

GDP growth to ease but remain robust¹

GDP growth has picked up among Iceland's main trading partners over the course of the year, and optimism about the global economic outlook has increased. External conditions for the Icelandic economy continue to be favourable, and terms of trade are expected to improve more in 2017 than previously forecast. Exports are projected to grow as well, although the outlook is for somewhat weaker growth this year and over the forecast horizon as a whole than was assumed in the May issue of *Monetary Bulletin*. Favourable external conditions have increased national income and strengthened domestic balance sheets. Domestic demand has grown rapidly, and GDP growth has been strong, measuring 7.2% in 2016 and set to remain robust this year. It is projected to measure 5.2% for 2017 as a whole, about 1 percentage point less than was forecast in May, primarily because of less favourable developments in external trade. As in the Bank's previous forecasts, GDP growth is expected to ease still further in the next two years as it approaches its long-term trend rate.

Job creation has been strong alongside rapid growth in economic activity. Nearly half of firms have had difficulty filling available positions, and an increasing number are operating at full capacity. To a significant extent, strong demand for labour has been met with imported labour, and foreign nationals contributed more to population growth in H1/2017 than in all of 2016. Unemployment continues to fall, measuring 2.5% in Q2 after adjusting for seasonality, the lowest unemployment rate since Q2/2008.

Inflation measured 1.7% in Q2, slightly below the May forecast. It rose marginally in July, to 1.8%, although most measures of underlying inflation continued to decline. Medium- and long-term inflation expectations are at target, however. The inflation outlook is broadly unchanged since May. Inflation is expected to measure 2% in the latter half of this year and rise to the target by mid-2018. As in the Bank's previous forecasts, the inflation outlook reflects the offsetting effects of the appreciation of the króna and increased demand pressures. The effects of both factors have eased somewhat in comparison with what was expected in May, but next year the effects of an exchange rate below the May forecast will weigh more heavily, and inflation is therefore expected to be somewhat higher. Inflation is projected to peak at just over 3% late in 2018 and then begin to subside to the target.

1. The analysis appearing here is based in large part on the Bank's assessment of economic developments, published in May 2017 in *Monetary Bulletin* 2017/2, and on the updated forecast presented here. It is based on data available in mid-August.

The global economy and terms of trade

- GDP growth among Iceland's main trading partners averaged 2.1% in H1/2017, somewhat more than was assumed in the Bank's May forecast. It was stronger than expected in the euro area, measuring 2.1%, the highest annual growth rate since 2011. This increased strength in the eurozone primarily reflects growth in domestic demand, private consumption and business investment in particular. Growth outpaced projections in Japan and the Nordic countries as well, especially in Norway, but also in Sweden, where investment activity and a positive contribution from inventory changes were unexpectedly favourable. In the UK, GDP growth was below expectations, however. Private consumption growth has eased, with declining real incomes following the depreciation of the pound sterling and increased inflation. GDP growth was also somewhat below expectations in the US, largely because of temporary factors that are expected to reverse as the year progresses.
- Indications from orders and firms' production plans suggest that the economic recovery in trading partner countries will continue. In addition, households and businesses are optimistic about the economic outlook, particularly in the euro area and the US. The increased importance of business investment to leading industrialised countries' GDP growth should also support economic activity further ahead. Developments in output growth year-to-date and indicators for the remainder of the year suggest that GDP growth in the eurozone will measure 2%, compared to 1.7% in the May forecast. Because of this and the improved outlook for the Nordic region, the forecast for year-2017 output growth among trading partners has been revised upwards by 0.2 percentage points since May, to 2.1%. GDP growth forecasts for the next two years have also been revised slightly upwards, to 2% per year. The prospect of stronger output growth and increased investment spending mean that trading partner imports are expected to grow somewhat more rapidly this year and throughout the forecast horizon than was forecast in May.
- Contrary to forecasts, Q2 inflation in Iceland's main trading partners subsided between quarters to an average of 1.7%. The decline in inflation appeared particularly rapid in the US, which was affected by a slower rise in oil prices, a steep decline in the price of telephone services, and the fact that last year's surge in pharmaceuticals prices dropped out of the year-on-year inflation numbers. Eurozone inflation also eased but at a slower pace than in the US. Inflation has picked up in the UK, however, measuring 2.6% in July. Underlying inflation is low in most advanced economies and wage increases small, in spite of improving labour market conditions. Among Iceland's trading partners, inflation is projected to average 1.7% this year and then rise to 1.9% in 2019.

Chart 1
GDP forecasts for 2017 and 2018

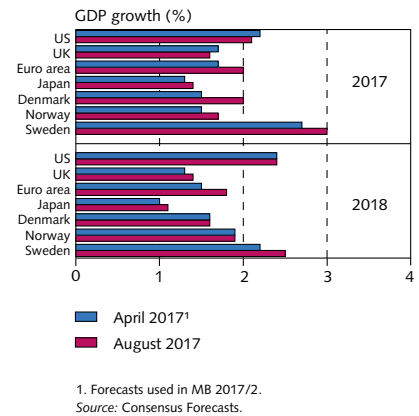
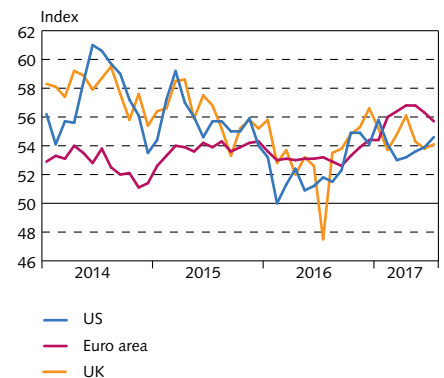
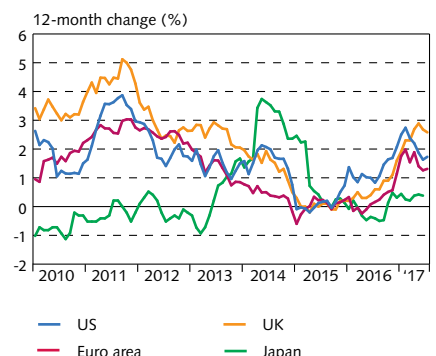


Chart 2
Leading indicators of GDP growth¹
January 2014 - July 2017



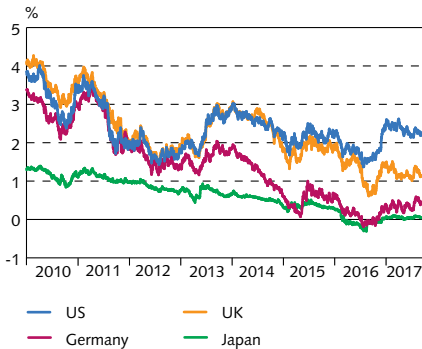
1. Markit composite purchasing managers' index (PMI). The index is published monthly and is seasonally adjusted. An index value above 50 indicates month-on-month growth, and a value below 50 indicates a contraction.
Source: Bloomberg.

Chart 3
Inflation in selected industrialised countries
January 2010 - July 2017



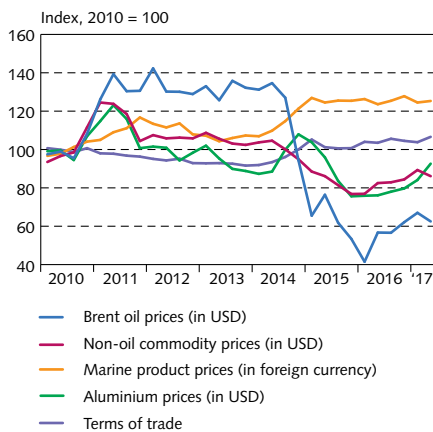
Source: Macrobond.

Chart 4
10-year government bond yields in selected industrialised countries
1 January 2010 - 18 August 2017



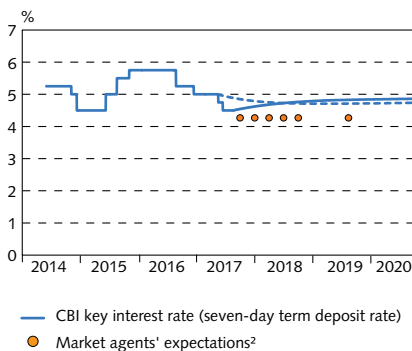
Source: Macrobond.

Chart 5
Commodity prices and terms of trade¹
Q1/2010 - Q2/2017



1. Foreign currency prices of marine products are calculated by dividing marine product prices in Icelandic krónur by the trade-weighted exchange rate index. USD prices of aluminium products are calculated by dividing aluminium prices in Icelandic krónur by the exchange rate of the USD. Terms of trade in Q2/2017 are based on the MB 2017/3 baseline forecast. Sources: IMF, Statistics Iceland, Central Bank of Iceland.

Chart 6
Central Bank of Iceland key interest rate and expected developments¹
Daily data 1 June 2014 - 30 September 2020



1. The Central Bank's key interest rate and Treasury bond yields were used to estimate the yield curve. Broken lines show forward market interest rates prior to MB 2017/2. 2. Estimated from the median response in the Central Bank's survey of market agents' expectations concerning the collateralised lending rate. The survey was carried out during the period 9-11 August 2017. Source: Central Bank of Iceland.

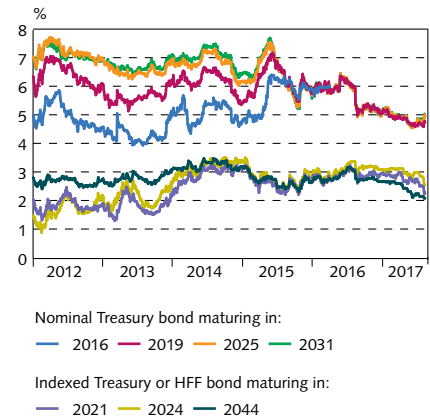
- The US Federal Reserve Bank raised interest rates by 0.25 percentage points in June, the third rate hike since December 2016, bringing the rate range to 1-1.25%. The bank also announced its intention to scale back its bond purchases in the coming term. The Bank of Canada also raised interest rates in July, but the monetary stance is unchanged in other advanced economies. Forward rates suggest that investors expect a slow rise in industrialised economies' interest rates in the next few years. Long-term rates in the US have risen by ½-1 percentage points from the trough a year ago. The spread between long-term rates in the US and the euro area has narrowed, however, as the economic outlook in Europe has improved. The same is true of the UK, where long-term interest rates have risen somewhat, in line with rising inflation.
- Oil prices fell to 44 US dollars per barrel at the end of June, the lowest since last November. Although demand for oil has risen in line with the global economic recovery, it has been outpaced by supply, particularly in the US. The outlook is for a smaller rise this year than was forecast in May. The same is true of other commodity prices, which have fallen slightly since May. The decline was driven by a drop in metals prices, owing primarily to falling demand in China. Even though metals prices have weakened in the recent past, aluminium prices have held stable, and it appears that domestic producers' prices rose in excess of global prices in Q2. Furthermore, the outlook is for a larger rise in marine product prices than was assumed in May. With higher export goods prices and lower import prices, terms of trade are expected to improve by a full 2% this year, as opposed to the 1% provided for in the May forecast. As in May, terms of trade are expected to remain broadly flat over the coming two years.
- Over the first seven months of 2017, the real exchange rate of the króna rose by about 19% year-on-year in terms of relative consumer prices and is now nearly a fourth above its twenty-five year average. The real exchange rate in terms of relative prices is expected to rise by almost 12% this year. In terms of relative unit labour costs, this year's increase is projected to be even larger, at 17%, and the real exchange rate a full one-third above its historical average.

Monetary policy and domestic financial markets

- The Central Bank's Monetary Policy Committee (MPC) decided to lower the bank's interest rates by 0.25 percentage points in May and by another 0.25 percentage points in June. Prior to the publication of this *Monetary Bulletin*, the Bank's key interest rate – the rate on seven-day term deposits – was therefore 4.5%, down from 5.75% in August 2016. The Bank's real rate has fallen by 0.4 percentage points since the *May Monetary Bulletin*. It is now 2.3% in terms of the average of various measures of inflation and one-year inflation expectations and 2.7% in terms of current twelve-month inflation.

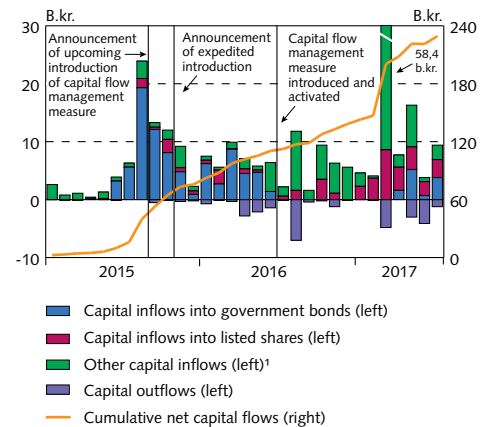
- According to the Central Bank's mid-August survey, market agents expect the Bank's key rate to be lowered by a further 0.25 percentage points this quarter and then remain unchanged at 4.25% for the rest of the forecast horizon. Forward rates are slightly higher, however, and remain broadly flat throughout the forecast horizon.
- Bond market yields have fallen in line with the reduction in the Central Bank's key rate. Nominal Treasury bond yields fell by 0.2 percentage points in the wake of the Bank's rate cut in May and by almost 0.1 percentage point after the rate cut in June. The decline reversed in part, however, in July. Yields on indexed Treasury and Housing Financing Fund bonds have fallen as well and are up to 0.4 percentage points lower than before the publication of the May *Monetary Bulletin*. For the most part, the decline in the key rate has been transmitted to financial institutions' deposit and lending rates.
- Capital inflows in connection with new investment in the domestic bond market have continued to increase since April, after having virtually halted with the activation of the Bank's capital flow management measure in June 2016. The amounts are relatively small, however, and inflows in the first seven months of 2017 totalled 11.2 b.kr. Inflows into listed equities have also increased, totalling 28 b.kr. in the first seven months of the year, up from just under 5 b.kr. over the same period in 2016.
- Measures of risk premia on the Republic of Iceland's foreign obligations are broadly unchanged since May, in spite of Fitch Ratings' having recently upgraded the sovereign to A-. Interest premia on the domestic commercial banks' international bond issues have continued to decline, however.
- After a virtually continuous appreciation throughout 2016, the króna began to weaken late in the year and in January 2017. Since then, the exchange rate has risen and fallen by turns in short episodes, and just before the publication of this *Monetary Bulletin* it was 2½% lower in trade-weighted terms than at the beginning of the year and close to 12% below its early June peak. Capital account liberalisation and increased demand for hedging instruments could be a factor. There are also signs of some weakening of export-related currency inflows. Furthermore, outflows relating to new investment and the pension funds' foreign investment have increased since the capital controls were lifted, although they are still relatively small.
- Short-term exchange rate volatility has increased year-to-date, probably due to the liberalisation of capital controls. Market sentiment may also have changed, with fewer market participants expecting further appreciation of the króna. A Central Bank survey carried out recently among market participants shows that, on average, respondents expect an unchanged exchange rate in the coming term instead of a further appreciation, as in previous surveys. Furthermore, the Central Bank has greatly reduced its

Chart 7
Nominal and indexed bond yields
Daily data 2 January 2012 - 18 August 2017



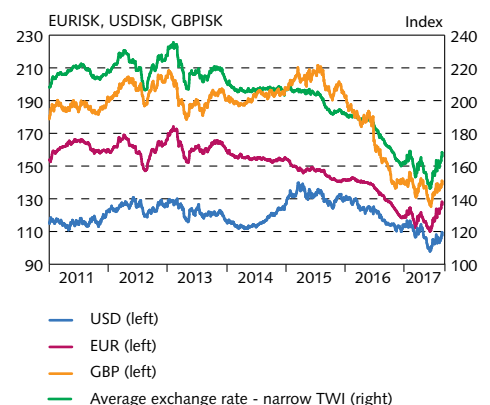
Source: Central Bank of Iceland.

Chart 8
Capital flows due to registered new investments
January 2015 - July 2017



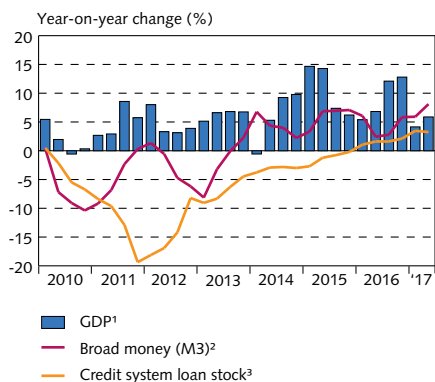
1. Other inflows in March 2017 derive almost entirely from non-residents' acquisition of a holding in a domestic commercial bank.
Source: Central Bank of Iceland.

Chart 9
Exchange rate of foreign currencies against the króna
Daily data 3 January 2011 - 18 August 2017



Source: Central Bank of Iceland.

Chart 10
Money holdings, lending, and nominal demand
Q1/2010 - Q2/2017

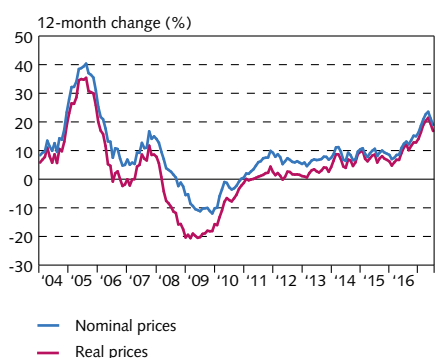


1. Q2/2017 GDP is from the MB 2017/3 baseline forecast.
2. Excluding deposits owned by financial undertakings in winding-up proceedings. 3. Loans to resident entities, excluding the Treasury and financial undertakings in winding-up proceedings. Adjusted for reclassification and for the Government's debt relief measures.
Sources: Statistics Iceland, Central Bank of Iceland.

foreign exchange market activity, as previously announced, and its share in total market turnover year-to-date is only half that in the same period in 2016. In the first seven months of 2017, the Bank bought about 75.2 b.kr. in foreign currency from market makers in the foreign exchange market and sold about 6.4 b.kr., for a net purchase amount of 68.8 b.kr.

- The baseline forecast is based on the technical assumption that the króna will continue appreciating through next year before easing slightly over the remainder of the forecast horizon. The current exchange rate path is slightly lower than the one assumed in the May forecast.
- Annual growth in money holdings has gained pace in the past year and exceeded estimated nominal GDP growth in Q2. M3 adjusted for deposits held by the failed financial institutions grew by 8.1% year-on-year in Q2/2017. As was the case last year, growth in money holdings is due largely to increased household deposits, although corporate deposits also grew between years. At the same time, the stock of credit system loans grew by 3.3%, after adjusting for the Government's debt relief measures. When corrected for the effects of exchange rate movements on the stock of foreign-denominated loans, however, credit growth was somewhat stonger, or 4.2%. As before, credit growth is due to increased lending to households and businesses, with lending to both sectors rising year-on-year by roughly 4% in Q2.
- In July, upon the recommendation of the Financial Stability Council, the Financial Supervisory Authority adopted new rules setting the maximum loan-to-value (LTV) ratio for new mortgage loans at 85% of the market value of the property concerned, or up to 90% of the market value for first-time purchases. These LTV ratios are comparable to those offered in the market in the recent term. The purpose of the rules is to preserve financial stability and strengthen the resilience of loan providers and creditors against possible house price reverses as signs of housing market overheating emerge.
- House prices have risen steeply year-to-date, with the increase peaking in May. In the capital area, prices were up 19% year-on-year in July and rent prices by 12%. The average time-to-sale has lengthened since March, to 2.8 months by July, and the number of purchase agreements finalised in the first seven months of 2017 was down 10.3% year-on-year. The number of flats advertised for sale has also risen in recent months.
- Share prices rose somewhat just before the publication of the May *Monetary Bulletin* but have subsided again. The OMXI8 index is now roughly 8% lower than it was in May. Developments differ, however, according to company type: retail and real estate firms' share prices have fallen more than shares in other companies.
- Household and corporate debt rose slightly in nominal terms in the first quarter of the year. The share of non-performing household loans continues to fall, whereas the share of non-performing

Chart 11
Capital area house prices
January 2004 - July 2017



Sources: Registers Iceland, Statistics Iceland.

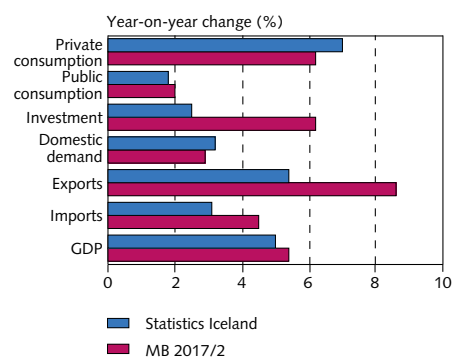
corporate loans rose slightly in Q2. Corporate insolvencies have declined in number year-on-year, although last year's increase could be due to delays in processing caused by the strike among capital area Commissioners' office employees in 2015.

- Overall, private sector financial conditions have therefore continued to improve.

Demand and GDP growth

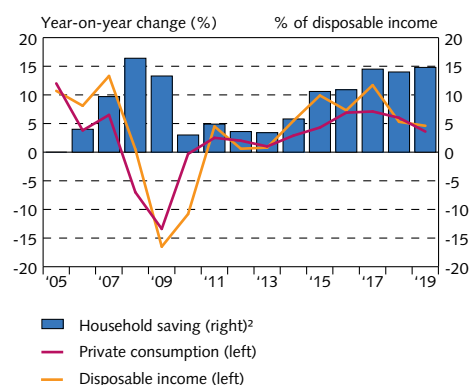
- According to preliminary figures from Statistics Iceland, GDP grew by 5% year-on-year in the first quarter of 2017, 0.4 percentage points below the forecast in the *May Monetary Bulletin*. The deviation is due in large part to weaker-than-projected service exports and residential investment. Even though growth in services exports lost pace, they, together with private consumption, were the main drivers of GDP growth during the quarter. Growth in domestic demand measured 3.2%, whereas growth in public and private consumption and total investment was considerably stronger, totalling 4.7%. The difference is due to a smaller increase in inventories compared to Q1/2016, which to some extent, is due to the fishermen's strike that lasted for most of Q1/2017.
- Private consumption grew by 7% during the quarter, virtually the same as the 6.9% growth rate in 2016, owing mainly to larger increases in real incomes and an improved equity position. Households' real incomes are now expected to grow more strongly in 2017 than was forecast in May. This is due mainly to the revised outlook for developments in the private consumption price index, which is used to deflate private consumption and disposable income. The price index turned out considerably lower in Q1 than had been expected in May. This is one of the main reasons why private consumption is now projected to grow by 7.1%, some 0.5 percentage points above the May forecast. Private consumption growth is expected to ease gradually over the forecast horizon but to exceed GDP growth for the period; therefore, the share of private consumption in GDP will rise from 49% in 2016 to 51% in 2019.
- Following a surge in the recent past, investment growth has slowed markedly – business investment in particular – although it is affected to a degree by fluctuations in investment in ships and aircraft. In the first quarter of 2017, total investment grew by 2.5% year-on-year, reflecting the offsetting impact of a 2% contraction in business investment and a nearly 30% increase in residential investment. Excluding ships and aircraft, total investment increased by nearly 13% year-on-year, however. On the whole, investment growth was weaker than projected, mainly because residential investment was expected to be stronger than Statistics Iceland's figures indicate. This year, investment is projected to grow by 9.2%, slightly more than was forecast in May. In comparison with the May forecast, the current forecast is based

Chart 12
National accounts for Q1/2017



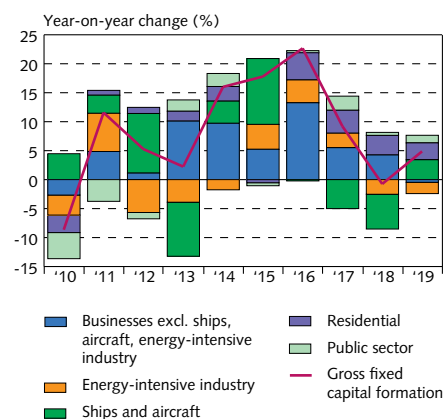
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 13
Private consumption, real disposable income, and household saving 2005-2019¹



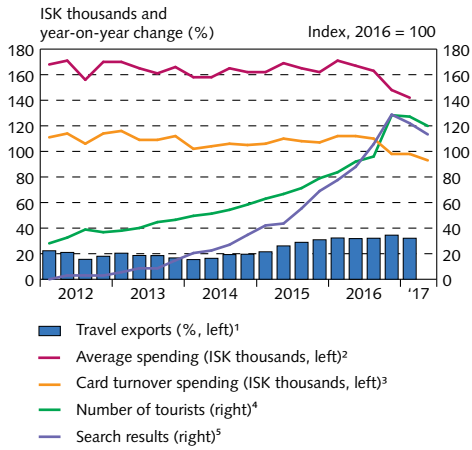
1. Central Bank baseline forecast 2017-2019. 2. There is some uncertainty about Statistics Iceland's figures on households' actual income levels, as disposable income accounts are not based on consolidated income accounts and balance sheets. The saving ratio is calculated based on the Central Bank's disposable income estimates, as Statistics Iceland figures are rescaled to reflect households' estimated expenses over a long period.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 14
Gross fixed capital formation and contribution of main components 2010-2019¹



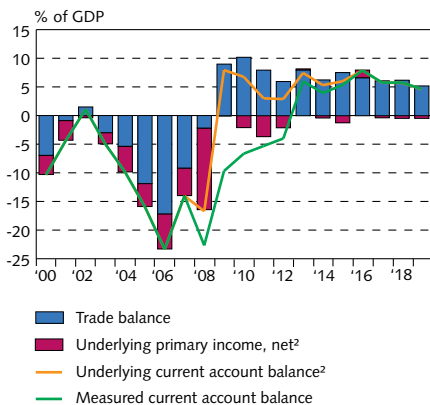
1. Central Bank baseline forecast 2017-2019.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 15
Indicators of tourism sector activity
Q1/2012 - Q2/2017



1. Year-on-year change in the four-quarter moving average of travel exports, at constant prices. 2. Seasonally adjusted average spending per tourist in Iceland, according to services export data. 3. Seasonally adjusted payment card turnover spending per tourist (excluding international airfares and public levies). 4. Seasonally adjusted passenger departures via Keflavik Airport. 5. A principal component model combining the frequency of five different Google search strings relating to travel to Iceland (seasonally adjusted).
Sources: Centre for Retail Studies, Google Trends, ISAVIA, Statistics Iceland, Central Bank of Iceland.

Chart 16
Current account balance 2000-2019¹



1. Including secondary income. Central Bank baseline forecast 2017-2019.
2. Excluding the effect of the failed financial institutions (2008-2015) and the pharmaceuticals company Actavis (2009-2012) on primary income. Also adjusted for the failed financial institutions' financial intermediation services indirectly measured (FISIM).
Sources: Statistics Iceland, Central Bank of Iceland.

on a broadly unchanged estimate of energy-intensive industrial investment, reduced investment in hotels, and increased investment in ships and aircraft. Excluding ships and aircraft, investment will be slightly less than was forecast in May, partly because some of the investment has been postponed until next year. Total investment is forecast to contract slightly in 2018, whereas investment excluding ships and aircraft will grow by just under 6%. As in May, the investment-to-GDP ratio will be in the 20-21% range during the forecast horizon.

- Real growth in public consumption and investment in Q1 was well in line with the Bank's May forecast. The national accounts and information from Treasury finance summaries do not warrant a change in the outlook for public expenditure in comparison with the May forecast.
- Exports of goods and services grew by 5.4% year-on-year in Q1, driven by a more than 19% increase in services exports. Goods exports contracted by 5.3%, however, primarily due to the effects of the fishermen's strike. Various indicators imply that growth in tourism-related services exports has begun to ease. Average spending per tourist has declined since end-2016, and payment card turnover figures indicate that this trend will continue. Furthermore, figures on hotel bed-nights suggest that tourists' stays are shorter than before. Head-counting of foreign tourists leaving Keflavik Airport and the frequency of Google searches related to traveling to Iceland also suggest some easing of growth in tourist visits to Iceland. This may be due in part to the appreciation of the króna, although there could be problems in measuring tourist numbers, which may exaggerate the decline in the average amount spent per tourist.² Services exports were somewhat weaker in Q1 than was projected in the May *Monetary Bulletin*, and indicators suggest that growth in H1 was also weaker than forecast. The outlook for export growth this year has therefore been revised downwards to just under 9%, as opposed to 10½% in the May forecast. A somewhat slower growth rate is also expected in the coming two years.
- Imports have grown rapidly, in line with the surge in domestic demand. In H1/2017, goods imports increased somewhat more than had been forecast in May, owing to strong imports of investment and consumer goods. Imports rose to a single-month record high in May, and the outlook for 2017 as a whole is for stronger imports than had previously been expected. This forecast is based on the surge in imports year-to-date and the prospect of stronger growth in domestic demand than was previously forecast. For 2018, import growth is expected to ease relative to the May

2. The decline in spending per tourist may be due in part to an error in measuring the number of foreign tourist departures, which in turn stems from an increase in the number of transit passengers departing from Keflavik Airport and the rising number of foreign workers in Iceland. Furthermore, figures on travel exports may be revised with the next publication of the national accounts.

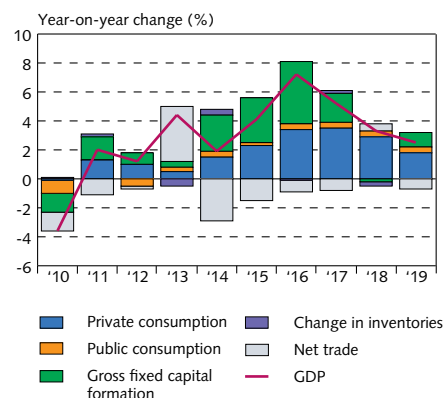
forecast, although the outlook is broadly unchanged for imports excluding ships and aircraft.

- Even though exports will be strong, the contribution of net trade to output growth will be negative in 2017, for the fourth year in a row, but will then be broadly neutral in 2018 and 2019. The surplus on goods and services trade will therefore narrow this year, despite the improvement in terms of trade. The surplus on goods and services trade is forecast to narrow from 6.6% of GDP in 2016 to 6.1% this year. It is expected to remain broadly unchanged in 2018 and then narrow to just over 5% in 2019. Similarly, the current account surplus is forecast to narrow from roughly 8% of GDP in 2016 to just under 6% this year and slightly less than 5% by 2019.
- GDP growth measured 7.2% in 2016 and is projected to ease to 5.2% this year, owing largely to reduced growth in investment spending. The contribution from net trade will be unchanged from last year in spite of somewhat weaker export growth, as imports will also grow more slowly. The growth rate for this year is 1 percentage point below the May forecast, primarily because of a more negative contribution from net trade, which in turn is affected by the prospect of weaker growth in services exports and stronger growth in imports. The outlook for the next two years is broadly unchanged from the May forecast, however, with GDP growth projected at 3.3% in 2018 and 2.5% in 2019.

Labour market and factor utilisation

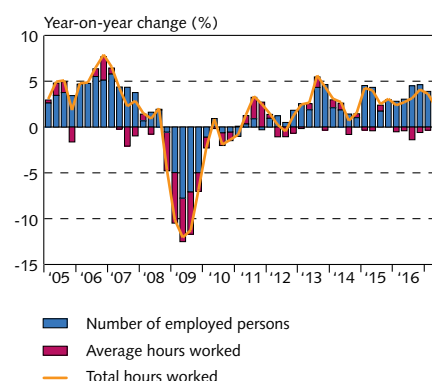
- According to the Statistics Iceland labour force survey (LFS) for Q2/2017, the recent surge in the labour market has eased somewhat. Job creation was up 1.8% year-on-year, and the average work week lengthened slightly after having grown steadily shorter since the beginning of 2016. Total hours worked therefore increased by 2.1%, well below the May forecast. After adjusting for seasonality, the labour participation rate and the employment rate were down quarter-on-quarter from levels at or close to their pre-crisis peak.
- Figures on labour importation and the number of employees on the pay-as-you-earn (PAYE) register suggest that labour demand is growing more strongly, however. Labour migration figures show that in H1/2017, the number of foreign nationals increased by 2.1% of the population aged 20-59 – more than in all of 2016. About ¾ of this year's increase is due to migration in Q2, which was unusually strong. At the same time, the number of persons working for temporary employment agencies rose sharply, and PAYE data show a 4.8% year-on-year increase in the number of wage-earners.
- In spite of significant importation of foreign workers, 41% of firms considered themselves short-staffed, according to seasonally adjusted findings from Gallup's summer survey of Iceland's 400 largest companies. This percentage has held broadly steady

Chart 17
GDP growth and contribution of underlying components 2010-2019¹



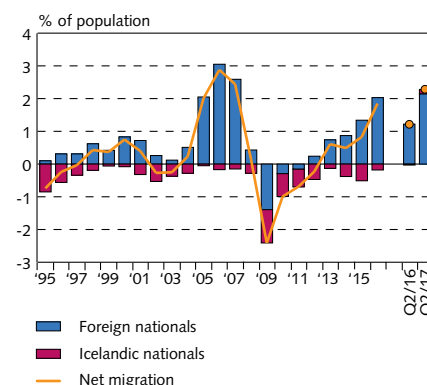
1. Central Bank baseline forecast 2017-2019. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 18
Employment and hours worked¹
Q1/2005 - Q2/2017



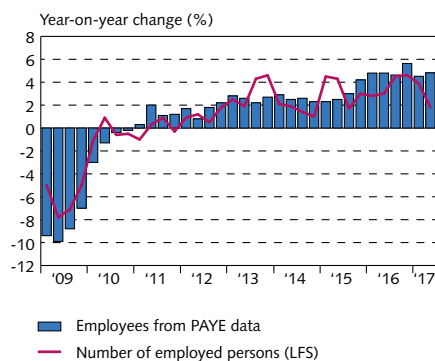
1. Quarterly averages of monthly figures. Source: Statistics Iceland.

Chart 19
Net migration 1995-2017¹



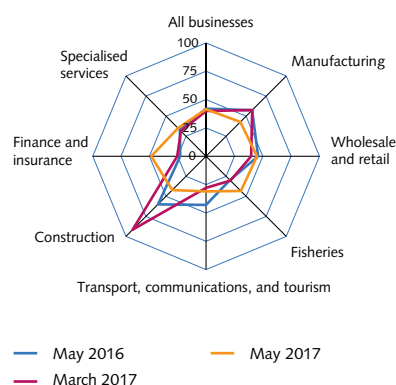
1. Net migration of persons aged 20-59 relative to total population of the same age at the beginning of the year. Annual figures for 1995-2016 and cumulative figures for Q2/2016 and Q2/2017. Source: Statistics Iceland.

Chart 20
Various measures of the number of employed persons¹
Q1/2009 - Q2/2017



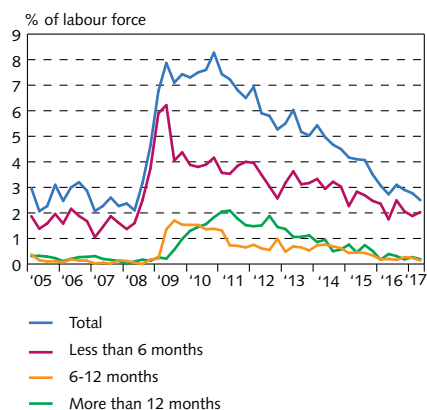
1. Quarterly averages of monthly figures.
Source: Statistics Iceland.

Chart 21
Firms considering themselves short-staffed¹
Share of businesses (%)



1. Seasonally adjusted figures.
Sources: Gallup, Central Bank of Iceland.

Chart 22
Unemployment by duration¹
Q1/2005 - Q2/2017



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

for over a year. The summer survey showed a smaller difference in responses from various sectors than the spring survey did. Strong importation of labour during the quarter probably eased the shortage of workers in the construction industry, as 42% of respondents considered themselves understaffed in the summer survey, down from 93% in the spring survey.

- The findings from Gallup's summer survey suggest that labour demand will remain robust this year. Firms planning to recruit workers in the next six months outnumbered those planning redundancies by about a fourth, which is broadly the same as in the spring survey. The difference across sectors narrowed between surveys, however, primarily due to increased optimism in the fishing industry and a decline in the number of construction firms planning recruitment net of those planning redundancies. This shift in the construction industry is due to a decline in the number of companies planning to add on staff, with labour importation figures suggesting that a significant share of them were able to satisfy their labour needs by using foreign workers.
- As is discussed in the last *Monetary Bulletin*, foreign worker numbers may well be underestimated in official figures and show late or perhaps not at all in the LFS. The divergence between LFS figures, on the one hand, and population growth and PAYE data in Q2, on the other, supports this hypothesis. As in May, it is therefore assumed that the working-age population will grow more rapidly during the forecast horizon than is assumed in Statistics Iceland's population forecast and that labour demand will be stronger than the LFS implies.³
- Unemployment has continued to decline, measuring 2.5% adjusted for seasonality in Q2, according to the LFS. It declined both between quarters and between years, to its lowest since Q2/2008.
- In addition to indications of a persistent shortage of workers, Gallup's summer survey also suggests that a majority of firms would have difficulty responding to an unexpected surge in demand. After adjusting for seasonality, some 54% of firms report that they are operating at or above full capacity, about the same as in the previous survey. The share has risen by 3.4 percentage points year-on-year, however, and is now almost 16 percentage points above its historical average.
- According to official statistics, labour productivity increased by more than 4% in 2016, after an unusually sluggish period in the wake of the financial crisis. As is discussed in Chapter V of *Monetary Bulletin 2017/2*, this robust growth rate is probably overestimated as a result of an underestimation of the number of foreign workers migrating to Iceland in the recent term. Labour

3. It should be noted that because of a shortage of information on importation of temporary labour, it is not a given that official figures will show such a large increase in population or that LFS figures will show such a large increase in hours worked. The Central Bank will use the actual figures once they have been published, however.

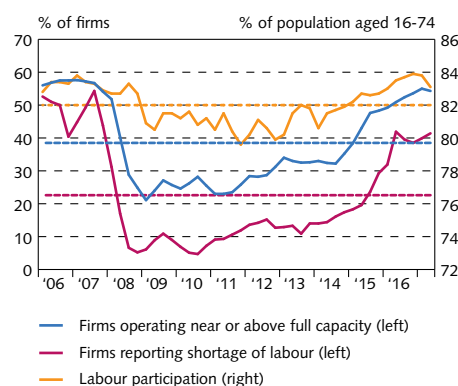
productivity is expected to increase by 1½% this year, roughly ½ a percentage point below the May forecast.

- As was forecast in May, total hours worked are expected to continue rising robustly in 2017, albeit less steeply than in the May forecast, in line with the outlook for weaker GDP growth. Unemployment is projected to decline from an average of 3% in 2016 to 2.7% in 2017, broadly in line with the May forecast. Further ahead, the increase in total hours is expected to ease and unemployment to inch upwards to its estimated equilibrium level. At the same time, the positive output gap that opened up early in 2015 is expected to close. The output gap is projected at just under 3% of potential output this year, which is about the same as in 2016 but slightly less than was forecast in May.

Inflation

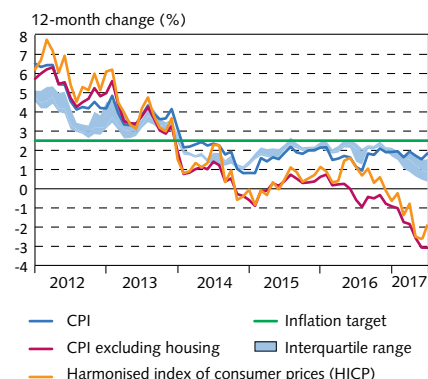
- Inflation measured 1.7% in Q2/2017, 0.2 percentage points below the May forecast. It has been at or below the Central Bank's inflation target for three-and-a-half years running. In July it measured 1.8%, broadly similar to the level before the publication of the May *Monetary Bulletin*.
- Excluding housing, inflation was much lower. In July, the consumer price index excluding housing declined 3.1% year-on-year, the largest twelve-month drop since 1959. At the same time, the harmonised index of consumer prices fell by 1.9%.
- Statistical measures of underlying inflation have fallen since the last *Monetary Bulletin*, with most of them lying in the ½-1½% range in July. Twelve month inflation in terms of core index 3 excluding tax effects, which omits volatile food items, petrol, public services, and the effects of changes in indirect taxes and real mortgage interest, has risen, however, to 2.4% in July, up from 2% at the time of the last *Monetary Bulletin*.
- As before, rising house prices and falling import prices have been the main determinants of inflation. The deviation from the May forecast is due predominantly to a larger decline in imported goods prices than was previously assumed, as imported goods excluding alcoholic beverages and tobacco fell in price by 8% year-on-year in July. The decline is due to two factors: lagged impact of the recent appreciation of the króna and increased competition in the domestic retail market. In July, prices were virtually unchanged month-on-month, with seasonal increases in airfares offsetting the effects of summer sales, which were roughly the same as in recent years. The housing component of the CPI rose by a full 19% year-on-year.
- In Q2, imputed rent, which depends significantly on developments in house prices, rose by 22% year-on-year, a much larger increase than in the recent past. In comparison, it rose 13% year-on-year in Q1. On the other hand, other domestic components contributed much less to inflation. In July, private services

Chart 23
Capacity utilisation and labour participation¹
Q1/2006 - Q2/2017



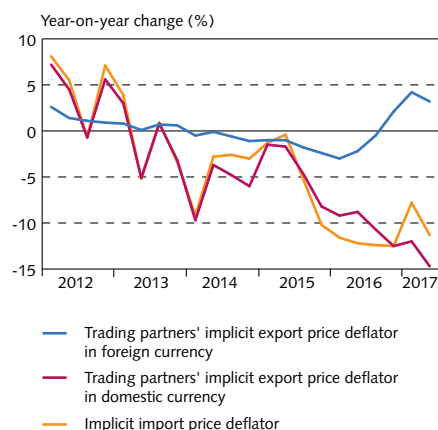
1. Indicators of factor utilisation are from the Gallup Sentiment Survey conducted among Iceland's 400 largest companies, and labour participation data are from Statistics Iceland's Labour Force Survey. All data are seasonally adjusted. Broken lines show period averages. Sources: Gallup, Statistics Iceland, Central Bank of Iceland.

Chart 24
Headline and underlying inflation¹
January 2012 - July 2017



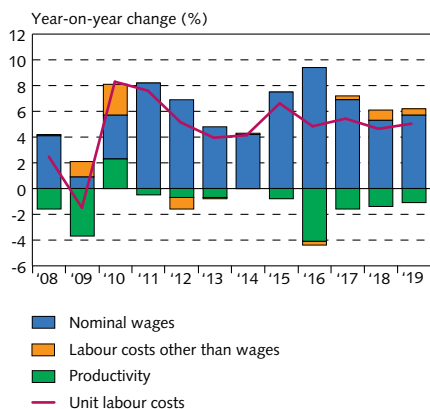
1. The shaded area includes the interquartile range of estimates of underlying inflation; core indices that exclude volatile food items, petrol, public services and owner equivalent rent as well as the effects of tax changes and real mortgage rates; and statistical measures such as the weighted median,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

Chart 25
Import prices and international export prices¹
Q1/2012 - Q2/2017



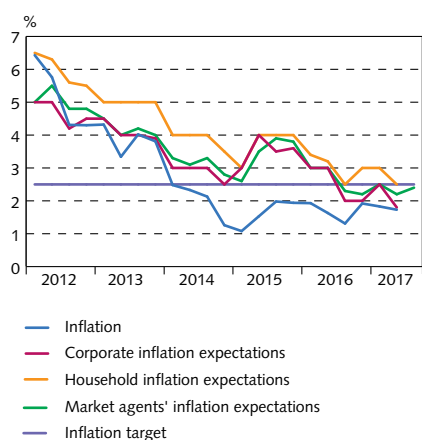
1. Central Bank baseline forecast Q2/2017. Sources: Statistics Iceland, Thomson Reuters, Central Bank of Iceland.

Chart 26
Unit labour costs and contribution of underlying components 2008-2019¹



1. Labour productivity growth is shown as a negative contribution to an increase in unit labour costs. Central Bank baseline forecast 2015-2019. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 27
Inflation and inflation expectations one year ahead
Q1/2012 - Q3/2017



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

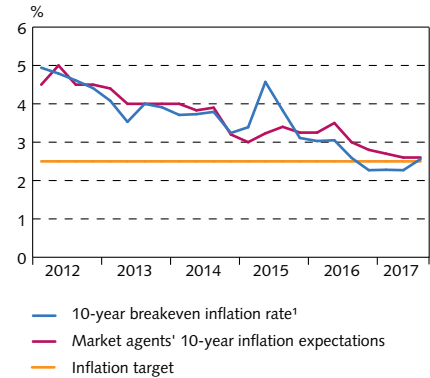
prices rose by only 0.2% from the previous year, and the price of domestic goods in the CPI fell by 2%. Moreover, the producer price of goods sold domestically fell by nearly 12% year-on-year in June.

- The pay increases that were negotiated in the current wage agreements and took effect in May and June have shown in the Statistics Iceland wage index, as was assumed in the Bank's May forecast, and wage drift has been broadly as projected. Wage drift appears to be relatively limited given the tightness of the labour market, probably because firms choose to meet their labour requirements from abroad rather than trying to compete for domestic workers by overbidding in wages. The wage index rose by 3.1% between quarters and by 6.7% year-on-year, while real wages rose 4.8% between years. Assumptions about wage developments are therefore similar to those in May. As was the case then, it is assumed that agreements made this year will be accommodated within the scope provided for under the so-called SALEK agreement and will not trigger a review of private sector wage settlements in February 2018. Because labour productivity is expected to increase less in 2017 than was previously projected, unit labour costs will rise more, or by 5.5% instead of the previously forecast 5%. The outlook for the forecast horizon overall is broadly unchanged, however.
- According to a Gallup survey conducted in May, households expect inflation to measure 2.5% in one year, or 0.5 percentage points less than they expected at the beginning of 2017. Corporate inflation expectations one year ahead were 1.8%, the lowest ever measured apart from two instances in the immediate aftermath of the financial crisis. Market agents' inflation expectations are broadly unchanged between surveys. According to the most recent survey, respondents expect inflation to measure 2.4% in one year and 2.5% in two years. Their long-term inflation expectations are unchanged from the previous survey, and respondents now expect inflation to average 2.6% over the next ten years. The ten-year breakeven inflation rate in the bond market has risen somewhat in the recent past, however, averaging 2.6% in Q3 to date, as opposed to 2.3% in Q2.
- The inflation outlook is broadly unchanged since May. Inflation is expected to measure 2% in the latter half of this year and rise to the target by mid-2018. As in the Bank's previous forecasts, the inflation outlook reflects the offsetting effects of the appreciation of the króna and increased demand pressures. In comparison with the Bank's May forecast, both effects have eased somewhat, although for 2018 the impact of a lower exchange rate in the current baseline forecast will weigh more heavily; therefore, inflation is projected to be nearly ½ a percentage point higher over most of the year. For the remainder of the forecast horizon, however, the forecast is virtually unchanged since May. The proposed reduction in value-added tax at the beginning of 2019 will have a significant impact on inflation. Inflation excluding the effects of tax changes

will peak at 3.4% in mid-2019. It will then begin to decline again and is expected to measure 2.9% in Q3/2020.

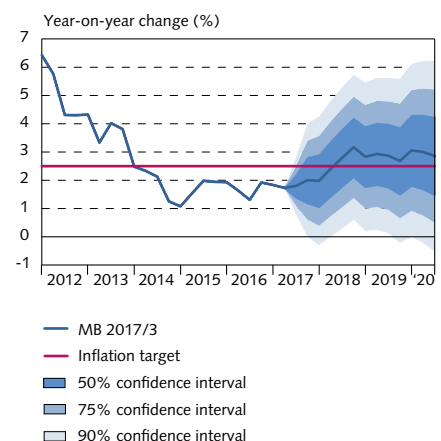
- As before, the inflation outlook is subject to a number of uncertainties. The exchange rate of the króna has given way in the recent past and could continue to fall; therefore, imported inflationary pressures could be underestimated in the forecast. A review of wage settlements could be triggered next year, and the tension in the labour market could be underestimated. Furthermore, private consumption could grow even faster than the forecast provides for, given the improvement in households' financial position. The rise in the housing component of the CPI may also be underestimated if the current imbalances in the housing market grow more exaggerated. Moreover, firms may have exhausted their scope to absorb further cost increases. Demand pressures could also be underestimated if the fiscal stance is eased even more than is assumed in the baseline forecast.
- Inflation could also be overestimated in the forecast – for instance, if the exchange rate of the króna rises even more than is projected. Growth in domestic economic activity could be overestimated, too, if terms of trade deteriorate again or export growth slows significantly. In addition, domestic inflationary pressures could be overestimated if productivity growth outpaces projections or if the impact of increased competition in the domestic retail market on pricing decisions is underestimated.
- The uncertainty in the inflation outlook is considered similar to that in May, and the probability distribution is broadly symmetrical. There is a roughly 50% probability that inflation will be in the 1¾-3¾% range in one year and in the 1½-4¼% range by the end of the forecast horizon.

Chart 28
Long-term inflation expectations
Q1/2012 - Q3/2017



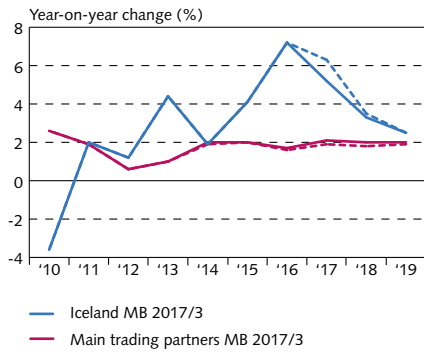
1. The value for Q3/2017 is the Q3 average to date.
Source: Central Bank of Iceland.

Chart 29
Inflation forecast and confidence intervals
Q1/2012 - Q3/2020



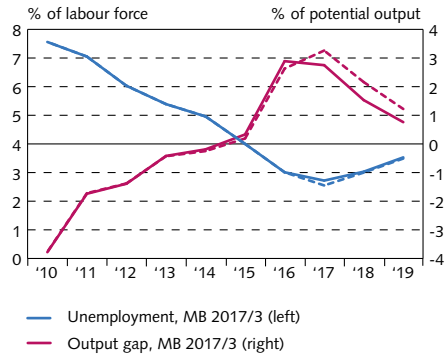
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 30
GDP growth in Iceland and trading partners
2010-2019¹



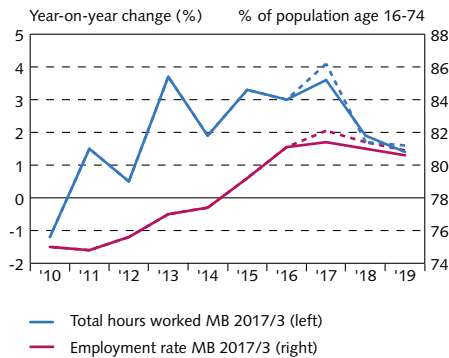
1. Central Bank baseline forecast 2017-2019. Broken lines show forecast from MB 2017/2.
Sources: Macrobond, Statistics Iceland, Central Bank of Iceland.

Chart 31
Unemployment and output gap 2010-2019¹



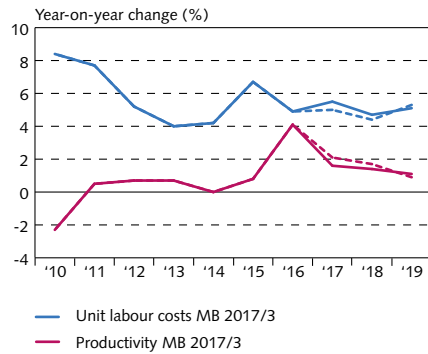
1. Central Bank baseline forecast 2017-2019. Broken lines show forecast from MB 2017/2.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 32
Total hours worked and employment rate
2010-2019¹



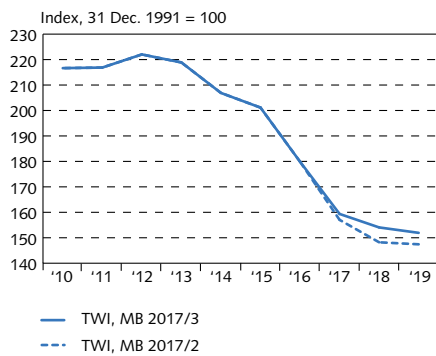
1. Central Bank baseline forecast 2017-2019. Broken lines show forecast from MB 2017/2.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 33
Unit labour costs and productivity 2010-2019¹



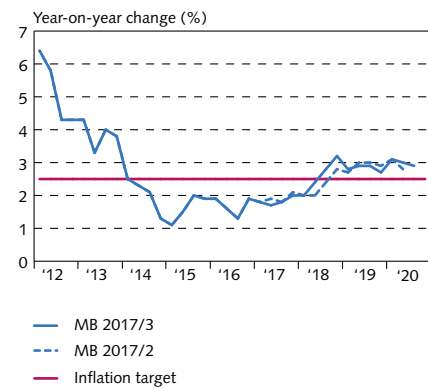
1. Productivity measured as the ratio of GDP to total hours worked. Central Bank baseline forecast 2015-2019. Broken lines show forecast from MB 2017/2.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 34
Exchange rate 2010-2019¹



1. Central Bank baseline forecast 2017-2019. Narrow trade basket.
Source: Central Bank of Iceland.

Chart 35
Inflation¹
Q1/2012 - Q3/2020



1. Central Bank baseline forecast Q3/2017 - Q3/2020.
Sources: Statistics Iceland, Central Bank of Iceland.