

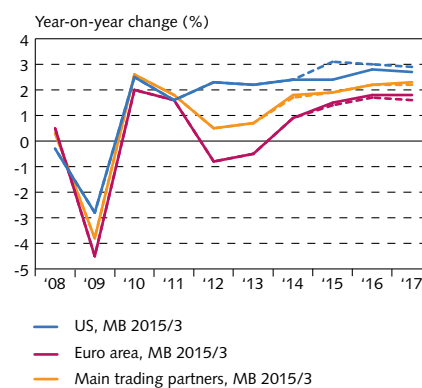
# Inflation outlook deteriorates in the wake of wage settlements<sup>1</sup>

The gradual global economic recovery continues, and uncertainty about the outlook for global output growth has subsided somewhat. Oil prices have fallen still further in global markets, and Iceland's terms of trade have therefore continued to improve. Preliminary figures from Statistics Iceland suggest that GDP growth was 2.9% in the first quarter of the year. The outlook is for it to gather pace and measure 4.2% for the year as a whole. Nevertheless, this is about ½ a percentage point below the forecast in the May Monetary Bulletin, as Q1/2015 GDP growth turned out weaker than was projected in May. The GDP growth outlook for the upcoming two years has also been revised downwards, from the previous 3½% per year to 3%. The composition of GDP growth has changed as well, with growth now expected to be driven more by domestic demand, private consumption in particular. The main cause of the change in the economic outlook is the recently concluded wage settlements, which provide for substantial pay increases both in 2015 and in the ensuing two years. As is explained in an alternative scenario in the May issue of Monetary Bulletin, pay increases of this magnitude will inevitably call forth a tightening of the monetary stance, which will curtail investment and cut into labour demand. As a result, it is also assumed that total hours worked will increase more slowly and unemployment will be higher during the forecast horizon than was projected in May. The recent wage agreements entail an increase in unit labour costs of 9% this year and over 7% per year, on average, over the forecast horizon – far more than was forecast in May. This is offset somewhat by the prospect of smaller increases in import prices during the forecast horizon than in the May forecast, not least because of the steep drop in oil prices in recent weeks. However, the inflation outlook has deteriorated markedly since May. According to the revised forecast, inflation will rise above 4% early in 2016 and hover in the 4-4½% range over the next two years before falling back towards the target late in the forecast horizon. There is significant uncertainty about possible deviations in inflation from the above-described forecast, mainly because of uncertainty about the degree to which pay rises will be passed through to prices or absorbed through increased streamlining, resulting in a lower employment level, and uncertainty about global price developments and whether the improvement in terms of trade will continue.

## The global economy and terms of trade

- Trade-weighted GDP growth among Iceland's main trading partners averaged 1.8% in Q1/2015, slightly more than in the first quarter of 2014 but in line with the forecast in the May *Monetary Bulletin*. In spite of disappointing second-quarter GDP growth figures in the US, growth among Iceland's trading partners as a whole is expected to be broadly unchanged during the quarter, owing mainly to stronger growth in the euro area, where lower oil prices and a weak euro have supported domestic demand and exports. Among Iceland's trading partners, average GDP growth in the first half of the year is therefore unchanged from the May forecast, even though world output growth has turned out weaker than was projected in May.
- Developments year-to-date and indicators for the remainder of the year suggest that US output growth will measure 2.4% and not 3.1%, as was forecast in May. The outlook for the euro area is slightly improved, with GDP growth projected at 1.5% instead of 1.4%. Because of this, together with an improved GDP growth outlook for Denmark, which weighs as heavily as the US

Chart 1  
Global output growth 2008-2017<sup>1</sup>

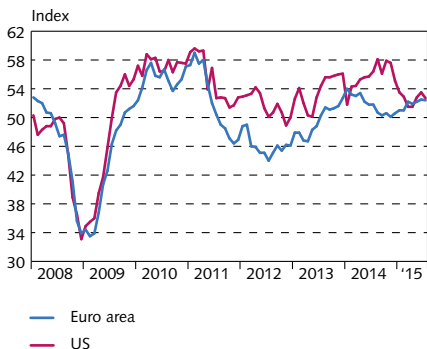


1. Central Bank baseline forecast 2015-2017. Broken lines show forecast from MB 2015/2.

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

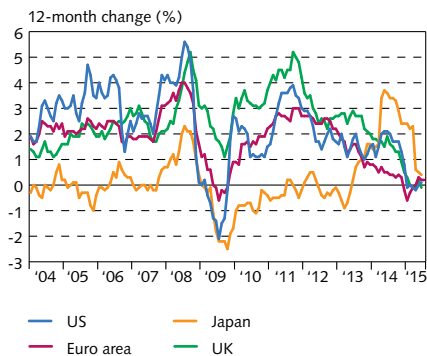
1. The analysis appearing here is based in large part on the Bank's assessment of economic developments, published in May 2015 in *Monetary Bulletin* 2015/2, and on the updated forecast presented in this report. It is based on data available as of mid-August.

Chart 2  
Leading indicators of GDP growth<sup>1</sup>  
January 2008 - July 2015



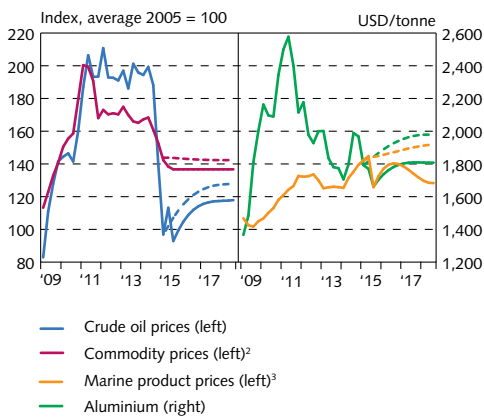
1. In the US and the euro area, the seasonally adjusted Manufacturing Purchasing Managers' Index (PMI) is published monthly. An index value above 50 indicates month-on-month growth, and a value below 50 indicates a contraction.  
Sources: Bloomberg, Macrobond.

Chart 3  
Inflation in selected industrialised countries  
January 2004 - July 2015



Source: Macrobond.

Chart 4  
Prices of marine products, aluminium, oil, and commodities<sup>1</sup>  
Q1/2009 - Q3/2018



1. Central Bank baseline forecast Q3/2015 - Q3/2018. Broken lines show forecast from MB 2015/2. 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 export-weighted trade basket.  
Sources: Bloomberg, London Metal Exchange, Nymex, Statistics Iceland, Central Bank of Iceland.

in Iceland's external trade, it is still assumed that trading partner growth will average 1.9% this year. As in May, trading partner growth is expected to rise to 2¼% in the next two years.

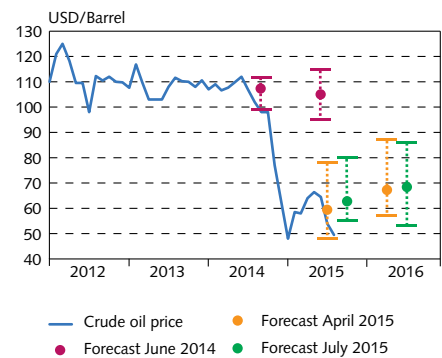
- Some uncertainty remains in the global economy, however, including that stemming from the recent unrest in the Chinese financial markets and concerns about the effects of the US Federal Reserve Bank's expected interest rate hikes on global markets, particularly in emerging countries. Uncertainty seems to have subsided recently, however, following the agreement on Greece's debt problems. By the same token, geopolitical uncertainty has diminished following the agreement to lift the trade embargo on Iran. Global GDP growth is still expected to be below previous estimates, however, albeit less markedly so than was projected earlier this year.
- Among Iceland's trading partners, inflation averaged 0.6% in Q2, having risen 0.2 percentage points from the previous quarter following a continuous decline since Q3/2011. The increase was slightly larger than was assumed in the *May Monetary Bulletin*, mainly because of rising inflation in the euro area. Inflation expectations also appear to have gained some resilience since the winter, in tandem with improving conditions in the UK and US labour markets and a brighter GDP growth outlook for the euro area. Trading partner inflation is projected to average 0.7% this year and then rise to 1.6% in 2016 and 1.9% in 2017. Long-term interest rates have risen in major industrialised countries, in line with higher inflation expectations and reduced uncertainty about the GDP growth outlook. As before, it is generally assumed that the US Federal Reserve will raise interest rates before the year-end, followed by the Bank of England early in 2016.
- Both the International Monetary Fund (IMF) and the OECD have revised their forecasts upwards for 2015-2016 import growth among Iceland's trading partners. In the US and the UK, this reflects the effects of a substantial currency appreciation, which has spurred demand for imported goods, while in the eurozone it is due to stronger demand growth overall. The Central Bank's baseline forecast has been revised to account for these changes, and trading partners' imports are now estimated to grow by an average of 3.8% this year, nearly a percentage point more than was assumed in May. The outlook for trading partner demand growth has also improved for the upcoming two years.
- Reduced global output growth year-to-date has led to further declines in commodity prices. Prices of non-oil commodities have declined by 6% since the publication of the *May Monetary Bulletin* and by 17% from the previous year. The price of food in US dollars has fallen 13% year-on-year but has held unchanged since May. For the year as a whole, it is assumed that non-oil commodity prices will fall by nearly 15% year-on-year, or about 3 percentage points more than was forecast in May. They are now expected to decline in 2016 as well.

- Oil prices have fallen by over a fifth since the beginning of July, when the agreement with Iran was announced. In mid-August they dipped below 50 US dollars per barrel, which is close to the low from the beginning of the year, following the steep decline in H2/2014. The drop in price ran counter to expectations of a gradual rise, and prices are now nearly 20% lower than most experts had forecast in April. While this partly reflects the slow-down in economic activity in the first half of the year, it also stems from expectations of lower prices in the coming term, owing to increased supply following the agreement with Iran and, in particular, the OPEC countries' decision not to reduce production. The baseline forecast takes account of oil futures prices and market analysts' forecasts. It is assumed that prices will rise again, although the 2015 average will nonetheless be 44% below the 2014 average, and somewhat lower than was forecast in May. By mid-2018, oil prices are projected to be around 68 US dollars per barrel, as opposed to 73 dollars in the May forecast.
- Iceland's terms of trade improved by 14.5% year-on-year in Q1/2015, the largest single-quarter improvement ever recorded and considerably more than was assumed in the May forecast. The main drivers of the improvement are favourable export prices (particularly marine products and aluminium) and lower imported goods prices. In Q1, domestic aluminium product prices rose somewhat more than global aluminium market prices, but the premium on domestic products has declined again in recent months, and on the whole it is assumed that developments in aluminium prices will be more unfavourable in 2015 and 2016 than was provided for in the May forecast. On the other hand, marine product prices have risen uninterrupted since the beginning of 2014 and are expected to continue doing so through next year. They are expected to fall in 2017, however, in line with the OECD forecast for marine product prices. Over the forecast horizon as a whole, the outlook is for terms of trade to improve by 5%, slightly more than was forecast in May.
- Over the first seven months of the year, the real exchange rate rose by 1.7% year-on-year in terms of relative consumer prices. It has risen by about 24% from its 2009 trough but remains some 7% below its thirty-year average. The increase over the first seven months of the year is due in equal measure to nominal appreciation of the króna and to higher inflation in Iceland than in major trading partner countries.

## Monetary policy and domestic financial markets

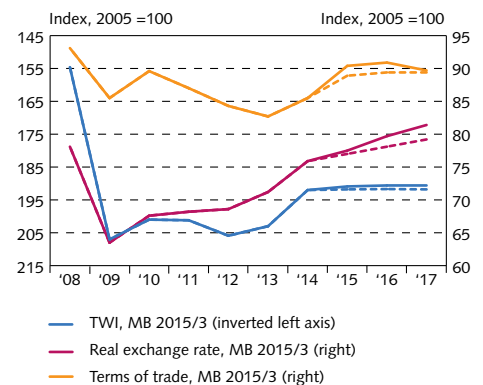
- At its May meeting, the Central Bank's Monetary Policy Committee (MPC) decided to hold the Bank's interest rates unchanged, and in June it raised them by 0.5 percentage points. Prior to the publication of this *Monetary Bulletin*, the Bank's key interest rate – the rate on seven-day term deposits – was 5%. Interest rates in the

Chart 5  
Oil prices and market analysts' projections<sup>1</sup>



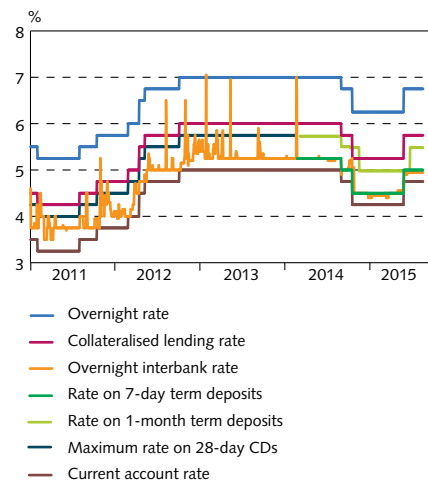
1. Price per barrel of Brent crude in US dollars. The last measurement shows the average for August to date. The dots indicate the average forecast from market analysts in the Consensus Forecasts survey, and the range indicates the highest and lowest forecast values.  
Sources: Bloomberg, Consensus Forecasts.

Chart 6  
Exchange rate and terms of trade 2008-2017<sup>1</sup>



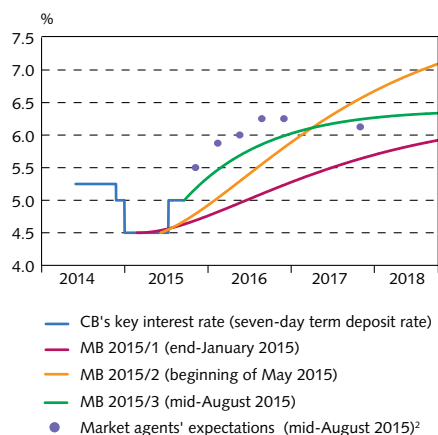
1. Central Bank baseline forecast 2015-2017. Broken lines show forecast from MB 2015/2.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 7  
Central Bank of Iceland interest rates and short-term market rates  
Daily data 3 January 2011 - 14 August 2015



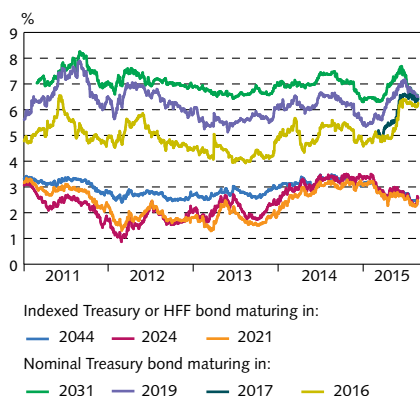
Source: Central Bank of Iceland.

Chart 8  
Central Bank of Iceland key interest rate, forward market interest rates, and market agents' expectations concerning CB's key rate<sup>1</sup>  
Daily data 21 May 2014 - 30 September 2018



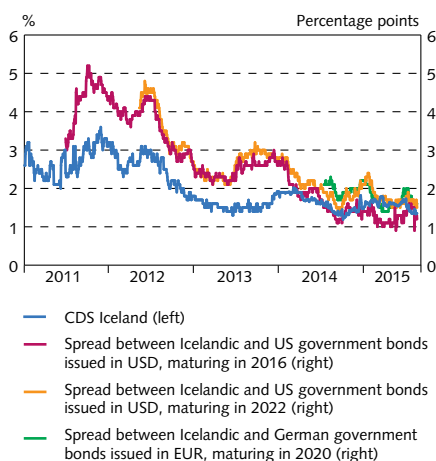
1. Interbank interest rates and Treasury bonds were used to estimate the yield curve. 2. Estimated from the median response in the Central Bank's survey of market agents' expectations. The survey was carried out during the period 10-13 August 2015.  
Source: Central Bank of Iceland.

Chart 9  
Nominal and indexed bond yields  
Daily data 3 January 2011 - 14 August 2015



Source: Central Bank of Iceland.

Chart 10  
Risk premia on Icelandic Treasury obligations  
Daily data 3 January 2011 - 14 August 2015



Source: Bloomberg.

interbank market for krónur rose in line with the increase in the Bank's rates, but turnover in the market has been limited so far in the third quarter, after having risen in Q2.

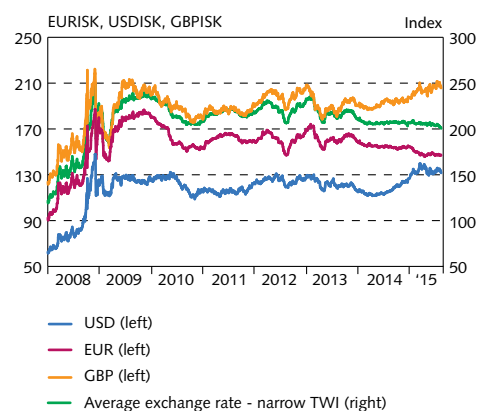
- In spite of the increase in the Bank's nominal interest rates, the monetary stance has eased since May, as inflation and inflation expectations are higher. The Bank's real rate is now about 3% in terms of the current inflation level and 1.3% in terms of the average of various measures of inflation and inflation expectations.
- According to the Bank's survey of market agents' inflation expectations, carried out in mid-August, respondents expect the Bank's key rate to be raised by  $\frac{3}{4}$  of a percentage point by the end of this year and another  $\frac{1}{2}$  point in the first half of 2016, to 6.25%, up to 1 percentage point higher than according to the May survey. Indications from forward interest rates give similar results.
- In spite of the increase in the Central Bank's interest rates, yields on long indexed and nominal Housing Financing Fund and Treasury bonds have fallen by  $\frac{1}{4}$  - 1 percentage point since May. The decrease has been most pronounced since the beginning of June, when the authorities and the Central Bank of Iceland introduced their capital account liberalisation strategy, and the decline in bond yields probably reflects to some extent the expectation that the liberalisation process will entail a substantial reduction in Treasury debt. Increased optimism about the Treasury's position can also be seen in credit rating upgrades from all three major international rating agencies and a decline in the CDS spread on Treasury obligations. The risk premium in terms of the spread between the yield on long-term Icelandic Treasury bonds issued in foreign currency and comparable US and German bonds has also narrowed after a temporary uptick in June, in connection with uncertainty about the Greek situation, and is now broadly the same as in May.<sup>2</sup> The terms offered to Icelandic commercial banks in international markets have also improved.
- Nominal bond interest rates have fallen more than indexed rates; therefore, the breakeven inflation rate in the bond market has declined since May. To some extent, this reduction probably reflects non-residents' increased investment in long-term Treasury bonds following the presentation of the capital account liberalisation strategy. Because non-residents have not been investing in indexed Treasury bonds in the recent past, the decline in the breakeven inflation rate probably reflects this development to some degree.
- The króna has appreciated since May. It has strengthened by 2.7% in trade-weighted terms, by 0.8% against the euro, and by 0.4% against the US dollar, but has weakened by 1% against the pound sterling. Increased tourism-related foreign currency inflows

2. The interest rate spread on foreign-denominated bonds maturing in 2016 has narrowed by over  $\frac{1}{2}$  a percentage point since the beginning of August, primarily because of the Treasury's repurchase of 40% of outstanding bonds. That decline has largely reversed, and the spread is now only slightly wider than in mid-May.

and capital inflows have supported the exchange rate, while the Central Bank's increased foreign currency purchases have prevented it from rising unduly. The Bank's net foreign currency purchases in the interbank foreign exchange market amount to 135.9 b.kr. year-to-date, as opposed to 111.4 b.kr. in 2014 as a whole.

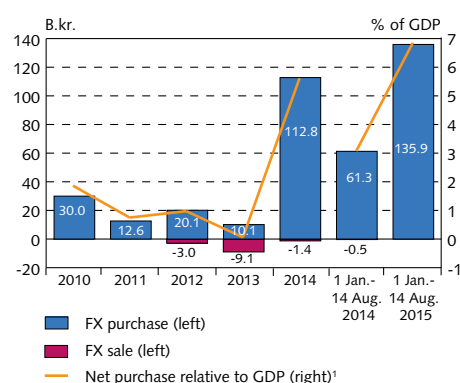
- In trade-weighted terms, the ISK price of foreign currency averaged just over 205 points in Q2/2015. As before, the baseline forecast is based on the technical assumption that the price of foreign currency will remain broadly unchanged throughout the forecast horizon; i.e., that the exchange rate of the króna will be about ½% higher than in the May forecast.
- M3 grew by about 6.8% year-on-year in Q2/2015 when adjusted for deposits held by the failed banks' winding-up boards (which gives a more accurate view of the money stock that could be used for demand for goods and services or financial products). The rise is due for the most part to increased deposits held by households and the financial sector. Annual growth in adjusted M3 has therefore increased, although it is still below nominal GDP growth.
- Base money excluding term deposits (which gives a more accurate view of the Central Bank's contribution to changes in liquidity in circulation) rose somewhat during the summer, but the increase has reversed following the Bank's auctions of term deposits in July and August.
- Net new loans from deposit money banks (DMB) to non-financial companies (i.e., new loans net of prepayments) nearly doubled between H1/2014 and H1/2015. The vast majority of this increase is due to loans to services firms, retail trade firms, and companies connected to the fishing industry. New loans to households have probably increased as well, but the assessment of the situation is complicated by problems relating to the treatment of data in connection with the Government's debt relief measures.
- In Q2/2015, house prices in the greater Reykjavík area were nearly 9% higher than in the same quarter of 2014. At the same time, the number of purchase agreements was up almost 6%, and rent prices rose by nearly 8%. The increase in house prices has more or less kept pace with developments in income, and the ratio of house prices to income was close to its long-term average in 2014, unlike the situation in many OECD countries, where the same ratio is above the long-term average. According to information from consultancy firm Hannarr ehf., house prices were even on the low side in Q1, or about 5½% below the average construction cost per square metre of common types of dwellings.
- The OMXI8 share price index has risen by 10.6% since the publication of the last *Monetary Bulletin*, or about 19.4% year-to-date. Turnover in the NASDAQ Iceland main market totalled 188 b.kr. over the first seven months of the year, about 23% more than over the same period in 2014. Two new firms have been listed on the exchange, and another listing is expected before the year-end.

Chart 11  
Exchange rate of foreign currencies against the króna  
Daily data 3 January 2008 - 14 August 2015



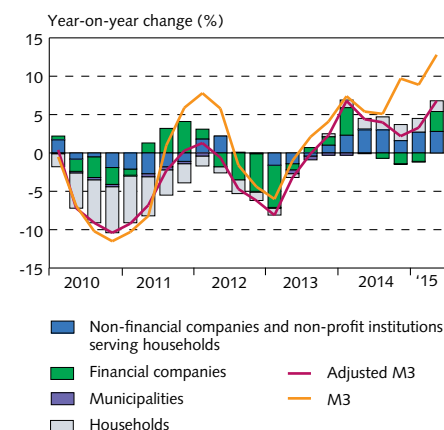
Source: Central Bank of Iceland.

Chart 12  
Central Bank transactions in the Icelandic interbank foreign exchange market 2010-2015



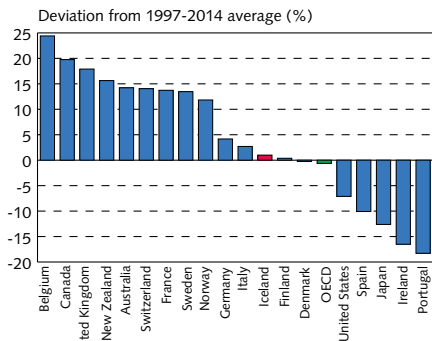
1. Year-2014 GDP used for 2015.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 13  
Components of money holdings - Adjusted M3<sup>1</sup>  
Q1/2010 - Q2/2015



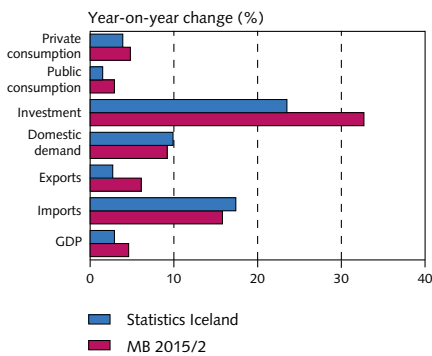
1. Adjusted for deposit taking corporations in winding-up proceedings.  
Source: Central Bank of Iceland.

Chart 14  
Current house price-to-income ratio  
in selected OECD countries



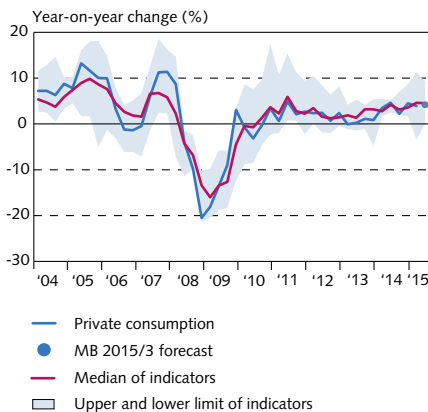
Sources: OECD, Statistics Iceland, Central Bank of Iceland.

Chart 15  
Q1/2015 national accounts  
and Central Bank estimates



Sources: Statistics Iceland, Central Bank of Iceland.

Chart 16  
Indicators of private consumption<sup>1</sup>  
Q1/2004 - Q2/2015



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

- Corporate debt rose marginally in the first quarter of the year, in line with the outlook for increased business investment. The ratio of corporate debt to GDP is still close to its lowest level since 2003, however. Household debt declined by 57 b.kr. during the quarter and debt service fell likewise, mostly due to the Government's debt relief package. At the end of Q1, household debt was equivalent to about 88% of GDP, roughly the same as at year-end 2004.
- Nominal interest rates on non-indexed consumer and residential mortgage loans rose in line with the Central Bank's rate increase in June. Real rates on these loans have fallen slightly, however, in line with the overall decline in real rates, although indexed mortgage rates have remained broadly unchanged.
- The number of firms on the default register continues to fall, but the number of individuals is more or less unchanged since May. The percentage of non-performing household and corporate loans from the HFF and the domestic commercial banks has also remained broadly unchanged.

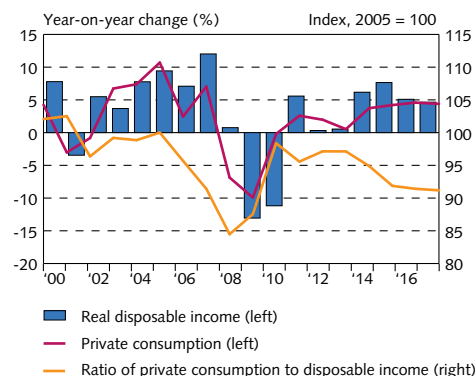
## The domestic real economy

- Statistics Iceland published preliminary national accounts figures for Q1/2015 in June. According to these, GDP grew by 2.9% year-on-year, and domestic demand by nearly 10%, including 6.7% growth in consumption and investment. Concurrent with strong growth in domestic demand, imports grew considerably in excess of exports; therefore, the contribution of net trade to output growth was negative by nearly 7 percentage points during the period.
- According to the preliminary figures from Statistics Iceland, domestic demand growth in Q1 turned out slightly stronger than in the Bank's May forecast. GDP growth was somewhat weaker, however. The difference was due mainly to growth in private consumption and business investment, which turned out weaker than forecast; furthermore, the contribution from net trade was more negative than previously estimated. The latter was due in part to weaker goods exports; however, the contribution from inventory changes was much more positive than previously forecast, owing to increases in marine inventories, which can be assumed to generate increased exports later in the year. In addition, imports were stronger than projected.
- Private consumption grew by nearly 4% year-on-year in Q1, somewhat less than was forecast in May. Key indicators of private consumption suggest a similar growth rate in Q2. In April and especially in May, payment card turnover declined in comparison with previous months, but it rose again in June and July. It may be that uncertainty about wage negotiations and strikes contained household demand early in the quarter. Private consumption is forecast to grow by 4.2% this year, somewhat more than in the

Bank's May forecast, primarily because the recently concluded wage settlements entail larger increases in real disposable year-2015 income than was previously projected. Global oil prices have also declined somewhat in the recent past, which will add to households' purchasing power, other things being equal. Strong growth in private consumption is expected to continue in the next year, owing to the rise in disposable income and net household wealth, the latter of which is due largely to the Government's debt relief measures. The outlook is also for robust private consumption growth in 2017.

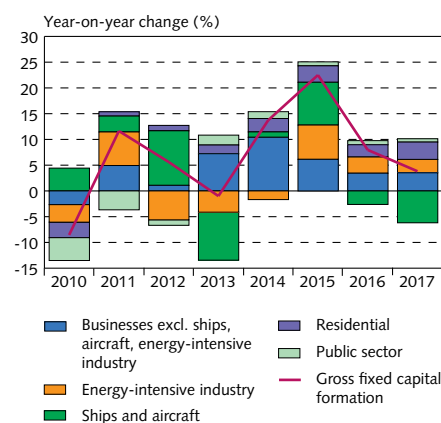
- Nominal growth in public consumption in Q1 was well in line with the Bank's May forecast. Growth in municipalities' wage costs was underestimated, however, and turned out much more than growth in the central government's wage costs, in part due to larger pay increases. On the basis of the national accounts and information from the Treasury's financial report summaries, public consumption is now assumed to grow slightly more this year than in the May forecast, or just over 1.8%. The outlook for public consumption growth in the next two years is broadly unchanged from the May forecast. However, the measures announced by the Government in connection with wage settlements will increase other Treasury expenditures and reduce tax revenues and, other things being equal, entail a relaxation of the fiscal stance.
- Investment grew 23.5% year-on-year in Q1/2015, due for the most part to a nearly 36% increase in business investment, whereas public investment grew marginally and residential investment contracted. This is somewhat weaker than was provided for in the Bank's May forecast, due mainly to considerably less energy-intensive investment than had been expected.
- In spite of weaker investment activity in Q1, the outlook for the year as a whole is broadly unchanged from the May forecast. Total investment is projected to grow by almost a fourth and business investment by nearly 30%, due mainly to investment in ships, aircraft, and energy-intensive industry. Business investment is projected to continue growing in 2016, driven by the energy-intensive sector and general business investment. Then, in 2017, it is expected to be more or less unchanged year-on-year, owing to a contraction in investment in ships and aircraft offset by growth in other business investment. Business investment is now expected to be somewhat weaker than was provided for in the Bank's May forecast, in part because of the effects of the steep rise in wage costs during the forecast horizon.
- As in May, exports are expected to grow by nearly 7% year-on-year in 2015, led by services exports. The outlook is for stronger growth in exports of tourism services than previously estimated. The number of foreign visitors to the country has continued to rise more than expected, although growth in transport services is projected to be weaker. The outlook for goods exports is virtually unchanged for 2015 and the following two years, as exports

Chart 17  
Private consumption and real disposable income 2000-2017<sup>1</sup>



1. Central Bank baseline forecast 2015-2017. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 18  
Gross fixed capital formation and contribution of its main components 2010-2017<sup>1</sup>



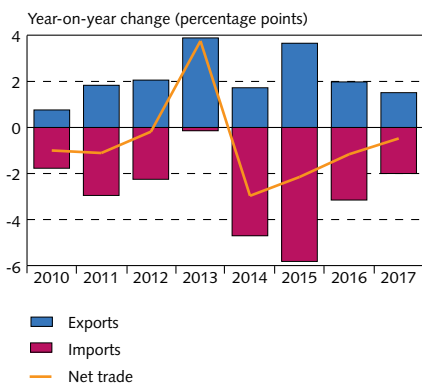
1. Central Bank baseline forecast 2015-2017. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 19  
Exports of goods and services 2008-2017<sup>1</sup>



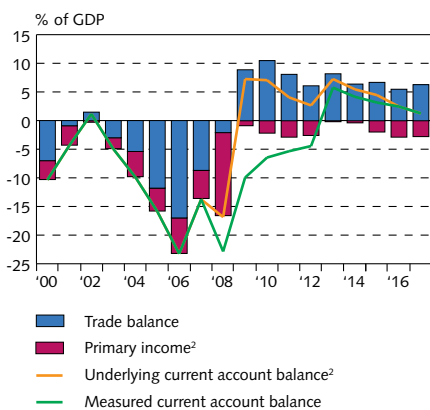
1. Central Bank baseline forecast 2015-2017. Broken lines show forecast from MB 2015/2. Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

Chart 20  
Contribution of net trade to GDP growth 2010-2017<sup>1</sup>



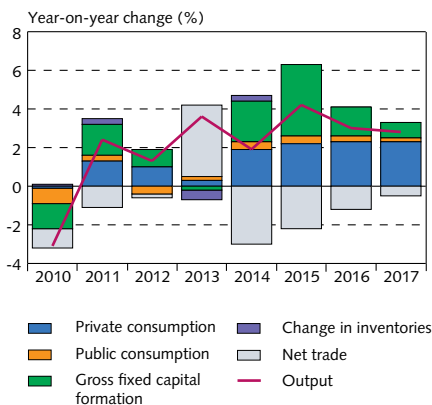
1. Central Bank baseline forecast 2015-2017. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 21  
Current account balance 2000-2017<sup>1</sup>



1. Secondary income is included in the primary income. Central Bank baseline forecast 2015-2017. 2. Excluding the calculated income and expenses of DMBs in winding-up proceedings but including the estimated effects of the settlement of their estates, and excluding the effects of pharmaceuticals company Actavis on primary 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 2010-2017<sup>1</sup>



1. Central Bank baseline forecast 2015-2017. Sources: Statistics Iceland, Central Bank of Iceland.

of marine products and aluminium products look set to remain relatively stable. Effects of the Russian government's recent trade sanctions against Icelandic exports have been taken into account. It is assumed that the frozen pelagic fish sold to Russia in 2014 will be used for meal and oil production, resulting in an 8-10 b.kr. loss of revenue. This is mitigated by the fact that the cost of producing oil and meal is lower than the cost of freezing fish. The impact will probably be less than if the trade embargo had been imposed in 2014, as the economic situation in Russia is worse this year and exports to Russia are considerably reduced in comparison to 2014. On the other hand, it is also uncertain how successful Icelandic firms will be in finding new markets for frozen pelagics. The real exchange rate appears likely to be higher during the forecast horizon than was assumed in the May forecast; therefore, exports of goods and services are projected to grow more slowly in the next two years than was forecast in May, or about 3-3½% per year.

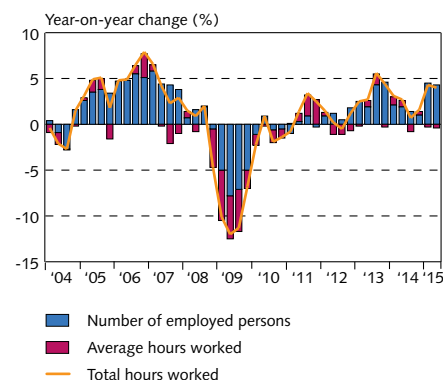
- In spite of robust export growth in 2015, the contribution of net trade to GDP growth will be negative. Goods and services imports are expected to grow by 12½% this year, about 1½ percentage points more than according to the May forecast. It is still assumed that imports will be driven by transport equipment (ships, aircraft, and passenger cars) and consumer goods, in line with robust growth in domestic demand and the continued increase in foreign tourist visits to Iceland. Although import growth is expected to slow down in the next two years, it will remain considerable. Because of this, together with weaker exports, the contribution of net trade to output growth is expected to be somewhat more negative than was forecast in May.
- The outlook is for the surplus on goods and services trade to be just under 7% of GDP this year, broadly in line with the May forecast, with favourable developments in terms of trade offsetting stronger imports. The surplus is expected to diminish in the next two years, to about 4% of GDP by 2017. This is about 2 percentage points less than in the May forecast.
- The outlook for developments in primary income – and therefore the current account – has changed since the authorities announced the capital account liberalisation strategy in June. According to the baseline forecast in this *Monetary Bulletin*, it is assumed that the composition agreements of the three largest failed financial institutions will be broadly in line with the letter from creditors to the authorities, which was presented at the same time as the strategy, and that the estates will be wound up in early 2016. This means that, relative to GDP, Iceland's underlying net external debt position will be about 15 percentage points more favourable and as a result, the current account balance will be nearly 1 percentage point of GDP more favourable throughout the forecast horizon. It will be offset by the weaker trade account balance, however. The underlying current account balance is expected to be positive by 4½% this year, about twice the surplus forecast in May. As soon as the failed banks' estates are settled in



early 2016 and the settlements' effects appear in the underlying current account balance, however, it is assumed that the underlying surplus will diminish year-on-year. It is expected to measure nearly 1½% of GDP in 2017, about ½ a percentage point less than was forecast in May.

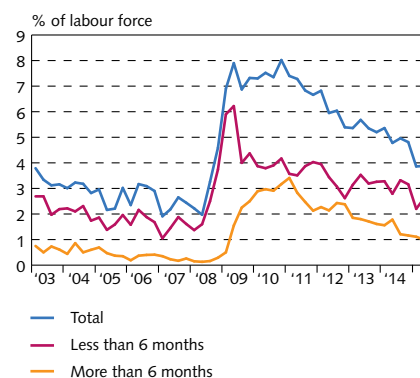
- The outlook for GDP growth in 2015 is poorer than was forecast in May, owing to a weaker contribution from net trade. In spite of this, GDP growth is forecast at 4.2%, and if the forecast materialises, it will be the strongest growth rate seen since 2007. Domestic demand is projected to grow by nearly 7%. For the next two years it is forecast at 3% per year, with increased domestic demand and a negative contribution from net trade pulling in opposite directions, although growth in domestic demand will lose pace somewhat because of weaker investment growth. If the forecast materialises, GDP growth will average around 3½% per year during the forecast horizon, nearly ⅔ of a percentage point above the thirty-year average and considerably in excess of the estimates for Iceland's main trading partners over the same period. The GDP growth projection is about ½ a percentage point below the May forecast, however, owing in part to the effects of the strong increase in wage costs from the recent wage settlements and the tighter monetary stance accompanying it (see Chapter I of *Monetary Bulletin 2015/2*).
- Labour demand was broadly in line with the May forecast in Q2. According to the Statistics Iceland labour force survey (LFS), total hours worked rose by 3.9% year-on-year during the quarter, while the forecast assumed an increase of 4.3%. The deviation is due entirely to developments in average hours worked, which declined by 0.4% year-on-year, whereas the forecast had provided for a 1% increase. The increase in the number of employed persons was a percentage point more than forecast, however. The reduction in working hours is due entirely to shorter hours among the youngest worker group. All other measures of labour supply and demand suggest a continued strong recovery.
- Net migration was positive in Q2/2015, due almost entirely to an increase in foreign nationals, as has been the case for the past two years.
- Seasonally adjusted LFS unemployment was virtually unchanged between quarters but declined by 0.8 percentage points year-on-year. It measured 3.9%, somewhat more than was assumed in the Bank's May forecast. During this quarter, there is always a group of people (mainly students) who are registered as unemployed but have found a job and will begin work within three months. The unemployment rate excluding this group was 3.6%. Figures on unemployment by duration show that long-term unemployment continues to decline. The percentage of those who had been unemployed for more than six months was 1% in Q2, down from 1.7% in the same quarter of 2014.
- The Capacent Gallup survey carried out in May and June among Iceland's 400 largest firms indicates that labour demand could

Chart 23  
Changes in employment and hours worked  
Q1/2004 - Q2/2015



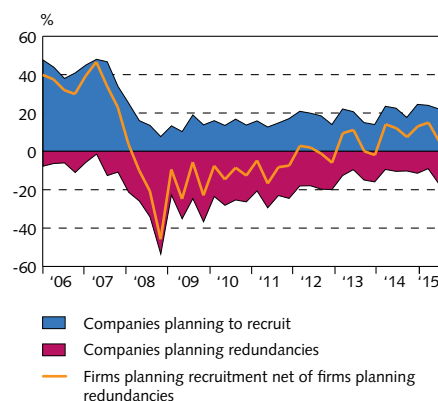
Source: Statistics Iceland.

Chart 24  
Unemployment by duration<sup>1</sup>  
Q1/2003 - Q2/2015



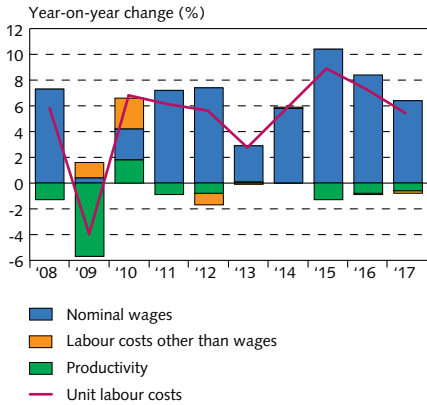
1. Seasonally adjusted.  
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 25  
Companies planning to change staffing levels within 6 months



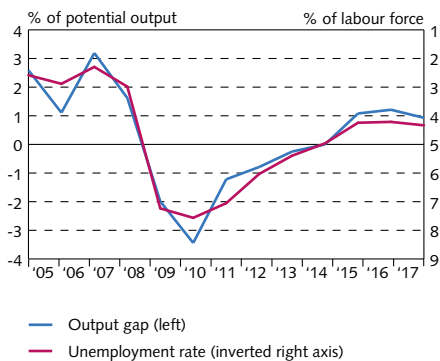
Source: Gallup.

Chart 26  
Unit labour costs and contributions of underlying components 2008-2017<sup>1</sup>



1. Labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2015-2017. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 27  
Output gap and unemployment 2005-2017<sup>1</sup>



1. Central Bank baseline forecast 2015-2017. Sources: Statistics Iceland, Central Bank of Iceland.

increase, albeit more slowly than in the recent past. According to the survey, the share of firms interested in recruiting exceeded those planning redundancies by 5 percentage points. This is a somewhat smaller percentage than in the last survey and the comparable survey conducted a year ago. The reason for the fluctuation is that more firms are now interested in downsizing than in the last survey, which could be an indication of employers' response to the large pay increases negotiated in the recent wage settlements.

- The same survey indicates that just under 20% of firms report some indications of labour shortage. After adjusting for seasonality, the number of respondents in this category has increased steadily since Q3/2013.
- Wage agreements were reached with nearly all private sector employees in late May and June. The pay increases provided for are more than a third larger than was projected in the May forecast. For example, nominal wages are expected to rise by an average of 8½% per year throughout the term of the contract, which extends until end-2018, whereas the May forecast assumed a pay rise of just under 5½%. The contracts are heavily front-loaded, and wages will increase by an average of roughly 10½% year-on-year in 2015. The ruling of the arbitration panel had not been released at the time the forecast was prepared, but it is clear that the pay increases provided for will be larger than those in recent private sector wage settlements. The forecast was based on the assumption that the pay rises negotiated with public sector employees would be similar to those for comparable groups in the private sector, and that the increase would be retroactive to the beginning of May. This could well turn out to be an underestimation, given the arbitration panel results.
- As in the May forecast, it is assumed that productivity growth will resume this year, after having remained flat for two years. It is forecast at nearly 1½% in 2015, almost ½ a percentage point more than in the May forecast, indicating that domestic firms are to some extent responding to steep wage increases by streamlining internally. As in the May forecast, productivity growth is projected at 1% per year in 2016 and 2017. Pay rises will therefore be well in excess of productivity growth, and unit labour costs will increase sharply. They are projected to increase by some 9% this year, about 3 percentage points more than in the May forecast. The increase in the coming two years is substantial as well, at 7½% in 2016 and 5½% in 2017. The average rise in unit labour costs is therefore about 7⅓% per year during the forecast horizon, as opposed to 4¼% in the May forecast.
- This radically changed outlook for wage developments also affects the outlook for labour demand (see the discussion of the alternative scenario in *Monetary Bulletin 2015/2*). As before, it is assumed that the slack in the labour market has been fully absorbed or is about to disappear, but the recovery is now expected to be weaker than in the May forecast. Total hours work will increase more slowly, and the employment rate will be

lower than was projected in May. Unemployment will also decline more slowly, falling to 4½% by 2017, about ½ a percentage point higher than in the May forecast.

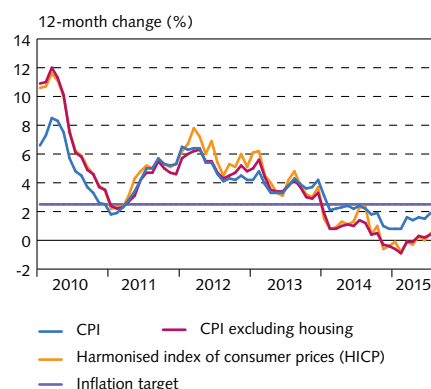
- As in the May issue of *Monetary Bulletin*, the margin of spare capacity that developed in the economy following the financial crisis is assumed to have been absorbed last year, and a positive output gap is expected to develop this year, peaking at just over 1% of potential output early in 2016. The output gap is assumed to have been somewhat smaller in H1/2015 than was forecast in May, but the assessment for the next two years is broadly unchanged. As in May, it is assumed that the output gap will have closed again by the end of the forecast horizon, and unemployment will be close to its equilibrium level.

## Inflation

- Inflation has increased since the publication of the last *Monetary Bulletin* but is still below the Central Bank's inflation target. In Q2/2015, it measured 1.5%, some 0.2 percentage points below the May forecast. Increases in private services prices, particularly seasonal items related to travel and tourism, had the strongest impact on the CPI during the quarter. The increase in petrol prices had some effect as well. However, house prices were expected to rise more during the quarter than they in fact did. Data on house prices during the period did not give a fully accurate indication of actual developments, however, because of data collection problems.<sup>3</sup> As a result, inflation was probably underestimated during the second quarter and some of these price increases have yet to show in measured inflation figures in the next few months.
- The CPI rose 0.16% month-on-month in July, after rising by just under 0.3% in both May and June. This is the first rise in the CPI in the month of July since 2011. Summer sales contributed to a decline of just over 0.5 percentage points in the index during the month, but this was outweighed by a jump in airfares and rising house prices. Twelve-month inflation measured 1.9% in July and had increased by ½ a percentage point since just before the last *Monetary Bulletin* was published. It is still due in large part to the increase in house prices, as inflation excluding the housing component measured only 0.4% in July. The slowdown in imported inflation has eased in the recent past, due in particular to increased imported food prices. Imported goods prices as a whole declined by nearly 3% over the preceding twelve months.
- Underlying inflation has also increased in recent months. 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% in July, as opposed to 1.6% just before publication of the last *Monetary Bulletin*. Statistical

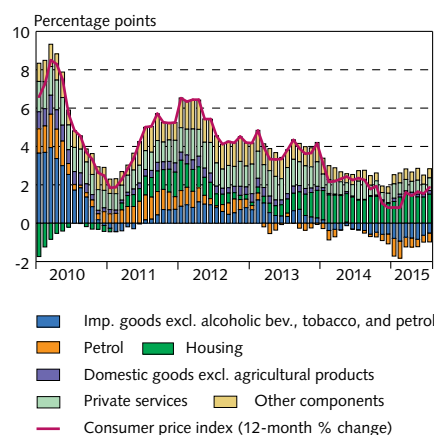
3. Because lawyers at the Commissioners' offices in the greater Reykjavik area were on strike, no house purchase agreements were registered during the period from 7 April through 14 June 2015.

Chart 28  
Various measures of inflation  
January 2010 - July 2015



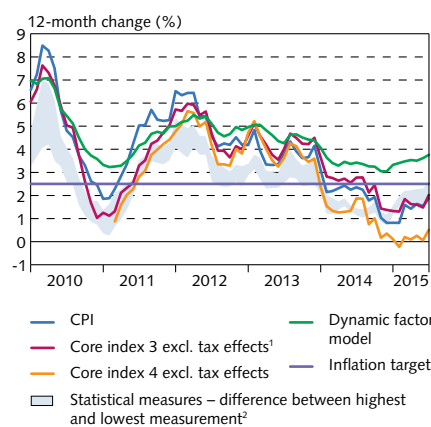
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 29  
Components of CPI inflation  
Contribution to inflation January 2010 - July 2015



Source: Statistics Iceland.

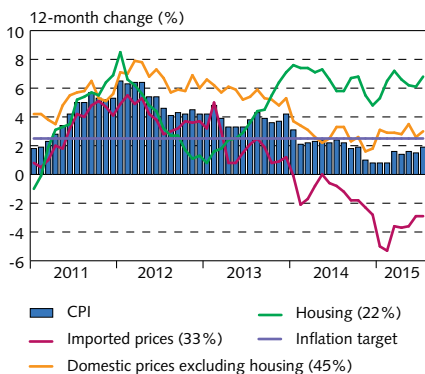
Chart 30  
Various measures of underlying inflation  
January 2010 - July 2015



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

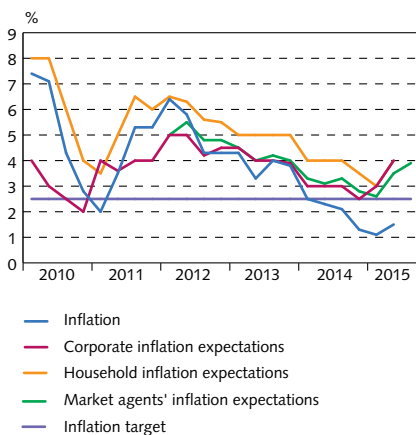
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 31  
Imported and domestic inflation<sup>1</sup>  
January 2011 - July 2015



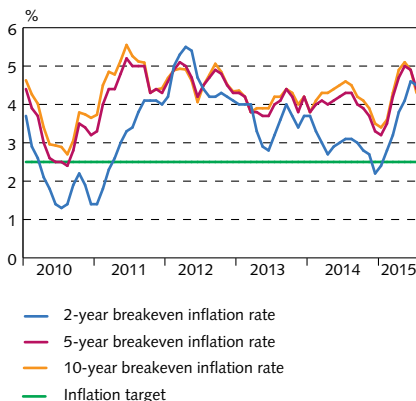
1. Imported inflation is estimated using imported food and beverages and the price of new motor vehicles and spare parts, petrol, and other imported goods. Domestic inflation is estimated using the price of domestic goods and the price of private and public services. The figures in parentheses show the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

Chart 32  
Inflation and inflation expectations  
one year ahead  
Q1/2010 - Q3/2015



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

Chart 33  
Breakeven inflation rate<sup>1</sup>  
January 2010 - July 2015



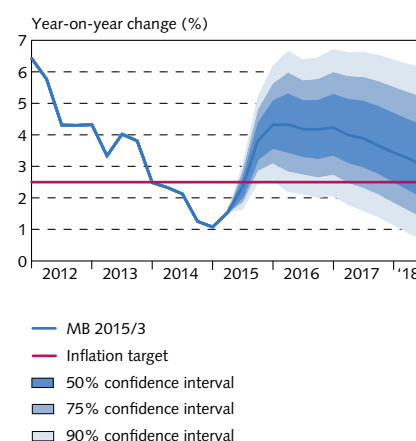
1. Forward breakeven inflation rate based on nominal and indexed yield curves (monthly averages). The breakeven rate indicates the expected annual inflation rate in two, five, and ten years.  
Source: Central Bank of Iceland.

measures of underlying inflation suggest that it lies in the 1.9-3.8% range and has increased by 0.3 percentage points, on average, since April.

- Households' and businesses' short-term inflation expectations have risen since the last *Monetary Bulletin*. According to surveys carried out in May and June, both households and corporate executives expected inflation to measure 4% in the next twelve months, an increase of 1 percentage point since March. Corporate inflation expectations have not been this high since the second half of 2013.
- According to the survey conducted by the Central Bank in mid-August, right before the publication of this *Monetary Bulletin*, market agents expected inflation to measure just under 4% in one year's time. This is about ½ a percentage point more than in the May survey. Their inflation expectations two years ahead also rose by ½ a percentage point, to 3.5%. The same is true of market agents' long-term inflation expectations: Survey respondents indicated that they expected inflation to average 3.5% over the next five years. The long-term breakeven inflation rate in the bond market has declined since the last *Monetary Bulletin*, however. On average, the breakeven rate five and ten years ahead measured 4½% in July, down by 0.6-0.8 percentage points from May. As is discussed above, this decline probably reflects to some extent non-residents' appetite for nominal Treasury bonds rather than a reduction in residents' inflation expectations.
- Because of the recent wage agreements, the inflation outlook has deteriorated markedly since the last *Monetary Bulletin*. Unit labour costs will increase significantly because of the contracts, at a time when the spare capacity in the economy has disappeared and a positive output gap is developing. At the same time, relatively strong base effects will make an impact on measured inflation when the steep decline in oil prices in H2/2014 begins to drop out of measurements.
- Inflation is assumed to align with the target in the third quarter of 2015, rise to 3.8% in Q4, and then peak in mid-2016 at around 4½%, about 1½ percentage points higher than in the May forecast. The outlook is for inflation to lie in the 4-4½% range over the next two years and not begin to taper off until H2/2017. According to the forecast, it will measure 3% at the end of the forecast horizon, nearly ½ a percentage point more than in the May forecast.
- The effects of the wage settlements on inflation are less pronounced, however, than in the alternative scenario described in the May *Monetary Bulletin*, as the pay rises agreed upon were somewhat smaller than was provided for in that scenario. Furthermore, the baseline forecast in this *Monetary Bulletin* assumes that the ISK exchange rate will remain unchanged over the forecast horizon, while in the alternative scenario the króna depreciated because of increased domestic inflationary pressures. Moreover, global oil and commodity prices have fallen significantly since May, offsetting the effects of the wage increases on inflation.

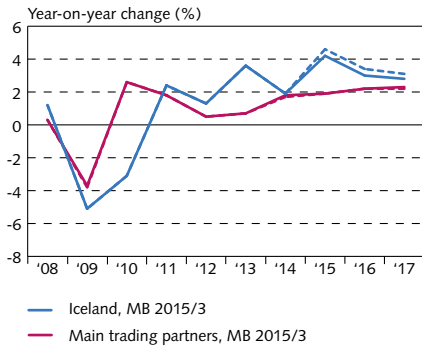
- In some respects, the uncertainty about the near-term inflation outlook is greater than often before, as large economic shocks have materialised which could cause inflation either to accelerate or to lose pace. Their durability is uncertain in some instances, however, as is their ultimate impact on inflation. Among them are the large pay increases in the recent wage settlements, developments in global oil and commodity prices, the effects of weaker output growth and the recent currency depreciation in China on global inflation, and capital inflows following the announcement of important steps in capital account liberalisation and the upgrade in the Treasury and the banks' credit ratings.
- Inflationary pressures could be underestimated in the baseline forecast, and inflation could prove more persistent than is assumed here if large wage increases manage to de-anchor inflation expectations still further. In addition, the inflationary effects of the wage increases could be underestimated – for instance, if firms pass cost increases through to prices more than is assumed in the forecast, or if the effects of the contracts on private consumption and demand are underestimated. In addition, strong growth in domestic demand and an increased output gap could be reflected in larger increases in house prices than is assumed in the baseline forecast.
- On the other hand, inflation could turn out lower than is assumed in the forecast; for instance, if operational streamlining and productivity growth increase in the wake of the wage settlements, or if the króna is stronger and the monetary stance tighter. The employment level would then be lower. Furthermore, there could be a continuation of the recent decline in oil and commodity prices and other global deflationary tendencies, which stem from reduced demand and a weaker currency in China and related emerging economies. By the same token, growth in domestic demand could be overestimated in the forecast – for instance, due to a weaker-than-expected global economic recovery. The exchange rate outlook over the forecast horizon as a whole is highly uncertain. It appears relatively likely that the króna will be stronger in the near term, but this could change further ahead if the current account surplus diminishes still further and capital inflows are reduced as a result.
- On the whole, it seems that risks to the inflation outlook are skewed to the upside, but to a lesser degree than was assumed in the Bank's May forecast, as the risk of sizeable pay increases has largely materialised. Chart 34 illustrates the inflation outlook according to the baseline forecast together with the confidence intervals for the forecast; i.e., the range in which there is considered to be a 50-90% probability that inflation will lie over the next three years (the methodology is described in Appendix 3 in *Monetary Bulletin* 2005/1). There is a roughly 50% probability that inflation will be in the 3 $\frac{1}{3}$ -5% range in one year and in the 2-4 $\frac{1}{3}$ % range by the end of the forecast horizon.

Chart 34  
Inflation forecast and confidence intervals  
Q1/2012 - Q3/2018



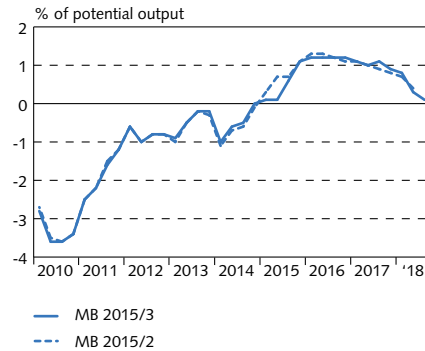
Sources: Statistics Iceland, Central Bank of Iceland.

**Chart 35**  
GDP growth in Iceland and trading partners  
2008-2017<sup>1</sup>



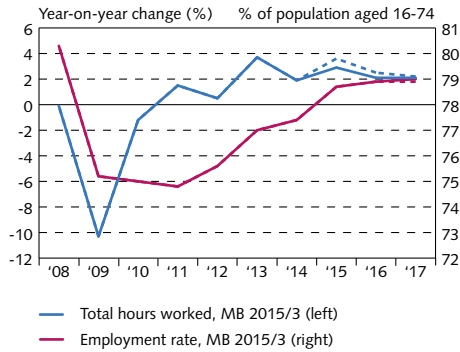
1. Central Bank baseline forecast 2015-2017. Broken lines show forecast from MB 2015/2.  
Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

**Chart 36**  
Output gap<sup>1</sup>  
Q1/2010 - Q3/2018



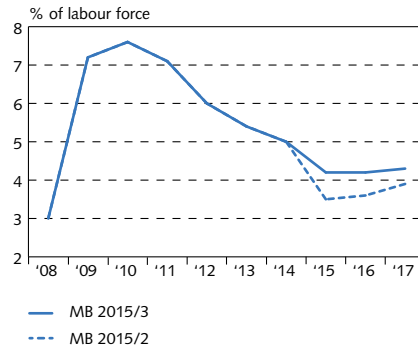
1. Central Bank baseline forecast Q2/2015-Q3/2018.  
Source: Central Bank of Iceland.

**Chart 37**  
Total hours worked and employment rate  
2008-2017<sup>1</sup>



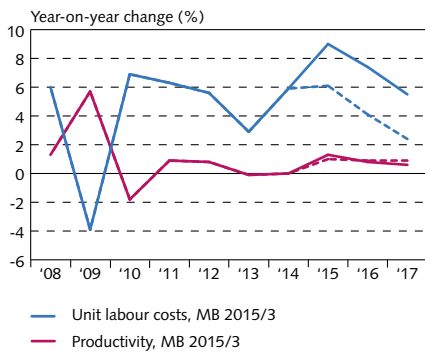
1. Central Bank baseline forecast 2015-2017. Broken lines show forecast from MB 2015/2.  
Sources: Statistics Iceland, Central Bank of Iceland.

**Chart 38**  
Unemployment 2008-2017<sup>1</sup>



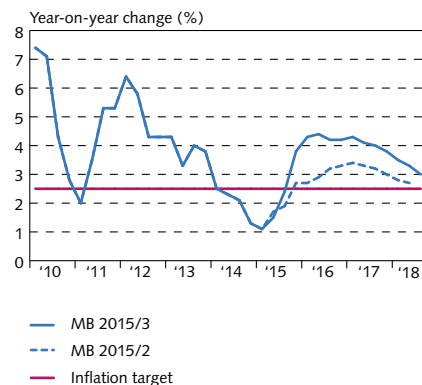
1. Central Bank baseline forecast 2015-2017.  
Sources: Statistics Iceland, Central Bank of Iceland.

**Chart 39**  
Unit labour costs and productivity 2008-2017<sup>1</sup>



1. Productivity measured as the ratio of GDP to total hours worked. Central Bank baseline forecast 2015-2017. Broken lines show forecast from MB 2015/2.  
Sources: Statistics Iceland, Central Bank of Iceland.

**Chart 40**  
Inflation<sup>1</sup>  
Q1/2010 - Q3/2018



1. Central Bank baseline forecast Q3/2015 - Q3/2018.  
Sources: Statistics Iceland, Central Bank of Iceland.