Inflation outlook improves despite growing macroeconomic imbalances[1]

The global economic outlook has changed and uncertainty has increased since the publication of the May issue of *Monetary Bulletin*. The main factor in the change is Britain's decision to leave the European Union. There are indications that economic activity has diminished markedly in the UK in the wake of the referendum, but it is difficult to project how long-lasting the impact will be. The financial markets responded strongly to the decision, but those effects have reversed somewhat. The GDP growth outlook for Iceland's main trading partners is considered to have deteriorated since May, and subject to stronger headwinds than before.

In spite of a weak economic recovery among trading partners, the domestic economy has been robust. Domestic demand grew by just over 8% in Q1/2016, and year-on-year GDP growth measured 4.2%. GDP growth for the year as a whole is estimated at 4.9%, some 0.4 percentage points more than was forecast in May. The revision is due mainly to indicators of stronger growth in private consumption and business investment, while external trade pulls in the opposite direction, owing to a surge in imports. As before, GDP growth is driven by strong income growth and improved households' and businesses' balance sheets. This is compounded by fiscal easing, whereas on the other hand, monetary policy has slowed domestic demand growth and directed a portion of increased income towards domestic saving. GDP growth is still projected at over 4% in 2017. If the forecast materialises, it will be the third consecutive year with a GDP growth rate of 4% or more. As in the Bank's previous forecasts, it is assumed that GDP growth will gradually ease towards its long-term trend level, measuring about 2½% in 2018.

The growing demand pressures in the economy can also be seen in declining unemployment and a growing labour shortage. Seasonally adjusted unemployment measured 2.7% in Q2, the lowest figure seen since Q2/2008. Furthermore, over 40% of firms consider themselves short-staffed. This percentage, which has risen rapidly in the recent term, has not been this high since year-end 2007.

In spite of a widening positive output gap, inflation has declined again, measuring only 1.1% in July. The exchange rate of the króna has risen, and deflation on imported goods and services has offset domestic inflationary pressures. In addition, inflation expectations have continued to ease downwards, and long-term inflation expectations appear to be better anchored than before. The inflation outlook has improved since the Bank's May forecast, mainly because of the marked appreciation of the króna and the prospect of somewhat stronger productivity growth in 2016 than was assumed in that forecast. As before, inflation is forecast to rise when the effects of the appreciation begin to taper off, provided that the króna does not appreciate further. Based on this assumption, it is assumed that inflation will peak at about 3¾% in the first half of 2018 and then begin to ease back towards the target.

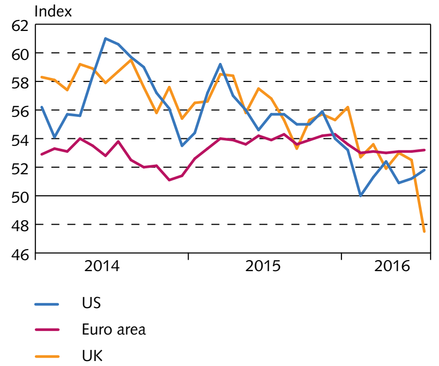
1. The analysis appearing here is based in large part on the Bank's assessment of economic developments, published in May 2016 in *Monetary Bulletin* 2016/2, and on the updated forecast presented in this report. It is based on data available as of mid-August.

The global economy and terms of trade

- Output growth among Iceland's main trading partners is estimated to have measured 1.6% in the first half of the year, in line with the forecast in the May *Monetary Bulletin*. In the US, GDP growth was significantly below expectations, falling to 1.2% in Q2, as compared with 3% in Q2/2015. Private consumption has been one of the main drivers of growth, owing to a strong recovery of the labour market, although investment growth has slowed and the contribution from inventory changes was negative for the first time in about five years. In the euro area, GDP growth has been relatively stable in the recent term, measuring 1.6% in Q2. In the UK it somewhat exceeded expectations, measuring 2.2% at the same time, but in Japan it was well below expectations, at only 0.6%.
- The global economic outlook has changed somewhat since May but is mainly cloudier. The results of the UK's Brexit referendum on the future of the European Union (EU) membership, held on 23 June, is a major factor. The effects are still emerging; therefore, it is difficult to project what the final impact will be, not least because the future framework for trade and financial links between the UK and the EU has yet to be laid down.[2] Leading indicators of GDP growth in the UK fell sharply in response to the referendum. The first responses from the financial markets were strong as well, but the drop in share prices and the rise in risk premia proved short-lived. The decline in Treasury bond yields in global markets and the depreciation of sterling have proven more persistent, however, in part because of actions taken at the beginning of August by the Bank of England, which responded to the referendum results by lowering interest rates, stepping up asset purchases, and introducing additional measures to reduce the funding costs of bank loans.
- Conditions in global financial markets are highly unusual. A weak economic recovery, low inflation, and historically low interest rates have made their mark on economic developments in advanced economies, GDP growth has slowed in emerging countries, and uncertainty has increased in the wake of the Brexit referendum. One of the clearest manifestations of these unusual conditions is the unprecedented size of the stock of outstanding government bonds with negative yields. These bonds are estimated at nearly 13 trillion US dollars, the majority of them European and Japanese bonds. A mere two years ago, there were only a negligible amount outstanding. The global economic outlook is therefore unusually uncertain at present.
- GDP growth in the US is expected to be somewhat weaker this year than was assumed in the May forecast. In the eurozone, the outlook is broadly in line with the May forecast, whereas growth

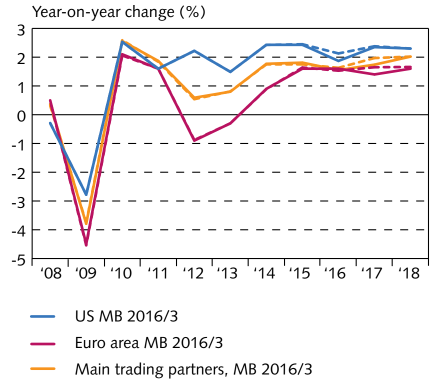
2. On 24 June, the Central Bank published a memorandum on the potential impact of Brexit on Iceland. It can be found on the Bank's website.

Chart 1
Leading indicators of GDP growth[1]
January 2014 - July 2016



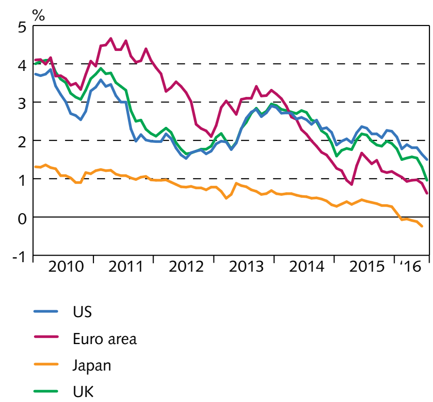
1. Markit composite purchasing managers' index (PMI). The index is published monthly and is seasonally adjusted. An index value above 50 indicates month-on-month growth, and a value below 50 indicates a contraction.
Source: Bloomberg.

Chart 2
Global output growth 2008-2018[1]



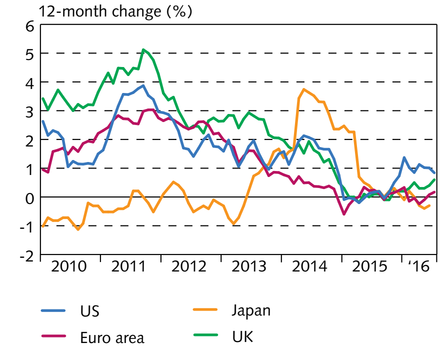
1. Central Bank baseline forecast 2016-2018. Broken lines show forecast from MB 2016/2.
Sources: Macrobond, OECD, Central Bank of Iceland.

Chart 3
10-year government bond yields in selected industrial countries
January 2010 - July 2016



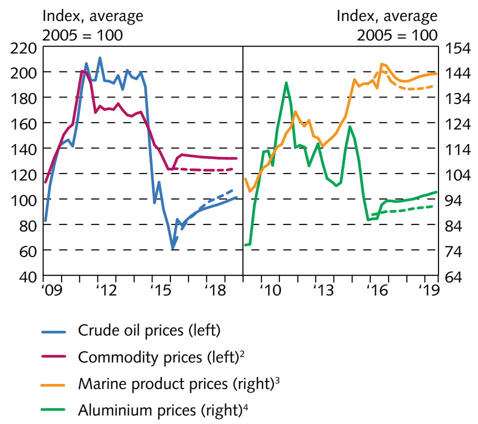
Source: Macrobond.

Chart 4
Inflation in selected industrialised countries
January 2010 - July 2016



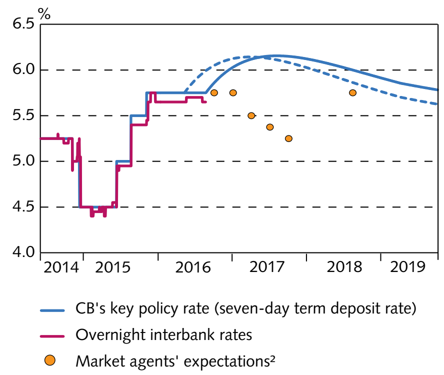
Source: Macrobond.

Chart 5
Prices of marine products, aluminium, oil, and commodities[1]
Q1/2009 - Q3/2019



1. Central Bank baseline forecast Q3/2016-Q3/2019. Broken lines show forecast from MB 2016/2. 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 trade-weighted exchange rate index. 4. Foreign currency prices of aluminium products are calculated by dividing aluminium prices in Icelandic krónur by the exchange rate of the USD.
Sources: Bloomberg, Statistics Iceland, Central Bank of Iceland.

Chart 6
Central Bank of Iceland key policy rate and expected developments[1]
Daily data 1 June 2014 - 30 September 2019



1. Interbank interest rates and Treasury bonds were used to estimate the yield curve. Broken lines show forward market interest rates since the last MB 2016/2. 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 8-10 August 2016.
Source: Central Bank of Iceland.

is projected to weaken in the UK. In various large emerging countries, however, the outlook has improved. Compared to May, GDP growth among trading partner countries is expected to be weaker in the second half of this year and especially in 2017, but to be unchanged in 2018. Comparable revisions have been made to the outlook for world trade and trading partner imports.

- Inflation remains low in Iceland's main trading partner countries. It measured 0.8% in Q2/2016 and has been below 1% for nearly two years. The inflation outlook is broadly unchanged from the May forecast. Inflation is expected to rise gradually over the forecast horizon and measure about 2% in the latter half of the period.
- It is assumed that oil prices will fall somewhat less in 2016 than was estimated in May because the decline this summer turned out smaller than had been anticipated. Futures prices suggest smaller rises in coming years, however, than had been assumed in May. Because of a sharp rise in food prices caused by reduced supply stemming in part from El Niño, the outlook is also for a smaller drop in other commodity prices this year. Aluminium and marine product prices also look set to be higher, although uncertainty in major export markets has probably increased because of the Brexit referendum. Terms of trade are expected to improve by over 1% this year, somewhat less than was forecast in May. The outlook for the next two years has improved, however.
- The real exchange rate as measured in terms of relative consumer prices has risen markedly in the recent term; over the first seven months of the year, it rose by over 10% year-on-year, owing mainly to a more than 9% appreciation of the króna. If the forecast materialises, the real exchange rate in terms of relative consumer prices will rise by some 10% this year and a full 5% more over the next two years. The rise in the real exchange rate as measured in terms of relative unit labour costs is even larger, at about 17½% this year and roughly 7% in the next two years.

Monetary policy and domestic financial markets

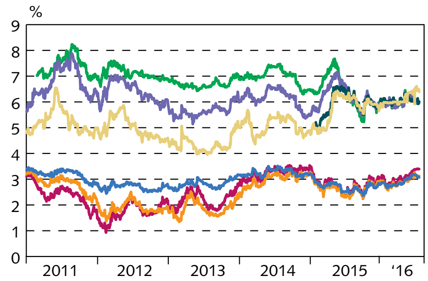
- The Central Bank's key interest rate – the seven-day term deposit rate – has been 5.75% since November 2015. The Central Bank's real rate has risen, however. In terms of the average of various measures of inflation and one-year inflation expectations, it was 2.8% just before the publication of the May *Monetary Bulletin* but currently measures 3.1%. The increase in terms of current twelve-month inflation is greater, or 0.5 percentage points, and by that measure the Bank's real rate is 4.6%.
- According to the Bank's survey of market agents' expectations, carried out earlier this month, respondents appear to assume that the Bank's monetary tightening cycle is over for now. They expect the Bank's key rate to remain unchanged through this year and then begin to decline again in 2017. Their assessment has

changed since May, when they expected the key rate to rise still further next year. Forward interest rates also suggest that market agents expect the Bank's key rate to begin to fall next year.

- A large step towards capital account liberalisation was taken at the end of 2015 with the settlement of the failed banks' estates, and earlier this month the authorities announced the next step towards general liberalisation of capital controls. In connection with these steps, the Central Bank has adopted various measures to ensure that the liberalisation process does not jeopardise economic stability. The Monetary Policy Committee (MPC) lowered reserve requirements to 2% in June, after having raised them temporarily to strengthen the Bank's liquidity management during the settlement process. In June 2016, the Bank also held its last foreign currency auction for owners of offshore krónur before general easing of capital controls begins. During the same month, the Bank adopted rules on special reserve requirements for specified types of new capital inflows. The aim of this new capital flow management measure is to mitigate the risk that can accompany excessive inflows within the current regulatory framework for foreign exchange by directly affecting the incentive to engage in carry trade. The measure is therefore intended to support other aspects of economic policy, in part by contributing to effective transmission of monetary policy.[3]

- Since the Bank adopted the new capital flow management measure, foreign inflows into the domestic bond market have virtually ceased. The spread between domestic long and short yields has remained very small, however, after narrowing markedly in the second half of 2015 when long-term rates began falling. This was considered to be due in large part to increased capital inflows, which pushed term premia on long-term bonds downwards, flattening out the yield curve (see Box 1 in *Monetary Bulletin* 2015/4). Therefore, the fact that long-term yields have been broadly unchanged since short-term inflows of foreign capital to the bond market stopped (except right after the measure was activated) probably reflects declining long-term inflation expectations and expectations of a lower Central Bank rate. Furthermore, risk premia on Treasury obligations have continued to decline in spite of a measure of unrest in the global financial markets. Yields on nominal Treasury bonds are now about 6% and are largely unchanged so far this year. Indexed bond yields have risen steadily since March, however, and are now around 3-3½%, or nearly ½ a percentage point higher than just before the issue of the last *Monetary Bulletin*. The increase reflects the rise in the

Chart 7
Nominal and indexed bond yields
Daily data 3 January 2011 - 19 August 2016



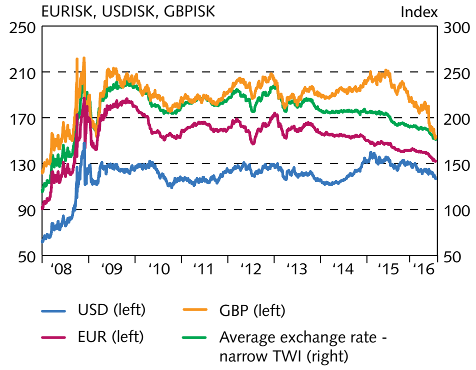
Nominal Treasury bond maturing:
2016 — 2017 — 2019 — 2031

Indexed HFF bond maturing:
2021 — 2024 — 2044

Source: Central Bank of Iceland.

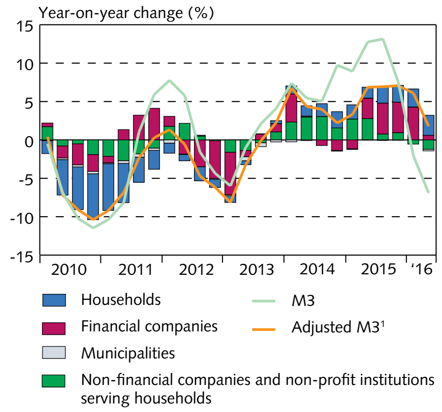
3. The statutory amendment on which the new special reserve requirement is based authorises a holding period for new capital inflows of up to five years and a maximum reserve ratio of 75%; however, according to the current Rules, the holding period is one year and the reserve ratio 40%. This is a Temporary Provision in the Act and is intended to support economic stability during the prelude to capital account liberalisation. It remains to determine the final structure of the capital flow management measure or other policy instruments intended to enable the Bank to affect short-term capital inflows to Iceland, as the Bank has been signalling for several years.

Chart 8
Exchange rate of foreign currencies against the króna
Daily data 3 January 2008 - 19 August 2016



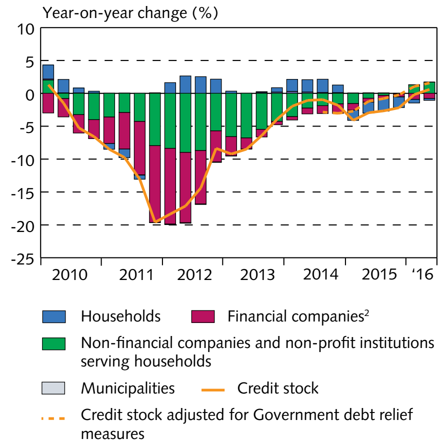
Source: Central Bank of Iceland.

Chart 9
Money holdings
Q1/2010 - Q2/2016



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

Chart 10
Credit system lending to resident borrowers and sectoral contribution[1]
Q1/2010 - Q2/2016



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's real rate, but in addition, the liquidity premium on the indexed bonds has probably risen, as the number of market makers declined from three to one this past June.

- Since May, the króna has appreciated by 6.5% in trade-weighted terms. The rise is most profound vis-à-vis pound sterling, which weakened considerably against other major currencies after the Brexit referendum, but the króna has also appreciated against the euro and the US dollar. Apart from global factors, the appreciation of the króna is due largely to stronger economic activity in Iceland than in other industrialised countries. Trade-generated foreign currency inflows have been strong, but as is mentioned above, new bond market inflows have all but halted. Offsetting this is the Central Bank's intervention in the foreign exchange market, with net purchases year-to-date totalling 251 b.kr., nearly twice the total over the same period in 2015. As before, the Bank's 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 entails a roughly 5% higher exchange rate than was provided for in the May forecast.

- Year-on-year growth in M3 has eased in recent months, in spite of strong GDP growth. Adjusted for deposits held by deposit institutions in winding-up proceedings, it was 1.8% in Q2, after having measured 6-7% over the four preceding quarters. A contraction in deposits held by non-financial companies explains the slower growth in M3, as household deposits have continued to grow. At the same time, the stock of loans granted by the credit system has grown by 1.6% after adjusting for the Government's debt relief measures. The rise is due largely to an increase in lending to non-financial companies.

- Capital area house prices rose by 12.4% year-on-year in July and rent prices by 9.1%. The number of purchase agreements rose by 5% year-on-year in the first seven months of the year. At the same time, share prices declined, partly reflecting the deteriorating revenue outlook following a steep rise in domestic costs and the exchange rate of the króna. The OMXI8 index is almost 9% lower now than it was just before the publication of the May *Monetary Bulletin*.

- Deposit and lending rates offered by financial institutions are broadly unchanged since May. Private sector debt declined marginally in Q1, and non-performing loan ratios continued to fall. Private sector financial conditions are therefore broadly unchanged since May but have improved markedly in recent quarters.

The domestic real economy

- According to the Q1/2016 national accounts published by Statistics Iceland in June, domestic demand grew 8.3% year-on-year, or 1 percentage point more than was assumed in the Bank's May forecast. Private consumption grew by 7%, in line with the May forecast. Investment also grew strongly, or by one-fourth, outpacing the forecast. By the same token, external trade turned out more favourable than projected, owing to stronger export growth and weaker imports. GDP growth was therefore considerably stronger, or 4.2% instead of the 1.7% provided for in the May forecast.

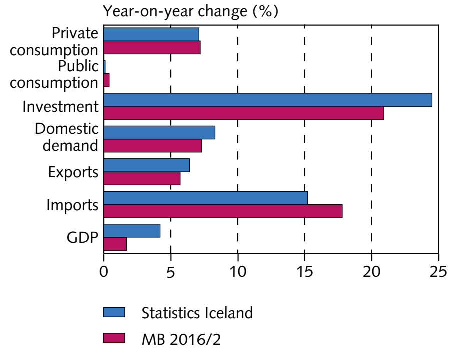
- As households' purchasing power has increased and their net worth risen, consumer sentiment has continued to improve. Private consumption growth has accelerated in the recent term, and there are signs that it was strong in Q2 as well. For this reason, private consumption growth is expected to be stronger this year and in 2017 than was projected in May, or an average of 6% per year. In spite of strong growth in consumer spending recently and the prospect of continued robust growth, household saving has continued to increase, as disposable income has risen even more rapidly. This probably reflects a post-crisis change in the propensity to save, although the impact of tight monetary policy on households' spending and saving decisions is likely to have played a role as well.

- According to figures from Statistics Iceland, nominal growth in public consumption in Q1 was well in line with the Bank's May forecast. Statistics Iceland estimated the price increase in public consumption to be greater than had been forecast, however, and real public consumption growth during the quarter therefore turned out slightly weaker. On the basis of the national accounts and information from the Treasury's financial report summaries, public consumption is now assumed to grow slightly less this year than in the May forecast, while the outlook for the next two years is broadly unchanged.

- Leading indicators suggest that investment continued to grow strongly in Q2, and the outlook is for just over 18% growth for the year as a whole. This is somewhat stronger growth than was provided for in May. The most important contributor here is business investment, which is estimated to have increased by nearly a fourth year-on-year. To some extent, this is due to new information on planned energy-intensive investment and imports of ships and aircraft. In addition, the outlook is for more investment in construction of hotels and residential housing than was previously anticipated. As in May, it is assumed that investment growth will ease somewhat as the forecast horizon advances.

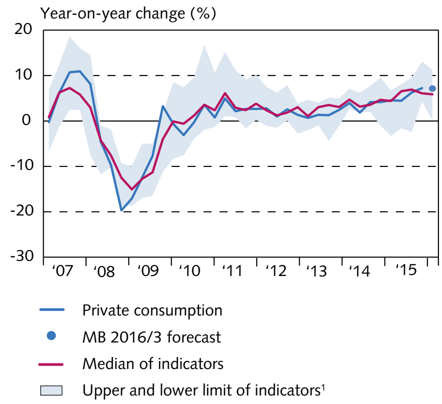
- The outlook is for an 8½% increase in goods and services exports in 2016, which is somewhat stronger growth than was forecast in May. Growth is driven to a large degree by increased services exports, as tourist arrivals have increased substantially, and foreign visitors' payment card turnover in Iceland increased markedly year-on-year in the first half of 2016. The outlook for goods

Chart 11
National accounts Q1/2016



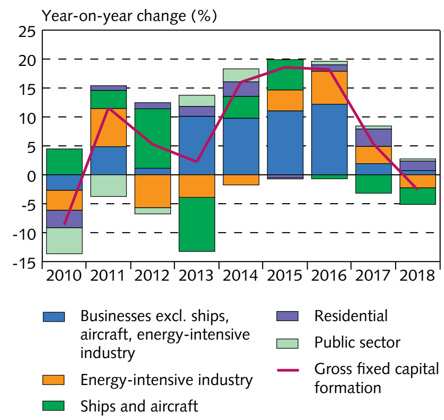
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 12
Indicators of private consumption
Q1/2007 - Q2/2016



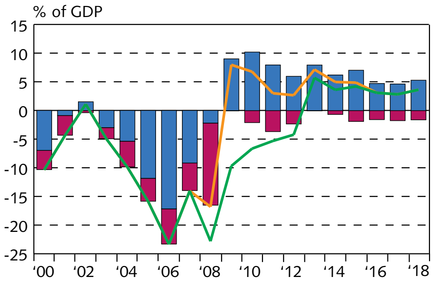
1. Indicators are payment card turnover, groceries turnover, share prices, housing prices, consumer goods imports, new motor vehicle registrations, wages, and unemployment. The indicators are rescaled so that their average and standard deviation are the same as those for private consumption.
Sources: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

Chart 13
Gross fixed capital formation and contribution of main components 2010-2018[1]



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

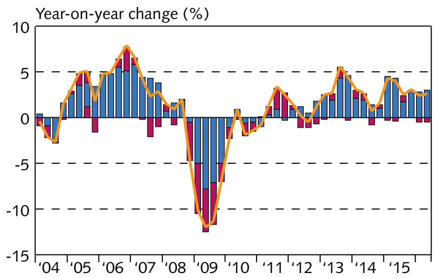
Chart 14
Current account balance 2000-2018[1]



Trade balance
Primary income, net[2]
Underlying current account balance[2]
Measured current account balance

1. Including secondary income. Central Bank baseline forecast 2016-2018.
2. Excluding the calculated income and expenses of DMBs in winding-up proceedings and 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). With the settlement of the failed banks' estates in year-end 2015, there is no longer any difference between headline and underlying current account numbers.
Sources: Statistics Iceland, Central Bank of Iceland.

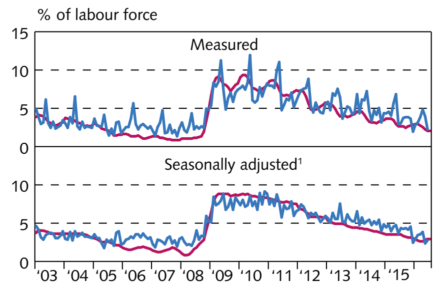
Chart 15
Employment and hours worked
Q1/2004 - Q2/2016



Number of employed persons
Average hours worked
Total hours worked

Source: Statistics Iceland.

Chart 16
Unemployment
January 2003 - July 2016



Labour force survey
Directorate of Labour

1. Directorate of Labour figures seasonally adjusted by the Central Bank.
Sources: Directorate of Labour, Statistics Iceland, Central Bank of Iceland.

exports, however, is similar to that in May, although the composition of growth has changed slightly. Growth in aluminium exports is expected to ease and marine product exports to contract more than previously projected, as the fishing quotas allocated for the upcoming fishing year turned out smaller than was assumed in the May *Monetary Bulletin*; however, exports of other goods are forecast to be stronger than was assumed in May. Export growth is projected to slow somewhat in coming years, owing mainly to slow growth among major trading partners and to the rise in the real exchange rate.

- One sign of the strong economic recovery is rapid import growth. According to the forecast, import growth will rise to 14½% this year, on the heels of 11% average annual growth over the past two years. Therefore, in spite of robust export growth in the recent past, the contribution of net trade to GDP growth looks set to be negative this year by just over 2 percentage points, for the third year in a row. The surplus on goods and services trade will therefore narrow from 7% of GDP in 2015 to just under 5% this year. This is a somewhat smaller surplus than was forecast in May, owing to the combined effects of a more negative contribution from net trade and somewhat poorer terms of trade. As in May, the trade surplus is expected to be about 5% in the next two years. The current account surplus will develop similarly, narrowing from 5% of GDP in 2015 to about 3¾% by 2018.

- According to Statistics Iceland's labour force survey (LFS) for Q2, the number of jobs grew by about 3% from Q2/2015, as was assumed in the Bank's May forecast, but the average work week continued to shorten instead of remaining unchanged, as was projected in May. Growth in total hours worked was therefore somewhat weaker than forecast, at 2.5% instead of 3%.

- Q2 unemployment was broadly in line with the May forecast, measuring 3.6%, or 2.7% seasonally adjusted. The seasonally adjusted rate is at its lowest level since Q2/2008.

- Other measures of labour supply and demand suggest that demand is growing and that firms appear to be having more difficulty staffing available positions in spite of significant influx of foreign labour. According to Gallup's summer survey of Iceland's 400 largest companies, the share of firms that consider themselves short-staffed had risen by about 11 percentage points between surveys and about 22 percentage points between years. The share of firms considering themselves understaffed is at its highest since end-2007, at about 42%. As in the spring survey, about 60% of construction firms and 40% of companies in transport and tourism considered themselves understaffed. The number of manufacturing, fishing, and retail and wholesale companies reporting recruiting difficulties rose sharply between surveys, however. Firms appear to address the shortages increasingly with imported labour, and net migration was positive by 1.3% of the labour force in H1/2016, as opposed to 0.3% in H1/2015.

- The results of the Gallup survey indicate that labour demand will increase even further this year. The number of firms interested in recruiting exceeded the number planning redundancies in coming months by nearly 40%. It is assumed that labour demand will remain strong in the coming term, and total hours worked are projected to increase by an average of 2½% per year over the forecast horizon, which is broadly in line with the May forecast. As in May, it is assumed that the unemployment rate will measure 3.3% this year and then taper off slightly next year before rising gradually to its long-term equilibrium level as the forecast horizon progresses.

- The pay increases provided for in the most recent 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 by 2.8% between quarters in Q2, and by 13% year-on-year, while real wages rose 11.2% between years. Assumptions about wage developments are therefore similar to those in May. As was the case then, it is not assumed that the wage settlement review in February 2017 will lead to further wage increases, but given the tension that appears to be developing in the labour market, wage drift could be underestimated in the forecast, particularly during the latter half of the forecast horizon. Unit labour costs are projected to rise somewhat less this year than was previously estimated, as the outlook is for stronger productivity growth. The outlook for the forecast horizon overall is broadly unchanged, however.

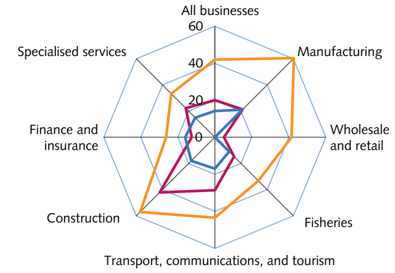
- GDP growth is forecast to be somewhat stronger this year and next year than was projected in May. It is forecast at 4.9% in 2016, some 0.4 percentage points more than in the May forecast. Stronger GDP growth is due largely to a revision of the outlook for private consumption and business investment, although the more negative contribution from net trade will pull in the other direction. For 2017, GDP growth is forecast at 4.1%, and if this projection is borne out it will be the third consecutive year with an output growth rate over 4%. Although this is broadly similar to the May forecast, some change in the composition of GDP growth is expected, with slower growth in domestic demand growth and a significant reduction in the negative contribution from net trade. As in the Bank's previous forecasts, it is assumed that GDP growth will gradually ease towards its long-term trend rate, measuring 2.6% in 2018.

- The slack in the economy is estimated to have disappeared in 2015 and a positive output gap to have developed concurrent with the recent strong GDP growth. As in May, the output gap is expected to continue growing, peaking at about 2½% of potential output early next year before narrowing again.

Chart 17

Firms considering themselves short-staffed

Share of businesses (%)



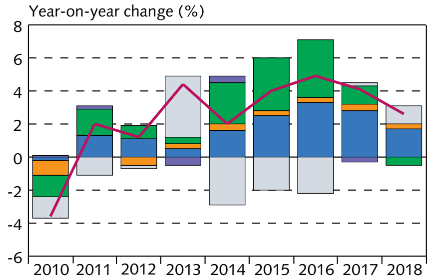
June 2014
June 2015
May 2016

Source: Gallup.

Chart 18

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

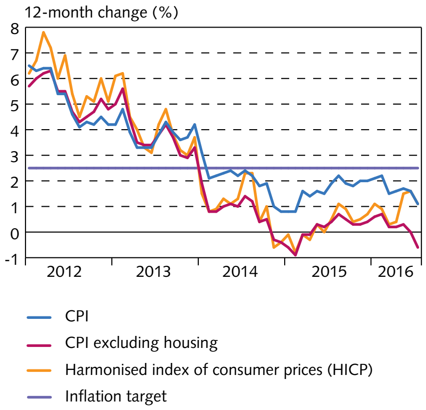
Year-on-year change (%)



Private consumption
Public consumption
Gross fixed capital formation
Change in inventories
Net trade
Output

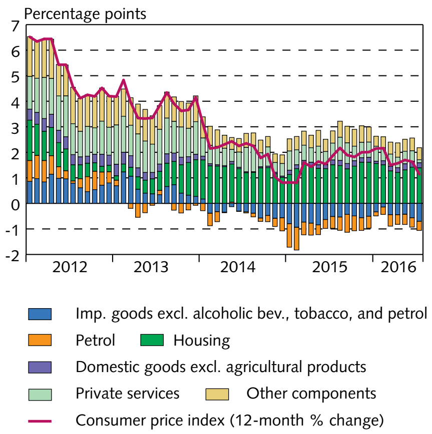
1. Central Bank baseline forecast 2016-2018.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 19
Various measures of inflation
January 2012 - July 2016



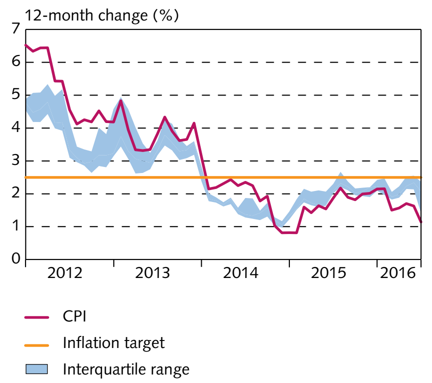
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 20
Components of CPI inflation
Contribution to inflation January 2012 - July 2016



Source: Statistics Iceland.

Chart 21
Headline and underlying inflation[1]
January 2012 - July 2016



1. The shaded area includes the interquartile range of estimates 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 measured 1.6% in Q2/2016, in line with the May forecast. It has been below the Bank's inflation target for well over two years. It measured 1.1% in July and had fallen by 0.4 percentage points since April, but if the housing component of the CPI is excluded, the price level has fallen by 0.6% since July 2015. On the other hand, HICP inflation, which also excludes housing costs, has risen since April, to 1.1% in July.

- Increased housing and petrol prices had the strongest impact on the CPI in Q2. Private services prices rose somewhat as well, particularly seasonal prices relating to tourism. The disinflation in July was affected, among other things, by stronger summer sale effects than in recent years and a decline in petrol prices. Pulling in the other direction were increases in house prices, airfares, and food prices.

- The contribution of domestic goods to twelve-month inflation has somewhat increased in recent months. At the same time, the contribution of private services has declined, as prices have only risen by 0.5% in the past twelve months. Furthermore, the decline in domestic currency import prices has gathered pace again, owing both to global deflationary pressures and the appreciation of the króna.

- Underlying inflation also appears to have tapered off. Inflation in terms of core index 3 (which excludes the effects of volatile food items, petrol, public services, and real mortgage interest expense) measured 1.4% in July, as opposed to 1.9% just before publication of the last *Monetary Bulletin*. Statistical measures of underlying inflation point in the same direction.

- Inflation expectations have continued to fall by most measures. Surveys from May indicate that households and businesses expect inflation to measure about 3% in one year's time, with household inflation expectations falling since the spring survey, while executives' expectations remained unchanged. According to a new survey conducted earlier this month, market agents appear more optimistic about the inflation outlook than they were previously. They now expect it to measure 2.3% in one year and 3% in two years. They also expect inflation to average 3% over the next ten years, having measured in the 3-3.5% range since year-end 2014. The decline in long-term inflation expectations can also be seen in the breakeven inflation rate in the bond market, with the ten-year rate measuring above 3% earlier this year but declining to 2.8% in Q3.

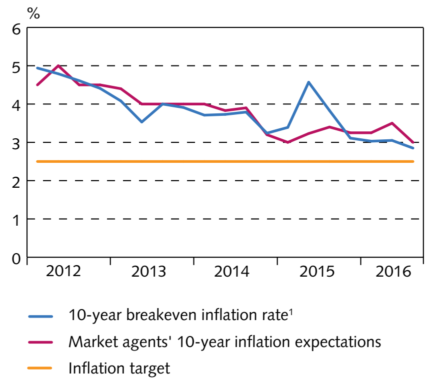
- The outlook is for inflation to be markedly lower during the majority of the forecast horizon than was forecast in the last *Monetary Bulletin*. According to the updated baseline forecast, it will measure 1.2% in Q3, rise to 2.2% in Q4, and measure over 3% by mid-2017, nearly 1 percentage point less than in the May forecast. The deviation from the last forecast is due largely to a much stronger appreciation of the króna than was projected in May, which explains both why inflation is currently lower than forecast and why it is expected to rise more slowly than was assumed in May. Furthermore, global inflation has proven lower and looks set to remain so, and the outlook is for stronger productivity growth this year. It appears that the strong improvement in terms of trade in recent years, low global inflation, the appreciation of the króna, and a tight monetary stance have largely contained the cost effects of the large wage increases negotiated in the recent past. The effects of the appreciation of the króna will begin to taper off as the forecast horizon progresses, however, and according to the baseline forecast, inflation will peak at 3.8% in the first half of 2018. It will then begin to decline again and is expected to fall below 3% during the first half of 2019.

- As before, the inflation outlook is subject to a number of uncertainties. Economic activity has increased markedly in the recent term. A strong increase in real disposable income and the recent surge in private consumption could result in higher inflation than is forecast here if firms respond to increased demand by raising prices even further. In addition, strong growth in domestic demand could be reflected in larger increases in house prices than is assumed in the baseline forecast. If imported deflationary pressures prove to be underestimated – for example, if the global economy weakens further – or if domestic demand growth is overestimated, inflation could turn out lower than is assumed here. Global oil prices could fall further than expected, as it appears that there is an excess supply at present. Exchange rate developments during the forecast horizon are also highly uncertain. The króna could appreciate still further in the near term, given the appreciation that has taken place recently in spite of large-scale foreign currency purchases by the Central Bank. This could change, however, as the forecast horizon progresses, if the current account surplus is smaller than expected, if terms of trade deteriorate, or if substantial capital outflows take place in connection with liberalisation of the capital account. The uncertainty in the inflation outlook is considered similar to that in May, but the probability distribution is assumed to be broadly symmetrical. There is a roughly 50% probability that inflation will be in the 2½-4½% range in one year and in the 1½-4% range by the end of the forecast horizon.

Chart 22
Inflation and inflation expectations one year ahead
Q1/2012 - Q3/2016

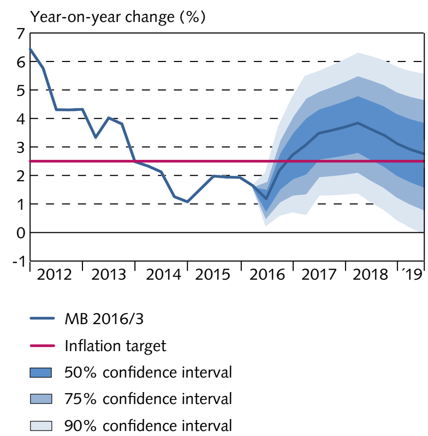
Sources: Gallup, Statistics Iceland, Central Bank of Iceland.

Chart 23
Long-term inflation expectations
Q1/2012 - Q3/2016



1. The value for Q3/2016 is the Q3 average to date.
Source: Central Bank of Iceland.

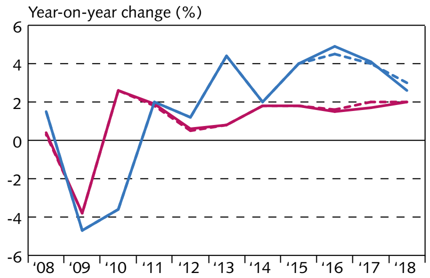
Chart 24
Inflation forecast and confidence intervals
Q1/2012 - Q3/2019



Sources: Statistics Iceland, Central Bank of Iceland.

Chart 25

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



Iceland, MB 2016/3

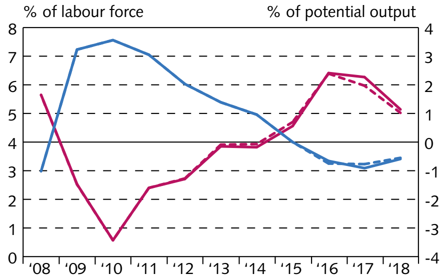
Main trading partners, MB 2016/3

1. Central Bank baseline forecast 2016-2018. Broken lines show forecast from MB 2016/2.

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

Chart 26

Unemployment and output gap 2008-2018[1]



Unemployment, MB 2016/3 (left)

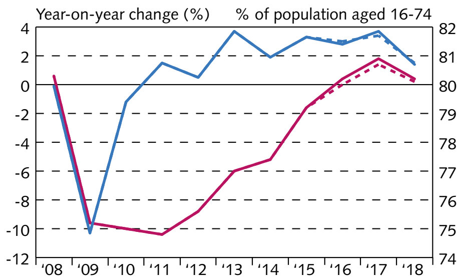
Output gap, MB 2016/3 (right)

1. Central Bank baseline forecast 2016-2018. Broken lines show forecast from MB 2016/2.

Sources: Statistics Iceland, Central Bank of Iceland.

Chart 27

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



Total hours worked, MB 2016/3 (left)

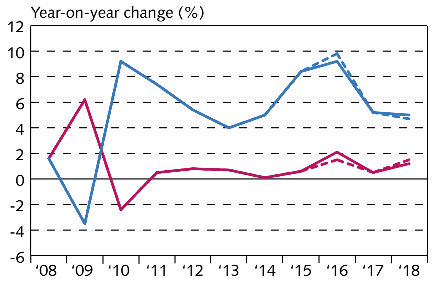
Employment rate, MB 2016/3 (right)

1. Central Bank baseline forecast 2016-2018. Broken lines show forecast from MB 2016/2.

Sources: Statistics Iceland, Central Bank of Iceland.

Chart 28

Unit labour costs and productivity 2008-2018[1]



Unit labour costs, MB 2016/3

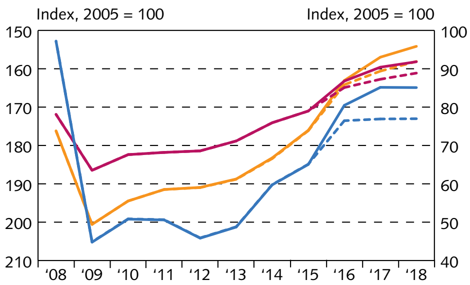
Productivity MB, 2016/3

1. Productivity measured as GDP per total hours worked. Central Bank baseline forecast 2015-2018. Broken lines show forecast from MB 2016/2.

Sources: Statistics Iceland, Central Bank of Iceland.

Chart 29

Exchange rate 2008-2018[1]



TWI, MB 2016/3 (inverted left axis)

Real exchange rate, relative prices, MB 2016/3 (right)

Real exchange rate, relative unit labour costs, MB 2016/3 (right)

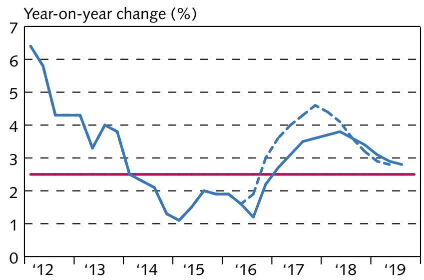
1. Central Bank baseline forecast 2016-2018. Broken lines show forecast from MB 2016/2.

Source: Central Bank of Iceland.

Chart 30

Inflation[1]

Q1/2012 - Q3/2019



MB 2016/3

MB 2016/2

Inflation target

1. Central Bank baseline forecast Q3/2016-Q3/2019.

Sources: Statistics Iceland, Central Bank of Iceland.