



MONETARY BULLETIN

2019 • 3

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

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

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

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Icelandic letters:

ð/Ð (pronounced like th in English this)

þ/Þ (pronounced like th in English think)

In *Monetary Bulletin*, ð is transliterated as d and þ as th in personal names, for consistency with international references, but otherwise the Icelandic letters are retained.

Statement of the Monetary Policy Committee

28 August 2019

The Monetary Policy Committee (MPC) of the Central Bank of Iceland has decided to lower the Bank's interest rates by 0.25 percentage points. The Bank's key interest rate – the rate on seven-day term deposits – will therefore be 3.5%.

According to the Bank's new macroeconomic forecast, published in the August *Monetary Bulletin*, this year's economic contraction will measure 0.2%, slightly less than was forecast in May. This is due mainly to more resilient private consumption growth, although the contribution of net foreign trade is also more positive, as demand has shifted towards domestic production, partially offsetting the stronger contraction in tourism. The GDP growth outlook for 2020 has deteriorated, however, as it now appears that it will take longer for tourism to recover after this year's setbacks.

Inflation measured 3.4% in Q2 but fell to 3.1% in July. Underlying inflation has developed in a broadly similar manner. Furthermore, inflation is expected to subside faster than was forecast in May and align with the target in H1/2020. The króna has appreciated by just over 2% between meetings, and the foreign exchange market appears well balanced. Inflation expectations have fallen back to target since the MPC's last meeting, and the monetary stance has therefore tightened slightly.

Near-term monetary policy decisions will depend on the interaction between developments in economic activity, on the one hand, and inflation and inflation expectations, on the other.

Monetary Bulletin 2019/3¹

Global economic uncertainty has increased, as has pessimism about the economic outlook among Iceland's main trading partners. The Icelandic economy experienced a major setback with the collapse of airline WOW Air in March 2019 and further negative shocks to the airline industry, coupled with the failure of the capelin catch and a deterioration in terms of trade. The outlook is for GDP to contract this year, for the first time since 2010. However, the contraction is expected to be slightly smaller than was projected in May, even though tourist arrivals are projected to fall more than previously assumed and exports to contract more sharply. This is partly because underlying growth in private consumption appears more resilient, but no less because consumption spending is switching more towards domestic production, as can be seen in a marked contraction in imports. As in May, the economy is expected to rebound in 2020, with GDP growth measuring 1.9%. This is markedly below the May forecast, as it now appears that the tourism industry will take longer than previously assumed to recover after this year's setbacks. GDP growth is forecast to rise to 2.7% in 2021, broadly in line with the May forecast.

Job numbers fell in Q2/2019, and unemployment rose to an average of 3.8%, its highest since 2015. Capacity pressures that had accumulated after the recent boom have therefore eased. The output gap is estimated to have almost closed, and a modest slack is expected to develop by the end of this year. As 2020 progresses, unemployment will taper off again, and the slack will close by the end of the year.

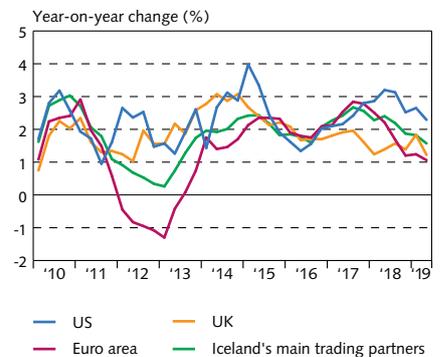
Inflation rose following the depreciation of the króna last autumn, peaking at 3.7% in December. It measured 3.4% in Q2/2019 but had fallen to 3.1% by July. Inflation expectations have fallen as well, after rising in 2018. Inflation is projected to fall to 2.9% in Q4 and align with the target in H1/2020, but as was forecast in May, it is expected to dip temporarily below the target in H2. According to the forecast, it will inch back up to the target in 2022.

1. The analysis appearing here is based on the Bank's assessment of economic developments, published in May 2019 in *Monetary Bulletin 2019/2*, and on the updated forecast presented in this report. It is based on data available as of 23 August. The risk assessment in the updated forecast is based on the one in the May forecast.

The global economy and terms of trade

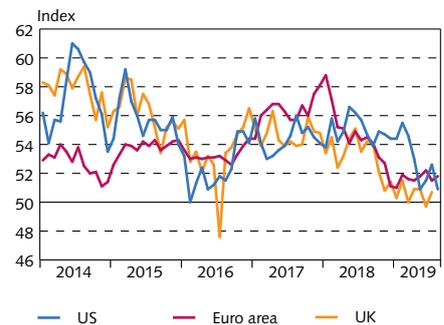
- GDP growth among Iceland's trading partners measured 2.2% in 2018 but fell to 1.8% in Q1/2019. As was forecast in May, it is estimated to have shrunk further in Q2, to 1.6%, its lowest in nearly three years. Q2 GDP growth softened in the US, the UK, and Sweden in particular, but also in the eurozone.
- Leading indicators imply that the GDP growth outlook for Iceland's main trading partners has worsened since the spring. Purchasing managers' indices (PMI) have lost ground, particularly in the manufacturing sector, and firms are increasingly more downbeat about economic prospects. This is especially the case for the UK, which is dominated by uncertainty about Brexit, as it appears ever more likely that the UK will leave the EU without an exit deal. The outlook for the eurozone has also deteriorated, mostly because of shrinking GDP growth in Germany, which saw a quarter-on-quarter contraction in Q2. Declining GDP growth and bleaker prospects for trading partner countries also reflect the adverse impact of international trade disputes, particularly the dispute between the US and China, which has escalated since the spring.
- Trading partners' GDP growth is projected to average 1.6% this year, some 0.1 percentage points below the May forecast. The GDP growth prospects for the next two years are slightly weaker as well. Forecasts for trading partner imports have also been revised downwards for the forecast horizon, in line with the poorer output growth outlook and weaker growth in world trade.
- Inflation in Iceland's trading partner countries has eased again, concurrent with declining oil prices and weaker growth in economic activity. In particular, it has softened in the euro area and Denmark, but also in the US, Norway, and Sweden. Trading partner inflation is forecast to average 1.6% in 2019, 0.1 percentage points less than was forecast this spring, and is also expected to be slightly lower in the two years to follow.
- Central banks in a number of advanced economies have lowered interest rates as inflation falls and the economic outlook deteriorates. The US Federal Reserve lowered its key rate by 0.25 percentage points in July, its first rate cut in a decade. The Fed also announced that it would end its bond roll-off programme in August, two months earlier than it had previously indicated. The European Central Bank (ECB) also signalled in July that it might lower its key rate, which has been unchanged since March 2016. In addition, the ECB announced that it was considering further stimulative measures to support economic activity. Unlike the central banks in other advanced economies, Norges Bank has continued to raise interest rates, to the current 1.25%.
- Bond interest rates have continued to fall, and long-term rates are widely at or near historical lows. Forward interest rates suggest that market agents expect further monetary easing, particularly in the US, where long-term rates have not been this far below

Chart 1
Global GDP growth¹
Q1/2010 - Q2/2019



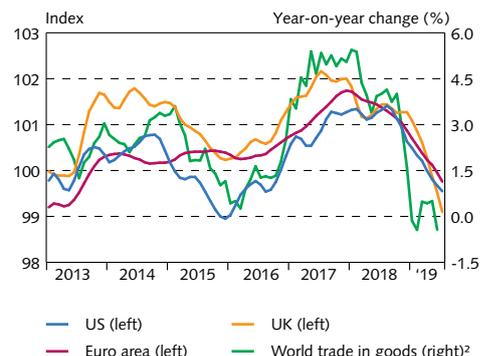
1. Central Bank baseline forecast Q2/2019 for main trading partners. Sources: Thomson Reuters, Central Bank of Iceland.

Chart 2
Composite PMI¹
January 2014 - August 2019



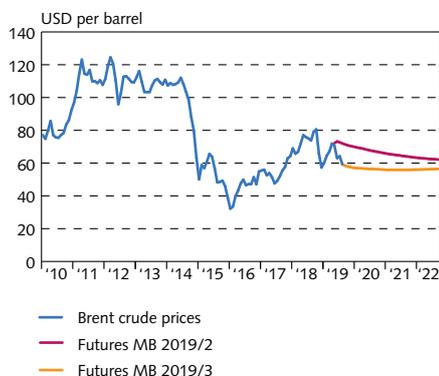
1. Markit composite purchasing managers' index. The index is published monthly and is seasonally adjusted. An index value above 50 indicates month-on-month growth, and a value below 50 indicates a contraction. Source: Thomson Reuters.

Chart 3
Business confidence and world trade¹
January 2013 - July 2019



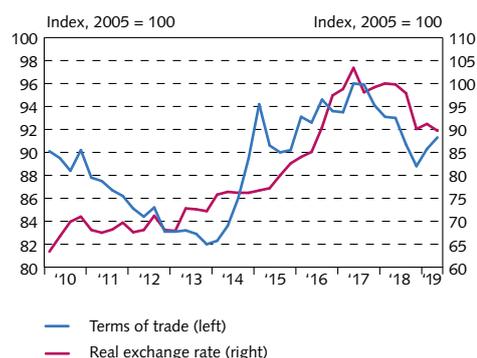
1. OECD business confidence index (BCI).
2. Volume measure. Three-month moving average. Sources: CPB, OECD.

Chart 4
Global oil prices¹
January 2010 - September 2022



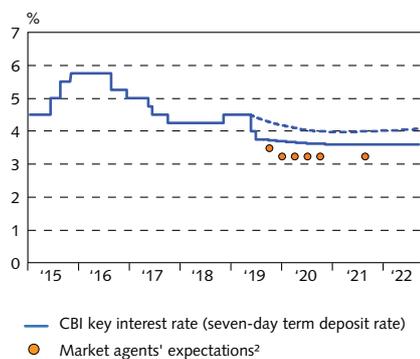
1. Brent crude prices based on data until 23 August 2019.
Sources: Thomson Reuters, Central Bank of Iceland.

Chart 5
Terms of trade and real exchange rate¹
Q1/2010 - Q2/2019



1. Real exchange rate in terms of relative prices. Q2/2019 terms of trade based on Central Bank baseline forecast.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 6
Central Bank of Iceland key interest rate and expected developments¹
1 January 2015 - 30 September 2022



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 2019/2. 2. Estimated from the median responses in the Central Bank's survey of market agents' expectations concerning the collateralised lending rate. The survey was carried out during the period 12-14 August 2019.
Source: Central Bank of Iceland.

short-term rates in more than a decade. Global share prices have fallen and have been quite volatile, owing in part to uncertainty about the outcome of the US-China trade war, although measures taken by central banks have mitigated the situation somewhat.

- Global oil prices rose in Q2 but have fallen again, largely as a result of an expected downturn in demand, which in turn is due to the deteriorating global GDP growth outlook. Futures prices indicate that oil prices will be lower throughout the forecast horizon than was assumed in the Bank's May forecast. Aluminium prices have also fallen, although other commodities prices are broadly unchanged since the spring. Marine product prices have risen still further, however, buoyed by strong demand in foreign markets. The outlook is for further price increases this year, followed by slightly smaller rises in the two years thereafter.
- Terms of trade improved by 1.7% between quarters in Q1/2019, supported by lower oil prices and favourable developments in marine product prices. They are expected to remain broadly flat in 2019, in line with the May forecast. The outlook for 2020 has improved, however, driven mainly by lower oil prices and more modest rises in import prices in general.
- The real exchange rate in terms of relative consumer prices was down by 10.6% year-on-year in July, largely because of the nominal depreciation of the króna in Q4/2018. As in the May forecast, the real exchange rate is projected to rise marginally during the forecast horizon; however, it will be nearly 2% below that forecast by the end of the horizon.

Monetary policy and domestic financial markets

- At its June meeting, the Central Bank's Monetary Policy Committee decided to lower the Bank's key interest rate by 0.25 percentage points, to 3.75%, after having lowered it by 0.5 percentage points at its May meeting. The Bank's real rate has therefore fallen by ½ a percentage point since May, to 0.6%, both in terms of current twelve-month inflation and in terms of the average of various measures of inflation and inflation expectations.
- According to the Central Bank's August survey, market agents expect the Bank's key rate to be lowered by 0.25 percentage points this month and another 0.25 percentage points before the year-end. Forward interest rates suggest, however, that the key rate will remain unchanged at 3.75%.
- Yields on the longest nominal Treasury bonds are now 3.7% and have fallen by about 0.5 percentage points since just before the *May Monetary Bulletin*. Yields on shorter bonds have fallen similarly, and the yield curve has therefore remained relatively flat. Yields on the longest indexed Treasury and Housing Financing Fund (HFF) bonds have fallen by about 0.3 percentage points, to 0.9%, over the same period.

- Nominal and real interest rate differentials versus Iceland's main trading partners have narrowed since May as a result of domestic interest rate cuts. Risk premia on Treasury foreign obligations remain broadly unchanged, however.
- Net capital outflows excluding the Central Bank's international reserves increased in Q1/2019, to nearly 105 b.kr. In 2019 to date, foreign capital inflows for new investment in domestic equity securities have increased year-on-year, whereas inflows into the domestic bond market have been negligible.
- The króna depreciated last autumn following news of WOW Air's financing difficulties and the deterioration in terms of trade, in addition to increased pessimism about the economic outlook and the outcome of wage negotiations. The króna held relatively stable in H1/2019 despite WOW's collapse and concerns about a sharp economic recession. It has appreciated since early July but is nevertheless broadly as it was at the time of the May *Monetary Bulletin*, and still about 10% weaker in trade-weighted terms than it was a year ago.
- Turnover in the interbank foreign exchange market has increased year-on-year in 2019 to date. Since the May *Monetary Bulletin*, the Central Bank has bought foreign currency in the market for 0.4 b.kr. and sold for 2.9 b.kr., or roughly 9% of total market turnover for the period.
- The trade-weighted exchange rate index averaged 182 points in Q2, a 2% lower exchange rate than in the Bank's May forecast. It has been around 181 in the recent past, and the baseline forecast is based on the assumption that it will remain close to that level for the remainder of the forecast horizon. This is a slightly lower exchange rate than was assumed in May.
- Year-on-year growth in broad money (M3) has slowed as the year has progressed. It measured just over 8% in Q2 but had eased to 6½% by July. As before, the increase is due largely to growth in household deposits.
- Growth in credit system lending appears to have begun to ease. Year-on-year credit growth measured just under 9% in Q2, as opposed to slightly more than 10% in Q4/2018. Lending to households grew by nearly 8% in Q2, slightly less than at the beginning of the year, perhaps due to a slowdown in real estate market turnover. Corporate lending growth has eased as well after peaking in late 2018, measuring just under 10% year-on-year in Q2. Growth in lending to services companies has continued to subside, possibly reflecting expectations of reduced activity in tourism.
- Year-on-year house price inflation has been easing steadily since May 2017 and measured 2.9% for the capital area in July. In real terms, house prices are virtually unchanged between years. Rent rose 5.6% in July and has outpaced house prices in the past year. The real estate market appears to have cooled somewhat,

Chart 7
Nominal and indexed bond yields
2 January 2013 - 23 August 2019

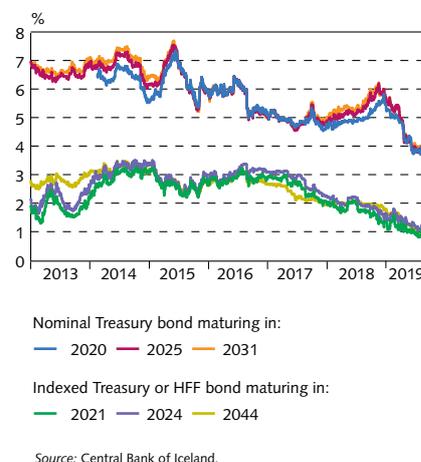


Chart 8
Exchange rate of the króna
2 January 2014 - 23 August 2019

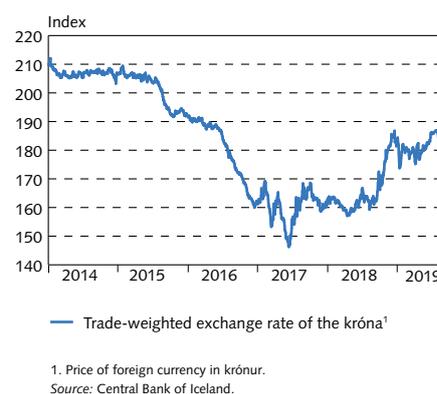
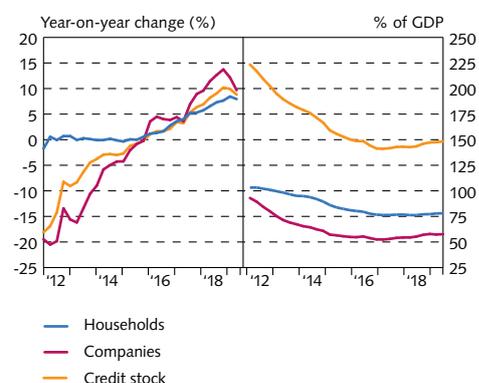
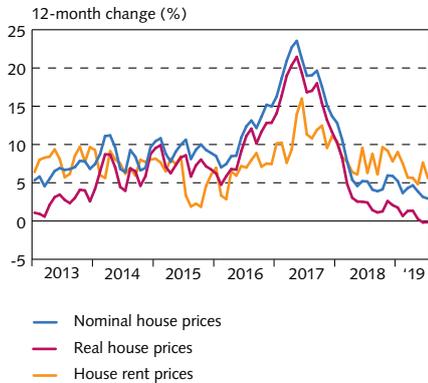


Chart 9
Credit system lending to resident borrowers¹
Q1/2012 - Q2/2019



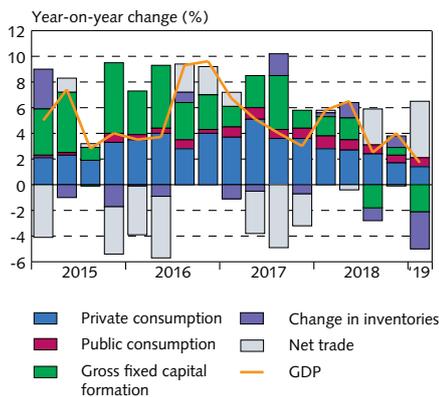
1. Credit stock adjusted for reclassification and effect of Government debt relief measures. Only loans to pension fund members are included with pension funds. Excluding loans to deposit institutions, failed financial institutions and the Treasury. Companies include non-financial companies and non-profit institutions serving households. Q2/2019 figures are Central Bank estimates.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 10
Capital area house and rent prices
January 2013 - July 2019



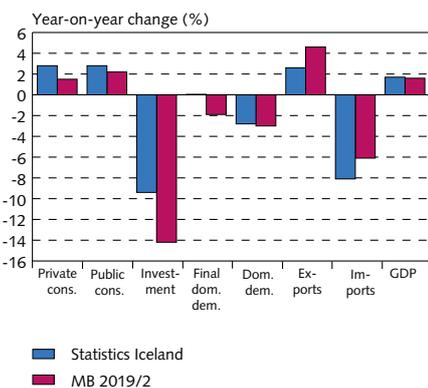
Sources: Registers Iceland, Statistics Iceland.

Chart 11
GDP growth and contribution of underlying components¹
Q1/2015 - Q1 2019



1. The contribution of expenditure components may not sum exactly to GDP growth, as these are chain-volume measures.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 12
National accounts for Q1/2019



Sources: Statistics Iceland, Central Bank of Iceland.

with purchase agreements down 13.7% between years in the first seven months of 2019. Purchase agreements for new construction declined by even more, or 28.9%. Furthermore, the average time-to-sale has lengthened to 2.8 months as of July.

- Most share prices have fallen since the *May Monetary Bulletin*. The Nasdaq Iceland Main List, OMXI10, has fallen by some 5% in the interim despite a short-lived spike in mid-July. It is still significantly higher than at the beginning of 2019, however, owing to the steep rises early in the year.
- Household and corporate debt increased by 1.2% quarter-on-quarter in Q1/2019 but was unchanged as a share of GDP. Non-performing loan ratios continue to fall, particularly for corporate loans. Furthermore, the number of corporate insolvencies was down year-on-year in H1/2019 and is below the average of the past few years.
- Commercial banks' deposit and lending rates and pension funds' lending rates have generally been lowered in the wake of the Central Bank's rate reductions in May and June.

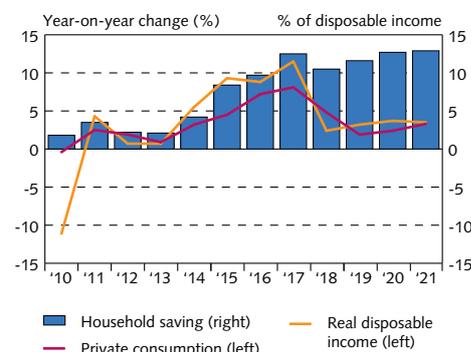
Demand and GDP growth

- GDP growth measured 4% in Q4/2018 and fell to only 1.7% in Q1/2019, according to preliminary figures from Statistics Iceland. Domestic demand contracted by 2.8% between years, whereas consumption and investment spending remained flat, reflecting the offsetting impact of growth in private and public consumption, on the one hand, and a contraction in investment, on the other. Inventory changes had a significant negative effect during the quarter, mainly due to declining marine product inventories. The contribution from net trade was positive by 4.4 percentage points, driven largely by an 8% contraction in imports.
- Developments in Q1 were well in line with the Bank's May forecast. GDP growth was 0.1 percentage points above the forecast, and the contraction in domestic demand was 0.2 percentage points smaller.
- Private consumption growth slowed significantly in Q4/2018 and continued to ease in Q1/2019. Year-on-year growth measured 2.8%, a full 1 percentage point above the May forecast and more than leading indicators such as payment card turnover had implied. Consumer goods imports have slowed in recent months, and growth in payment card turnover has been modest. In the forecast, private consumption growth is projected to ease to 1.9% this year, 0.3 percentage points more than was forecast in May. It is expected to gain ground over the next two years, in line with fairly strong growth in real disposable income.
- Investment contracted by 9.4% year-on-year in Q1, far less than the 14% contraction forecast in May. On the other hand, business investment contracted considerably more than previously expected and is now forecast to shrink by a full 13% this year, as opposed

to just under 7% in the May forecast. All categories of business investment contribute to the contraction, particularly investment in ships and aircraft. Furthermore, residential investment is expected to grow slightly less this year than was forecast in May, despite the very strong growth in Q1 suggested by Statistics Iceland's preliminary figures. Total investment is therefore expected to contract by 5% this year instead of remaining broadly flat, as was projected in May. It is forecast to recover in 2020, driven mainly by a rebound in business investment. The outlook for 2020 and 2021 is broadly unchanged from the Bank's May forecast.

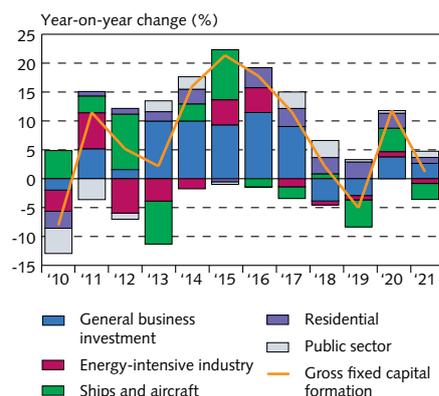
- Public consumption growth turned out stronger in Q1 than was forecast in May, and underlying growth appears more robust than previously assumed. The outlook for this year and for the forecast horizon as a whole has therefore been revised upwards. The outlook for public investment is broadly unchanged, however.
- Goods and services exports grew by 2.6% year-on-year in Q1, driven in large part by the sale of WOW Air's aircraft from its operations. Excluding ships and aircraft, exports of goods and services contracted by 5.5% between years, the largest contraction in a single quarter in nearly thirteen years. Services exports contracted by 7.7%, due in particular to a larger-than-expected reduction in domestic airlines' activity. Offsetting this was a larger increase in total spending by tourists (at constant prices), even though tourist numbers declined more than had been forecast. Increased spending per tourist could reflect changed spending patterns and a change in the composition of the tourist group.
- It is uncertain how sharply tourism will contract as a result of WOW Air's collapse in March and the grounding of Icelandair's Boeing 737 Max jets. In Q2/2019, the number of flights to and from Iceland fell by nearly a fourth year-on-year, and 19% fewer tourists visited the country. Furthermore, because of the grounding of the Max jets, Icelandair's summer 2019 seat capacity increased less than was projected in May. It is unclear when Icelandair will begin using the jets, but the disruption in global air traffic following the worldwide grounding of the Max aircraft will probably affect seat capacity and airfares in Iceland well into 2020.
- Therefore, the outlook is for a considerably larger contraction in passenger transport by air and in tourist arrivals than was assumed in May. Services exports are expected to contract more strongly, but this will be partly offset by increased spending per tourist. The outlook for goods exports has not changed since May, however. This year's contraction in marine product exports is expected to be smaller than previously projected, as fisheries have been tapping inventories in greater measure and quotas for pelagic species other than capelin have been increased. Offsetting this, however, is the expectation of weaker aluminium exports. Overall, exports of goods and services are projected to contract by 5.1% this year, or 1.4 percentage points more than was forecast in May. In addi-

Chart 13
Private consumption, disposable income, and saving 2010-2021¹



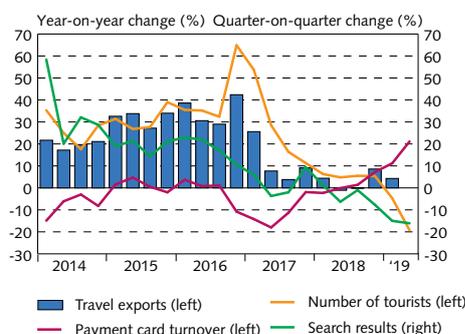
1. There is some uncertainty about Statistics Iceland's figures on households' actual income levels, as disposable income accounts are not based on consolidated income accounts and balance sheets. The saving ratio is calculated based on the Central Bank's disposable income estimates, as Statistics Iceland figures are rescaled to reflect households' estimated expenses over a long period. Central Bank baseline forecast 2019-2021. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 14
Gross fixed capital formation and contribution of main components 2010-2021¹



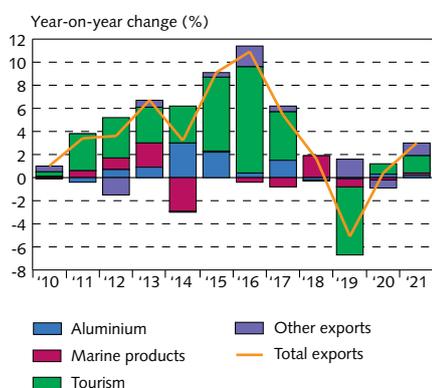
1. General business investment excludes ships, aircraft, and energy-intensive industry investment. Central Bank baseline forecast 2019-2021. Sources: Statistics Iceland, Central Bank of Iceland.

Chart 15
Indicators of tourism sector activity¹
Q1/2014 - Q2/2019



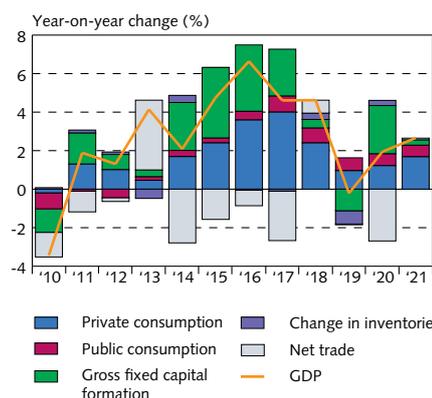
1. Travel exports at constant prices and payment card turnover per tourist in Iceland (excl. transport and public levies) deflated with the CPI. Number of tourists is the number of passenger departures via Keflavik Airport. Search results according to a principal component model combining the frequency of five different Google search strings relating to travel to Iceland (seasonally adjusted, two-quarter moving average). Sources: Centre for Retail Studies, Google Trends, Icelandic Tourist Board, Isavia, Statistics Iceland, Central Bank of Iceland.

Chart 16
Exports and contribution of subcomponents
2010-2021¹



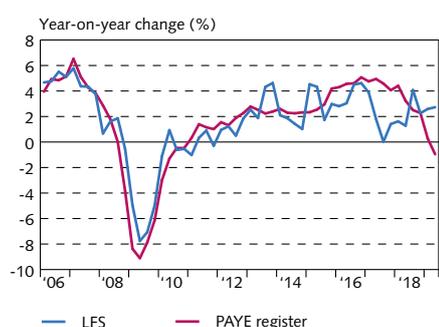
1. Aluminium exports as defined in the national accounts. Tourism is the sum of "travel" and "passenger transport by air". Central Bank baseline forecast 2019-2021.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 17
GDP growth and contribution of underlying
components 2010-2021¹



1. Central Bank baseline forecast 2019-2021.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 18
Number of employed persons¹
Q1/2006 - Q2/2019



1. Quarterly averages of monthly data for number of employed persons according to Statistics Iceland's labour force survey (LFS). The number of employed according to pay-as-you-earn (PAYE) register is based on data on individuals aged 16-74 who received employment income included in the Director of Internal Revenue's PAYE register, including individuals on childbirth leave and self-employed persons.
Sources: Statistics Iceland, Central Bank of Iceland.

tion, the recovery in 2020 will be slower than previously assumed, owing mainly to poorer prospects for tourism.

- Goods and services imports contracted by 8.1% in Q1/2019, the largest contraction since Q3/2009. Imports of fuel, passenger cars, and commodities declined, and total goods imports were down 9.5% year-on-year, somewhat more than was projected in May. Services imports contracted by 6%, also more than previously forecast, owing mainly to an underestimation of the impact of downsizing WOW Air's operations. Because of declining investment, the shift in demand towards domestic production, and reduced need for imported inputs for domestic export activities, imports are now expected to contract much more this year than was forecast in May, or by 5.4% instead of 1%. As was forecast in May, imports are expected to increase again in 2020.
- This steep contraction in imports translates to a more favourable contribution of net trade to 2019 output growth than in the May forecast. The current account surplus will therefore remain around 3% of GDP this year, as in 2018, instead of narrowing significantly, as was projected in May. If the forecast materialises, the surplus will measure about 1½% of GDP in the next two years.
- GDP is estimated to have contracted by just under 1% year-on-year in Q2. For 2019 as a whole, it is expected to contract by 0.2%, slightly less than was forecast in May. Prospects for the tourism sector have deteriorated, while private consumption growth is expected to be more resilient and shift to a greater extent towards domestic production, as can be seen in the sharp contraction in imports. Declining investment goods imports also reflect reduced investment, which will contract more than previously forecast. Headwinds in the tourism sector are expected to persist further into 2020 than previously assumed, and the GDP growth outlook for that year has worsened accordingly. GDP growth for 2020 is forecast at 1.9% instead of the 2.4% provided for in the May forecast, but the forecast for 2021 is largely unchanged.

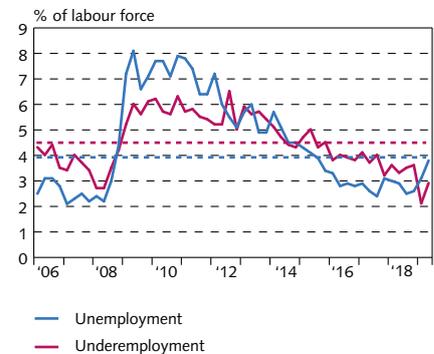
Labour market and factor utilisation

- According to the Statistics Iceland labour force survey (LFS), total hours worked increased by 2% year-on-year in Q2/2019, broadly the same as in Q1 but slightly more than was forecast in May. The rise in total hours can be attributed to a 2.7% increase in job numbers, offset by a shortening of the average work week by 0.7%. Although the number of jobs increased year-on-year, it fell 0.2% between quarters. The reversal in employment can be seen even more clearly in pay-as-you-earn (PAYE) data, which suggest that employment contracted by 1% year-on-year in Q2.
- According to the LFS, the labour participation rate also fell quarter-on-quarter in Q2, and the employment rate declined for the third quarter in a row. Seasonally adjusted unemployment rose by 0.7 percentage points between quarters, to 3.8%, the highest since Q3/2015. The underemployment rate – i.e., the share of part-

time workers who would like to work more – also rose, although the number of underemployed relative to the labour force was still below its long-term average. Figures from the Directorate of Labour (DoL) indicate, however, that unemployment plateaued soon after WOW Air's collapse. Registered unemployment measured 3.7% in July, after adjusting for seasonality, and has been unchanged since May.

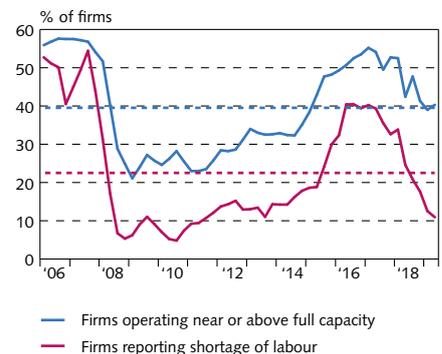
- In spite of the discernible turnaround in the labour market, inflows of foreign workers remain strong. In Q2/2019, year-on-year population growth measured 2.1%, including 1.6 percentage points due to immigration of foreign nationals. The increase in foreign labour has eased somewhat in recent quarters, but the increase in Q2 remains similar to that observed in late 2016. Issuance of new temporary work permits slowed between years in the first seven months of 2019, and the number of active employees working for employment agencies and foreign services firms has held relatively steady year-to-date.
- According to the seasonally adjusted results of Gallup's summer survey among Iceland's 400 largest firms, the outlook is for a continued downturn in employment in H2. The difference between the share of companies planning to recruit and those planning to lay off staff was negative by 12 percentage points, which is slightly more negative than in the spring survey. Executives in transport, transit, and tourism and in miscellaneous specialised services were somewhat more optimistic than they were in the spring. At the same time, executives in retail and wholesale trade and construction were considerably more pessimistic, probably reflecting the impact of recently finalised wage settlements for private-sector labourers and retail workers.
- Capacity pressures have been easing in the recent term, but there are signs that this period could be coming to an end. According to Gallup's summer survey, 11% of executives consider themselves understaffed, about the same as in the spring survey. This share had fallen steadily since the spring 2018 survey and was about 12 percentage points below its historical average by this summer. Worker shortages were most pronounced in miscellaneous specialised services, whereas they were virtually non-existent in financial services, fishing, and retail and wholesale trade. Furthermore, the share of respondents who considered their firms to be operating at or above full capacity was broadly unchanged since the spring, or 40%. The resource utilisation (RU) indicator, which combines various indicators of factor utilisation, had declined steadily from the beginning of 2018 onwards but was unchanged between quarters in Q2.
- As in May, total hours worked are expected to remain broadly unchanged between annual averages in 2019 and then increase by an average of 1½% in 2020 and 2021. Unemployment is projected to average 3.7% this year, 0.2 percentage points below the May forecast. The unemployment rate is forecast to remain broadly unchanged next year but to ease again in 2021. A small

Chart 19
Unemployment and underemployment¹
Q1/2006 - Q2/2019



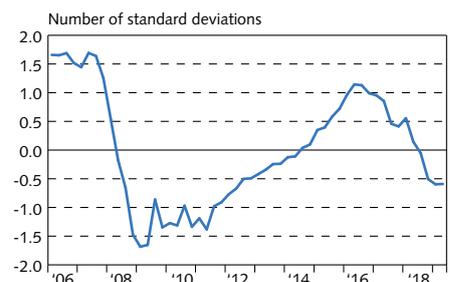
1. Underemployed workers are part-time workers who would like to work more. Broken lines show long-term averages. Seasonally adjusted figures.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 20
Capacity utilisation¹
Q1/2006 - Q2/2019



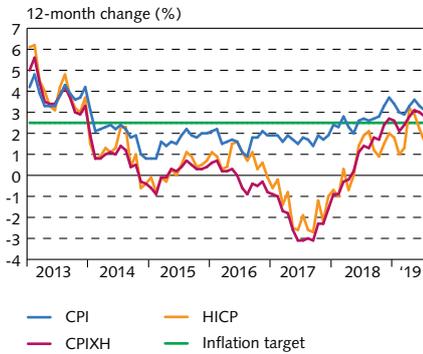
1. Indicators of factor utilisation are from the Gallup Sentiment Survey conducted among Iceland's 400 largest companies. Seasonally adjusted figures. Broken lines show period averages.
Sources: Gallup, Central Bank of Iceland.

Chart 21
RU indicator¹
Q1/2006 - Q2/2019



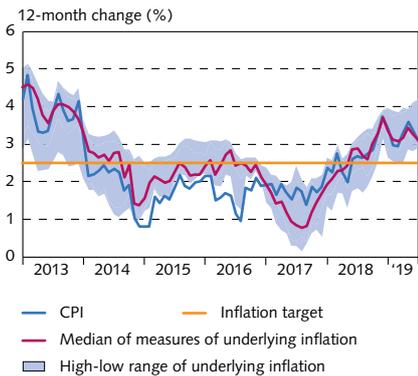
1. The resource utilisation indicator (RU indicator) is the first principal component of selected indicators of factor utilisation; it is scaled so that its mean value is 0 and the standard deviation is 1. A more detailed description can be found in Box 3 in MB 2018/2.
Source: Central Bank of Iceland.

Chart 22
Various measures of inflation
January 2013 - July 2019



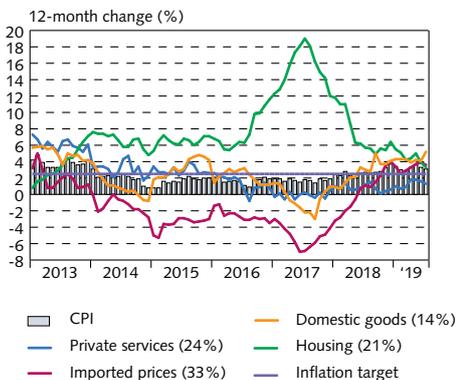
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 23
Headline and underlying inflation¹
January 2013 - July 2019



1. Underlying inflation measured using a core index (which excludes the effects of indirect taxes, volatile food items, petrol, public services, and real mortgage interest expense) and statistical measures (weighted median, trimmed mean, a dynamic factor model, and a common component of the CPI).
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 24
Imported and domestic inflation¹
January 2013 - July 2019



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. The figures in parentheses show the current weight of these items in the CPI.
Sources: Statistics Iceland, Central Bank of Iceland.

negative output gap is expected to develop late this year, widen until mid-2020, and then close towards the end of the year. This is similar to the outlook in May.

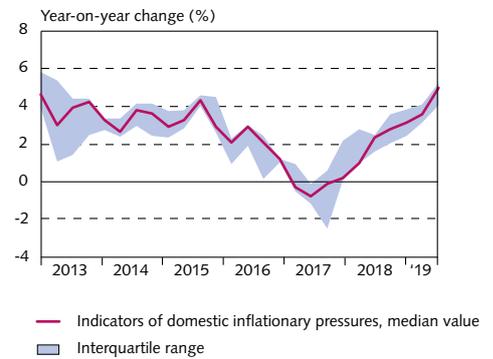
Inflation

- Inflation measured 3.4% in Q2/2019, as was assumed in the forecast in the *May Monetary Bulletin*. Higher imported goods prices – petrol and clothing prices in particular – were the main driver of the rise in the CPI during the quarter, as the króna was nearly 13% weaker at the end of June than at the same time in 2018. Rising airfares also had a strong impact.
- The CPI fell by 0.21% month-on-month in July but has risen by 3.1% year-on-year. Headline inflation has therefore tapered off since the last *Monetary Bulletin*, although it is 0.4 percentage points higher than in July 2018. Seasonal sales had a stronger impact in July than at the same time last year or in January 2019. Inflation excluding housing measured 2.8% in July, and the difference between inflation including and excluding housing has continued to narrow in recent months. However, inflation according to the HICP, which also excludes owner-occupied housing costs, was lower, measuring 1.6% in July.
- Underlying inflation measured 3.1% in July, according to the median of various measures, and had risen by 0.2 percentage points between years. It has developed broadly in line with measured inflation.
- House price inflation has slowed markedly in the recent term. Owner-occupied housing costs were up 2.6% year-on-year in July, the smallest twelve-month increase since the beginning of summer 2013. The impact of lower real interest rates on households' housing costs has also increased thus far in 2019. The contribution of housing to inflation has continued to decline and is now less than the contribution from imported goods.
- In July, imported goods prices had risen by 3.6% in the previous twelve months and accounted for about a third of headline inflation, with price increases on new motor vehicles and spare parts weighing heaviest. Domestic inflationary pressures appear to have increased according to several measures in the recent past, as firms' costs have risen with wage hikes and rising imported input prices. The price of domestic goods in the CPI has risen 5.2% in the past twelve months, up from 3.9% in April. Producer prices of goods sold domestically have also risen in recent months. On the other hand, private services prices have risen by only 1.3% in the past year, and inflationary pressures thus measured have eased since the last *Monetary Bulletin*.
- The wage index rose in Q2/2019 by 2.1% quarter-on-quarter and by 5.4% year-on-year, somewhat less than was assumed in the Bank's May forecast. This is mainly because negotiated pay rises appeared later than expected in the wage index and pub-

lic sector wage negotiations are still ongoing. The assumptions concerning wage developments have changed little since May. The outlook for productivity growth is similarly unchanged, and unit labour costs are therefore expected to develop as in the May forecast. They are expected to rise by 6.8% this year and 4% per year, on average, in the two years thereafter.

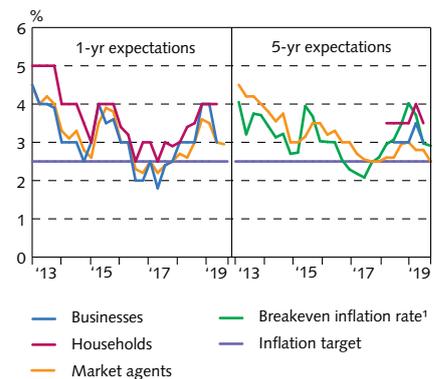
- According to Gallup's summer survey, household inflation expectations one year ahead measured 4%, which was unchanged from the spring survey but up by 0.6 percentage points from the summer 2018 survey. Corporate inflation expectations one year ahead fell from the previous survey, however, and now measure 3%. According to the latest Central Bank survey, market agents' inflation expectations also declined between surveys. Respondents now expect inflation to measure just under 3% in one year and 2.5% in two years.
- Market agents' long-term inflation expectations have also fallen since the May survey: they now expect inflation to average 2.5% over the next five years, which is 0.5 percentage points less than in the August 2018 survey. Their ten-year expectations have fallen back to the target as well. Moreover, the long-term breakeven inflation rate in the bond market, which reflects the market's inflation expectations plus a risk premium, is lower than it was in mid-May. The five- and ten-year breakeven rate has averaged 2.9% in Q3 to date, some 0.6-0.9 percentage points lower than in the same quarter of 2018. According to Gallup's summer surveys, households' and businesses' long-term inflation expectations fell by 0.5 percentage points between surveys, to 3-3.5%.
- Because of a better initial position, inflation is now expected to be lower for the remainder of the year than was projected in May. It is forecast to measure 3.2% in Q3 and then fall to 2.9% in Q4. The outlook for 2020 has also improved, owing mainly to the prospect of lower imported inflation. According to the forecast, inflation will align with the target in H1/2020 and dip below it at the end of the year. Over the course of the forecast horizon, it will rise back to the target and will average 2.3% in 2021, as was projected in May.
- The inflation outlook is subject to numerous uncertainties, and changes in important assumptions about domestic and global economic developments could cause inflation to diverge from the path presented here. As is the custom with the Bank's updated forecasts, the risk assessment of the baseline scenario is unchanged from the previous forecast. The probability distribution of the forecast is therefore unchanged since May; i.e., there is a roughly 50% probability that inflation will lie in the 1½-3¼% range in one year's time and in the 1¼-3¾% range at the end of the forecast horizon.

Chart 25
Domestic inflationary pressures¹
Q1/2013 - Q2/2019



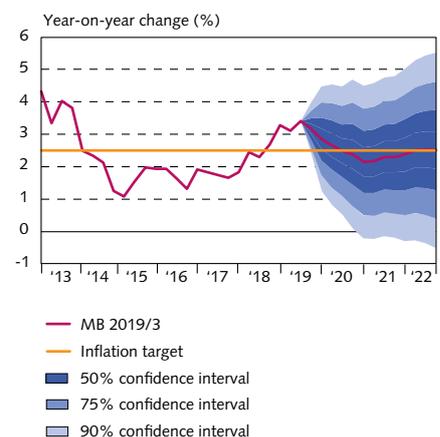
1. The shaded area includes five indicators of domestic inflationary pressures. The indicators are unit labour costs (moving average), the GDP price deflator, prices of private services and domestic goods, and producer prices of goods sold domestically. Central Bank baseline forecast Q2/2019 for the GDP price deflator and for unit labour costs.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 26
Inflation expectations
Q1/2013 - Q3/2019



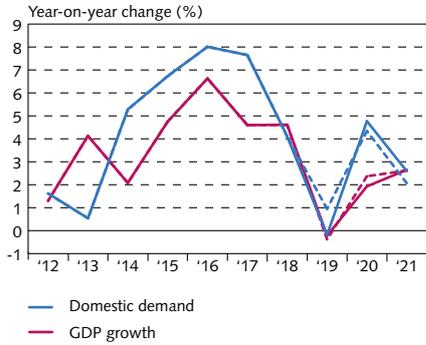
1. The most recent value is the average of daily values from 1 July through 23 August 2019.
Sources: Gallup, Central Bank of Iceland.

Chart 27
Inflation forecast and confidence intervals
Q1/2013 - Q3/2022



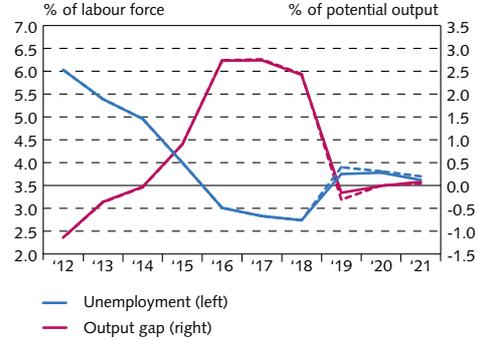
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 28
Domestic demand and GDP growth
2012-2021¹



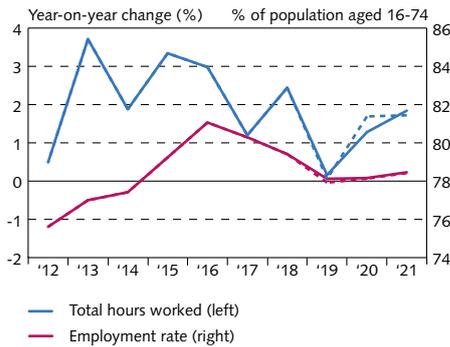
1. Central Bank baseline forecast 2019-2021. Broken lines show forecast from MB 2019/2.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 29
Unemployment and output gap 2012-2021¹



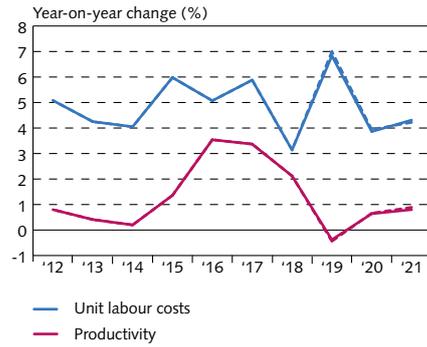
1. Central Bank baseline forecast 2019-2021. Broken lines show forecast from MB 2019/2.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 30
Total hours worked and employment rate
2012-2021¹



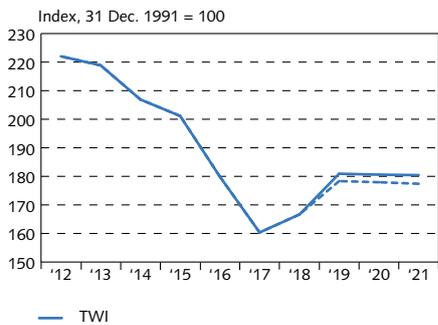
1. Central Bank baseline forecast 2019-2021. Broken lines show forecast from MB 2019/2.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 31
Unit labour costs and productivity 2012-2021¹



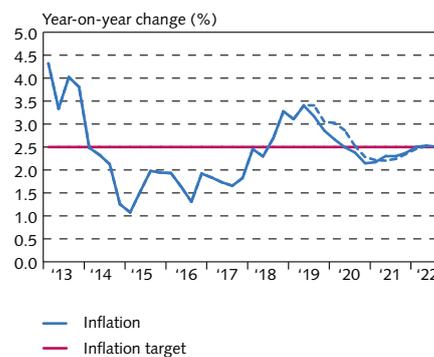
1. Productivity measured as the ratio of GDP to total hours worked. Central Bank baseline forecast 2019-2021. Broken lines show forecast from MB 2019/2.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart 32
Exchange rate 2012-2021¹



1. Narrow trade basket. Central Bank baseline forecast 2019-2021. Broken lines show forecast from MB 2019/2.
Source: Central Bank of Iceland.

Chart 33
Inflation¹
Q1/2013 - Q3/2022



1. Central Bank baseline forecast Q3/2019 - Q3/2022. Broken line shows forecast from MB 2019/2.
Sources: Statistics Iceland, Central Bank of Iceland.

Appendix 1

Forecast tables

Table 1 GDP and its main components¹

	2017	2018	2019	2020	2021
Private consumption	8.1 (8.1)	4.8 (4.8)	1.9 (1.6)	2.4 (2.9)	3.3 (2.9)
Public consumption	3.6 (3.6)	3.3 (3.3)	2.8 (2.2)	2.5 (2.1)	2.5 (2.0)
Gross capital formation	11.6 (11.6)	2.1 (2.1)	-5.0 (-0.6)	11.8 (10.4)	1.2 (0.3)
Business investment	7.7 (7.7)	-5.4 (-5.4)	-13.1 (-6.7)	14.8 (11.9)	-1.6 (-2.8)
Residential investment	20.7 (20.7)	16.7 (16.7)	14.7 (17.1)	11.2 (11.4)	4.4 (4.6)
Public investment	23.3 (23.3)	21.2 (21.2)	2.7 (2.5)	2.7 (3.9)	6.6 (5.5)
Domestic demand	7.6 (7.6)	4.1 (4.1)	-0.2 (1.0)	4.8 (4.3)	2.6 (2.1)
Exports of goods and services	5.4 (5.4)	1.6 (1.6)	-5.1 (-3.7)	0.4 (2.4)	3.0 (2.8)
Imports of goods and services	12.5 (12.5)	0.1 (0.1)	-5.4 (-1.0)	6.7 (6.7)	2.8 (1.6)
Gross domestic product (GDP)	4.6 (4.6)	4.6 (4.6)	-0.2 (-0.4)	1.9 (2.4)	2.7 (2.6)
GDP at current prices (ISK billions)	2,617 (2,617)	2,803 (2,803)	2,920 (2,936)	3,084 (3,102)	3,264 (3,282)
GDP at current prices (growth rate)	5.1 (5.1)	7.1 (7.1)	4.2 (4.7)	5.6 (5.7)	5.8 (5.8)
Total investment (% of GDP)	22.1 (22.1)	22.2 (22.2)	21.3 (22.0)	23.1 (23.5)	22.7 (23.0)
Business investment (% of GDP)	15.3 (15.3)	14.2 (14.2)	12.6 (13.2)	13.9 (14.3)	13.2 (13.5)
Gross national saving (% of GDP) ²	25.8 (25.8)	25.5 (25.5)	24.0 (23.3)	24.5 (23.3)	24.3 (23.6)
Contribution of net trade to GDP growth (percentage points)	-2.6 (-2.6)	0.7 (0.7)	0.0 (-1.3)	-2.7 (-1.9)	0.1 (0.6)

1. Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in MB 2019/2). 2. The sum of investment, inventory changes, and the current account balance.

Sources: Statistics Iceland, Central Bank of Iceland.

Table 2 Global economy, external conditions, and exports¹

	2017	2018	2019	2020	2021
Marine production for export	-3.9 (-3.9)	11.5 (11.6)	-4.0 (-5.5)	-1.0 (0.0)	1.0 (0.5)
Aluminium production for export ²	4.9 (4.9)	-1.2 (-1.2)	-0.5 (-0.3)	2.0 (2.5)	1.0 (1.0)
Foreign currency prices of marine products	-0.8 (-0.8)	4.7 (4.7)	6.0 (4.8)	3.0 (3.2)	3.0 (3.5)
Aluminium prices in USD ³	20.3 (20.3)	13.3 (13.2)	-11.0 (-9.0)	3.0 (4.0)	4.0 (3.0)
Fuel prices in USD ⁴	21.7 (24.1)	30.4 (30.6)	-12.5 (-2.1)	-9.7 (-2.3)	-1.0 (-4.9)
Terms of trade for goods and services	1.7 (1.7)	-3.9 (-3.9)	0.1 (0.3)	2.5 (1.0)	0.6 (0.7)
Inflation in main trading partners ⁵	1.7 (1.7)	2.0 (2.0)	1.6 (1.7)	1.7 (1.8)	1.8 (1.8)
GDP growth in main trading partners ⁵	2.5 (2.5)	2.2 (2.1)	1.6 (1.7)	1.6 (1.7)	1.6 (1.6)
Main trading partners' imports ⁵	3.9 (3.8)	3.0 (3.1)	3.0 (3.3)	3.1 (3.2)	3.3 (3.4)
Policy rates in main trading partners (%) ⁶	0.2 (0.2)	0.5 (0.5)	0.6 (0.6)	0.4 (0.6)	0.4 (0.6)

1. Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in MB 2019/2). 2. According to Statistics Iceland's external trade data. 3. Forecast based on aluminium futures and analysts' forecasts. 4. Based on average price of Brent crude oil futures during the period 5-9 August 2019. 5. Forecast based on Consensus Forecasts, Global Insight, IMF, and OECD. 6. Forecast based on main trading partners' forward policy rates.

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

Table 3 Current account balance and its subcomponents¹

	2017	2018	2019	2020	2021
Trade balance	4.1 (4.1)	3.1 (3.1)	3.2 (1.9)	1.6 (0.5)	1.9 (1.3)
Balance on primary income ²	-0.4 (-0.4)	-0.2 (-0.2)	-0.2 (-0.7)	-0.1 (-0.3)	-0.2 (-0.4)
Current account balance	3.7 (3.6)	2.9 (2.9)	3.0 (1.3)	1.5 (0.1)	1.7 (0.9)

1. % of GDP (figures in parentheses are from the forecast in MB 2019/2). 2. The sum of primary and secondary income.

Sources: Statistics Iceland, Central Bank of Iceland.

Table 4 Labour market and factor utilisation¹

	2017	2018	2019	2020	2021
Unemployment (% of labour force)	2.8 (2.8)	2.7 (2.7)	3.7 (3.9)	3.8 (3.8)	3.6 (3.7)
Employment rate (% of population aged 16-74)	80.3 (80.3)	79.4 (79.4)	78.1 (77.9)	78.2 (78.1)	78.5 (78.4)
Total hours worked	1.2 (1.2)	2.4 (2.4)	0.2 (0.1)	1.3 (1.7)	1.8 (1.7)
Labour productivity ²	3.4 (3.4)	2.1 (2.1)	-0.4 (-0.4)	0.6 (0.7)	0.8 (0.9)
Unit labour costs ³	5.9 (5.9)	3.1 (3.1)	6.8 (7.0)	3.9 (3.9)	4.3 (4.2)
Wage share (% of gross factor income)	63.8 (63.8)	64.3 (64.3)	65.7 (65.4)	65.9 (65.9)	66.7 (66.6)
Real disposable income	11.5 (11.5)	2.4 (2.4)	3.2 (2.9)	3.7 (2.8)	3.5 (2.8)
Output gap (% of potential output)	2.7 (2.8)	2.4 (2.4)	-0.2 (-0.3)	0.0 (0.0)	0.1 (0.0)

1. Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in MB 2019/2). 2. GDP per total hours worked. 3. Wage costs divided by productivity.

Sources: Statistics Iceland, Central Bank of Iceland.

Table 5 Exchange rate and inflation¹

	2017	2018	2019	2020	2021
Trade-weighted exchange rate index ²	160.3 (160.3)	166.7 (166.7)	180.9 (178.3)	180.6 (177.9)	180.4 (177.4)
Real exchange rate (relative consumer prices) ³	99.8 (99.8)	96.8 (96.8)	90.4 (91.7)	91.2 (92.7)	91.7 (93.4)
Real exchange rate (relative unit labour costs) ³	100.7 (100.7)	97.9 (98.0)	94.2 (96.2)	96.1 (98.2)	98.1 (100.3)
Inflation (consumer price index, CPI)	1.8 (1.8)	2.7 (2.7)	3.1 (3.2)	2.4 (2.7)	2.3 (2.3)
Inflation (CPI excluding effects of indirect taxes)	1.5 (1.5)	2.6 (2.6)	3.0 (3.2)	2.3 (2.6)	2.2 (2.2)

1. Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in MB 2019/2). 2. Narrow trade-weighted basket (index, 31 December 1991 = 100). The index has been recalculated so that on 2 January 2009 it was assigned a value equivalent to that of the now-discontinued Exchange Rate Index. 3. Average 2005 = 100.

Sources: Statistics Iceland, Central Bank of Iceland.

Table 6 Quarterly inflation forecast (%)¹

Quarter	Inflation (year-on-year change)	Inflation excluding effects of indirect taxes (year-on-year change)		Inflation (annualised quarter-on-quarter change)
		Measured value		
2018:3	2.7 (2.7)	2.6 (2.6)		2.6 (2.6)
2018:4	3.3 (3.3)	3.2 (3.2)		4.9 (4.9)
2019:1	3.1 (3.1)	3.0 (3.0)		1.9 (1.9)
2019:2	3.4 (3.4)	3.3 (3.3)		4.3 (4.3)
		Forecasted value		
2019:3	3.2 (3.4)	3.1 (3.3)		1.7 (2.6)
2019:4	2.9 (3.1)	2.8 (3.0)		3.7 (3.5)
2020:1	2.7 (3.0)	2.6 (2.9)		1.1 (1.8)
2020:2	2.5 (2.9)	2.4 (2.8)		3.6 (3.7)
2020:3	2.4 (2.5)	2.3 (2.4)		1.2 (1.2)
2020:4	2.1 (2.3)	2.1 (2.2)		2.7 (2.5)
2021:1	2.2 (2.2)	2.1 (2.2)		1.2 (1.5)
2021:2	2.3 (2.2)	2.2 (2.1)		4.1 (3.6)
2021:3	2.3 (2.2)	2.2 (2.2)		1.2 (1.4)
2021:4	2.4 (2.3)	2.3 (2.3)		3.0 (2.9)
2022:1	2.5 (2.5)	2.5 (2.5)		1.7 (1.9)
2022:2	2.5 (2.5)	2.5 (2.5)		4.2 (3.9)
2022:3	2.5	2.5		1.1

1. Figures in parentheses are from the forecast in MB 2019/2.

Sources: Statistics Iceland, Central Bank of Iceland.