Monetary Bulletin 2019/4[1]

After a strong upsurge, GDP growth in Iceland lost pace rapidly over the course of 2018. Global growth softened and uncertainty increased – not least after the escalation of the US-China trade dispute. Additional idiosyncratic Icelandic shocks, such as the collapse of airline WOW Air, other setbacks in the airline industry, and the failure of the capelin catch, slowed domestic GDP growth still further as 2019 advanced. GDP growth fell to 0.9% in H1/2019, after measuring 3.2% in H2/2018 and 6.7% in H1/2018.

Yet even though growth lost pace in H1/2019, it turned out somewhat stronger than had been assumed in the Bank's August forecast. Domestic demand contracted more than projected but was outweighed by more favourable net trade, indicating a stronger-than-anticipated expenditure switch towards domestic goods and services. However, the outlook for H2 is for a stronger contraction than was forecast in August, owing primarily to a sizeable contraction in goods exports in Q3. There are also signs that private consumption growth has slowed and that firms' investment spending will be weaker than previously assumed. GDP growth is forecast to contract by 0.2% this year, as was assumed in the August forecast. The outlook for 2020 has deteriorated, however. GDP growth for the year is projected at 1.6% instead of 1.9%, owing mainly to a poorer outlook for growth in domestic demand.

According to Statistics Iceland's labour force survey, job numbers fell by 0.4% year-on-year in Q3, in the first decline since late 2011. Unemployment was broadly unchanged between quarters, at 3.7%, but was 0.6 percentage points higher than in Q1, before WOW Air failed. Employment is expected to decline further in Q4 and unemployment to climb to a peak of just over 4% before tapering off over the course of 2020. At the same time, the slack that opened up in the economy in mid-2019 is expected to start narrowing again, and capacity utilisation is projected to normalise by the end of next year.

Inflation was broadly at target well into 2018 but rose following the depreciation of the króna in the autumn. It peaked at 3.7% in December but has eased since then, measuring 3.1% in Q3 and falling to 2.8% in October. Although underlying inflation has proven more persistent, inflation expectations have returned to the target by most measures after rising in 2018. Headline inflation was slightly below the August forecast in Q3, and the short-term outlook has improved. It is projected to average 2.5% in Q4, 0.4 percentage points below the August forecast. The outlook is for inflation to be at or near the target for most of the forecast horizon, although it is forecast to dip temporarily below target in H2/2020.

1. The analysis presented in this *Monetary Bulletin* is based on data available in early November.

I Economic outlook, key assumptions, and main uncertainties

Central Bank baseline forecast

Global GDP growth slips further

GDP growth has slowed worldwide in the past year, and pessimism about the economic outlook has increased, particularly among manufacturing companies, which are most vulnerable to the adverse effects of the ongoing trade dispute between the US and China. Global GDP growth measured 3.6% in 2018 but lost momentum over the course of the year and continued to slow down in H1/2019. The International Monetary Fund (IMF) expects global output growth to measure only 3% in 2019, 0.3 percentage points below the Fund's spring forecast and the weakest growth rate since 2009. The outlook for 2020 has deteriorated as well.

Among Iceland's main trading partners, output growth averaged 2.3% in H1/2018 but had receded to 1.8% by Q4. The downward trend has continued in 2019 to date. Growth averaged 1.6% in Q2 and is projected to measure 1.3% in H2. If this forecast materialises, growth will have fallen 1½ percentage points from its late 2017 peak. The reversal is due mainly to substantially reduced GDP growth in the eurozone, although growth has softened in the UK and Sweden as well. If projections are borne out, GDP growth among Iceland's main trading partners will average 1.5% in 2019 and 2020, and about 1.6% in the years thereafter (Chart I-1). Further discussion of the global economy can be found in Chapter II, and uncertainties in the global outlook are discussed later in this chapter.

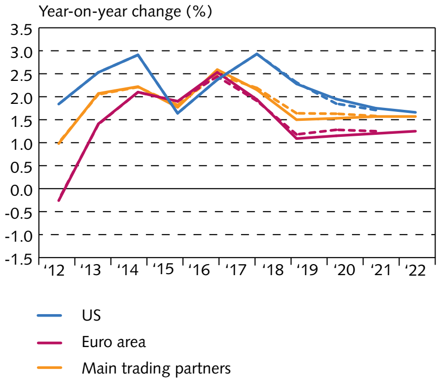
Exchange rate developments broadly in line with the August forecast

Terms of trade improved markedly from 2014 until mid-2017, whereupon they began to deteriorate again. By the time the slide stopped at the end of 2018, terms of trade had worsened by over 7%. About half of the deterioration occurred in 2018, driven by a 30% rise in the price of both oil and alumina, which outweighed a nearly 4% rise in foreign currency prices of Icelandic exports. For this year, the outlook is for a partial reversal of the steep rise in imported input prices, as alumina, oil, and other commodities are expected to decline in price between years. This notwithstanding, and despite a handsome rise in foreign currency prices of marine products, terms of trade are expected to deteriorate slightly year-on-year (Chart I-2). This is due in large part to a 13% decline in aluminium prices, although foreign currency prices of exported services are expected to fall as well. As in the August forecast, terms of trade are expected to improve by a total of 3% over the next three years.

The trade-weighted exchange rate index (TWI) has hovered around 180 points in the past year, after the króna depreciated by more than 10% in autumn 2018, following news of mounting operational difficulties at WOW Air, concerns about then-pending wage negotiations, and increased pessimism about the overall economic

Chart I-1

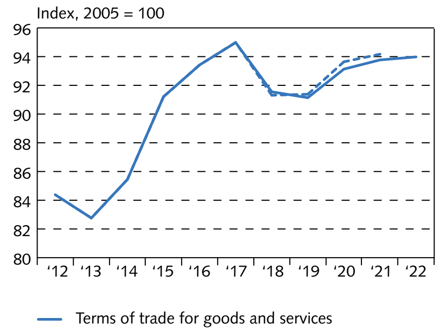
Global output growth 2012-2022[1]



1. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: OECD, Thomson Reuters, Central Bank of Iceland.

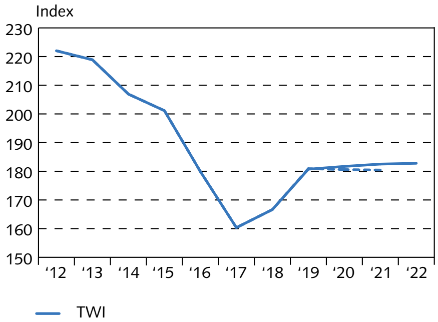
Chart I-2

Terms of trade 2012-2022[1]



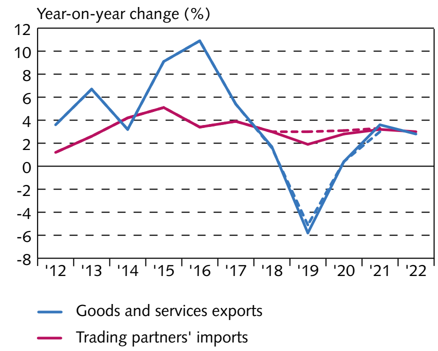
1. Central Bank baseline forecast 2019-2022. Broken line shows forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-3
Exchange rate 2012-2022[1]



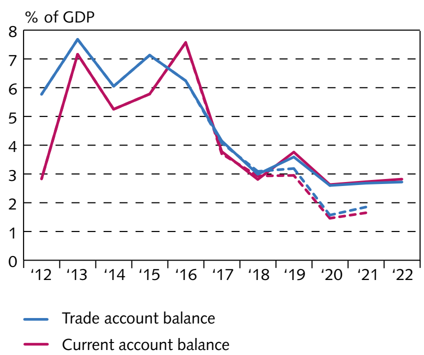
1. Narrow trade basket. Central Bank baseline forecast 2019-2022. Broken line shows forecast from MB 2019/3.
Source: Central Bank of Iceland.

Chart I-4
Exports and global demand 2012-2022[1]



1. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: Statistics Iceland, Thomson Reuters, Central Bank of Iceland.

Chart I-5
Current account balance 2012-2022[1]



1. Current account balance based on estimated underlying balance 2008-2015. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

outlook. The króna has depreciated in trade-weighted terms by 0.7% since the August *Monetary Bulletin* and is now slightly lower than in the beginning of November 2018. In H2 to date, the króna has developed broadly as was projected in August. As a result, the exchange rate assumptions in the baseline forecast are similar to those in the August forecast. The TWI is projected to average about 181 points this year and about 182 points in the years to follow (Chart I-3). Therefore, the adjustment of the exchange rate to recent external shocks has already come largely to the fore through a decline in the equilibrium real exchange rate (i.e., the real exchange rate consistent with internal and external balance in the economy) and a narrowing of the interest rate differential with abroad. Further discussion of uncertainties about the exchange rate outlook can be found later in this chapter, and terms of trade and the exchange rate are discussed in Chapters II and III.

Exports set to contract markedly this year, and more than was assumed in August

Goods and services exports contracted by 2.8% year-on-year in H1, somewhat less than the Bank projected in August. Services exports shrank more than 9%, reflecting the sharp contraction in tourism following the collapse of WOW Air in late March and the grounding of Icelandair's Boeing 737 Max jets. On the other hand, goods exports grew by a full 3% year-on-year in H1, although excluding exports of ships and aircraft – which stemmed primarily from the sale of aircraft from WOW Air's operations – they contracted by 5½%. This overall contraction was due in large part to an 8% decline in marine product exports, itself a result of the capelin catch failure, and to a nearly 4% drop in aluminium exports.

The outlook is for exports to contract more in H2 than was forecast in August. The contraction in air transport is expected to be larger, albeit offset by a smaller contraction in tourists' spending in Iceland. Furthermore, figures on net trade suggest a strong contraction in goods exports in Q3, driven largely by reduced aluminium exports in the wake of production problems in the domestic aluminium industry. For 2019 as a whole, goods and services exports are forecast to shrink by 5.8% year-on-year, some 0.7 percentage points more than was assumed in August (Chart I-4). As in the August forecast, they are expected to pick up slightly in 2020 and then grow by an average of 3% per year in 2021 and 2022.

Imports contracted by over 10% in H1, owing largely to reduced activity in tourism, in addition to a decline in imports of investment goods and consumer durables. Because imports are expected to shrink more than exports, the outlook for 2019 is for a larger trade surplus than was forecast in August. This sluggish growth in imports also explains why the 2020 surplus is forecast to be larger than was projected in August. The trade surplus is now expected to narrow to 2.6% of GDP and remain there for the rest of the forecast horizon (Chart I-5). The current account surplus is assumed to develop in a similar manner. Further discussion of exports and the external balance can be found in Chapter IV.

Outlook for domestic demand to contract this year, for the first time since 2010

Private consumption growth began to ease in late 2018, and by H1/2019 it had fallen to 2.2%, the weakest year-on-year growth rate since H2/2013. Although it developed in line with the August forecast in H1, indicators imply that it was weaker in Q3 than previously expected. As a result, private consumption growth for 2019 as a whole is projected to be slightly below the August forecast, or 1.7% instead of 1.9% (Chart I-6). Growth is expected to gain steam in coming years, bolstered by rising disposable income, which is projected to average just over 3% in the next three years, owing partly to Government decisions to lower taxes and increase transfers to households (see also Chapter IV, Box 3, and the discussion of the economic impact of the measures later in this chapter).

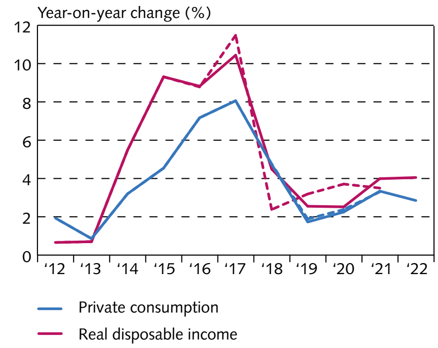
After the surge of the past several years, business investment contracted by nearly 16% year-on-year in H2/2018 and then by another third in H1/2019. To some extent, this steep contraction reflects the sale of aircraft from WOW Air's operations, which measures as goods exports and negative investment in the national accounts. However, general business investment (i.e., excluding energy-intensive industry, ships, and aircraft), also contracted in H1, by 15%. This is a somewhat larger contraction than was assumed in the August forecast, and the outlook for the year as a whole has therefore been revised downwards. Business investment is expected to shrink by 16% year-on-year in 2019 and not 13%, as was forecast in August (Chart I-7). This is compounded by the prospect of weaker-than-expected growth in residential investment and reduced public investment spending relative to the August forecast. Total investment is forecast to fall by 8.4% between years instead of 5%, as was projected in August. Next year's turnaround is also expected to be weaker than in the August forecast. The investment-to-GDP ratio is set to fall by 1½ percentage points this year, to 20.8%, and then inch upwards to its historical average in 2020.

Domestic demand, which reflects all public and private sector consumption and investment spending, contracted by 2.4% in H1, with 1 percentage point of that amount due to negative effects of inventory changes. This, in turn, was due in part to destocking in the fishing industry in response to the capelin catch failure in the spring. Weaker investment activity resulted in a larger contraction in domestic demand than was forecast in August. The outlook for H2 has deteriorated as well. Domestic demand is forecast to contract by 0.9% in 2019 as a whole, instead of the 0.2% assumed in August (Chart I-8). If this projection is borne out, it will be the first year-on-year contraction in domestic demand since 2010. Further discussion of private consumption, investment, and domestic demand can be found in Chapter IV.

GDP growth losing pace rapidly and expected to turn negative in H2

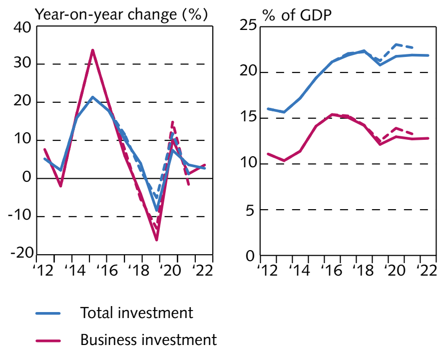
According to preliminary figures from Statistics Iceland, GDP growth measured 0.9% in H1/2019, down from 3.2% in H2/2018 and 6.7% in H1/2018. Even though domestic demand contracted more in H1

Chart I-6
Private consumption and disposable income 2012-2022[1]



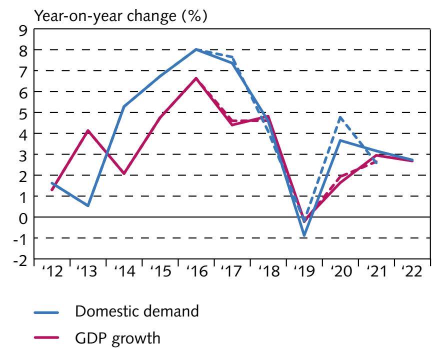
1. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-7
Investment 2012-2022[1]



1. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

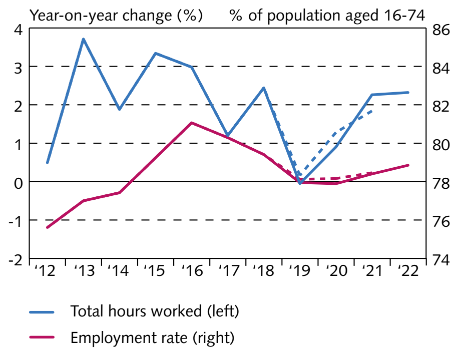
Chart I-8
Domestic demand and GDP growth 2012-2022[1]



1. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

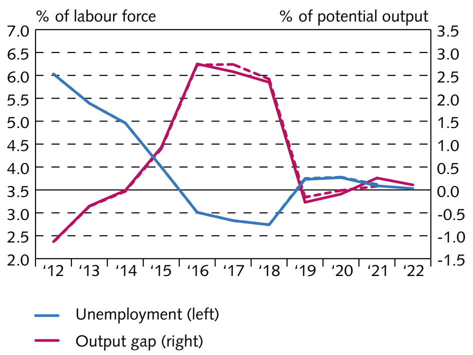
than was assumed in the August forecast, GDP growth turned out 0.4 percentage points above that forecast, mainly because of a stronger-than-anticipated expenditure switch towards domestic goods and services. However, figures on net trade imply that goods exports shrank markedly in Q3, and GDP is therefore estimated to have contracted during the quarter, which explains in large part the poorer H2 output growth outlook relative to the August forecast. GDP is now expected to contract by 1.2% in H2 and by 0.2% in 2019 as a whole, the same as in the August forecast (Chart I-8). If the forecast materialises, the year will see Iceland's first economic contraction since 2010. The output growth outlook for 2020 has been revised downwards, however, reflecting the bleaker outlook for growth in domestic demand, albeit offset by a more favourable contribution from net trade. GDP growth is projected to measure 1.6% in 2020 and align with long-term potential in 2021. Further discussion of developments in GDP growth can be found in Chapter IV.

Chart I-9
Total hours worked and employment rate 2012-2022[1]



1. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-10
Unemployment and output gap 2012-2022[1]



1. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

Job numbers decline and unemployment has risen, but indicators imply that the contraction will be relatively brief

According to Statistics Iceland's labour force survey (LFS), total hours worked fell by 0.4% year-on-year in Q3/2019, broadly consistent with the Bank's August forecast. Job numbers also fell by 0.4% between years — the first year-on-year contraction measured in the LFS since late 2011. In line with the August forecast, seasonally adjusted unemployment measured 3.7% in Q3 and was broadly unchanged from the previous quarter. In comparison with Q1 (the last quarter before WOW Air failed), this is an increase of 0.6 percentage points.

The outlook is for total hours worked to fall still further in Q4 and to be an average of 0.1% fewer in 2019 than in 2018, whereas the August forecast assumed a year-on-year increase of 0.2% (Chart I-9). The employment rate is therefore expected to fall for the third year in a row. Although this will be mitigated by a declining labour participation rate, unemployment is set to continue rising, measuring 3.7% for the year as a whole, or 1 percentage point more than in 2018 (Chart I-10). The outlook for the labour market is therefore largely unchanged from the August forecast. As was assumed then, total hours worked are projected to pick up again in 2020, as is the employment rate; however, unemployment will keep rising during the year, measuring 3.8% for 2020 as a whole, before starting to ease once more.

Leading indicators give cause to hope that capacity utilisation has begun to improve again and that the contraction following the recent negative shocks will be relatively brief. The output gap that developed following the past several years' surge in output growth is estimated to have closed and a small slack to have opened up. The slack in output is expected to peak in mid-2020 and close by the end of the year. This is broadly similar to the outlook described in the August forecast (Chart I-10). It should be noted, however, that estimating the output gap is always uncertain, particularly at sharp cyclical turning points like the present one. Further discussion of the labour market and factor utilisation can be found in Chapter V.

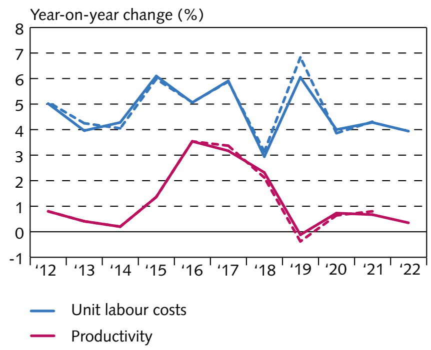
Inflation expected to align with the target in Q4/2019

Inflation was broadly at the Bank's 2.5% target well into 2018 but then rose somewhat following the depreciation of the króna in the autumn. It peaked in December at 3.7% and has gradually tapered off over the course of this year, averaging 3.1% in Q3 and falling to 2.8% by October. Underlying inflation has been somewhat more persistent, measuring 3.4% in October. Inflation expectations have fallen as well after rising last year, fuelled by concerns about wage settlements and the depreciation of the króna. By most measures, inflation expectations are well in line with the target.

Wages have risen markedly in the recent past, and the share of gross factor income is high in historical terms. Based on estimated productivity growth, unit labour costs are expected to rise by an average of just over 6% this year (Chart I-11). This is a slightly smaller increase than was forecast in August, owing in part to more favourable developments in productivity. The outlook for the next three years is broadly unchanged, however, with unit labour costs forecast to rise by about 4% per year.

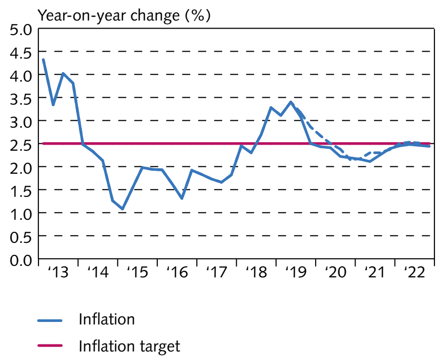
Inflation was slightly below the August forecast in Q3 and is expected to fall even faster in Q4. It is projected to average 2.5% during the quarter, as opposed to the August forecast of 2.9%. The changed outlook is due primarily to a faster-than-projected decline in inflation this autumn, but in other respects, the inflation outlook for the rest of 2019 is largely unchanged. According to the forecast, inflation will be at target for most of the forecast horizon, although it will fall slightly below target in H2/2020 and remain below it into 2021 (Chart I-12). From mid-2020 onwards, the inflation outlook is therefore very similar to the August forecast. The uncertainties in the inflation forecast are discussed below, developments in global prices in Chapter II, and domestic inflation and inflation expectations in Chapter VI.

Chart I-11
Unit labour costs and productivity 2012-2022[1]



1. Productivity measured as GDP per total hours worked. Central Bank baseline forecast 2019-2022. Broken lines show forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

Chart I-12
Inflation[1]
Q1/2013 - Q4/2022



1. Central Bank baseline forecast Q4/2019-Q4/2022. Broken line shows forecast from MB 2019/3.
Sources: Statistics Iceland, Central Bank of Iceland.

Key assumptions and main uncertainties

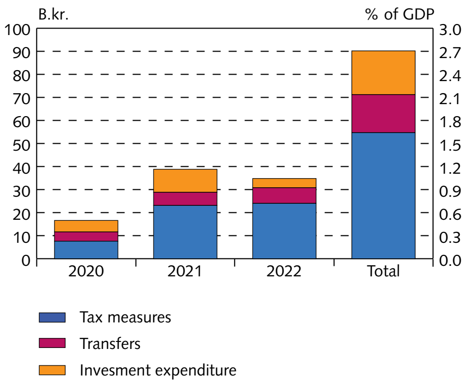
The baseline forecast reflects the assessment of the most likely economic developments during the forecast horizon. It is based on forecasts and assumptions concerning domestic economic policy and the external environment of the Icelandic economy, as well as assessments of the effectiveness of individual markets and how monetary policy is transmitted to the real economy. All of these factors are subject to uncertainty. The assumptions concerning domestic economic policy are outlined below. Also discussed are several important uncertainties and the ways in which changes in key assumptions could lead to developments that deviate from the baseline forecast.

The fiscal stance and monetary policy

According to revised figures from Statistics Iceland, the fiscal stance (as measured in terms of changes in the cyclically adjusted primary balance) eased more in 2018 than the previous estimate had implied. The fiscal stance is estimated to be virtually neutral this year, but the outlook is for it to ease again in 2020 and 2021, in accordance with the Government's plans in connection with recently finalised wage agreements and in order to support the economy in the wake of recent negative shocks (see Chapter IV and Box 3). The easing over the forecast horizon is roughly as was assumed in May, when the Bank last assessed the fiscal stance. Further discussion of the economic impact of these discretionary measures can be found below.

The Central Bank's key interest rate has fallen steeply in recent months. As of this writing, it is 3.25% and has therefore fallen by 1.25 percentage points since May (see Chapter III). The baseline forecast assumes that, during the forecast horizon, the key rate will develop in line with the monetary policy rule in the Bank's macroeconomic model, which ensures that inflation will be broadly at target over the medium term.

Chart I-13
Fiscal measures 2020-2022[1]

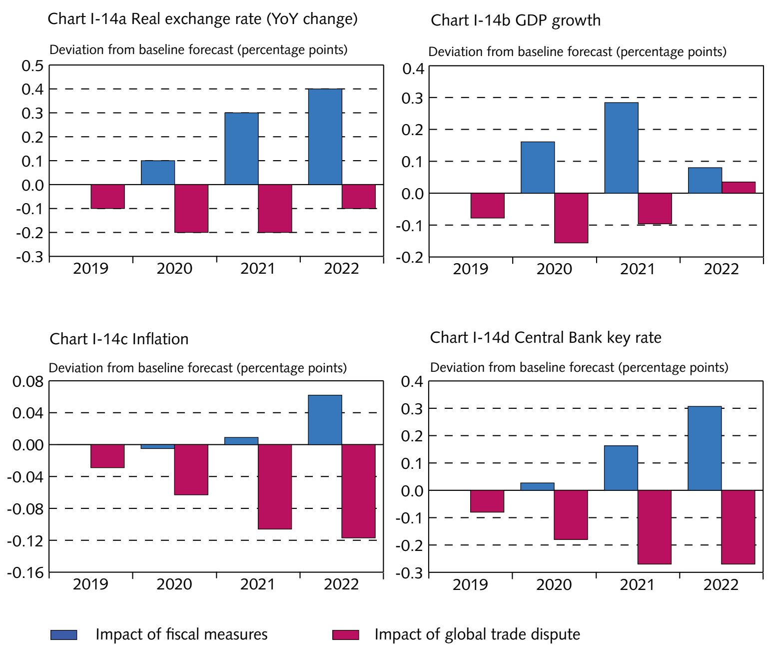


1. Tax measures consist of personal income tax cuts and authorisation to allocate third-pillar pension savings tax-free towards mortgage loans. Increased transfer expenditure consists of increased child benefits and housing benefits and lengthening of childbirth leave. Increased investment expenditure is in connection with transportation initiative.
Source: Central Bank of Iceland.

Fiscal measures boost disposable income and stimulate demand

If the fiscal budget proposal is approved as introduced, it will legalise the discretionary measures announced by the Government in connection with private sector wage agreements this past spring. In the main, the measures entail adding an extra tax bracket and lowering the personal income tax. In addition, the authorisation to allocate a portion of third-pillar pension savings tax-free to mortgage loans has been extended by two years, child benefits and housing benefits have been increased, and childbirth leave has been lengthened (see Chapter IV and Box 3). The combined scope of the tax measures amounts to an estimated 55 b.kr. over the period 2020-2022, and transfer outlays will rise by a total of 16.5 b.kr. over the same period (Chart I-13). Thus the total cost to the Treasury for these measures comes to just over 71 b.kr., roughly as was estimated in connection with the wage settlements in the spring (see Box 3 in *Monetary Bulletin* 2019/2). In addition, the authorities assume an increase of 19 b.kr. in invest-

Chart I-14
Alternative scenario

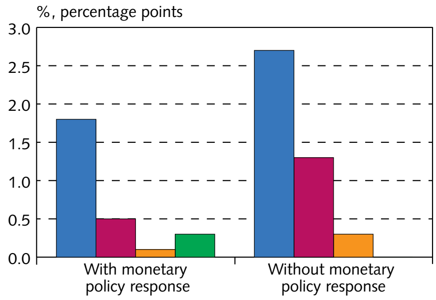


Source: Central Bank of Iceland.

ment expenditure over the three-year period, including spending on a transportation initiative. Overall, the scope of the aforementioned measures totals 0.5% of estimated GDP in 2020, and about twice that in the latter half of the forecast horizon (Chart I-13). Over the entire three-year period, it therefore comes to 90 b.kr., or 2.7% of GDP.

The measures will boost households' disposable income and stimulate demand, and the impact is already incorporated into the baseline forecast. The GDP growth effect is less pronounced than the impact on domestic demand because a portion of the increased demand will be channelled towards imported goods and services. Furthermore, Central Bank interest rates will be higher than they would be otherwise, so as to ensure that inflation will remain at target over the medium term. The króna will therefore be stronger than it would be otherwise and, together with higher interest rates, will curb private sector demand and exports and further shift spending out of the domestic economy. As can be seen in Chart I-14, the Central Bank's key rate is projected to be 0.3 percentage points higher by 2022 than it would be otherwise, and the real exchange rate is projected to be just under 1% higher. These fiscal measures are estimated to boost GDP growth by 0.2 percentage points in 2020 and 0.3 percentage points in 2021. From then on, the GDP growth impact of the measures begins to taper off, but GDP will be 0.5% higher and private consumption 1.8% higher in 2022 than would otherwise be the case (Chart I-15). The inflationary impact will be minor, however, because of a higher key interest rate and a stronger króna. If monetary policy does not respond, though, the inflationary impact will be stronger, as Chart I-15 indicates. In that instance, the measures will have a more pronounced demand-side effect, pushing GDP 1% higher in 2022 than it would be without them and pushing inflation 0.3 percentage points higher (and 0.5 percentage points higher in 2023). The later monetary policy responds, the greater the inflationary impact will be, as will the risk of gradually undermining the credibility of the inflation target, ultimately requiring a larger response in order to bring inflation to target.

Chart I-15
Economic impact of fiscal measures[1]

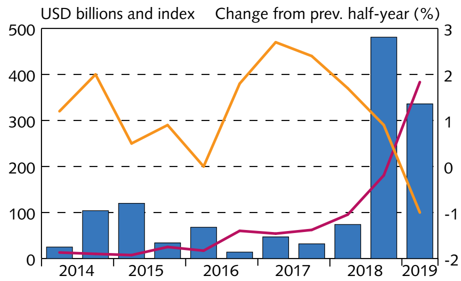


1. The effect on private consumption and GDP (in %) and inflation and the key rate (in percentage points) in 2022, with and without monetary policy response to the Government's fiscal measures.
Source: Central Bank of Iceland.

The US-China trade dispute has exacerbated global economic uncertainty …

In October, the US and China reached an agreement to postpone the tariff hikes planned earlier in the month, while they attempt to come to a broader resolution of the dispute that erupted in summer 2018 and has escalated since. The two countries have repeatedly taken turns raising tariffs, imposing them on an increasing number of products, and threatening further tariffs. As can be seen in Chart I-16, the resulting restrictions on world trade have increased substantially: since H2/2018, new trade restrictions have affected G20 countries' imports worth over 400 billion US dollars. This represents a sevenfold increase from the average from 2014 through mid-2018.[2] The impact on the global economy has been substantial. Uncertainty has increased, and

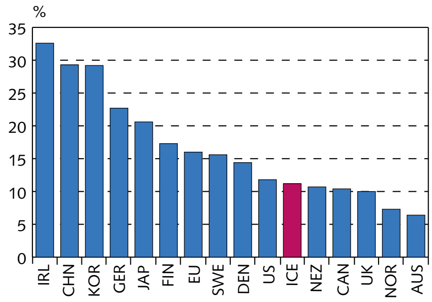
Chart I-16
Turnaround in world trade
H1/2014 - H1/2019



1. Estimated scope of new trade restrictions on G20 countries' imports (OECD-UNCTAD-WTO). 2 WTU index, Ahir *et al.* (2018). 3. Half-year change in global goods trade (CPB World Trade Monitor).
Sources: Ahir *et al*. (2018), CPB, OECD-UNCTAD-WTO.

2. The estimate of the scope of trade restrictions is obtained from OECD-UNCTAD-WTO (2019), *21st Report on G20 trade and investment measures*, June 2019. The measure of uncertainty in world trade is taken from Ahir, H., N. Bloom, and D. Furceri (2018), "The world uncertainty index", International Monetary Fund.

Chart I-17
Share of manufacturing in total output in selected advanced economies[1]



1. Manufacturing as a % of gross value added. The countries are Ireland (IRL), China (CHN), South Korea (KOR), Germany (GER), Japan (JAP), Finland (FIN), European Union (EU), Sweden (SWE), Denmark (DEN), the United States (US), Iceland (ICE), New Zealand (NEZ), Canada (CAN), the United Kingdom (UK), Norway (NOR) and Australia (AUS). 2014-2018 average except for Iceland, Japan and the US (2014-2017) and China (2015-2018).
Sources: Statistics Iceland, OECD.

firms are more pessimistic about the economic outlook than they have been for quite some time. As a result, they have postponed both investment decisions and, increasingly, hiring decisions. Global goods trade has receded markedly and began to contract year-on-year in Q2, for the first time since end-2009.

The trade dispute has thrown global value chains into disarray and increased the cost of engaging in cross-border trade. Because the tariff hikes have primarily affected a variety of manufactured goods, it is likely that the dispute has the strongest impact on economies that rely on manufacturing, such as Ireland, Germany, and Japan (Chart I-17). It is also likely that the dispute directly affects the Chinese economy more than the US economy. The direct impact on economies that rely on commodity exports rather than manufacturing exports, such as Iceland, is probably less pronounced. That said, the overall effect could prove significant once the indirect effects of the trade war on global private sector sentiment, households' and businesses' willingness to spend, and their ability to finance that spending are factored in.

… and adversely affected GDP growth worldwide

Although the recent détente between the US and China reduces the likelihood of further escalation, the most prominent issues between the two countries remain unresolved. Furthermore, the tariff increases already in effect have not been withdrawn, and as yet there have been no announcements that the tariffs planned for December by the US have been abandoned. Under these circumstances, the dispute could easily erupt again.

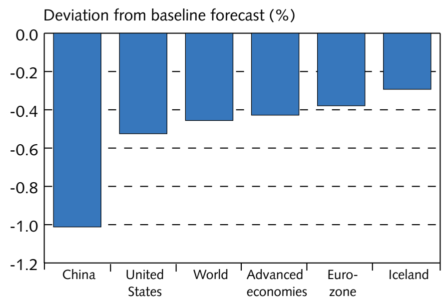
Chapter I of *Monetary Bulletin* 2018/4 contains an assessment of the impact of the trade dispute on the Icelandic economy, based on the tariff hikes proposed or already in force at that time. Since then, new tariffs have been put in place, but it appears that the US administration's ideas about imposing tariffs on all motor vehicle imports have been shelved for the time being. Furthermore, some of the tariff increases were implemented later than was assumed in the Bank's original analysis. It could therefore be informative to re-evaluate the impact of the trade dispute on the domestic economic outlook. As in the previous instance, the assessment is based on the IMF's analysis of the global impact of the dispute, which also takes into consideration the effect of increased global economic uncertainty in the wake of the dispute and how this uncertainty leads to rising interest rate spreads on corporate bonds. Furthermore, it takes account of the negative impact on global productivity, as the dispute leads to inefficient reallocation of resources.[3] According to the IMF assessment, global GDP growth will be 0.2 percentage points lower this year than it would have been if no dispute had arisen. The impact on the global economy is expected to peak in 2020, with GDP growth 0.4 percentage points weaker than it would have been otherwise.

Reduced global output growth and weaker world trade will in-

3. See International Monetary Fund (2018, 2019) *World Economic Outlook*, Chapter 1, October 2018 and 2019. It should be noted that some of the tariff increases are in place and have already affected the global economy; therefore, they are already reflected in the baseline forecast.

evitably cut into demand for Icelandic production. As in *Monetary Bulletin* 2018/4, account is taken of the impact that weaker global economic activity will have on Iceland's terms of trade. Furthermore, it is assumed that the rise in global corporate spreads will spill over to Iceland. Reduced demand from abroad will cause exports to grow more slowly than is assumed in the baseline forecast. This, together with the deterioration in terms of trade and the rise in interest rate spreads, will push estimated GDP growth down relative to the baseline scenario by 0.1 percentage points in 2019 and 0.2 percentage points in 2020. Poorer external conditions and a more accommodative monetary stance will lower the exchange rate of the króna, thereby mitigating the contractionary impact of the trade dispute (see Chart I-14 above). The GDP growth effects will taper off, but by 2022 the domestic economy is projected to be 0.3% smaller than it would be without the trade dispute (Chart I-18). This is similar to the economic impact on the eurozone and other advanced economies, but less than the impact on the global economy and on the two parties to the dispute, which suffer the most – especially China, where GDP will be 1% lower by 2022.

Chart I-18
Impact of global trade dispute on output[1]



1. Impact of the trade dispute between the United States and other countries. The figure shows the accumulated deviations from baseline in 2022.
Sources: IMF, Central Bank of Iceland.

UK and EU negotiate another Brexit postponement, and uncertainty persists about the future of trade

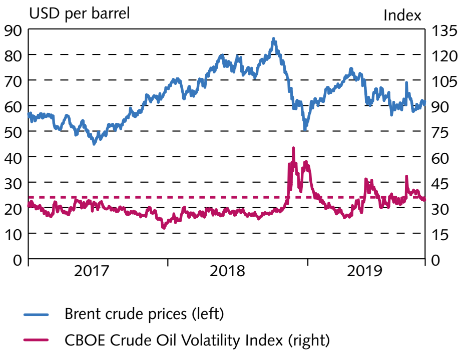
In mid-October, the UK and the European Union (EU) reached an agreement on the UK's exit from the EU, after the previous agreement had been rejected three times by the British Parliament. Even though the new agreement appears to enjoy stronger Parliamentary support than its predecessor, the British government has not yet managed to get it approved. As a consequence, the UK's planned departure from the EU at the end of October has been postponed again, this time until end-January. The fact that the new exit agreement appears to have majority support in Parliament probably means that the risk of a no-deal Brexit has diminished, an outcome that virtually all analyses have warned against.[4] But the situation is still unresolved, as the new agreement is in effect only an interim arrangement for EU-UK interactions until a permanent agreement can be reached. To some extent, the problem has merely been postponed for the time being, as Brexit-related uncertainty remains and will probably continue to frustrate UK and EU businesses' investment plans.

Ambiguous global outlook and interruptions in oil production have exacerbated uncertainty about oil prices

Shocks to oil production and steep rises in oil prices usually have a profound impact on the global economic outlook. The recent 15% jump in oil prices following the drone attack on the world's largest oil processing facility, located in Saudi Arabia, exacerbated pessimism about the global economic outlook. Even though prices settled down again, uncertainty remains about the security of oil resources on the Arabian peninsula, not least in view of the growing instability at the

4. Chapter I of *Monetary Bulletin* 2019/2 contains a discussion of the economic effects of a no-deal Brexit and the likely impact on the Icelandic economy.

Chart I-19
Global oil prices[1]
1 January 2017 - 1 November 2019



1. Underlying volatility in crude oil option prices from the Chicago Board Options Exchange (CBOE). The broken line shows the CBOE volatility index average for 2007-2019.
Source: Thomson Reuters.

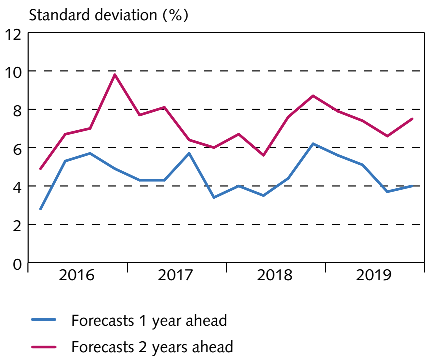
eastern end of the Mediterranean. Uncertainty about oil prices increased markedly after the drone strike, as can be seen in a surge in underlying volatility in oil futures immediately following the attack, although it did not reach the same level as in autumn 2018 (Chart I-19). Oil futures suggest that prices will ease slightly in the coming term (see Chapter II), but this could easily change in the event of further supply disruptions, which could undermine an already fragile global economy. This would inevitably have a detrimental effect on exports and GDP growth in Iceland and would complicate domestic monetary policy formulation, as the negative economic impact would be offset by increased domestic inflationary pressures (see, for instance, Chapter I in *Monetary Bulletin* 2018/4).

Airline seat capacity uncertain in 2020

The collapse of WOW Air this past spring caused a significant drop in the number of flights to and from Iceland. Icelandair managed to respond to the downturn to a degree, but the grounding of its new Boeing 737 Max jets complicated its plans to increase seat capacity (see Chapter IV). Initially, the Max jets were to account for a fourth of Icelandair's fleet this summer, but it quickly became clear that they would not be available until autumn – a delay that was then extended until the turn of the year. Based on recent news reports, the Max jets will not be available for use even then. Therefore, the baseline forecast assumes that they will not be used until early next year, and if they cannot be flown then, the forecast assumes that Icelandair will lease other aircraft instead. The possibility of a lengthier grounding cannot be excluded, however, nor can the possibility that Icelandair will be unable to lease other aircraft, as many other airlines are in the same predicament. The assumption in the baseline forecast concerning airline seat capacity in 2020 could therefore prove overly optimistic.

On the other hand, it could turn out overly pessimistic, given the news reports about new airlines rising to take WOW Air's place. The company that seems to be furthest advanced in this endeavour has already applied for a licence and plans to start operating in 2020. In addition, international airlines that already fly to Iceland could expand their activities more than is assumed in the baseline forecast.

Chart I-20
Dispersion in exchange rate forecasts[1]
Q1/2016 - Q4/2019



1. Standard deviations in responses in the Central Bank's survey among market participants for the exchange rate of the króna agains the euro after 1 and 2 years.
Source: Central Bank of Iceland.

Exchange rate outlook uncertain

The baseline forecast assumes that the króna will remain broadly stable throughout the forecast horizon. This assumption is highly uncertain, as are the economic factors that generally determine exchange rate movements, such as the GDP growth outlook in Iceland and abroad, the interest rate differential with abroad, and the outlook for Iceland's terms of trade. However, the dispersion in market agents' expectations about the exchange rate in the next two years indicates that uncertainty about the exchange rate outlook has subsided since last year (Chart I-20). The dispersion is less now than it was at the end of 2018, whereas it had increased over the course of the year, alongside mounting concerns about wage settlements and the overall economic outlook.

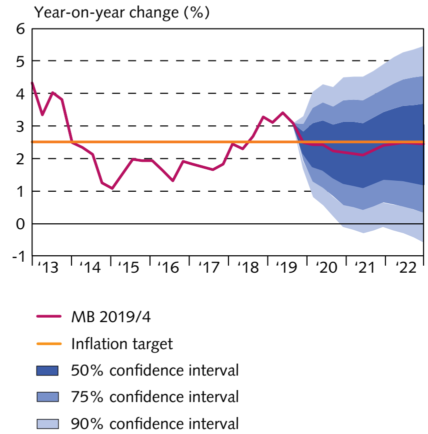
Uncertainty about the inflation outlook considered broadly similar to the previous forecast

The inflation outlook is less uncertain than it was in 2018, when the outcome of private sector wage negotiations was still entirely unknown. Added to this was increased uncertainty following the depreciation of the króna and the rise in inflation expectations in autumn 2018. Although uncertainty has diminished, it has not disappeared, as wage agreements for a large segment of the public sector work force are still pending. Furthermore, there is always uncertainty about wage drift and about the degree to which large pay rises for the lowest-paid workers will spread up the pay scale. Underlying inflationary pressures could therefore be underestimated, as the share of wages in gross value added has risen steeply in the recent term, cutting into firms' profit margins. Another major uncertainty concerns the exchange rate of the króna. The exchange rate assumptions in the baseline forecast could prove overly optimistic; for instance, if the setbacks in the tourism industry prove more long-lasting, or if terms of trade deteriorate further. The impact of recent export sector shocks on potential output could also be underestimated and the slack in the economy therefore smaller than is assumed in the baseline forecast. Moreover, inflation expectations may be less firmly anchored to the target than is currently assumed.

Neither can the possibility be excluded that inflation will turn out lower than is assumed in the baseline forecast. The króna could appreciate further, for instance, if external conditions improve. The global economic outlook could prove to be overestimated, and exports and GDP growth could therefore turn out weaker than is currently forecast. Inflation could therefore subside faster if the króna does not lose ground. Furthermore, it could take longer than currently expected to resolve the supply problems in the airline sector, and the forecast for the recovery of tourism could prove too optimistic. The productivity growth forecast could also be too pessimistic, and the slack in the economy could turn out deeper and more persistent than is currently projected.

In order to reflect these uncertainties, Chart I-21 illustrates the confidence intervals of the forecast; i.e., the range in which there is considered to be a probability of up to 90% that inflation will lie over the next three years (the methodology is described in Appendix 3 in *Monetary Bulletin* 2005/1). The uncertainty in the inflation outlook is considered to be broadly as it was in the August forecast, and the probability distribution is by and large symmetric, as it was then. There is a roughly 50% probability that inflation will be in the 1½-3% range in one year and in the 1¼-3¾% range by the end of the forecast horizon.

Chart I-21
Inflation forecast and confidence intervals
Q1/2013 - Q4/2022



Sources: Statistics Iceland, Central Bank of Iceland.