed capital formation	-1.0	-9.2	-9.4	-4.1	-4.3	-3.4	-2.2
National expenditure	1.3	0.0	0.0	0.7	0.4	0.1	-0.3
Exports	1.8	2.9	4.4	3.4	4.7	5.3	6.9
Imports	0.5	-0.2	1.2	0.8	0.3	-0.1	0.4
GDP growth	2.1	1.8	1.9	2.3	3.0	3.3	3.5

Statistics Iceland's figures underwent a considerable revision between the preliminary figures from March 2014 and the revised figures from September, primarily due to the new national accounts standards and changes in methodology. The volume change in all subcomponents of domestic demand apart from gross fixed capi-

Chart 5

Contribution of expenditure items to forecast errors in GDP growth 2013[1]



1. Based on real figures in September 2014.
Sources: Statistics Iceland, Central Bank of Iceland.

6. A discussion of increased economic stability and the role of monetary policy in it can be found in Box I-1 in *Monetary Bulletin* 2014/2.

7. In September, Statistics Iceland published the national accounts according to the new ESA 2010 standards, which replace the previous ESA 95. National accounts will be prepared according to the new standards henceforth. Various changes in data compilation and methodology were implemented as well. The changes in Statistics Iceland's methodology are described in Box 1.

tal formation was revised downwards, and the volume change in exports and imports was revised upwards, although the revision in exports was considerably larger. This revision resulted in an increase in GDP growth for 2013.

Year-2013 GDP growth appears to have been somewhat stronger than previously forecast. The forecasts published in *Monetary Bulletin* in 2013 underestimated GDP growth by 1.2-1.6 percentage points in comparison with the national accounts figures from September. This error is due mostly to a systematic underestimation of exports by 2½-5 percentage points. In particular, exports of services and marine products exceeded the forecasts. Imports were slightly overestimated in all except the May issue of *Monetary Bulletin*. Forecasts of domestic demand in 2013 were close to the Statistics Iceland figures. Public consumption proved to be underestimated in the forecasts from the first half of 2013, while private consumption was overestimated.

Chart 5 shows the contribution of each expenditure item to the error in 2013 GDP growth forecasts based on that item's contribution to GDP growth. The chart shows that exports and gross fixed capital formation explain the lion's share of the errors. Exports always proved to have been underforecast, while forecasts of imports were relatively accurate. Gross fixed capital formation, which accounted for 15% of GDP in 2013, was underestimated in the Bank's forecasts. This was offset by the overestimation of private consumption, however, and the error in the GDP growth forecast was smaller as a result.

The chart also shows the changes between Statistics Iceland's preliminary figures for 2013, published in March, and the revised figures from September. This shows that exports were revised upwards by the largest amount, although imports and gross fixed capital formation were adjusted upwards as well. Figures for private and public consumption were revised downwards.

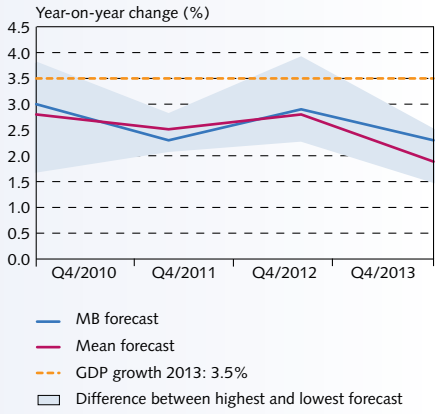
Central Bank forecasts in comparison with other forecasters' projections

Chart 6 gives a comparison of the Central Bank's output growth forecasts for 2013 and the average of other forecasters' projections. The forecasts were all prepared in the fourth quarter of the year during the period 2010-2013, and the mean is calculated from eight forecasts from the IMF, the Icelandic Federation of Labour (ASÍ), Iceland's three large commercial banks, IFS, Statistics Iceland, and the European Commission. The range between the highest and lowest forecast values are indicated in the shaded area. In general, it widens during periods of marked uncertainty and further out the forecast horizon.

The Bank's output growth forecasts accord well with those of other forecasters. The output growth forecasts are well below the revised Statistics Iceland figures for 2013, and it is particularly noteworthy that all of the forecasts were revised downwards between 2012 and 2013. Most likely, the error lies partly in the fact that the preliminary national accounts figures for the first half of the year were available by year-end 2013, but the Q1 figures have been revised upwards by nearly half a percentage point since then. In addition to this, GDP growth in H2/2013 was well above the historical average. As is mentioned above, Statistics Iceland has implemented new national accounts standards that were not taken account of during the preparation of the forecasts under examination here. A portion of the forecasting errors could be due to this.

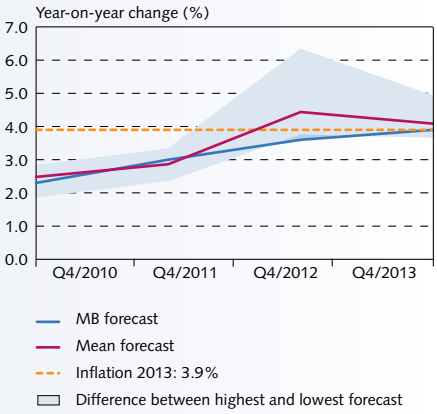
The Central Bank's inflation forecasts for 2013 were also well in line with those of other forecasters. Chart 7 shows that fore-

Chart 6
GDP growth forecasts for 2013



Sources: Statistics Iceland, Central Bank of Iceland.

Chart 7
Inflation forecasts for 2013



Sources: Statistics Iceland, Central Bank of Iceland.

casted year-2013 inflation according to the projections published early in the period under consideration was somewhat below observed twelve-month inflation but was then revised upwards as time passed and new information was published. The greatest difference between Central Bank forecasts and the average of other forecasters' projections was at year-end 2012, when the Bank was the most optimistic, forecasting inflation 0.3 percentage points below the actual figure, while other forecasters projected it at an average of 0.4 percentage points above the observed measurement. The gap narrowed at year-end 2013, when the Bank's inflation forecast for 2013 was correct and the other forecasters' average was 0.2 percentage points above the observed value.

Appendix 1

Forecast tables

Table 1 GDP and its main components[1]

	2013	2014	2015	2016	2017
Private consumption	0.8 (1.2)	4.3 (4.4)	4.2 (4.3)	3.0 (2.9)	2.8
Public consumption	0.8 (1.3)	1.0 (1.1)	1.2 (0.9)	1.1 (0.9)	1.2
Gross fixed capital formation	-2.2 (-3.4)	17.6 (22.2)	14.1 (16.4)	15.6 (19.6)	2.4
Business investment	-8.6 (-10.2)	17.6 (23.0)	14.5 (18.6)	17.1 (24.6)	-1.7
Residential investment	10.8 (10.8)	24.8 (27.9)	21.5 (18.8)	19.9 (18.0)	14.2
Public investment	12.5 (11.7)	12.5 (15.1)	5.6 (4.2)	4.3 (-2.0)	3.6
Domestic demand	-0.3 (0.1)	5.3 (5.8)	5.3 (5.5)	5.0 (5.5)	2.4
Exports of goods and services	6.9 (5.3)	3.6 (4.3)	2.6 (3.0)	2.2 (2.6)	3.2
Imports of goods and services	0.4 (-0.1)	8.3 (8.9)	5.9 (5.9)	6.5 (7.8)	3.4
Gross domestic product (GDP)	3.5 (3.3)	2.9 (3.4)	3.5 (3.9)	2.8 (2.8)	2.3
GDP at current prices (tr.kr.)	1.9 (1.8)	2.0 (1.9)	2.1 (2.0)	2.2 (2.1)	2.3
Growth rate of nominal GDP	5.6 (5.1)	5.1 (5.2)	7.2 (7.8)	5.8 (5.9)	5.1
Total investment (% of GDP)	15.1 (13.6)	17.1 (16.0)	18.7 (17.8)	21.0 (20.4)	20.9
Business investment (% of GDP)	9.6 (8.6)	10.9 (10.1)	11.8 (11.4)	13.4 (13.6)	12.9
Underlying gross national saving (% of GDP)[2]	22.0 (19.7)	20.3 (16.1)	19.2 (16.2)	19.9 (17.3)	20.2
Contribution of net trade to GDP growth (percentage points)	3.7 (3.2)	-1.9 (-2.0)	-1.4 (-1.3)	-1.9 (-2.5)	0.0

1. Central Bank baseline forecast 2014-2017. Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in *Monetary Bulletin* 2014/3). 2. The sum of investment, changes in inventories, and the underlying current account plus net current transfers.

Sources: Statistics Iceland, Central Bank of Iceland.

Table 2 Global economy, external conditions, and exports[1]

	2013	2014	2015	2016	2017
Marine production for export	8.0 (8.0)	-6.9 (-6.8)	2.0 (2.0)	0.0 (0.0)	2.5
Aluminium production for export	3.0 (3.0)	1.5 (0.8)	2.0 (1.7)	2.0 (1.8)	2.1
Foreign currency prices of marine products	-4.9 (-4.8)	5.1 (4.0)	1.9 (3.8)	0.5 (0.3)	1.9
Aluminium prices in USD[2]	-4.8 (-4.8)	0.6 (-1.0)	9.7 (9.2)	6.1 (3.1)	2.4
Fuel prices in USD[3]	-0.9 (-0.9)	-5.5 (0.0)	-3.5 (-2.5)	0.0 (-2.8)	-0.2
Terms of trade for goods and services	-1.9 (-2.4)	1.1 (0.3)	1.2 (1.5)	0.0 (1.0)	0.1
Inflation in main trading partners[4]	1.6 (1.6)	1.3 (1.3)	1.6 (1.7)	1.9 (2.0)	1.9
GDP growth in main trading partners[4]	0.8 (0.8)	1.8 (1.9)	2.1 (2.2)	2.2 (2.4)	2.2
Main trading partners' imports[4]	1.3 (1.3)	3.3 (3.4)	3.6 (3.8)	2.9 (2.9)	2.5
Short-term interest rates in main trading partners (%)[5]	0.5 (0.5)	0.4 (0.4)	0.6 (0.6)	1.4 (1.4)	2.4

1. Central Bank baseline forecast 2014-2017. Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in *Monetary Bulletin* 2014/3). 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. OECD forecast for three-month money market rates in Iceland's main trading partner countries.

Sources: Bloomberg, Consensus Forecasts, Global Insight, IMF, New York Mercantile Exchange, Statistics Iceland, Central Bank of Iceland.

Table 3 Current account balance and its subcomponents[1]

	2013	2014	2015	2016	2017
Trade balance	8.3 (7.4)	6.5 (5.1)	5.5 (4.4)	3.4 (2.4)	3.4
Headline balance on primary income[2]	-2.7 (-3.5)	-3.2 (-5.2)	-4.2 (-5.3)	-3.8 (-5.0)	-3.4
Underlying balance on primary income[3]	-0.5 (-1.2)	-2.3 (-4.3)	-4.2 (-5.3)	-3.8 (-5.0)	-3.4
Headline current account balance[2]	5.6 (3.9)	3.3 (-0.1)	1.3 (-0.9)	-0.3 (-2.6)	0.0
Underlying current account balance[3]	7.3 (6.2)	4.0 (0.8)	1.3 (-0.9)	-0.3 (-2.6)	0.0

1. Central Bank baseline forecast 2014-2017. Share of GDP, % (figures in parentheses are from the forecast in *Monetary Bulletin* 2014/3). 2. Calculated according to IMF standards. Balance of primary income plus net current transfers. 3. Adjusted for the calculated revenues and expenses of the DMBs in winding-up proceedings. The services account balance is also adjusted for the failed DMBs' financial intermediation services indirectly measured (FISIM). During the forecast horizon, the effects of the settlement of the failed banks' estates are included.

Sources: Statistics Iceland, Central Bank of Iceland.

Table 4 Public sector finances[1]

	2013	2014	2015	2016	2017
Overall Treasury balance	-1.8 (-0.9)	2.0 (0.9)	-0.4 (0.3)	0.4 (0.7)	1.0
Primary Treasury balance	3.0 (2.1)	3.1 (2.8)	2.8 (2.9)	3.4 (3.3)	3.7
Overall public sector balance	-1.7 (-1.2)	1.9 (0.8)	-0.2 (0.0)	0.6 (0.4)	1.5
Primary public sector balance	3.1 (1.9)	3.0 (2.9)	2.9 (3.2)	3.9 (3.5)	4.4
Total public sector debt	86 (93)	83 (87)	81 (85)	73 (81)	70
Net public sector debt[2]	63	65	59	53	53

1. Central Bank baseline forecast 2014-2017. Share of GDP, accrual basis, % (figures in parentheses are from the forecast in *Monetary Bulletin* 2014/2). 2. Net debt is defined here as total liabilities excluding pension obligations and accounts payable, and net of cash and bank deposits. No forecast of net debt according to this definition was published in *Monetary Bulletin* 2014/2.

Sources: Ministry of Finance and Economic Affairs, Statistics Iceland, Central Bank of Iceland.

Table 5 Labour market and factor utilisation[1]

	2013	2014	2015	2016	2017
Unemployment (registered; % of labour force)	4.4 (4.4)	3.9 (3.7)	3.5 (3.3)	3.5 (3.4)	3.7
Unemployment (LFS; % of labour force)	5.4	5.1	4.2	4.0	4.1
Employment rate (% of population aged 16-74)	77.0	77.3	77.7	77.8	77.4
Total hours worked	3.7 (3.7)	1.9 (2.5)	2.5 (1.8)	1.9 (1.2)	1.3
Labour productivity[2]	-0.2 (-0.4)	1.0 (0.8)	1.0 (2.1)	0.9 (1.6)	0.9
Unit labour costs[3]	3.5 (4.7)	4.8 (5.3)	4.9 (3.3)	3.6 (2.6)	2.6
Real disposable income	0.7 (4.5)	4.9 (4.9)	5.8 (3.0)	3.9 (3.0)	4.6
Output gap (% of potential output)	-0.7 (-1.1)	0.3 (-0.2)	1.2 (0.9)	0.5 (0.7)	0.1

1. Central Bank baseline forecast for 2014-2017. Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in *Monetary Bulletin* 2014/3). No forecasts of the survey-based unemployment rate or the employment rate were published in *Monetary Bulletin* 2014/3. 2. Output per hours worked. 3. Wage costs over productivity.

Sources: Statistics Iceland, Directorate of Labour, Central Bank of Iceland.

Table 6 Exchange rate and inflation[1]

	2013	2014	2015	2016	2017
Trade-weighted exchange rate index[2]	218.9 (218.9)	207.0 (206.6)	207.1 (206.6)	207.1 (206.6)	207.1
Inflation (consumer price index, CPI)	3.9 (3.9)	2.2 (2.4)	2.6 (2.8)	3.0 (2.9)	2.7
Inflation (CPI excluding effects of indirect taxes)	3.7 (3.7)	2.1 (2.4)	2.0 (2.8)	3.0 (2.9)	2.7

1. Central Bank baseline forecast 2014-2017. Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in *Monetary Bulletin* 2014/3). 2. Narrow trade basket.

Sources: Statistics Iceland, Central Bank of Iceland.

Table 7 Quarterly inflation forecast (%)[1]

Quarter	*Inflation (year-on-year change)*	*Inflation excluding effects of indirect taxes (year-on-year change)*	*Inflation (annualised quarter-on-quarter change)*
	Measured value		
2014:1	2.5 (2.5)	2.4 (2.4)	1.1 (1.1)
2014:2	2.3 (2.3)	2.3 (2.3)	3.5 (3.5)
2014:3	2.1 (2.3)	2.1 (2.3)	0.9 (1.7)
	Forecasted value		
2014:4	1.7 (2.6)	1.7 (2.6)	1.4 (4.2)
2015:1	2.0 (2.7)	1.5 (2.8)	2.3 (1.5)
2015:2	2.5 (2.8)	1.9 (2.8)	5.3 (3.9)
2015:3	2.6 (2.7)	2.0 (2.7)	1.2 (1.4)
2015:4	3.3 (2.8)	2.7 (2.8)	4.4 (4.6)
2016:1	3.0 (2.8)	3.0 (2.8)	1.0 (1.4)
2016:2	3.1 (3.0)	3.1 (3.0)	5.8 (4.8)
2016:3	2.8 (2.8)	2.8 (2.8)	0.3 (0.5)
2016:4	2.9 (3.0)	2.9 (3.0)	4.8 (5.3)
2017:1	2.9 (3.0)	2.9 (3.0)	0.8 (1.3)
2017:2	2.8 (3.0)	2.8 (3.0)	5.2 (4.9)
2017:3	2.6 (2.8)	2.6 (2.8)	-0.5 (-0.3)
2017:4	2.5	2.5	4.5

1. Figures in parentheses are from the forecast in *Monetary Bulletin* 2014/3.

Sources: Statistics Iceland, Central Bank of Iceland.