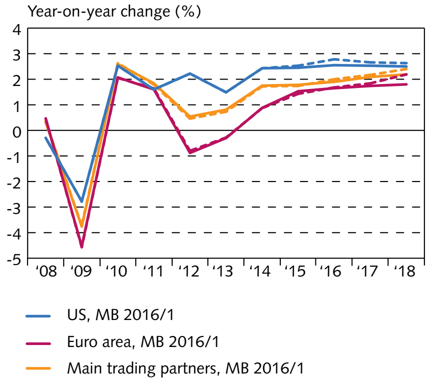
Inflation still below target, but economic imbalances on the rise[1]

Uncertainty about the global economy has grown and the GDP growth outlook has deteriorated since the publication of the November Monetary Bulletin*. The impact on the domestic economy has been limited thus far, however: export growth has been strong, terms of trade have improved, and both look set to continue in a favourable pattern this year. Year-2015 output growth is estimated to have been somewhat below the Bank's November forecast, or 4.1% instead of 4.6%, owing mainly to stronger-than-expected import growth. The GDP growth outlook for 2016 has changed markedly, however, because the outlook is now for much stronger growth in real disposable income than was previously forecast, owing to more robust employment growth, larger pay increases, and the prospect of lower inflation during the year. GDP growth for 2016 is projected at 4.2%, 1 percentage point more than was forecast in November. As in the Bank's previous forecasts, it is expected to slow somewhat in the next two years, to about 3-3½% per year in 2017 and 2018. The post-crisis slack in output is considered to have been fully absorbed last year and a positive output gap has opened up. This shows, for instance, in strong growth in real disposable income and rapidly declining unemployment, which is probably below the level consistent with low and stable inflation. Inflation has remained low thus far, however, and lower than was forecast in November. Imported deflationary pressures have proven stronger than previously assumed, as global oil prices have continued to fall and are considerably lower than was projected in November. The inflation outlook for this year has therefore improved since the November forecast, but as before, it is assumed that when the effects of the steep drop in import prices begin to taper off, inflation will pick up in tandem with a widening output gap and substantial pay increases.*

The global economy and terms of trade

- The economic recovery among Iceland's trading partners slowed down over the course of 2015. GDP growth in the US is estimated at 2.4% for the year as a whole, slightly below the forecast in the November *Monetary Bulletin*. The deviation from the forecast is due primarily to a more negative contribution from net trade, which in turn stemmed from the appreciation of the US dollar, although private consumption growth turned out weaker than anticipated as well. GDP growth was also disappointing in the UK, with weaker-than-expected activity in the construction and manufacturing sectors. In the eurozone, GDP growth slightly outpaced the November forecast, and this, together with stronger growth in the Nordic region, explains why trading partners' GDP growth is now estimated at 1.8% instead of the 1.7% provided for in the November forecast.
- The global GDP growth outlook for 2016 has deteriorated somewhat. In its January forecast, the International Monetary Fund (IMF) projected global GDP growth at 3.4% in 2016 and 3.6% in 2017, or some 0.2 percentage points less in each of the two years than in its October forecast. The poorer outlook is attributable mainly to a weaker economic recovery in both the US and emerging economies, particularly Brazil and the Middle East. Furthermore, uncertainty about the outlook for global GDP

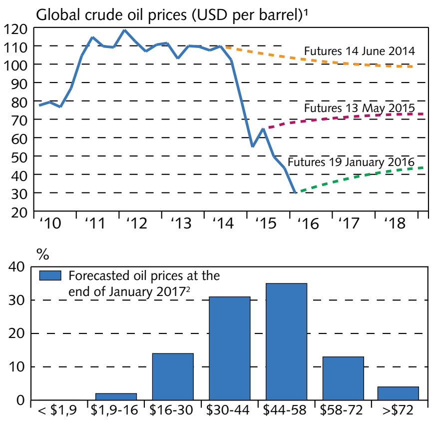
Chart 1
Global output growth 2008-2018[1]



1. Central Bank baseline forecast 2015-2018. Broken lines show forecast from MB 2015/4.
Sources: Consensus Forecasts, Macrobond, OECD, Central Bank of Iceland.

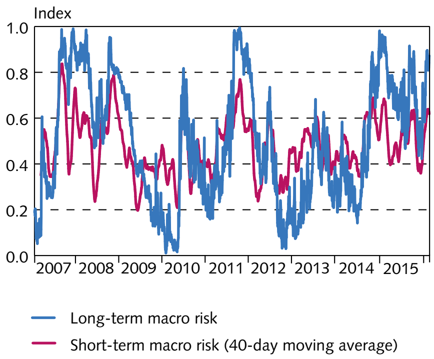
1. The analysis appearing here is based in large part on the Bank's assessment of economic developments, published in November 2015 in *Monetary Bulletin* 2015/4, and on the updated forecast presented here. It is based on data available in early February.

Chart 2
Oil prices
Q1/2010 - Q1/2019



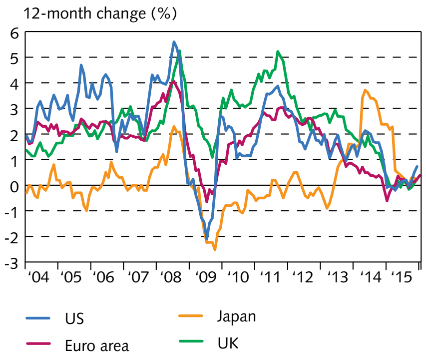
1. Brent crude, price per barrel in USD. 2. Survey by Consensus Forecasts where 250 market analysts are asked to project the USD price per barrel of Brent crude as of end-January 2017.
Sources: Bloomberg, Consensus Forecasts.

Chart 3
Uncertainty in global financial markets[1]
Daily data 1 January 2007 - 5 February 2016



1. A value of zero means low risk aversion, and one means high risk aversion. The Citi Index on risk aversion in global financial markets measured by emerging market sovereign spreads; the US TED spread; US and European corporate CDS spreads; and implied FX, equity, and swap rate volatility.
Source: Macrobond.

Chart 4
Inflation in selected industrialised countries
January 2004 - January 2016



Source: Macrobond.

growth has mounted, mainly because of uncertainty about the effects of monetary policy tightening in the US and concerns about how well the Chinese economy will adapt to changes in the composition of GDP growth, with growth slowing somewhat in 2015. Output growth among Iceland's main trading partners is projected to average 1.9% this year and 2.1-2.2% over the next two years, which is somewhat weaker than was forecasted in November.

- Weaker global output growth is reflected in slower growth in world trade. Among Iceland's trading partners, imports to Russia have weakened considerably, contracting by about 27% in 2015. Import growth has also been unusually weak in important trading partner countries such as the UK and Denmark. In comparison with the November forecast, import growth is expected to be somewhat weaker this year and slightly stronger in the two years thereafter.

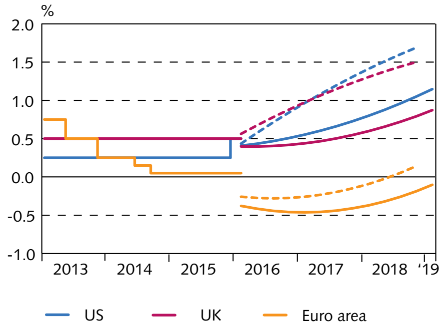
- Developments in oil prices have made their mark on the global economy in the recent term. The steep drop in oil prices has dealt a blow to oil exporters but appears thus far to have been less of a boost to growth in oil-importing countries than had been anticipated. Since the publication of the November *Monetary Bulletin*, oil prices have fallen still further. They are now about 30% lower than in the beginning of November and approximately 70% lower than they were twenty months ago. At this time a year ago, prices bottomed out at just under 50 US dollars per barrel, and most market analysts expected them to rise back above that level early this year. But they have weakened still further, falling to 28 dollars in mid-January – their lowest since 2003 – and ending the month at 35 dollars. As has been discussed in previous issues of *Monetary Bulletin*, the nosedive can be traced in large part to supply factors, although weak global GDP growth plays a part as well. The decline is much larger than was assumed in the last *Monetary Bulletin*, and most market analysts now expect prices to rebound slowly and settle at 44-58 dollars per barrel at the beginning of 2017. Futures contracts suggest that the price per barrel will be just under 45 dollars at the end of 2018, some 30% lower than was indicated in November.

- Weaker GDP growth and the changed composition of growth in China have made a strong impact on world trade and commodity prices. Fluctuations in the Chinese financial markets and uncertainty about developments in the Chinese economy have also caused some unrest in global financial markets. This, together with the weaker outlook for emerging economies' GDP growth, has caused share prices to fall worldwide, particularly in emerging countries. Global financial conditions have therefore deteriorated, with capital flowing from emerging countries to developed ones.

- Global inflation has been low for some time and looks set to remain so. There is deflation in several euro area countries, and below-target inflation is widespread. The plunge in oil and commodity prices is a major factor, although underlying inflation is low as well, owing to the continued economic slack in many countries. Inflation averaged 0.7% among Iceland's trading partners in Q4/2015. It is expected to rise in the coming term, however, when the effects of reduced oil prices taper off, and is projected at around 2% beginning in 2017.

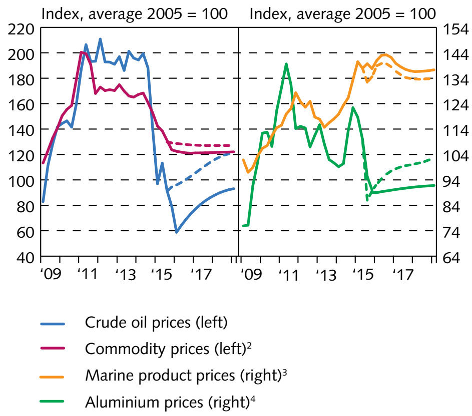
- In December, the US Federal Reserve Bank raised interest rates for the first time since mid-2006. At the same time, however, the European Central Bank (ECB) decided to cut rates still further and extend its monthly bond purchase programme by another half-year. In January, the Bank of Japan joined the group of central banks with negative policy interest rates. In addition, the ECB and the Bank of Japan signalled their willingness to undertake further accommodative measures. Market agents expect the ECB to lower its rates slightly in the coming term, and the Bank of England is now expected to raise its interest rates later than previously thought. In the US, further rate hikes are anticipated this year, although it is somewhat uncertain how quickly they will be implemented.
- Weak demand stemming from the poorer global output growth outlook has also surfaced in falling commodity prices. Metals prices are at their lowest since 2009. Aluminium futures and market analysts' forecasts indicate that prices will rise later this year but will still be nearly 11% lower than in 2015. Furthermore, non-oil commodity prices are expected to fall by over 9% this year, somewhat more than was projected in November – in addition to the more than 20% decline over the past two years. Food prices have also fallen, but less sharply than the price of oil and metals. In December, global food prices rose slightly, for the first time in five months, led by marine product prices. Information from major exporters suggests that the price of Icelandic marine products will rise about 2½% this year in foreign currency terms, following an increase of more than 10½% in 2015. The outlook for 2017 and 2018 is broadly unchanged from the November forecast, however.
- Iceland's terms of trade changed significantly in 2015. According to preliminary figures from Statistics Iceland, they improved by 4.3% year-on-year in Q3, somewhat more than was assumed in the Bank's November forecast. The deviation is due to more favourable prices of exported goods – both marine products and aluminium – and a larger-than-expected decline in imported goods prices. Terms of trade have therefore improved by over 9% from their Q4/2013 trough. They are estimated to have improved by nearly 7% in 2015 as a whole, or 1½ percentage points more than was forecast in November. The outlook for 2016 and the ensuing two years has also improved from the November forecast, owing mainly to larger declines in oil and commodity prices than was assumed in November.
- In terms of relative consumer prices, the real exchange rate rose by an average of 4% in 2015 and has risen by over a third since bottoming out in 2009. Last year's increase is due mainly to a

Chart 5
International policy rates[1]
January 2013 - March 2019



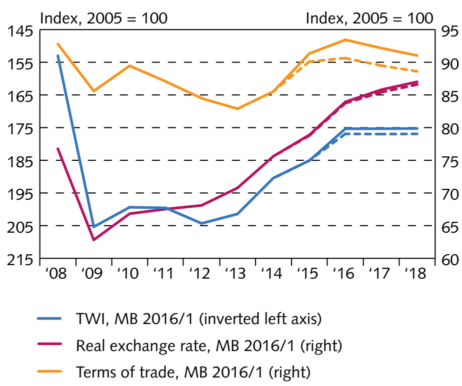
1. Daily data January 1 2013 through February 5 2016, and quarterly data Q1/2016 through Q1/2019. US interest rates are the upper bound of the US Federal Reserve bank's interest rate corridor, and rates for the euro area are the European Central Bank's key rate. Forward rates are based on six-month overnight index swaps (OIS) and the Euro Overnight Index Average (EONIA) for the euro area. Solid lines show forward curves from 5 February 2016 onwards and the broken lines from 4 November 2015 onwards.
Sources: Bloomberg, Macrobond.

Chart 6
Prices of marine products, aluminium, oil, and commodities[1]
Q1/2009 - Q1/2019



1. Central Bank baseline forecast Q1/2016-Q1/2019. Broken lines show forecast from MB 2015/4. 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. 4. Foreign currency prices of aluminium products are calculated by dividing aluminium prices in Icelandic krónur by the exchange rate of the USD.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 7
Exchange rate and terms of trade 2008-2018[1]



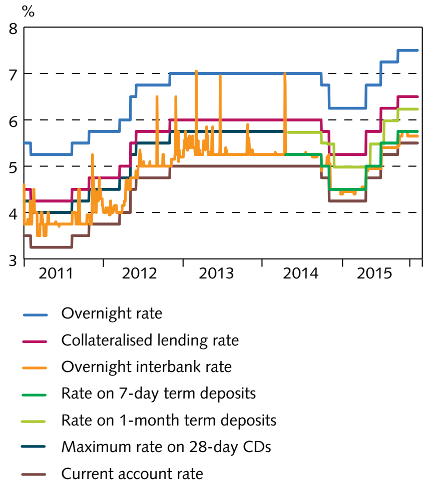
1. Central Bank baseline forecast 2015-2018. Broken lines show forecast from MB 2015/4.
Sources: Statistics Iceland, Central Bank of Iceland.

nearly 3% rise in the nominal exchange rate. In terms of relative unit labour costs, however, the real exchange rate rose by over 12% in 2015.

Monetary policy and domestic financial markets

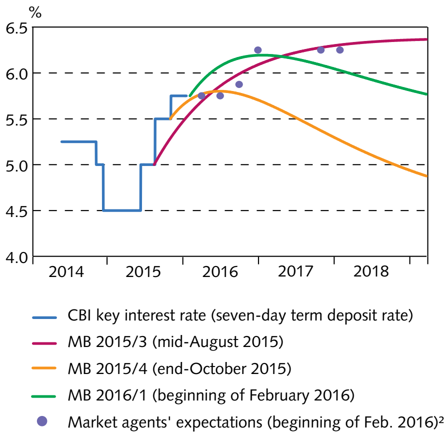
- The Central Bank Monetary Policy Committee (MPC) decided at its November meeting to raise the Bank's interest rates by 0.25 percentage points but kept rates unchanged at the December meeting. Prior to the publication of this *Monetary Bulletin*, the Bank's key interest rate – the rate on financial institutions' seven-day term deposits with the Bank – was 5.75%. Interest rates in the interbank market for krónur rose in line with the increase in Central Bank rates.
- In September the MPC decided to increase minimum reserve requirements temporarily from 2% to 4% in order to strengthen the Bank's liquidity management in the face of large-scale foreign exchange market intervention and in connection with the winding-up of the failed commercial banks' estates. In line with previous MPC statements, reserve requirements were then lowered from 4% to 2.5% in December in order to mitigate the liquidity effect of the stability contributions paid by the failed banks' estates.
- In terms of the average of various measures of inflation and inflation expectations, the monetary stance has tightened in line with the rise in the Bank's nominal interest rates, and the Bank's real rate is now 2.6%, an increase of approximately ⅓ of a percentage point since just before the publication of the last *Monetary Bulletin*. In terms of current twelve-month inflation, however, it is unchanged at 3.6%.
- According to the Bank's survey of market agents' expectations, carried out in early February, respondents expect the Bank's key rate to be raised by 0.5 percentage points in the latter half of this year, to 6.25%, but kept unchanged next year. This is about the same as in a comparable survey in October. Forward rates give similar results.
- In the latter half of 2015, the transmission of monetary policy along the interest rate channel appeared to weaken, and changes in the Bank's interest rates were not fully transmitted to other market rates. This was particularly the case for yields on long nominal Treasury bonds, which fell by approximately 2 percentage points between mid-June and end-October. As is discussed in the November *Monetary Bulletin*, the decline is most likely due to increased new investment in Treasury bonds by non-residents. It reversed in part following the Bank's interest rate increase in early November, and yields on nominal and indexed Treasury and Housing Financing Fund (HFF) bonds rose by 0.4-1.1 percentage points in the first half of the month, with the increase concen-

Chart 8
Central Bank of Iceland interest rates and short-term market rates
Daily data 3 January 2011 - 5 February 2016



Source: Central Bank of Iceland.

Chart 9
Central Bank of Iceland key interest rate, forward market interest rates, and market agents' expectations concerning the CB key rate[1]
Daily data 21 May 2014 - 31 March 2019

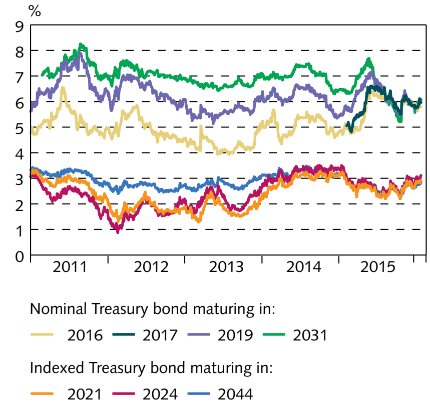


1. Interbank interest rates and Treasury bonds were used to estimate the yield curve. 2. Estimated from the median response in the Central Bank's survey of market agents' expectations of collateralised lending rates. The survey was carried out during the period 1-3 February 2016.
Source: Central Bank of Iceland.

trated in long nominal bond yields. Yields on nominal Treasury bonds have tapered off again since mid-November but are still about 0.2-0.8 percentage points higher than in late October, and indexed Treasury and HFF bond yields are 0.5-0.8 percentage points higher.

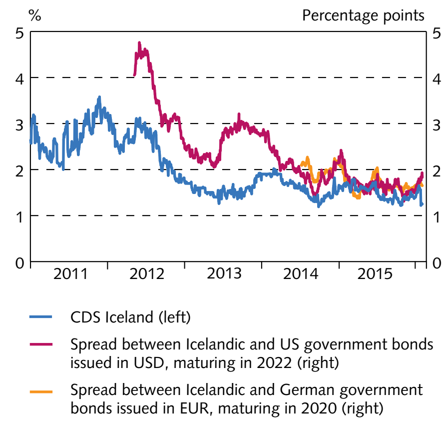
- According to the issuance plans published by Government Debt Management (GDM), net issuance of Treasury securities will be negative by nearly 30 b.kr. this year, which should provide the scope for increased issuance from others. The three large commercial banks have already announced plans for a significant increase in covered bond issuance.
- The risk premium on the Republic of Iceland's foreign obligations rose at the start of the year following unrest in global financial markets, similarly to the impact on risk premia in many other developed countries. The rise in the CDS spread had reversed by the end of January, however, possibly reflecting Standard & Poor's upgrade of Iceland's sovereign rating to BBB+ in mid-January. The CDS spread currently measures around 1.3%, which is similar to what it was just before the publication of the November *Monetary Bulletin*. The interest rate spread between Icelandic Treasury bonds and comparable bonds issued by the US and Germany has widened by 0.1-0.3 percentage points however, to 1.7-1.8 percentage points.
- Since the beginning of November, the króna has appreciated by 1.3% in trade-weighted terms. It has appreciated by 7.3% against the pound sterling and 0.7% against the US dollar but depreciated by 0.8% against the euro. Improved terms of trade, continuing tourism-generated foreign currency inflows, and capital inflows in connection with increased new investment have supported the currency. Offsetting these factors are the Central Bank's substantial foreign currency purchases. The Bank's net purchases in the interbank foreign exchange market totalled 272.4 b.kr. in 2015, about 55% of total market turnover for the year. In 2014, the Bank's net purchases totalled 111.4 b.kr., or 43% of the year's turnover.
- In trade-weighted terms, the króna price of foreign currency averaged just under 193 points in Q4/2015. As before, the baseline forecast is based on the technical assumption that, throughout the forecast horizon, the price of foreign currency will remain similar to that prevailing at the time the forecast was prepared. This assumption entails a rise in the exchange rate of approximately 1% in comparison with the November forecast.
- Annual growth in the money stock has been significant, in tandem with strong growth in nominal demand in 2015. M3 adjusted for deposits of financial institutions in winding-up proceedings grew by just over 7% year-on-year in Q4/2015 – about the same annual growth rate as in Q2 and Q3. As before, this growth is due primarily to an increase in deposits held by households and non-deposit-taking financial institutions.

Chart 10
Nominal and indexed bond yields
Daily data 3 January 2011 - 5 February 2016



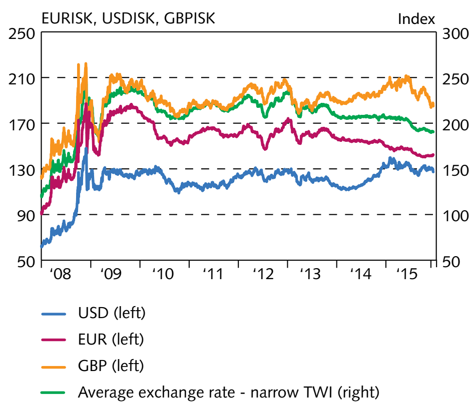
Source: Central Bank of Iceland.

Chart 11
Risk premia on Icelandic Treasury obligations
Daily data 3 January 2011 - 5 February 2016



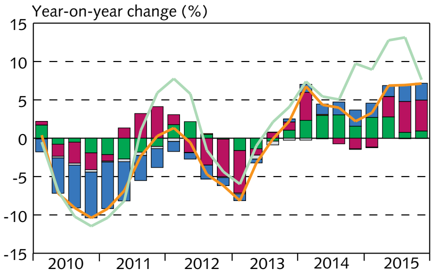
Source: Bloomberg.

Chart 12
Exchange rate of foreign currencies against the króna
Daily data 3 January 2008 - 5 February 2016



Source: Central Bank of Iceland.

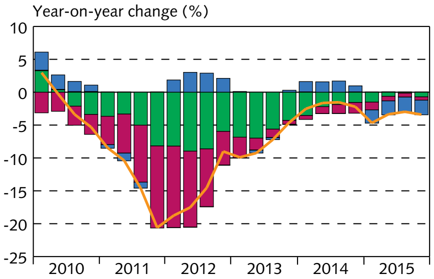
Chart 13
Components of money holdings - Adjusted M3[1]
Q1/2010 - Q4/2015



Households
Financial companies
Municipalities
Non-financial companies and non-profit institutions serving households
M3
Adjusted M3

1. Adjusted for deposits of financial institutions in winding-up proceedings.
Source: Central Bank of Iceland.

Chart 14
Contribution to growth in DMB, pension fund, and HFF lending to domestic residents[1]
Q1/2010 - Q4/2015



Households
Financial companies[2]
Municipalities
Non-financial companies and non-profit institutions serving households
Loan stock

1. Only loans to pension fund members are included with pension funds.
2. Excluding loans to deposit institutions and financial institutions in winding-up proceedings.
Source: Central Bank of Iceland.

- Central Bank base money also grew markedly in the second half of 2015. In terms of the twelve-month moving average, annual growth in base money including financial institutions' term deposits measured just over 16% in December 2015.
- The stock of deposit money bank (DMB) loans to resident borrowers contracted by nearly 1% year-on-year in Q4/2015, and by approximately 3½% if loans from the HFF and the pension funds are included. This is due for the most part to the effects of the Government's debt reduction measures; however, the scope of the impact is uncertain, which has complicated the estimation of the credit stock. Adjusted for the debt relief measures, the credit stock is estimated to have contracted by just over 1%. The contraction is also due in part to a reduction in corporate lending, which is owing partly to refinancing of older loans through other forms of credit, including marketable bonds. There has also been a significant increase in corporate lending by pension funds through the pension funds' corporate bond purchases. Pension funds' holdings of corporate bonds have increased by more than 42 b.kr. since year-end 2014 and by almost 91 b.kr. since year-end 2013.
- Capital area house prices rose by 9.4% in 2015, and the number of purchase agreements was up 17½%. Rent prices rose about 6% over the same period. Last year's steep rise in house prices appears well in line with developments in construction costs and income, and the outlook is for a continued strong rise in house prices over the forecast horizon.
- The Nasdaq Iceland OMXI8 index rose by nearly 43½% in 2015 but has fallen by 4½% year-to-date, in line with developments in global financial markets. Pension funds' increased authorisation to invest abroad, granted by the Central Bank at the beginning of the year, and expectations of a further authorisation this year may also have played a part in the decline in share prices.
- Private sector financial conditions are broadly unchanged since before the publication of the last *Monetary Bulletin*. Household debt rose slightly in nominal terms in Q3/2015, to 85¼% of estimated year-2015 GDP, whereas corporate debt declined to 97% of estimated GDP for the year. The number of individuals on the default register continued to decline, and the percentage of non-performing household loans from the three large commercial banks and the HFF has declined. The number of firms on the default register has risen slightly, however. New registrations of private limited liability companies increased year-on-year by 16% in 2015, and the number of bankruptcies among private limited companies declined by 27%.
- Interest on non-indexed deposits and loans granted by the large commercial banks rose in line with the increase in Central Bank interest rates in November, while indexed deposit and lending rates have remained unchanged since then. Last autumn, several pension funds lowered their residential mortgage lending rates

and raised their loan-to-value ceilings. In some instances, the interest rate reductions have reversed in part, whereas in other cases rates have fallen still further. On average, the pension funds' mortgage lending rates are therefore unchanged since November.

The domestic real economy

- According to figures published by Statistics Iceland in December, year-on-year GDP growth measured 4.5% over the first nine months of 2015 but only 2.6% in Q3. The composition of GDP growth reflects increased growth in domestic demand, driven mainly by private consumption and business investment. In addition, exports are still growing strongly, although outpaced by import growth, and the contribution from net trade was therefore negative during the period.

- According to the Central Bank's November forecast, GDP growth was projected at 5% in Q3 and 5.1% in the first nine months of 2015. Growth in GDP was therefore slightly weaker for the nine-month period than was projected in November, with the deviation reflected in most subcomponents of GDP. Output growth in H1/2015 was revised upwards and is now estimated at 5.6%, some 0.4 percentage points more than Statistics Iceland's first figures indicated.

- One of the mainstays of GDP growth in 2015 was private consumption, with favourable conditions boosting household demand. In the first three quarters of the year, private consumption grew by 4.6%, well in line with the Bank's November forecast. High-frequency indicators such as new motor vehicle registrations and payment card turnover indicate that growth gathered pace in Q4. It is assumed that private consumption growth measured about 4.9% in 2015 as a whole, reflecting strong growth in purchasing power, improvements in households' net worth, and a boost in consumer sentiment.

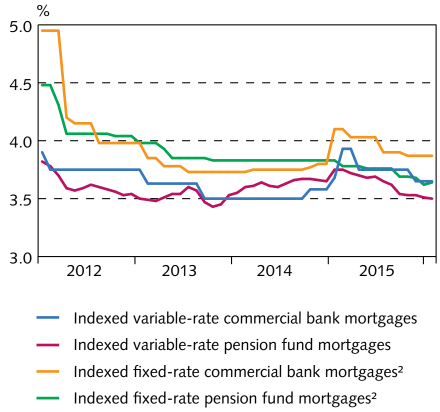
- This trend from H2/2015 is expected to continue in 2016. This entails that the forecast for private consumption growth has been revised upwards from the November forecast, owing to expectations of stronger job creation, larger pay rises, and lower inflation. Real disposable income is estimated to have risen by nearly 8% in 2015, with another 9% expected this year. This is the largest single-year rise since 2007 and is far in excess of sustainable levels. Private consumption growth for 2016 is projected at just over 5%, a percentage point more than was forecast in November. According to the forecast, private consumption growth will ease slightly over the next two years but will remain robust. It is expected to grow broadly in line with real disposable income, or by just under 4% per year.

- Households' disposable income is assumed to have outpaced consumption growth last year, resulting in an increase in household

Chart 15

Commercial banks' and pension funds' mortgage lending rates[1]

January 2012 - January 2016



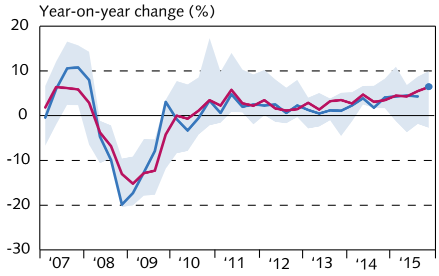
1. Simple average of the lowest rates. 2. Rates are fixed for a period ranging from 5 years to the entire loan period.
Sources: Pension funds: Almenni, Festa, Frjálsi, Gildi, Lífsverk, LSR, Pension Fund of Commerce, Stapi, Söfnunarsjóður lífeyrisréttinda; Arion Bank, Íslandsbanki, Landsbankinn, Central Bank of Iceland.

Chart 16

National accounts for Q1-Q3 2015

Sources: Statistics Iceland, Central Bank of Iceland.

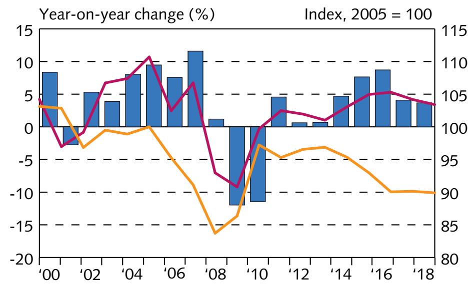
Chart 17
Indicators of private consumption
Q1/2007 - Q4/2015



Private consumption
MB 2016/1 forecast
Median of indicators
Upper and lower limit of indicators[1]

1. 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.

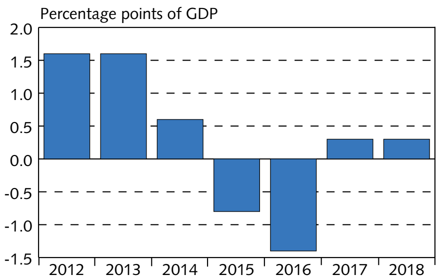
Chart 18
Private consumption and real disposable income 2000-2018[1]



Real disposable income (left)
Private consumption (left)
Ratio of private consumption to disposable income (right)

1. Central Bank baseline forecast 2015-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 19
Change in central government cyclically adjusted primary balance 2012-2018[1]



1. Central Bank baseline forecast 2015-2018
Sources: Financial Management Authority, IMF, Central Bank of Iceland.

saving. A further increase in household saving is expected this year. Gross national saving has risen similarly and remains high in historical context.

- According to preliminary figures from Statistics Iceland, public consumption growth in the first three quarters of 2015 was marginally below the Bank's November forecast. Indicators imply, however, that wage costs turned out higher than the preliminary figures indicate; therefore, the outlook for the year as a whole is considered broadly unchanged from the November forecast. The outlook for upcoming years is also largely unchanged. Planned investment by the central government was increased between rounds of discussion in Parliament, whereas the largest municipalities anticipate a year-on-year contraction in investment expense. The ratio of public investment to GDP is expected to remain close to the current level throughout the forecast horizon.

- The National Budget for 2016 assumes a surplus of 6.7 b.kr. net of stability contributions, or 0.3% of GDP.[2] This outcome is 8.6 b.kr. poorer than according to the original fiscal budget proposal, even though revenues were revised upwards by over 4 b.kr. at the same time. Because of the reduced surplus and a wider output gap, the fiscal stance for 2016 has eased by nearly 0.7% since the publication of the last *Monetary Bulletin*. The fiscal easing for 2016 therefore amounts to 1.4% of GDP in total, which is added to an easing of 0.8% of GDP in 2015. In spite of this, it is assumed that Treasury debt will continue to decline. It is estimated to fall by nearly 180 b.kr. this year, to about 50% of GDP by the year-end, in addition to last year's reduction of over 140 b.kr. The decline is due primarily to the disposal of stability contributions and a reduction in the Treasury's cash balance with the Central Bank.

- Investment grew by about 5% in Q3/2015, somewhat less than was assumed in November. Business investment developed in line with the Bank's forecast, but residential investment and public investment turned out weaker than projected. In the first three quarters of the year, investment grew by just under 16%, nearly 1 percentage point below the November forecast. Underlying this development is a more than 25% increase in business investment. Residential investment was considerably below the forecast, probably due to the shortage of construction industry workers and contractors' emphasis on other types of projects, particularly hotels. It is not impossible, however, that the estimate of residential investment in the first three quarters of 2015 will be revised upwards when more detailed data are available.

- As in the November forecast, total investment is estimated to have grown by nearly a fifth in 2015, owing mainly to strong

2. The overall surplus including the stability contributions is estimated to be 345.6 b.kr., or 14.7% of GDP.

business investment. For this year, investment growth is projected at 12½%, with business and residential investment growth approaching 15% and public investment just below 3%. In comparison with the Bank's November forecast, the outlook for 2016 is broadly unchanged. The main differences are that business investment is expected to be somewhat stronger than previously estimated, owing to projects related to the energy-intensive sector and to general business investment. Over the next few years, investment growth is expected to slow markedly, as was forecast in November. If the forecast materialises, the ratio of investment to GDP will be nearly 19% by 2018, about 1 percentage point below the November forecast.

- The outlook for this year is for goods and services exports to grow by nearly 6½%, about the same as in 2015 but somewhat more than was forecast in November. The difference is due to the prospect of even stronger growth in services exports this year, in line with information from tourism operators, which suggests that tourist visits to Iceland will exceed the November forecast. Goods exports look set to grow somewhat more slowly this year, however, as marine product exports are projected to contract by 1% year-on-year, as opposed to the 2% increase provided for in the November forecast. The poorer outlook is due to reduced capelin and blue whiting catches. The outlook for the next two years is broadly in line with the November forecast, however.

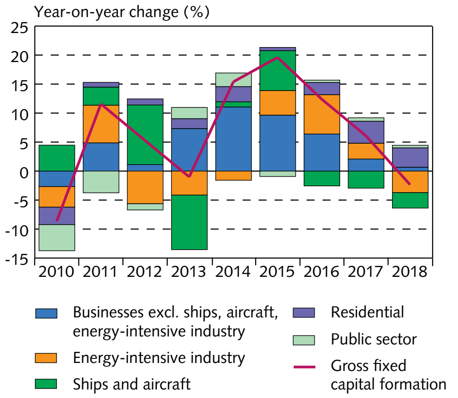
- Even though export growth was in line with expectations in 2015, the contribution of net trade to output growth was somewhat more negative than was projected in November, owing to strong import growth in the latter half of the year. This import growth, driven by imports of consumer goods and transport equipment, is expected to continue this year, in tandem with robust growth in domestic demand. The outlook is for the contribution of net trade to output growth to be negative both this year and in 2017. In 2018, however, it is expected to turn positive. This is owing to weak import growth that year, which in turn is due to negative base effects from imports of ships and aircraft in 2017.

- Last year's surplus on goods and services trade is estimated at 6.7% of GDP, slightly more than was provided for in the November forecast. The improvement in terms of trade outweighed the negative contribution from net trade and explains in large part the increased trade surplus throughout the forecast horizon. As a result of these favourable developments in goods and services trade, the outlook is for a larger underlying current account surplus throughout the forecast horizon. The surplus is projected at just under 3% of GDP in 2018, some 2 percentage points more than was forecast in November.

- As is mentioned above, GDP growth for the first nine months of 2015 measured 4.5%. According to the Bank's forecast, it is estimated at 4.1% for the year as a whole. This is 0.5 percent-

Chart 20

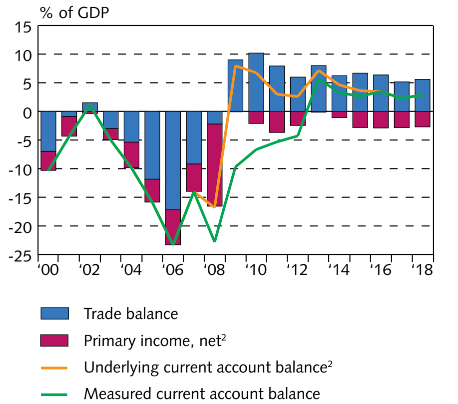
Gross fixed capital formation and contribution of its main components 2010-2018[1]



1. Central Bank baseline forecast 2015-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 21

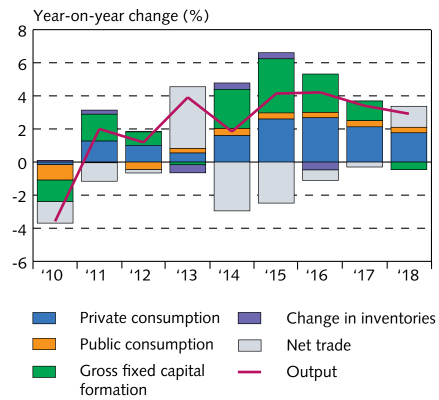
Current account balance 2000-2018[1]



1. Including secondary income. Central Bank baseline forecast 2015-2018.
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.

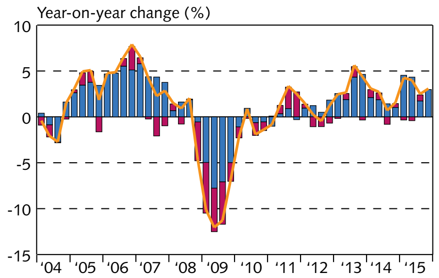
Chart 22

GDP growth and contribution of underlying components 2010-2018[1]



1. Central Bank baseline forecast 2015-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

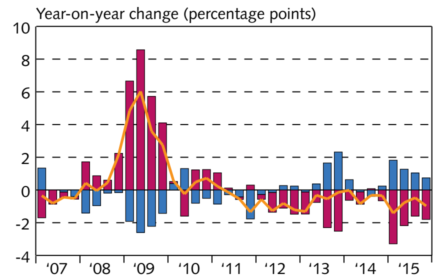
Chart 23
Changes in employment and hours worked
Q1/2004 - Q4/2015



Number of employed persons
Average hours worked
Total hours worked

Source: Statistics Iceland.

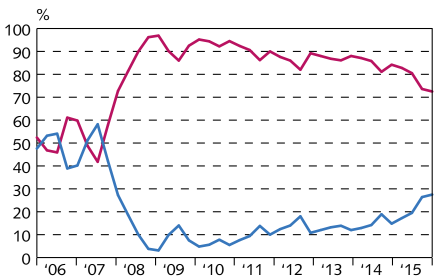
Chart 24
Contribution to changes in unemployment rate
Q1/2007 - Q4/2015



Participation rate[1]
Employment rate[2]
Unemployment rate[3]

1. Persons in the labour market as percentage of population aged 16-74. 2. Employed persons as percentage of population aged 16-74. An increase in the employment rate shows as a negative contribution to changes in unemployment . 3. Unemployed persons as percentage of labour force. May not equal the sum of its components due to rounding.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 25
Labour supply
Q1/2006 - Q4/2015



Firms considering themselves short-staffed
Firms considering the labour supply adequate

Sources: Gallup, Central Bank of Iceland.

age points below the November forecast, owing mainly to the changed outlook for imports and the resulting change in the contribution from net trade. This year, however, GDP growth is expected to be 1 percentage point more than was forecast in November, or 4.2%. One of the main reasons for this is that household purchasing power is considered to be much greater than previously estimated and private consumption growth even stronger as a result. In addition, exports are projected to contribute more to GDP growth than was forecast in November. As a consequence, the contribution of net trade will be more favourable despite the prospect of stronger import growth. GDP growth is expected to ease somewhat in the latter half of the forecast horizon, measuring 3½% in 2017 and just under 3% in 2018. As in the Bank's previous forecasts, domestic private sector demand is expected to be the main driver.

- In spite of large contractual wage increases, labour demand was robust in H2/2015. According to Statistics Iceland's labour force survey (LFS), total hours worked increased by 3% year-on-year in Q4, in line with the Bank's November forecast.

- The stronger increase in the employment rate led to a considerably lower unemployment rate in Q4 than was projected in November, however, or 3.1% as opposed to 4.9%. The unemployment rate has therefore declined by 1 percentage point between years. Seasonally adjusted unemployment fell by half a percentage point between quarters, to 3.6%. Long-term unemployment also continues to decline. The share of unemployed persons without work for more than six months is at its lowest since Q1/2009. Other measures of labour supply and demand point in the same direction.

- According to Gallup's winter survey of Iceland's 400 largest companies, the share of firms that consider themselves short-staffed had risen by nearly 13 percentage points in one year, to over a fourth of survey participants. Nearly 60% of construction firms and just over 40% of companies in transport and tourism considered themselves understaffed.

- The slack in the labour market therefore appears to have disappeared, and the results of the Gallup survey indicate that labour demand will grow still further this year, as the share of respondent firms interested in adding rather than reducing staff has risen since the autumn survey. Executives in all sectors except fishing were more optimistic about recruiting staff than they were in the autumn.

- The outlook is for somewhat more robust labour demand than was forecast in November. Total hours worked are projected to rise over the forecast horizon by an average of 2⅓% per year, about ½ a percentage point more than was assumed in November. The employment rate will therefore rise more than was forecast then, and unemployment will be lower. Unemployment is forecast at about 3½% this year and throughout the forecast horizon instead of the previously projected 4¼%.

- The pay increases provided for in the recently concluded wage agreements have shown in the Statistics Iceland wage index, as was assumed in the last forecast, and wage drift has been broadly as projected. The wage index rose 9.7% year-on-year in December. For the year as a whole, it rose by 7.2%, which amounts to a 5.5% increase in real wages, the largest single-year rise in purchasing power since 1998.[3]

- Because of the recent renegotiation of private sector wage agreements, wage costs will rise more during the forecast horizon than was projected in November, even though the November forecast took into account a portion of the additional pay rises that have now been agreed upon. The November forecast provided for the extra pay rises implemented in 2017 and 2018, but not those taking effect in January 2016. The wage settlements also provide for a 3.5 percentage point increase in private sector employers' contributions to pension funds in 2016-2018. In the forecast, this is assumed to be offset by a ½ percentage point reduction in the payroll tax, although it is not yet clear how much the payroll tax cut will be or when it will take effect.

- Productivity growth will be broadly as forecast in November during the forecast horizon, averaging 1.1% per year, as stronger output growth will counteract stronger growth in total hours worked. As in the Bank's previous forecasts, the rise in wage costs far exceeds productivity growth. Because of larger pay rises this year than was assumed in November and a greater increase in wage-related expenses over the next two years, unit labour costs are now projected to rise by over 9% this year, on the heels of a 9½% increase in 2015. This increase is 1¼ percentage points larger than was forecast in November. The increase in the next two years is also greater, or about 5% per year, on average, as opposed to 4¾% in the November forecast.

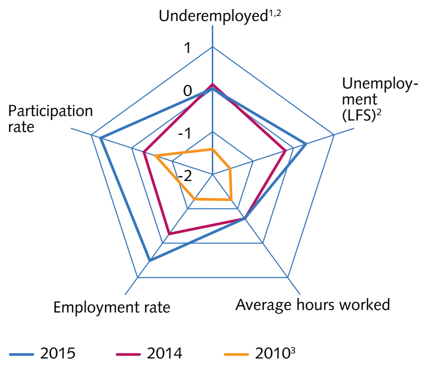
- The output slack that developed following the financial crisis is considered to have disappeared early in 2015, and GDP is estimated to have been just over ½ a percentage point in excess of potential output for the year as a whole. This is slightly less than was projected in November, reflecting weaker year-2015 GDP growth than was forecast at that time. As in November, the positive output gap is expected to widen this year. It is estimated to reach about 2% of potential output this year and then narrow gradually as the forecast horizon progresses. This is a slightly larger gap than was projected in November, owing to stronger GDP growth than in that forecast.

3. The actual rise in wages is larger than is measured by the wage index, owing to substantial retroactive increases and one-time payments in the 2015 wage agreements (for further information, see Box 4 in *Monetary Bulletin* 2015/4).

Chart 26

Indicators of labour market tension

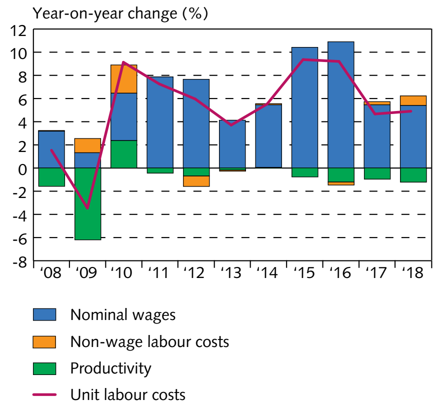
Deviation from 2003-2015 averages (number of standard deviations)



1. Number of underemployed part-time workers as a percentage of population. 2. Multiplied by -1 so that a negative deviation from the average indicates tension. 3. The year when labour market recovery began.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 27

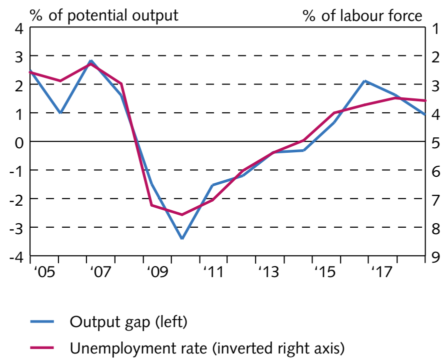
Unit labour costs and contribution of underlying components 2008-2018[1]



1. Labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2015-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

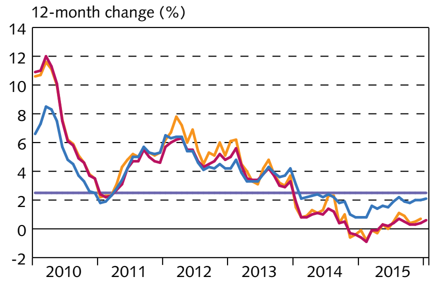
Chart 28

Output gap and unemployment 2005-2018[1]



1. Central Bank baseline forecast 2015-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

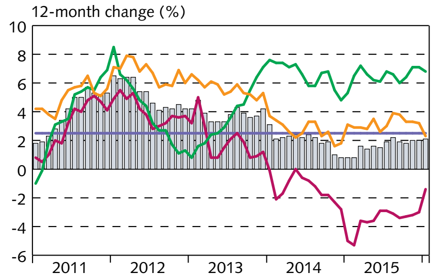
Chart 29
Various measures of inflation
January 2010 - January 2016



CPI
CPI excluding housing
Harmonised index of consumer prices (HICP)
Inflation target

Sources: Statistics Iceland, Central Bank of Iceland.

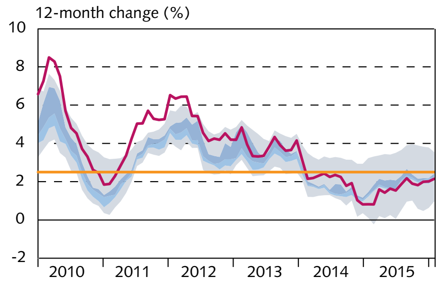
Chart 30
Imported and domestic inflation[1]
January 2011 - January 2016



CPI
Housing (23%)
Imported prices (31%)
Inflation target
Domestic prices excluding housing (46%)

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 31
Headline and underlying inflation[1]
January 2010 - January 2016



CPI
Inflation target
Range between the first and third quartiles
Range between the highest and lowest estimates of underlying inflation

1. The shaded area includes different measures of underlying inflation; core indices that exclude the effects of volatile food items, petrol, public services and owner-equivalent rent and statistical measures such as the weighted median, the trimmed mean and a dynamic factor model.
Sources: Statistics Iceland, Central Bank of Iceland.

Inflation

- Inflation has been below the Central Bank's inflation target for two years. It has increased marginally since the publication of the last *Monetary Bulletin*, measuring 1.9% in Q4/2015, 0.4 percentage points less than was forecast in November. During the quarter, both imported and domestic goods and services fell in price, offsetting the rise in the housing component of the CPI. The divergence from the forecast is due predominantly to a larger-than-expected decline in oil prices and stronger pass-through of the appreciation of the króna to imported goods prices than had been anticipated. It is largely because of these factors that inflation has turned out lower than anticipated in the recent term. Inflation averaged 1.6% in 2015, down from 2% in 2014.

- The CPI declined by 0.6% month-on-month in January 2016, after rising by 0.3% in December 2015. Winter sales lowered the index by 0.9 percentage points in January, in addition to the drop in petrol prices. Pulling in the opposite direction were house prices and various private services, as well as seasonal price list increases. Twelve-month inflation measured 2.1% in January, owing mainly to rising house prices, as inflation excluding the housing component measured only 0.6%. The significant decline in global oil and commodity prices and the effects of the króna appreciation have continued to contain inflation. The twelve-month decrease in imported goods prices measured 1.4% in January. At the same time, domestic inflation (excluding housing) measured 2.3% and has subsided since the last *Monetary Bulletin*, presumably reflecting the decline in imported goods prices as well. In addition, there are some base effects, as the increase in the lower value-added tax threshold, implemented a year ago, no longer affects the twelve-month change in food prices. By the same token, petrol prices fell considerably less month-on-month than they did a year ago, which is the main reason imported deflation was less pronounced than it has been in the recent term.

- Underlying inflation in terms of core index 3 (which excludes the effects of indirect taxes, volatile food items, petrol, public services, and real mortgage interest expense) measured 2.4% in January, after rising by 0.5 percentage points since just before publication of the last *Monetary Bulletin*. By most other measures, the rise in underlying inflation was smaller, however, and statistical measures indicate that it lies in the 2-3½% range.

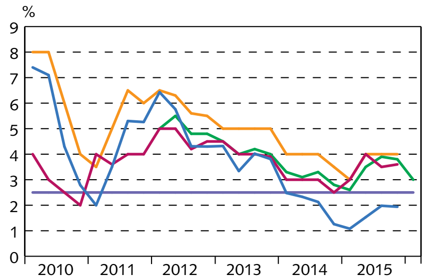
- Households' and businesses' short-term inflation expectations are broadly unchanged since the last *Monetary Bulletin*. In a Gallup survey carried out in November, households indicated that they expect inflation to measure 4% both one and two years ahead, the same as in the survey taken earlier in the autumn. In a survey among corporate executives, also carried out in November, respondents expected inflation to measure 3.6% in one year's time, roughly the same as in the early autumn survey. According to the Central Bank's survey of market agents' inflation expectations, conducted in early February, they expect somewhat lower inflation in the near future, while the inflation outlook has also improved since year-end 2015. They expect inflation to measure 3% in one year and 3.5% in two years, or 0.5-0.8 percentage points less than in the previous survey, carried out in October. By all three measures, however, short-term inflation expectations have risen somewhat year-on-year.

- The Bank's survey indicates that market agents expect inflation to average around 3.3% over the next ten years – unchanged from the previous survey, but up by 0.3 percentage points from the same survey a year ago. The breakeven inflation rate in the bond market has declined markedly since mid-2015, however, but as is discussed in *Monetary Bulletin* 2015/4, this is due for the most part to unusual conditions in the bond market rather than to an actual decline in inflation expectations. The breakeven rate five and ten years ahead averaged around 3% in January 2016, about ½ a percentage point lower than it was a year ago.

- Inflation has been lower in the recent term than was expected in H2/2015. The outlook is for inflation to measure 1.9% in the first half of this year and then, owing in part to unfavourable base effects, begin rising in the second half, to over 3% by the year-end. According to the forecast, year-2016 inflation will average 2.3%, or 1 percentage point below the November forecast. The deviation from the last forecast is due largely to a more favourable initial position and a steep drop in global oil prices, which have fallen by about 30% since the publication of the November *Monetary Bulletin*. As in the Bank's previous forecasts, inflation is expected to continue rising in 2017, when the effects of reduced import prices taper off and the effects of domestic inflationary pressures stemming from growing tension in the economy and large pay increases come more strongly to the fore. As in the November forecast, inflation is expected to peak in 2017. It is expected to measure 4.2% in Q4/2017 and then subside to just below 3% by the end of the forecast horizon.

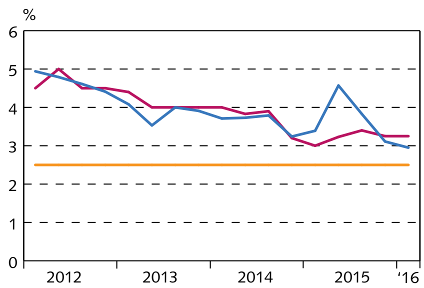
- As before, the inflation outlook is uncertain, owing in large part to uncertainty about the impact of the recent large pay increases. If firms pass the associated cost increases through to prices in greater measure than is assumed in the baseline forecast, inflation will be higher than projected. The same applies if the steep rise in real disposable income stemming from the wage increases in 2015 and 2016 leads to stronger private consumption growth than is provided for in the forecast. Inflation could also rise faster than is forecast if global oil and commodity prices recover sooner than expected, particularly given the lack of a firm anchor for inflation expectations. Imported deflationary pressures could prove to be underestimated, however; for example, if the global economic recovery runs aground or if global oil prices continue to fall and remain lower than is assumed in the baseline forecast. The same

Chart 32
Inflation and inflation expectations one year ahead
Q1/2010 - Q1/2016



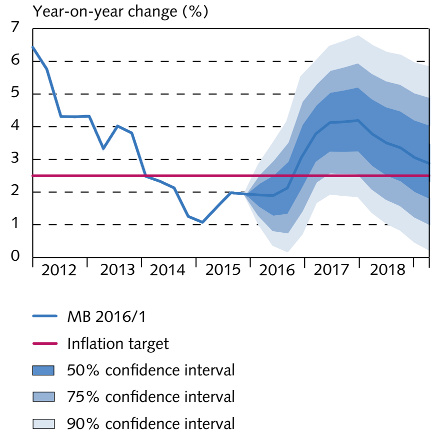
Sources: Gallup, Statistics Iceland, Central Bank of Iceland.

Chart 33
Long-term inflation expectations
Q1/2012 - Q1/2016



1. Average, Q1 to date.
Source: Central Bank of Iceland.

Chart 34
Inflation forecast and confidence intervals
Q1/2012 - Q1/2019

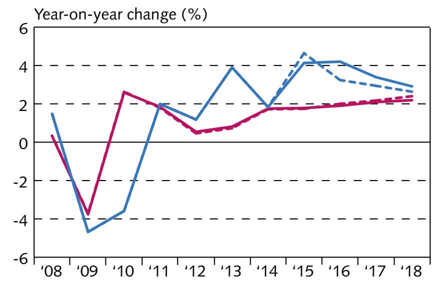


Sources: Statistics Iceland, Central Bank of Iceland.

applies if the exchange rate of the króna rises further. Inflation could also turn out lower than projected if productivity growth outpaces the forecast.

- Chart 34 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 during the forecast horizon (the methodology is described in Appendix 3 in *Monetary Bulletin* 2005/1). The uncertainty is considered to be broadly similar to that in the November forecast, with the risk profile again tilted to the upside. There is a roughly 50% probability that inflation will be in the 3-4⅔% range in one year and in the 1¾-4% range by the end of the forecast horizon.

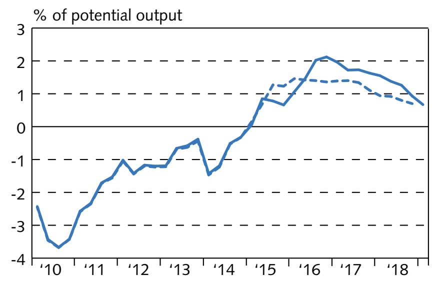
Chart 35
GDP growth in Iceland and trading partners 2008-2018[1]



— Iceland MB 2016/1
— Main trading partners MB 2016/1

1. Central Bank baseline forecast 2015-2018. Broken lines show forecast from MB 2015/4.
Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

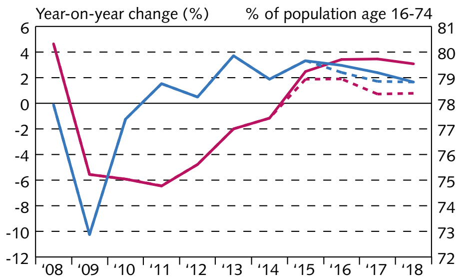
Chart 36
Output gap[1]
Q1/2010 - Q1/2019



— MB 2016/1
--- MB 2015/4

1. Central Bank baseline forecast Q4/2015-Q1/2019.
Source: Central Bank of Iceland.

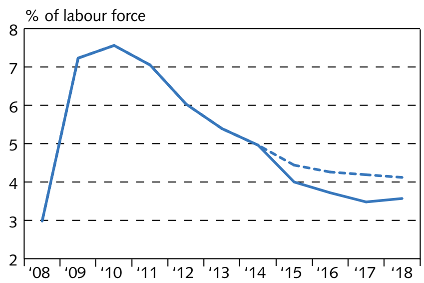
Chart 37
Total hours worked and employment rate 2008-2018[1]



— Total hours worked MB 2016/1 (left)
— Employment rate MB 2016/1 (right)

1. Central Bank baseline forecast 2016-2018. Broken lines show forecast from MB 2015/4.
Sources: Statistics Iceland, Central Bank of Iceland.

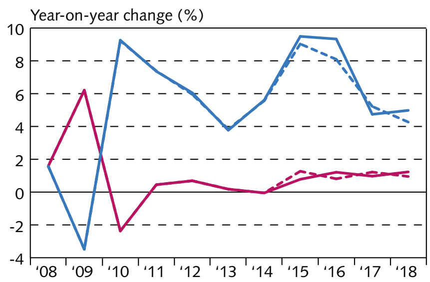
Chart 38
Unemployment 2008-2018[1]



— MB 2016/1
--- MB 2015/4

1. Central Bank baseline forecast 2016-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

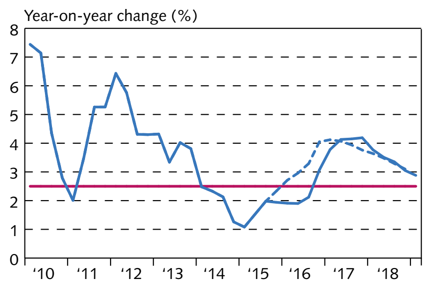
Chart 39
Unit labour costs and productivity 2008-2018[1]



— Unit labour costs MB 2016/1
— Productivity MB 2016/1

1. Productivity measured as the ratio of GDP to total hours worked. Central Bank baseline forecast 2015-2018. Broken lines show forecast from MB 2015/4.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 40
Inflation[1]
Q1/2010 - Q1/2019



— MB 2016/1
--- MB 2015/4
— Inflation target

1. Central Bank baseline forecast Q1/2016 - Q1/2019.
Sources: Statistics Iceland, Central Bank of Iceland.