

MONETARY BULLETIN

2024 | 2

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 one of its main objectives. 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 12-month increase in the CPI, of as close to $2\frac{1}{2}$ % 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.

Published by:

The Central Bank of Iceland, Kalkofnsvegur 1, 101 Reykjavík, Iceland (+354) 569 9600, sedlabanki@sedlabanki.is, www.sedlabanki.is

Vol. 26 no. 2, 8 May 2024 ISSN 1670-438X, online

This is a translation of a document originally written in Icelandic. In case of discrepancy or difference in interpretation, the Icelandic original prevails. Both versions are available at www.cb.is.

Material may be reproduced from *Monetary Bulletin*, but an acknowledgement of source is kindly requested.

Statement of the Monetary Policy Committee 8 May 2024

The Monetary Policy Committee (MPC) of the Central Bank of Iceland has decided to keep the Bank's interest rates unchanged. The Bank's key interest rate – the rate on seven-day term deposits – will therefore remain 9.25%.

Inflation has continued to ease and measured 6% in April. Inflation excluding housing has fallen more rapidly, and underlying inflation is down to 5%. Inflation expectations have declined by some measures but remain above target.

Growth in domestic demand has subsided, as the monetary stance is tight and the outlook is for a slowdown in GDP growth this year. The positive output gap is larger than previously estimated, however, and inflation is therefore projected to fall more slowly, according to the Bank's new forecast.

The effects of the recent wage agreements and fiscal measures on demand have not yet come fully to the fore. Although the labour market has eased, demand pressures remain, which could give rise to wage drift, with the associated impact on inflation.

The MPC is of the view that there is an increased probability that the current monetary stance is sufficient to bring inflation back to target within an acceptable time frame. As before, monetary policy formulation will be determined by developments in economic activity, inflation, and inflation expectations.

Symbols:

- * Preliminary or estimated data.
- 0 Less than half of the unit used.
- Nil.
- ... Not available.
- . Not applicable.

Icelandic letters:

ð/Ð (pronounced like th in English this) þ/Þ (pronounced like th in English think) In this report, ð is transliterated as d and þ as th in personal names, for consistency with international references, but otherwise the Icelandic letters are retained.

Table of contents

	Monetary Bulletin in a nutshell	6
I	The global economy and terms of trade	7
	The global economy	7
	Export prices and terms of trade	13
II	Monetary policy and domestic financial markets	17
	Monetary policy and market interest rates	17
	Exchange rate of the króna	19
	Money holdings and lending	19
	Asset prices	21
	Financial conditions	23
III	Demand and GDP growth	25
	Domestic private sector demand	25
	Public sector	29
	External trade and the current account balance	32
	GDP growth	37
IV	Labour market and factor utilisation	39
	Labour market	39
	Indicators of factor utilisation	41
<u>V</u>	Inflation	43
	Recent developments in inflation	43
	Indicators of inflationary pressures	44
	Inflation expectations	46
	The inflation outlook	47
	Boxes	49
	Alternative scenarios and uncertainties	49
	Recent revisions of historical data	57
	Newly concluded private sector wage agreements	62
	Appendix	65
	Forecast tables	65

Monetary Bulletin in a nutshell



The GDP growth outlook for Iceland's main trading partners is broadly unchanged since February. In the US, growth continues to exceed expectations, but growth remains weak in large parts of Europe. Trading partner GDP growth is projected to average 1.2% this year and then inch up to just above 11/2% in the two years thereafter. Trading partner inflation tumbled in 2023 but has fallen more slowly in 2024. As in February, it is forecast to measure 2.5% in 2024 and ease to 2% by late 2025.



In Iceland, GDP growth measured 4.1% in 2023, on the heels of 8.9% growth in 2022, the country's strongest output growth rate in over half a century. This is considerably stronger growth than previous estimates from Statistics Iceland had suggested. Statistics Iceland's revision of GDP growth figures for the first three quarters of 2023 is also the main reason growth for the year exceeded the Bank's February forecast. Economic activity began to subside as 2023 advanced, however, and GDP is projected to have contracted in Q1/2024. The contraction appears to have been larger than was forecast in February, and the outlook for the year as a whole has worsened. Year-2024 GDP growth is now projected at 1.1%, as compared with the February forecast of 1.9%. The deviation is due primarily to a bleaker outlook for domestic demand growth. As in the previous forecast, GDP growth is expected to gain pace in 2025. It is projected to average 21/2% over the next two years.



Unemployment has inched upwards since mid-2023, and job growth has slowed. A positive output gap remains, however, and is estimated to be larger than previously thought because of Statistics Iceland's revisions of historical data. As before, however, the output gap is expected to narrow over the forecast horizon and a small slack to open up in 2025, a year later than previously projected.



Inflation measured 6% in April, its lowest since January 2022, before commodity prices spiked in the wake of Russia's invasion of Ukraine. Underlying inflation has also continued to fall and was down to 5% in April. Survey-based measures of inflation expectations have also declined. In Q1, inflation exceeded the February forecast, and the inflation outlook for most of the forecast horizon has deteriorated. This applies especially to 2024, owing to a poorer initial position combined with a larger and more persistent output gap, albeit offset by the prospect of a slower rise in wage costs. Inflation is now forecast to be above 5% through this year and not fall back to the target until H2/2026.



The global economic situation remains uncertain, not least because of the wars in Ukraine and the Middle East. In Iceland as well, uncertainty has mounted in the wake of the volcanic eruption on the Reykjanes peninsula. On the other hand, uncertainty about wage developments has subsided with the signing of private sector wage agreements. The risk remains, though, that weakly anchored inflation expectations will cause inflation to be more persistent than is currently assumed. On top of this is uncertainty about how the change in the calculation of the housing component in the CPI, which Statistics Iceland has announced, will affect nearterm measured inflation.

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

The global economy and terms of trade



The global economy

Global GDP growth picked up slightly in late 2023 ...

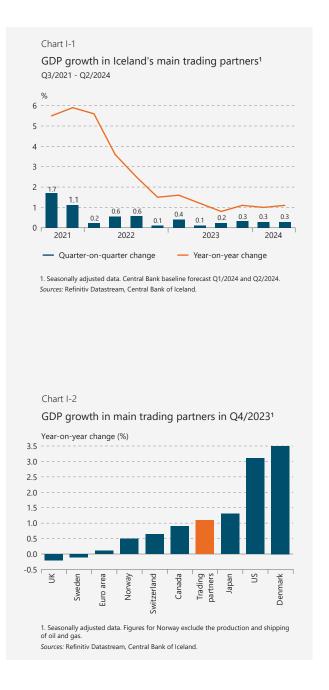
GDP growth among Iceland's main trading partners averaged 0.3% quarter-on-quarter in Q4/2023 (Chart I-1). This is stronger growth than in the quarters beforehand, and slightly above the Bank's February forecast. Trading partners' year-on-year GDP growth also picked up again in late 2023 but was still only about half of the average of recent decades.

... but still varies widely among trading partners ...

Although trading partners' GDP growth was weak overall in 2023, it differed from one country to another. Economic activity grew strongly in the US, concurrent with a continued rise in private consumption, and annual GDP growth had increased to 3.1% by Q4 (Chart I-2). In Denmark, GDP also grew markedly in 2023, particularly towards the end of the year, with year-on-year GDP growth measuring 3.5% in Q4. This is due largely to increased activity in the pharmaceuticals industry, although private consumption also gained momentum towards the year-end. Growth was far more sluggish in most other trading partner countries, however. In the eurozone, GDP was virtually flat throughout 2023 and was up by only 0.1% year-on-year in Q4. A major factor was the contraction in Germany, although output growth was also weak in most other euro area countries. In the UK and Sweden, GDP contracted between years in Q4.

... owing largely to differing developments in private consumption

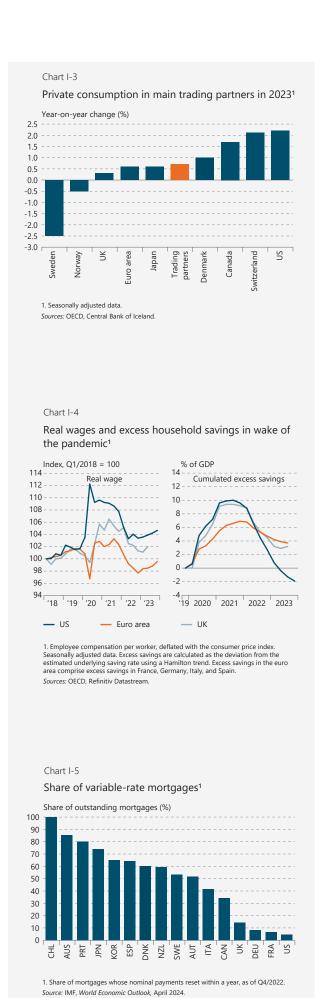
As is discussed in the November 2023 Monetary Bulletin, discrepancies in GDP growth among trading



partners stem largely from differing developments in private consumption. Robust fiscal measures in the US in recent years, real wage growth, a favourable employment situation, and reduced household saving have fostered strong growth in private consumption in North America (Charts I-3 and I-4). In the euro area and other European countries, however, private consumption grew far less in 2023, and in some cases it even contracted. Most likely, this is due in large part to a more pronounced decline in real wages in Europe than in the US, and to more cautious spending by households because of the war in Ukraine and the ensuing uncertainty about energy supplies on the Continent. Unlike in the US, households in Europe still have considerable accumulated pandemic-era savings, which could support private consumption on the Continent in the coming term (see also Box 2 in Monetary Bulletin 2023/4). Furthermore, interest rate hikes may have had a stronger and more rapid effect on households' disposable income in Europe than in the US, owing to differences in mortgage lending arrangements. In the US, households predominantly have long-term fixed-rate mortgages taken when interest rates were historically low. Loan maturities and fixed-rate periods tend to be shorter in Europe, however, and in some areas, the majority of loans bear floating interest or have fixedrate clauses of less than one year's duration (Chart I-5). However, the employment situation was also good in Europe in 2023, and private consumption therefore stronger than it would have been otherwise.

The GDP growth outlook for trading partners is marginally better this year ...

Leading indicators and global forecasts suggest that economic activity in trading partner countries has exceeded expectations in 2024 to date. PMI indices have inched upwards in line with increased activity in the services sector, especially in the UK (Chart I-6). Furthermore, manufacturing appears to be firming up in the US and the UK, after a deep slump throughout 2023. It has been sluggish in the eurozone, however, although increased industrial manufacturing in Germany at the beginning of this year may be a sign of better times ahead. In addition, surveys suggest that corporate executives in major advanced economies are more optimistic about the outlook. Households are more upbeat about the economy as well, although they remain more pessimistic than before the pandemic.



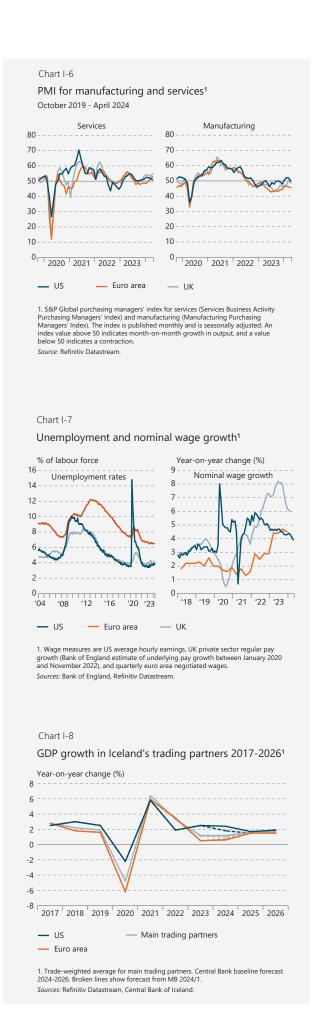
... owing to a good employment situation and real wage growth ...

More robust economic activity in trading partner countries in the recent past is probably attributable in large part to a continued strong employment situation, further declines in inflation, and a rebound in real wages. This is due partly to an improvement on the supply side of the economy, including increased immigration, higher labour participation rates, and reduced strain on global supply chains. Labour demand has remained strong, unemployment has been historically low, and nominal wages have risen considerably (Chart I-7). This applies especially to the US, where job growth has exceeded expectations, applications for unemployment benefits have been historically low, and job vacancies remain high. Demand pressures in advanced economies' labour markets appear to be subsiding, however, and nominal wage growth has slowed. As before, though, steep cost increases and interest rate hikes in recent years pull in the opposite direction and curb private sector demand. The GDP growth outlook for trading partner countries for H2/2024 is therefore broadly unchanged since February.

... but GDP growth is forecast to be tepid in 2024 and coming years

Trading partner GDP growth is estimated to have averaged 0.3% quarter-on-quarter in Q1/2024 (Chart I-1), which is about the same as in Q4/2023 but 0.1 percentage points above the Bank's February forecast. GDP growth in the US exceeded expectations once again and is estimated at 0.4% quarter-on-quarter, in line with continued growth in private consumption. Q1 GDP growth was also stronger than expected in the eurozone, and China. In Sweden, however, GDP appears to have contracted again between quarters, whereas the February forecast assumed it would increase marginally.

Trading partner GDP growth is expected to average 1.2% in 2023 (Chart I-8), or 0.2 percentage points above the February forecast. This is due to an improved outlook for the US, where year-2024 GDP growth is forecast at 2.4%, and Denmark, where it is expected to measure 2.3%. The year-2024 GDP growth outlook for Iceland's other trading partners is broadly unchanged since February, and output growth for the euro area, the UK, Norway, and Sweden is still forecast at ½%. As in February, trading partner GDP growth is projected to pick up to 1.6% in 2025, alongside increased economic activity in Europe concurrent with weaker growth in the US and China. The output growth outlook for 2026 is also unchanged since February, at 1.7%.



The global output growth outlook has also improved marginally, but growth is set to remain weak

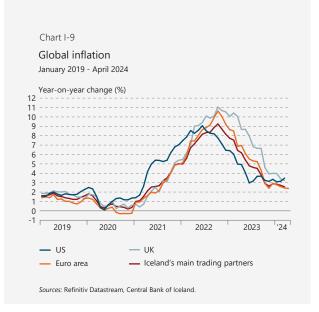
The Central Bank's baseline forecast for GDP growth in Iceland's trading partner countries accords well with the International Monetary Fund's (IMF) new global forecast. The IMF projects that global GDP growth will be unchanged this year at 3.2%, which is 0.1 percentage points above its January forecast but below the twenty-year average. For 2025, the growth rate is also expected to measure 3.2%. The 2024 output growth outlook has improved especially for the US, owing to stronger-than-expected growth in late 2023. This year and next year, however, growth in the euro area is expected to be slightly weaker than previously forecast, particularly in Germany.

The IMF assumes that world trade will rebound this year and gain further momentum in 2025, after having slowed markedly in 2023. Nevertheless, growth in world trade will be below the Fund's last forecast and below the average of recent decades, due to the poor outlook for output growth and the effects of trade barriers and other protectionist policies implemented by various countries in recent years.

Economic uncertainty has subsided but remains pronounced

Uncertainty about the economic outlook for Iceland's main trading partners has receded and is more balanced than before, owing to more robust economic activity in the recent term and to declining inflation. Considerable uncertainty remains, however. As before, economic developments will depend largely on how fast inflation falls to target and how households and businesses handle the shocks and cost increases that have hit them in recent years. Higher interest expense is probably an important factor here, and the impact of the past few years' monetary tightening has probably not yet passed through fully to the real economy. The economic outlook also depends in large part on developments in and repercussions of the wars in Ukraine and the Middle East, especially through their impact on commodity prices. Furthermore, supply-side developments strongly affect the outlook for the labour market and for strain on global supply chains, among other things.

Developments in China are also important, as the weaknesses in the Chinese real estate market have not yet been resolved, and the output growth outlook there is highly uncertain. Further vulnerabilities in the global financial system could also come to light, and



there is continued uncertainty about public sector finances in many areas of the world, partly because of increased indebtedness in recent years and higher interest rates. The situation in many emerging and developing economies remains difficult, and a sizeable share of these countries are in or at high risk of debt distress.

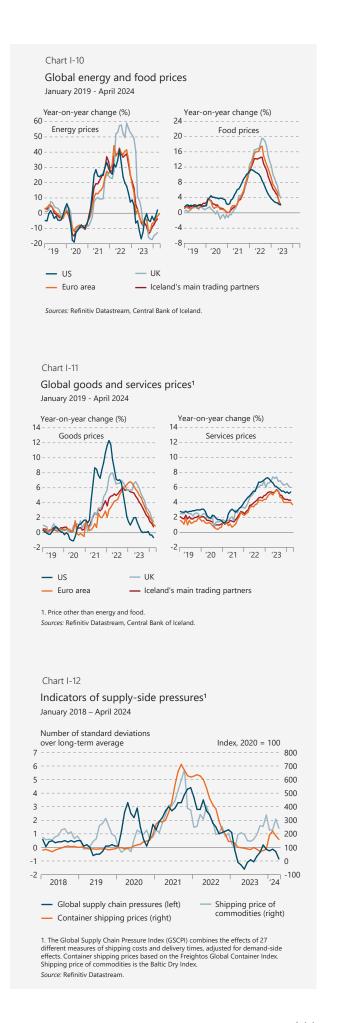
Trading partner inflation has fallen markedly ...

Inflation fell steeply among Iceland's trading partners in 2023 (Chart I-9). The decline has eased in the recent term, however, and inflation has been on the rise again in the US. Energy prices continue to play a major role in curbing inflation in trading partner countries. However, the year-on-year decline in energy prices has slowed as base effects from previous price increases have tapered off and recent rises in crude oil prices have passed through to consumer prices (Chart I-10). Food price inflation has continued to ease among trading partners, however, and in March it averaged 2.1%, down from 14.5% a year earlier.

At the same time, the twelve-month rise in goods prices has lost pace, and the trading partner average was down to 0.8% in March (Chart I-11). The postpandemic shift in household consumption spending from goods to services probably remains a key factor, together with reduced supply-chain disruptions and lower commodity prices, which have also contributed to smaller rises in food prices. In addition, the decline in energy prices has probably curtailed the increase in production costs and contributed to lower goods and food prices than would otherwise occur. On the other hand, goods and food prices could inch upwards again in coming months, owing to the war in the Middle East and repeated attacks on shipping vessels in the Red Sea. Shipping costs have therefore risen, and delivery times have grown longer, albeit far less than during the pandemic (Chart I-12).

... but will probably take some time to fall back to target

The increase in services prices has continued to be more persistent than the rise in other consumption items (Chart I-11). Twelve-month services price inflation has remained virtually unchanged in the US and the eurozone in recent months, and the trading partner average was still 4.3% in March. Generous nominal pay rises, continued labour market tightness, and pent-up demand for services from the pandemic era probably weigh heavily in this pattern. This is reflected in PMI surveys among corporate executives in leading



advanced economies, which suggest that input costs in the services sector are still rising markedly. Core inflation (i.e., excluding energy and food prices) has therefore fallen less than headline inflation, and averaged 3.1% in March.

Trading partner inflation averaged 2.8% in Q1/2024, or 0.2 percentage points below the Bank's February forecast. It turned out lower in all of Iceland's main trading partners except the US, where it was higher during the quarter. Owing to a better initial position, 2024 inflation is forecast to be lower, on average, in trading partner countries, or 2.5% instead of the 2.7% forecast in February. The inflation outlook for the next two years is broadly unchanged, however, and average trading partner inflation is still not expected to reach target levels until late 2025.

Real interest rates in advanced economies have risen steeply ...

Real policy rates in advanced economies have risen sharply in the past two years, in tandem with nominal policy rate hikes and lower inflation. They are now positive in most of the countries concerned, particularly the Czech Republic, the US, and Denmark (Chart I-13). They have also risen steeply in the UK, Sweden, and the euro area, but output growth in these economies was negligible in 2023, and the outlook for 2024 is poor.

... but in general, central banks are cautious about their next steps

Even though major advanced economies have seen a rapid drop in inflation and a rise in real rates, and GDP growth is expected to be weak in many of the countries in question, nearly all of the world's leading central banks have held their policy interest rates unchanged. They still consider inflation too high and think it necessary to await further indications that it will fall back to their 2% inflation target within an acceptable time frame. This is due largely to persistent services price inflation, hefty nominal pay rises, continued labour market tightness, and resilient overall economic activity. The Swiss National Bank is the only one in the G10 that has started cutting interest rates, but inflation in Switzerland has been below 2% since June 2023 and was only 1.4% in April 2024 (Chart I-14). The central banks in the Czech Republic, Chile, and Hungary have also lowered their policy rates further in recent months, as have central banks in several emerging market economies, but those countries generally started hiking interest rates earlier and raised them higher than other advanced economies did.

Chart I-13 Central bank real policy rates in OECD countries1 Current real policy rate Real policy rate in March 2022 Real rates based on 12-month inflation and central bank policy rates. For the US. interest rates are the upper bound of the US Federal Reserve Bank's interest rates are the upper bound of the US Federal Reserve Bank's interest rate corridor, and inflation is based on the PCE price index (e. Personal Consumption Expenditures Price Index). The rate for euro area countries is the European Centr Bank's deposit facility rate. Current real policy rate based on inflation as of March 2024, except for Iceland, euro area, Poland, Switzerland, and South-Korea where numbers for April have been published. Sources: BIS. Refinitiv Datastream Chart I-14 Central bank policy rates in OECD countries and changes since the beginning of 20211 14 12 9.25 10 8 2 n -2 Policy rate at beginning of 2021 H2/23 2021 H1/24 2022 Current policy rate H1/23 1. US interest rates are the upper bound of the US Federal Reserve Bank's interest rate corridor, and the rate for euro area countries is the European Central Bank's deposit facility rate. Source: Refinitiv Datastream

On the other hand, the Bank of Japan raised its policy rate to 0-0.1% in March, in response to increased inflation and expectations that it will finally be possible to hold inflation at target after several decades of excessively low inflation or deflation. It was the bank's first rate hike in nearly two decades. Furthermore, the Bank of Japan decided to discontinue its so-called yield curve control and is planning to scale down its bond purchases in the coming term.

Monetary easing is approaching in advanced economies, but policy rates will probably be held high for a while to come

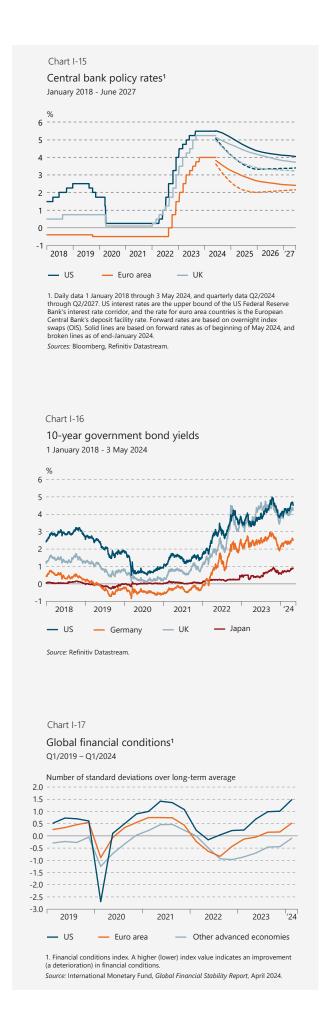
According to forward interest rates in the market and surveys among market participants, central banks in major advanced economies are expected to lower their policy rates in the weeks and months ahead. However, survey respondents appear to expect smaller rate cuts in the coming term than they did earlier this year (Chart I-15). This accords with statements by leading monetary authorities, who have stressed that interest rates will probably be kept high for a while longer in order to ensure that inflation falls back to target within an acceptable time frame and remains there. This applies in particular to interest rate expectations in the US, where inflation has picked up again recently and economic activity has been stronger than in other major advanced economies.

Market agents' expectations are reflected in yields on advanced countries' long-term bonds, which have risen again in 2024 to date, although they remain below their autumn 2023 peak (Chart I-16). A larger increase in US bond yields could also be due to a rise in inflation expectations and elevated uncertainty about the inflation outlook, as the breakeven inflation rate on long-term US Treasury bonds has inched upwards recently. Despite the rise in bond interest rates, financial conditions in leading advanced economies have improved somewhat, in response to the continued increase in share prices and lower premia on higherrisk financial assets, particularly in the US (Chart I-17).

Export prices and terms of trade

Marine product prices set to rise more slowly this year ...

After a steep rise starting in mid-2021, foreign currency prices of Icelandic marine product exports declined again at the beginning of 2023, in line with weaker demand in foreign markets (Chart I-18). Prices turned upwards again in Q3/2023, driven by higher prices for



fish meal and fish oil, but they sagged again in Q4 and were down a full 4% relative to the same quarter of 2022. Nevertheless, the average price was still more than 3% higher in 2023 than in 2022.

It appears that marine product prices were unchanged quarter-on-quarter in Q1/2024, whereas the February forecast assumed a slight increase. Prices are still expected to rise over the course of the year, however, especially for demersals, as the US tightened its ban on Russian imports and the EU imposed new import duties on Russian marine goods early this year. Because prices were lower in Q1, however, marine product prices are now expected to rise less in 2024 as a whole than was assumed in February, or by ½% instead of the previous forecast of nearly 2%. The outlook for the next two years is broadly unchanged, however.

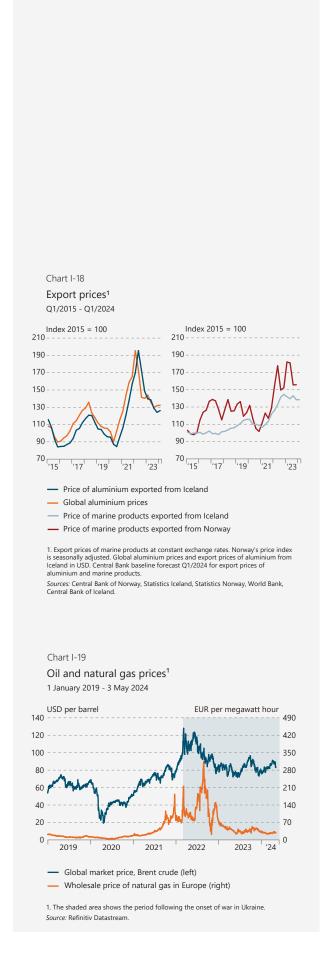
... but the outlook for aluminium prices has improved

Global aluminium prices have been quite volatile ever since the global pandemic and Russia's invasion of Ukraine in early 2022, when prices hit historical highs (Chart I-18). After having fallen by more than onefourth in Q2 and Q3/2022, they have grown more stable, yet they were about 17% lower in 2023 than in 2022. The year-on-year decline is due mainly to price volatility in the wake of the invasion of Ukraine, but also to the impact of a worsening economic outlook and a slower economic recovery in China.

The price of Icelandic aluminium exports has developed in a similar manner, although it fell more than global prices did in 2023, or by 23%, as was forecast in February. Aluminium export prices are estimated to have risen marginally between quarters in Q1/2024, as was assumed in the last forecast. Global futures prices indicate that prices will remain somewhat higher over the course of the year than was assumed in February, however, reflecting concerns regarding the effects of a new ban on Russian-origin metals at commodity exchanges in the US and UK. Icelandic aluminium export prices are therefore projected to be around 21/2% lower this year than in 2023, which is about ½ a percentage point smaller decline than was forecast in February. Furthermore, prices are expected to rise more in the next two years than was assumed in the last forecast.

Oil prices have risen year-to-date ...

After falling year-on-year in 2023, global oil prices have been on the rise again thus far in 2024 (Chart



I-19). Temporary production problems due to inclement weather in North America early this year and the OPEC+ countries' decision to continue cutting back production have contributed to the increase. The escalation of unrest in the Middle East due to the Israel-Hamas war and the impact of the war in Ukraine have also exacerbated uncertainty about oil supplies and pushed prices higher. Continued attacks on shipping vessels in the Red Sea have compounded the uncertainty, lengthened delivery times, and increased the cost of shipping oil. Reduced oil exports from Mexico have also contributed to price hikes recently. On the other hand, the outlook is for increased production by non-OPEC+ countries, particularly the US, starting in Q2/2024. Furthermore, expectations of slower growth in demand for oil this year have probably helped to keep oil price hikes in check, although the recent improvement in the GDP growth outlook for the US has probably pulled in the opposite direction.

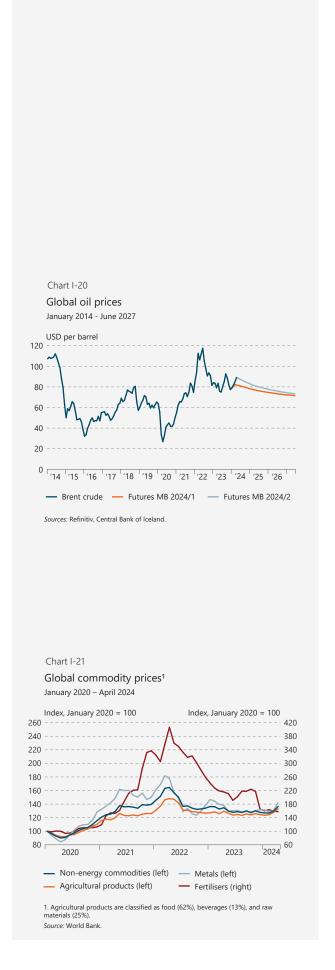
The average price of Brent crude was 89 US dollars per barrel in April, or roughly 7% higher than in April 2023 and 9% above the February forecast. Futures prices indicate that it will fall again during the forecast horizon but remain higher than in the Bank's last forecast (Chart I-20).

... but European natural gas prices have fallen

European natural gas prices have fallen thus far in 2024 (Chart I-19), owing largely to reduced demand for energy in response to weak industrial manufacturing in Europe (particularly in the energy-intensive sector), increased energy saving, and mild weather for the second winter in a row. At the same time, the supply of liquid natural gas has remained ample, and production of renewable energy and nuclear energy has picked up. This is reflected in historically large natural gas inventories on the Continent. Uncertainty about energy supplies for the coming winter has therefore subsided as well, and the outlook for developments in energy prices has improved.

Non-energy commodity prices also fell in Q1/2024 ...

The average price of key non-energy commodities fell marginally quarter-on-quarter in Q1/2024, despite higher shipping costs and disruptions of shipping lanes due to war (Chart I-21). Commodity prices were therefore 5.4% lower in Q1/2024 than in the same quarter of 2023, or largely in line with the February forecast. Fertiliser prices fell the most between years, in response to last year's drop in energy prices. Metals



prices also fell steeply, driven by weak global demand – especially in China, due to the continued weakness of its real estate market – but also because of sluggish industrial manufacturing in Europe. The price of agricultural products also fell year-on-year in Q1, although developments in prices differed greatly from one food category to another (Chart I-22). For instance, the price of grains, soybeans, and vegetable oils fell steeply between years, owing to a good harvest and abundant supplies. On the other hand, the price of certain types of tropical produce – especially cocoa, but coffee as well – rose sharply because of poor harvests, which in turn were due in part to the effects of El Niño. The surge in coffee prices is also due to the effects of the attacks on shipping vessels in the Red Sea.

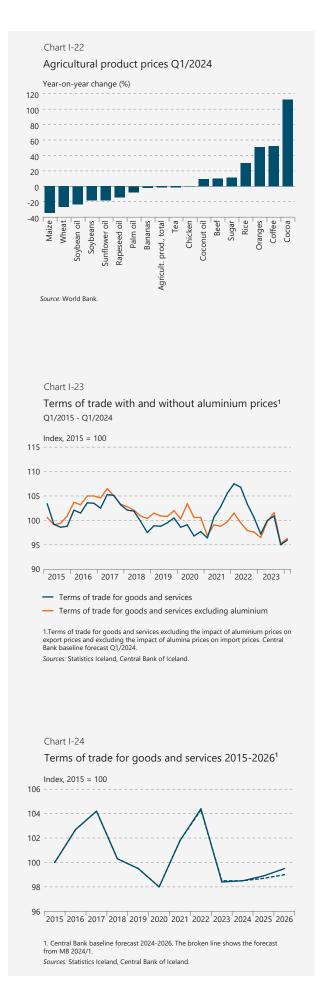
... but firmed up again in April

Non-energy commodity prices rose again in April, especially metal prices reflecting concerns regarding the effects of the aforementioned ban on Russian-origin metals. In spite of this, the outlook is for average non-energy commodity prices to be just over 2% lower this year than in 2023, which is broadly in line with the Bank's February forecast. In 2025, however, commodity prices are expected to fall somewhat less.

Terms of trade worsened in 2023 but are expected to improve slightly over the forecast horizon

Terms of trade for goods and services deteriorated by 5.9% quarter-on-quarter in Q4/2023 (Chart I-23), driven in large part by the rise in other goods imports and the decline in marine product export prices. In 2023 as a whole, terms of trade deteriorated by 5.7% year-on-year, in line with the February forecast. As has been discussed previously in *Monetary Bulletin*, this significant deterioration stems largely from developments in aluminium prices. If aluminium prices are excluded, terms of trade worsened by only 0.6% year-on-year in 2023, owing mainly to higher prices of generic goods imports and lower exported ferrosilicon prices.

Terms of trade are expected to hold virtually unchanged this year, as was assumed in February (Chart I-24), driven by more favourable developments in aluminium prices and larger price hikes for services exports but offset by a smaller rise in marine product export prices and a larger rise in oil prices. For the next two years, however, the outlook is for a slightly stronger improvement in terms of trade than in the last forecast, owing to a larger increase in aluminium export prices.



Monetary policy and domestic financial markets



Monetary policy and market interest rates

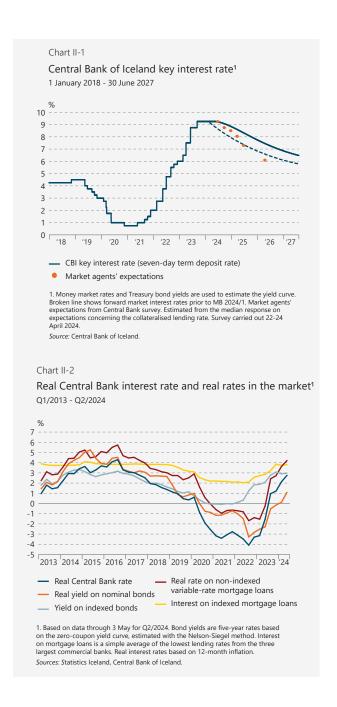
The key interest rate has been unchanged since August 2023 ...

The Central Bank of Iceland Monetary Policy Committee (MPC) decided to keep the Bank's interest rates unchanged at its rate-setting meetings in February and March. The Bank's key interest rate – i.e., the seven-day term deposit rate – was therefore 9.25% just before this *Monetary Bulletin* and has been unchanged since last August (Chart II-1). As in the past, other short-term market rates have developed in line with the key rate.

At an extraordinary meeting in April, the Committee decided to increase credit institutions' fixed reserve requirements from 2% to 3%. The decision was not intended to affect the monetary policy stance but is part of the Bank's comprehensive review of its key counterparties' interest rate terms, with the aim of distributing more effectively the cost of running monetary policy in a small currency area.

Real interest rates began rising in mid-2023, in line with the rise in the Central Bank's real rate, and have continued to increase this year (Chart II-2). Based on the average real rate as calculated from various measures of inflation and one-year inflation expectations, the real rate is currently 3.9%. It has risen by 0.5 percentage points since the February *Monetary Bulletin* and is now at its highest since August 2009. Because the Bank's nominal interest rates have not been increased in 2024, the rise in the real rate during the year reflects the decline in inflation and short-term inflation expectations.

The baseline forecast assumes that the key rate will develop in line with the monetary policy rule in the Bank's macroeconomic model, which ensures that



forecasted inflation will be broadly at target over the medium term.1 According to the Bank's April survey of market agents' expectations, respondents expect the key interest rate to be held unchanged at the MPC's May meeting but then start to fall in Q3, reaching 6% in two years' time (Chart II-1). This is a higher interest rate than they expected in the previous survey. Forward interest rates also suggest that interest rates will begin to fall in H2, and more slowly than previously projected.

... but long-term nominal rates have risen since March

Yields on long-term nominal Treasury bonds began falling last autumn, amid rising optimism about how fast inflation would ease, albeit offset by uncertainty about the volcanic activity on the Reykjanes peninsula. The decline probably reflected global developments to an extent as well, as inflation had fallen rapidly in leading advanced economies and optimism about imminent policy rate cuts had grown (see Chapter I). These expectations have changed since the turn of the year, and long-term rates abroad have generally been on the rise. Non-residents' investments in Icelandic Treasury bonds increased over the same period, however, as interest rates remain higher in Iceland than in other advanced economies.

Some investors appear to have expected a policy rate cut in March, following the signing of private sector wage agreements. Expectations have shifted recently, however, as inflation looks set to be more persistent than previously envisioned, partly because of the rise in house prices over the past few months. As is widely the case abroad, investors now appear to expect interest rates to fall more slowly in 2024 than they anticipated at the beginning of the year, and the yield on ten-year nominal Treasury bonds has therefore increased since March. It was 6.6% just before this Monetary Bulletin was published and has risen by 0.2 percentage points since the February Monetary Bulletin (Chart II-3). The nominal yield curve is still inverted, however. For example, the yield on ten-year Treasury bonds is now 2 percentage points below the yield on corresponding two-year bonds.

Chart II-3 Government-guaranteed bond yields1 2 January 2018 - 3 May 2024 2018 2021 2022 2023 '24 5-yr, indexed 5-yr, nominal ___ 10-yr, indexed — 10-yr, nominal 1. Based on the zero-coupon yield curve, estimated with the Nelson-Siegel method, using money market interest rates and Government-quaranteed bonds. Source: Central Bank of Iceland. Chart II-4 Breakdown of change in nominal bond interest rates¹ Percentage points 0.6 7 Feb - 3 May 2024 22 Nov 2023 - 7 Feb 2024 0.4 0.2 0.0

-0.2

-0.4 -0.6 -0.8 -1.0 T

10-vr

Breakeven inflation rate

Source: Central Bank of Iceland.

Real interest rate

5v 5v

Change in nominal Treasury bond yields (based on the zero-coupon yield curve estimated using the Nelson-Siegel method) and contribution of corresponding changes in inflation-indexed bond yields and the breakeven inflation rate.

10-vr

Nominal interest rate

^{1.} According to the monetary policy rule in the model, the key interest rate is determined in part by developments in the Bank's neutral real rate, which is the real rate that would be required, all else being equal, to keep inflation at target and ensure full factor utilisation. The neutral real rate is considered to have risen again in the recent term, after falling in the wake of the financial crisis (see Box 1 in Monetary Bulletin 2019/4), and is now estimated at around 21/4%. This assessment is highly uncertain, however.

The yield on ten-year indexed Treasury bonds was 2.5% just before this *Monetary Bulletin* was published and has been broadly unchanged year-to-date. The recent rise in ten-year nominal interest rates is therefore due primarily to a rise in the breakeven inflation rate. As Chart II-4 shows, it largely reflects an increase in the five-year breakeven rate while the five-year breakeven rate five years ahead is broadly unchanged (see Chapter V).

Exchange rate of the króna

The króna has depreciated slightly since February

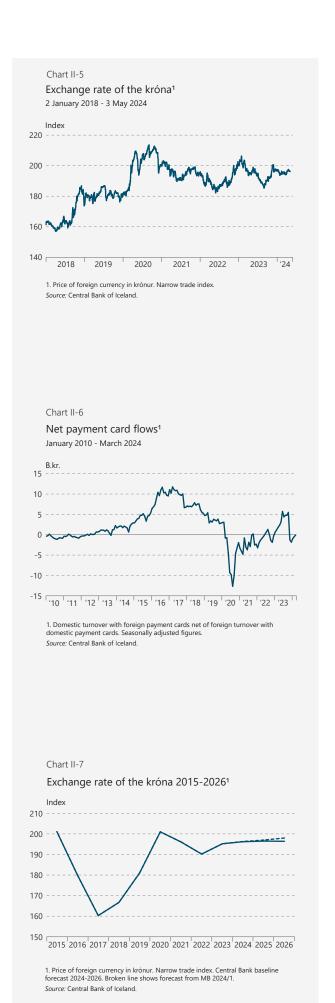
The króna weakened following the surge in seismic activity on the Reykjanes peninsula last November, but then rebounded quickly. It has held broadly unchanged in 2024 but is 0.8% weaker in trade-weighted terms than at the time of the February *Monetary Bulletin* (Chart II-5).

Forward foreign currency sales have picked up this year, possibly reflecting expectations of an appreciation of the króna. Capital inflows for new investment have increased as well, and the pension funds' foreign currency purchases have declined since the turn of the year. On the other hand, net inflows due to payment card use have fallen this past winter (Chart II-6).

The Central Bank intervened in the foreign exchange market in February, buying foreign currency for 9.2 b.kr. in response to strong foreign inflows into the domestic bond market. It was the Bank's first foreign currency purchase since May 2022. Foreign exchange market turnover has eased in the past two years, which could indicate that market agents have less need to go to the market, as both external trade and foreign currency flows have been well balanced recently.

Exchange rate projected to be broadly as in February

The trade-weighted exchange rate index stood at just over 195 points in Q1/2024, in line with the Bank's February forecast. It has fallen slightly in Q2 to date, which also accords with the February forecast. According to the baseline forecast, the exchange rate will remain relatively stable over the forecast horizon, and therefore broadly as was assumed in the February forecast (Chart II-7).



Money holdings and lending

Household deposits continue to rise ...

M3 grew by 9% year-on-year in Q1, about the same as in recent years (Chart II-8). Household deposits have continued to increase strongly, and the year-on-year growth rate has been close to 15% ever since last autumn. As is discussed in Chapter III, household saving has picked up again and private consumption has weakened. At the same time, wages have kept rising, and deposit interest rates have surged in the past two years.

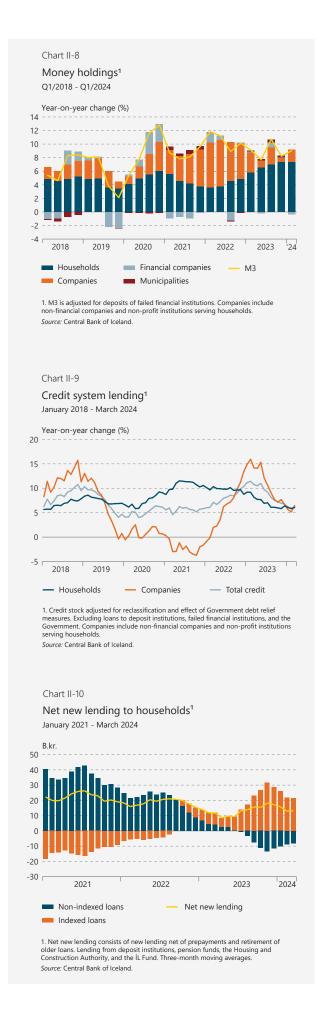
Corporate deposits have increased as well, although the year-on-year growth rate has eased in line with slower growth in economic activity. Corporate deposit growth measured just under 7% year-on-year in Q1, down from the 2022 average of 25%. Cost increases have been sizeable in the recent term, and companies have probably needed to draw down liquid assets as a result.

... but lending growth has eased

Year-on-year growth in credit system lending has slowed steadily in the past year and measured just over 6% in Q1/2024 (Chart II-9). Higher interest rates and tighter borrower-based measures have therefore continued to reduce household and businesses' credit demand at the same time as economic activity has subsided.

Twelve-month growth in credit system lending to households measured just over 6% in March and has been slowing down ever since the beginning of 2023. Net new lending to households declined early in 2023 but then began to rise again at mid-year, alongside increased housing market turnover (Chart II-10). The majority of new loans have been inflation-indexed, while early retirement of non-indexed loans has continued. However, according to the Central Bank's April lending survey, the commercial banks have detected a slight decline in demand for mortgages in recent months, and they expect this pattern to continue in the months to come.

Year-on-year growth in credit system lending to businesses has declined rapidly since the beginning of 2023, when it measured 16%, and by March 2024 it was down to 6.5%. Lending to real estate firms and construction companies is still increasing between years, while lending to other sectors has either declined or remained flat (Chart II-11). Excluding these sectors, lending has contracted year-on-year since August 2023. Strong activity in the real estate market has



therefore supported credit growth in the recent term. Furthermore, real estate firms seem to be obtaining a larger share of their financing from the commercial banks at present, although bond issuance in the market has increased in the past few months, partly offsetting weaker growth in the credit stock. As with households, net new lending to companies declined early in 2023 but started rising again in the autumn, and most of the loans taken since mid-2023 have been inflation-indexed. According to the lending survey, the commercial banks expect demand for corporate loans to grow in the next six months.

Asset prices

House prices started climbing again in H2/2023 ...

After a surge in the wake of the pandemic, the yearon-year increase in house prices lost steam quickly as interest rates rose and borrower-based measures were tightened. In summer 2023, twelve-month house price inflation fell to its lowest in more than a decade. Prices began to rise more steeply again in the autumn, in tandem with a considerable increase in purchase contracts and housing market turnover (Chart II-12). The share of first-time buyers rose as well over this period, to one-third at the end of 2023. This increase was due to some extent to stronger demand for equity loans from the Housing and Construction Authority (HMS) after the requirements for the loans were eased significantly in July 2023. Other drivers of the rise in house prices were the increase in Iceland's foreign population and the resumption of real wage growth from mid-2023 onwards.

... and have continued to climb in 2024 to date

Housing market turnover increased markedly in February and March, probably owing in part to demand for new housing from Grindavík residents (and leasing companies Bríet and Bjarg, which are purchasing properties to rent to Grindavík residents) after the town was evacuated in November 2023 (Chart II-12).

At the same time, the supply of properties for sale has been on the decline. In April there were around 3,300 homes on the market, some 400 below the November 2023 peak. Of the total number of properties on the market, the share of newly built homes is close to one-third and has seldom been higher. The average time-to-sale has therefore grown shorter, falling to 3.6 months in March (Chart II-13). Furthermore, the share of homes sold at a premium on the asking price has risen again after bottoming out at just under



11% this past January (Chart II-14). The share of properties sold at above the asking price has fallen more on new properties than older ones, as the advertised price of new homes has risen well in excess of the purchase price, and the number of new homes on the market has surged.

Year-on-year house price inflation had fallen to 6.3% nationwide in December 2023, according to the HMS' new house price index (Chart II-15).² It lost pace early this year, and by March it was 5.2%. Of that amount, condominium prices in regional Iceland rose the most, or 9.4%, owing largely to steeply rising prices in communities on the periphery of the capital area, where housing demand from Grindavík residents is probably a factor.

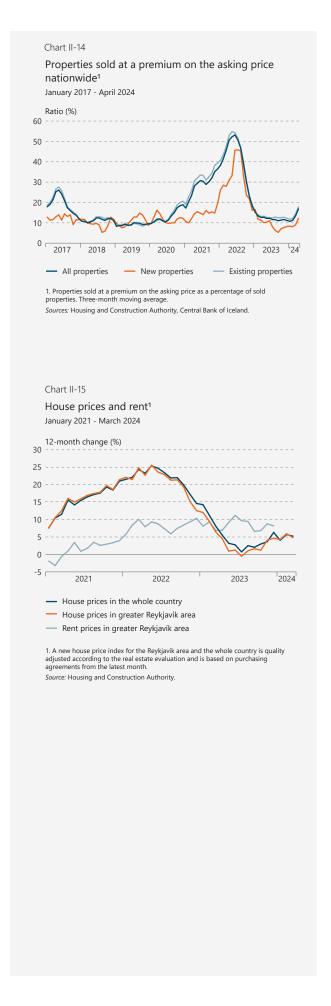
Rent prices in the capital area rose somewhat in excess of house prices in 2023, in line with the increased number of renters in the market and indications of an uptick in short-term rentals to tourists (Chart II-15). This pattern seems to have continued in 2024. According to a new rent price index for greater Reykjavík, which is based on data from the HMS rental register, rent prices rose by 8.1% between May 2023 (the first value for the new index) and March 2024. House prices nationwide rose by 6.1% over the same period.

House prices set to rise more in 2024 and 2025 than was forecast in February

The Bank's baseline forecast assumes that house prices will rise more this year and next year than was forecast in February. Prices rose less in 2023 than was projected then, so the stronger increase this year is due partly to base effects. The main driver, however, is the impact of the seismic activity on the Reykjanes peninsula (see Box 1). Nearly 900 homeowners legally domiciled in Grindavík are eligible to sell their properties to the real estate company Þórkatla, which was established by the Government to administer the programme, and buy another home in the market. Furthermore, applications for equity loans have continued to increase year-to-date. If the Bank's forecast materialises, real house prices will begin rising again year-on-year after mid-2024.

The ultimate impact of the Reykjanes situation on the housing market is uncertain, however, and the short-term effects of such a large and sudden spike

^{2.} The HMS' new house price index is also calculated separately for greater Reykjavík and regional Iceland, and for detached housing and condominium housing in these same two regions. In addition, it is quality-adjusted based on the official property valuation and is now compiled from purchase agreements in the previous month. With the introduction of the new index, HMS has decided to discontinue the publication of older house price series for greater Reykjavík.



in buyer numbers could be underestimated. There is uncertainty on the supply side of the market as well. For instance, further delays in construction projects could cause prices to rise higher than is currently envisioned.

Share prices falling

The OMXI15 index has fallen by 9.8% since the last *Monetary Bulletin*, and the decline extends to the lion's share of listed companies. It comes on the heels of a surge towards the end of last year, however, which saw the index jump more than 28% between mid-November 2023 and end-January 2024. Those price increases came after US company John Bean Technologies made an informal takeover bid for all shares in the food-processing equipment company Marel. At that time, there was also some optimism that policy rate cuts were in the offing, but as is discussed above, interest rates are now widely expected to fall more slowly.

Equity market turnover totalled just over 305 b.kr. in Q1/2024, about 18% more than in the same period of 2023, and the total trade count has risen year-on-year as well. Turnover has been strongest by far with shares in pharmaceuticals company Alvotech, which received approval from the US Food and Drug Administration (FDA) in February for the sale of its biosimilar of the rheumatoid arthritis drug Humira.

Financial conditions

Households' interest income has risen more than their interest expense

On the whole, households are well positioned. Unemployment remains low, real wage growth has resumed, and their balance sheets are strong. In addition, there has been a slight decline in household debt as a share of both GDP and disposable income in recent years, and both ratios are historically low. The household non-performing loan ratio rose marginally in 2023, however.

Interest rates on new non-indexed household loans and deposits have been broadly unchanged since August 2023 (Chart II-16). The spread between variable and fixed rates on non-indexed mortgages has widened still further, however, as fixed rates have fallen this year, probably indicating that lenders expect interest rates to start falling. On the other hand, interest rates on inflation-indexed mortgage loans and deposits have risen since mid-2023, concurrent with other real rates.

Households' interest expense began rising in H2/2022, in tandem with policy rate hikes, as monetary

Chart II-16 Interest rates on deposits and loans¹ March 2015 - March 2024 14 Households Businesses 10 '17 '23 '15 '17 '19 Deposits Central Bank key rate New non-indexed deposits and loans. Domestic systemically important banks' average interest rates, weighted by amount. "Household loans" refers to mortgage loans and includes mortgages with fixed and variable rates. Three-month moving averages. Source: Central Bank of Iceland.

policy transmission to non-indexed lending rates has been effective. In addition, rates on inflation-indexed loans have risen, as is noted above. The ratio of interest expense to disposable income has therefore increased and is now broadly as it was in 2018-2019 (Chart II-17). The ratio of interest income to disposable income has risen even more, however, and is now at its highest since 2010. Over the course of this year and next, a large share of non-indexed fixed-rate mortgages will come up for interest rate review. The rates on these loans are considerably below those offered today, and debt service can be expected to rise when the fixed-rate period expires unless borrowers take action in some way. The ratio of interest expense to disposable income could therefore continue to rise.

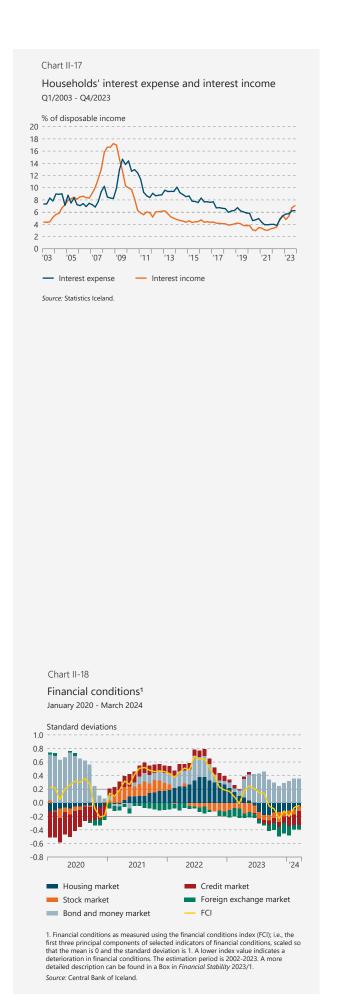
Corporate debt ratio continues to fall

As is the case for households, interest rates on companies' non-indexed deposits and loans have been largely unchanged in recent months (Chart II-16). Interest rates on inflation-indexed corporate loans have risen, however, but as is mentioned above, companies have increasingly sought out inflation-indexed financing in the past few months.

The corporate debt ratio has continued to fall, to 74% of GDP at the end of 2023, as compared with almost 77% a year earlier. The number of corporate insolvencies rose sharply year-on-year in 2023, as unusually few companies failed in 2022 because of pandemic-related support measures. Moreover, new company registrations were broadly similar between years, and arrears have not increased despite high interest rates and declining economic activity.

Financial conditions have improved marginally

On the whole, households' and businesses' financial conditions have improved in recent months (Chart II-18). From mid-2022 through end-2023, they tightened in line with rising interest rates, but the trend reversed this year. House prices are up again after the year-on-year rise lost momentum in H1/2023, long-term interest rates fell in the first two months of this year, and the interest rate differential with abroad narrowed. The improvement in financial conditions in Iceland is in line with developments in other advanced economies, including the US and the euro area (see Chapter I). Even though financial conditions have started to improve, they remain marginally tight in historical context.



Demand and GDP growth



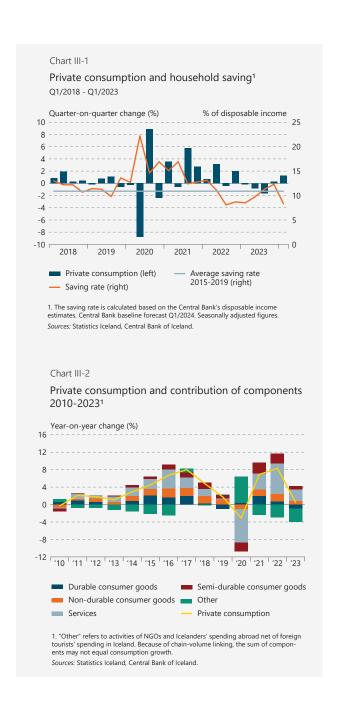
Domestic private sector demand

Private consumption started to ease as 2023 progressed ...

Private consumption grew by 0.3% between quarters in Q4/2023, after having tapered off in the three previous quarters (Chart III-1); therefore, the year-on-year growth rate slowed as the year advanced, turning negative by 2.3% in Q4, and was somewhat weaker than had been assumed in the February forecast. In spite of this decline, private consumption grew 0.5% in 2023 as a whole, in line with the February forecast, owing to stronger growth early in the year than was implied by Statistics Iceland's figures, offsetting the weaker growth rate in Q4.

This modest growth rate in 2023 represents a major turnaround from 2021-2022, when private consumption grew by an average of 7.6% per year. The 2023 outcome is Iceland's weakest full-year growth in private consumption since 2010, apart from 2020, the pandemic-induced outlier. As can be seen in Chart III-2, the turnaround primarily reflects weak growth in the purchase of services, plus slower growth in the spending on semi-durables and a contraction in durable goods consumption.

The household saving rate began to rise again over the course of 2023, in line with rising real interest rates and increased pessimism about the state of the economy (Chart III-1). Furthermore, revised national accounts figures indicate that the saving rate has been slightly higher in recent years than previously thought (see Box 2).



... and indicators imply a continued year-on-year contraction in Q1/2024 ...

Icelanders' payment card turnover within Iceland contracted year-on-year in Q1/2024. Card use abroad increased strongly, however, and total card turnover therefore grew again between years (Chart III-3). At the same time, new motor vehicle registrations (excluding car rental agencies) shrank by more than 37% year-on-year in the first two months of 2024.

Although seasonally adjusted private consumption is assumed to have continued growing between quarters in Q1/2024, it is estimated to have shrunk by 1.6% between years, somewhat more than was forecast in February.

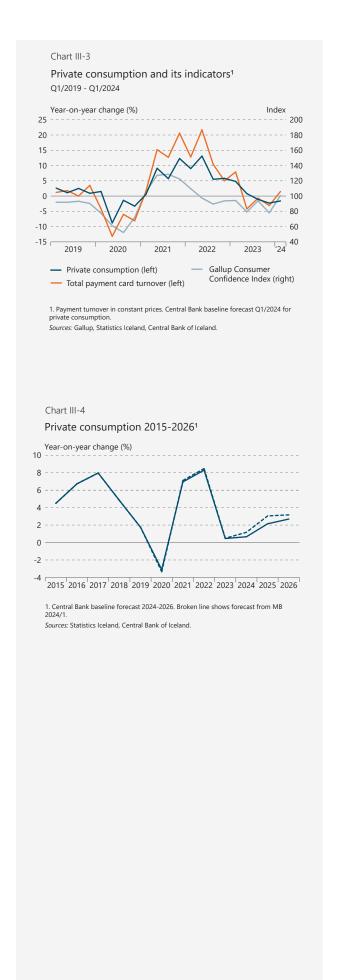
... and the outlook for 2024 as a whole has deteriorated since February

The Gallup big-ticket index of planned motor vehicle purchases rose again in Q1, after declining in late 2023. This could indicate that households plan to buy cars in greater numbers as the year advances, after the drop concurrent with changes in the tax treatment of new electric car purchases. Furthermore, the Gallup Consumer Confidence Index indicates that household sentiment has improved again.

In spite of this, the outlook for private consumption growth in 2024 as a whole has worsened somewhat since February. The growth rate is now projected to be broadly the same as in 2023, or 0.7%, which is 0.5 percentage points below the February forecast (Chart III-4). The downward revision is due mainly to the prospect of slower growth in real disposable income than was forecast then. This reflects somewhat weaker-thanforecast growth in labour income and more persistent inflation offset in part by increased transfers to households due to Government measures in connection with the newly signed wage agreements (see Box 1). Another offsetting factor is that the household saving rate is higher than previously estimated, which enables households to maintain a higher spending level despite bleaker income prospects.

Private consumption growth expected to pick up in 2025, albeit less strongly than was forecast in February

Private consumption growth is expected to gain steam again starting next year, rising to 2.1% in 2025 and 2.7% in 2026. Nevertheless, this is a poorer outlook than was envisioned in February, as real wage growth is now expected to be weaker than was assumed then. According to the baseline forecast, the household sav-



ing rate is expected to remain relatively stable at just over 10% of disposable income throughout the forecast horizon.

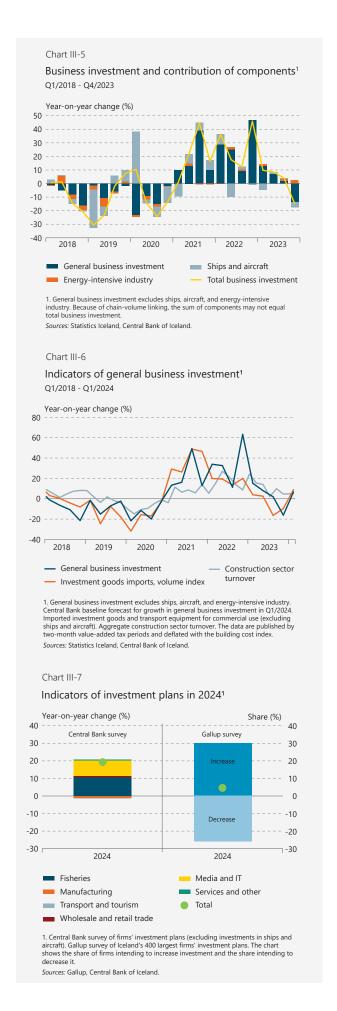
Business investment lost momentum over the course of 2023 ...

Business investment grew by just under 1% in 2023, in line with the February forecast. This is a considerably weaker growth rate than in the two years beforehand, as investment figures for those years were revised markedly upwards concurrent with the last publication of the national accounts (see Box 2). General business investment (excluding energy-intensive industry, ships, and aircraft) grew by just over 1% in 2023 as a whole but reversed as the year advanced, contracting by 16% year-on-year in Q4 (Chart III-5). The contribution from energy-intensive industry to business investment was positive during the year, whereas the contribution from investment in ships and aircraft was negative.

... but appears to have picked up again in Q1/2024 Imports of investment goods have increased, suggesting that business investment picked up again in Q1/2024 (Chart III-6). This represents a turnaround from Q4/2023, as there was a sharp contraction in business investment relative to Statistics Iceland's preliminary figures. However, that quarter was strongly affected by negative base effects from the previous year.

According to the results from the Bank's investment survey, taken in March, business investment spending can be expected to increase in nominal terms by 19% year-on-year. This is a larger increase than was indicated in the survey from September, when firms estimated that they would increase their investment spending by 8% this year. As in the September survey, land-based aquaculture firms' investment plans weigh heavily in the total increase (included with the fishing industry in Chart III-7), although investment in data utilities (classified under media and IT in Chart III-7) is expected to increase as well. All other sectors expect minor changes in investment spending relative to 2023.

The Gallup survey of Iceland's 400 largest firms, carried out in February and March, also suggests that investment spending will increase this year, although the results are not as conclusive as those from the Bank's investment survey. Executives planning to increase investment spending this year outnumber those planning to cut back, but nevertheless, 44% of survey respondents expect their investment spending to remain unchanged. According to the survey, execu-



tives in transport, transit, and tourism are still the most optimistic about investment in 2024, while fishing industry executives are the most pessimistic.

General business investment is assumed to grow by 5% this year, or ½ a percentage point more than was forecast in February. Business investment as a whole will grow somewhat more slowly than previously projected, however, or 3.9% instead of the 5.2% assumed in February. In part, this reflects negative base effects from stronger investment activity in the energyintensive sector in 2023, but investment in ships and aircraft is also expected to contract more than previously envisioned.

Housing starts projected to keep declining ...

Residential investment was virtually unchanged between years in 2023, according to the national accounts, whereas the Bank's February forecast assumed about 3% contraction. Statistics Iceland revised its figures for the first three quarters of 2023 slightly upwards, as the number of fully finished homes increased relative to previous estimates, and short-term indicators of construction activity reflect measured residential investment more accurately now than in recent years (Chart III-8).

Housing starts declined in number in 2023, and according to the Federation of Icelandic Industries' January survey, the trend looks set to continue in 2024. Data from the Housing and Construction Authority (HMS) figures point in the same direction, as they indicate that new construction started slowly at the beginning of this year (Chart III-9).

... but strains on capacity in the construction industry have increased

According to Gallup's March survey, construction industry executives expect capacity pressures to increase in the next six months. This could be due in large part to increased demand for housing among Grindavík residents who were forced to leave their homes because of the earthquakes and volcanic eruptions on the Reykjanes peninsula, as the surge in demand could motivate contractors to prioritise the completion of projects already underway (see Box 1).

Residential investment growth projected to be in line with the February forecast in 2024 but pick up in coming years

As of April, roughly 6,800 homes were under construction nationwide, and 1,100 had been completed since

Chart III-8 Indicators of residential investment¹ Q1/2015 - Q1/2024 Year-on-year change (%) 70 60 50 40 30 20 10 -10 -20 -30 2015 2016 2017 2018 2019 2020 2021 2022 2023 Residential investment First principal component of indicators 1. The first principal component of selected indicators of residential investment; is scaled so that its mean value is 0 and the standard deviation is 1. The data used are: scaled so that its interior value is on an interestantiand deviation is 1. The data used are cement sales excluding heavy industry, consumer sentiment towards expected purchases of real estate property, employment in construction, imports of building materials, and sentiment of construction companies towards expected investment activity. Seasonally adjusted data. The dotted line shows residential investment according to Statistics Iceland's national accounts in November 2023. Sources: Aalborg Portland Iceland, Gallup, Sementsverksmiðjan ehf., Statistics Iceland, Central Bank of Iceland. Chart III-9 The state of residential building constructions in the whole country1 2006 - 2024 Number 8,000 7,000 6,000 5.000 4.000 3.000 2,000 1.000 '06 '08 12 14 16 118 '20 '22 lan -Apr. Under construction Starts New completions 1. Data for 2024 based on the status between 1 January and 30 April 2024

Sources: Housing and Construction Authority, Central Bank of Iceland

the turn of the year (Chart III-9).¹ According to HMS' most recent estimate (from April), the supply of new housing is expected to increase this year and next year. About 3,000 new homes are expected this year and nearly 2,800 in 2025 – in all, about 200 more than in the previous estimate, prepared in September 2023.

Residential investment is now expected to grow by 3.5% this year, or slightly less than was forecast in February, owing mainly to base effects from the aforementioned revision of residential investment data for 2023. On the other hand, the outlook is for somewhat stronger investment in 2025 and 2026, reflecting the HMS estimate, the impact of increased demand from Grindavík residents, and a larger rise in house prices. If the forecast materialises, the ratio of residential investment to GDP will be 43/4% at the end of the forecast horizon, or 1/2 a percentage point above its twenty-five-year average.

Growth in total investment set to ease

The Bank's baseline forecast assumes that total investment will grow by 2.3% this year, which is below the February forecast (Chart III-10). The downward revision is due mainly to a larger contraction in public investment, although growth in business investment will ease as well. Investment is projected to grow by 2.3% per year, on average, in 2025 and 2026, or 2 percentage points below the February forecast. The slower growth rate is due mainly to weaker business investment, albeit offset by stronger growth in residential investment. The investment-to-GDP ratio over the forecast horizon is projected at 23%, which is 1 percentage point above its twenty-five year average and slightly above the February forecast.

Public sector

Public sector demand set to grow modestly in coming years

Government consumption grew by 2.2% in 2023, whereas government investment shrank by 6.1%. Public sector demand (i.e., government investment and consumption combined) grew by 1% during the year, in line with the February forecast. This is somewhat less than in 2022, however, owing mainly to weaker Government investment.

Growth in government consumption is projected to be weaker this year than in 2023, while govern-

Chart III-10
Gross fixed capital formation and contribution of main components 2015-2026¹



General business investment Fenergy-intensive industry Public sector
Ships and aircraft Gross fixed capital formation

 General business investment excludes ships, aircraft, and energy-intensive industry. Because of chain-volume linking, the sum of components may not equal total gross fixed capital formation. Central Bank baseline forecast 2024-2026. Broken line shows forecast from MB 2024/1.

Sources: Statistics Iceland, Central Bank of Iceland.

This total also includes fully finished properties that were either not previously entered to the records or were converted from commercial property.

ment investment is set to contract by about the same amount as it did last year. Government consumption is expected to grow slightly more than in the last forecast, while investment is expected to be weaker, owing primarily to the assumptions in the new fiscal strategy plan. Public sector demand is expected to grow by about 1% this year and about 1½-2% per year in 2025 and 2026. If the forecast materialises, the weight of government consumption and investment will remain virtually unchanged throughout the forecast horizon and will be 29½% of GDP in 2026.

Primary surplus in 2023

The Treasury outcome continued to improve in 2023, although there was a deficit measuring 1.3% of GDP. The primary balance was positive for the first time since 2019, however (Chart III-11). It improved markedly from the previous year, owing to developments in both expenditures and revenues. For example, Treasury primary income grew by 11%, although the lion's share of the increase is due to taxes on goods and services and corporate income tax. At the same time, primary expenditure grew by 7.4%, mostly because of items falling under Treasury consumption spending. As a share of GDP, primary income increased by 0.3 percentage points, to 29.1%, while primary expenditure declined by 0.7 percentage points, to 28.5%.

Impact of fiscal challenges set to emerge in 2024

The outlook is for Treasury revenues to increase markedly this year, in spite of a significant slowdown in GDP growth. The labour market remains strong, and furthermore, dividends paid by State-owned companies are expected to rise somewhat and the measures introduced in the last fiscal budget will deliver an increase in indirect taxes. As a result, Treasury primary income is projected to increase this year as a share of GDP. This will offset the rise in Treasury expenditure during the year, as the Government has announced a number of measures in connection with the new wage agreements, and Treasury expenditure will grow in coming years as a result (for further discussion, see Box 1). The cost of these measures will come to just over 12 b.kr. in 2024. On the whole, the Treasury deficit is expected to remain broadly unchanged year-on-year, excluding irregular items, at about 1.5% of GDP (Chart III-11), reflecting the improvement in the primary balance and the offsetting effect of a larger deficit on the interest balance.

In addition to the measures relating to wage agreements, Treasury expenditure has increased because of support measures for Grindavík residents

Chart III-11 Treasury outcome 2010-20241 % of GDP '10 '11 '12 '13 '14 '15 '16 '17 '18 '19 '20 '21 '22 '23 '24 Overall balance Primary balance Potential impact of Þórkatla purchases Adjusted for irregular and one-off items. Impact of Government buy-up of properties in Grindavík through real estate company Þórkatla, based on maximum legally authorised utilisation. Central Bank baseline forecast 2024. Sources: Ministry of Finance and Economic Affairs, Statistics Iceland, Central Bank of

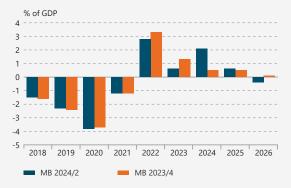
and the planned buy-up of residential property in the town. Through the real estate company Þórkatla, the Government has offered to buy Grindavík residents' homes at 95% of the fire insurance value, which is estimated to total up to 67 b.kr.² The purchase programme is structured so that the company will take over the outstanding mortgages on the properties concerned, and equity will be paid to the homeowners. This amount could range up to 41 b.kr. The Treasury will contribute up to 45 b.kr. in equity to Þórkatla, including up to a 15 b.kr. contribution from National Catastrophe Insurance (NTI). In the recently introduced fiscal strategy plan, the potential cost of these measures plus the support measures previously announced will total close to 70 b.kr.

Tighter fiscal stance over the forecast horizon compared to the previous assessment

As is noted above, the Treasury primary balance continued to improve in 2023, as it benefited from a lower primary expenditure ratio and a higher primary income ratio. With the publication of the national accounts in March, last year's output gap is now estimated to have been considerably larger than it was thought to be when the fiscal stance was last assessed in Monetary Bulletin 2023/4 (see Box 2 in the present report). As a result, it is now estimated that the fiscal stance, measured as the change in the cyclically adjusted primary balance, has tightened less than was assumed last November, or by 0.7% of GDP instead of the previously projected 1.3% (Chart III-12). As in the November forecast, the Treasury primary balance is expected to remain positive this year, as primary income is set to increase as a share of GDP, concurrent with a significant narrowing of the output gap. Despite increased Treasury spending during the year (discussed further in Box 1), the interplay between revenue growth and the output gap results in a tightening of the fiscal stance by an estimated 2% of GDP, which is more than was forecast in November. The fiscal stance is estimated to tighten by another ½% in 2025 and then be broadly neutral in 2026. The cyclically adjusted primary balance is now estimated to improve by 6.5% of GDP over the period 2022-2026. This is more than was estimated in November, as the stance tightened less in 2022-2023

2. It is not yet fully clear how the Pórkatla purchases will be treated in the national accounts and Statistics Iceland's public sector accounts. In the forecast presented here, it is assumed that the purchases will not affect government investment or residential investment. In addition, the Central Bank's baseline forecast views the home buy-up programme as an irregular item that the Bank's performance forecast looks past. This assumption could be subject to review once it becomes clear how Statistics Iceland will handle the programme in its accounts.

Chart III-12
Change in central government cyclically adjusted primary balance 2018-2026¹



1. Adjusted for irregular and one-off items, including the potential impact of the Government buy-up of properties in Grindavík. Central Bank baseline forecast 2024-2026.

Sources: Ministry of Finance and Economic Affairs, Statistics Iceland, Central Bank of

than previously expected, whereas it is now projected to tighten more over the forecast horizon.

The new fiscal strategy assumes the Treasury to be in balance by 2028, a year later than previously anticipated

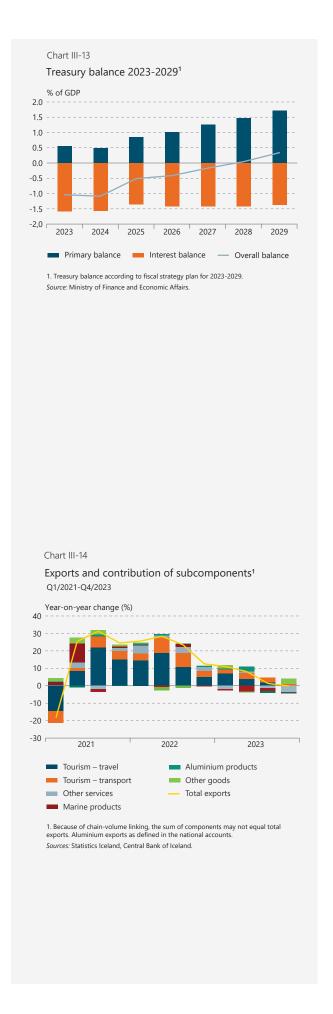
The new fiscal strategy plan for 2025-2029 contains a revision of the performance outlook for 2024; however, the Treasury outcome is expected to be broadly in line with the National Budget and the previous fiscal strategy plan. According to the plan, Treasury operations will be in deficit by 0.5% of GDP this year, whereas the primary balance will be positive by 0.8% (Chart III-13). Deficit operations will diminish incrementally in coming years, and a Treasury surplus is expected in 2028, one year later than according to the previous fiscal strategy plan. This reflects challenges in Treasury operations due to natural disasters and Government involvement in wage agreements, which have called for more consolidation in this fiscal plan than in the prior one.

External trade and the current account balance

Services exports contracted in late 2023, after a period of strong growth ...

Goods and services exports grew by 4.8% year-onyear in 2023, or 0.4 percentage points more than was assumed in the February forecast. As in 2022, the increase was due largely to strong activity in tourism, although growth lost pace in H2/2023 and exports were broadly flat between years in Q4 (Chart III-14). This was largely because services exports contracted by 5.5% year-on-year, for the first time since the pandemic, while the February forecast had provided for modest growth. The difference is due primarily to a contraction of one-fifth in exports of services other than tourism. Nevertheless, the year-on-year contraction probably stems in part from a lack of data for smaller export companies, as this item was revised sharply upwards in the previous year, once tax return data became available.

Notwithstanding the impact of the volcanic activity on the Reykjanes peninsula, tourism-related exports continued to grow during the quarter, largely because increased commercial flight availability boosted domestic airlines' revenues. Travel-related exports grew by only 0.7% year-on-year, however, even though passenger numbers grew by one-fifth over the same period. Furthermore, average spending per tourist at constant exchange rates was broadly in line with the



Q4 level prior to the pandemic, and considerably lower than in the recent term (Chart III-15). In part, this may reflect the lack of data from domestic tourism companies that have moved their acquiring business to foreign providers in the recent past.

... and the beginning of the year is still affected by volcanic activity

During the first three months of this year, 460,000 tourists visited Iceland, or 10% more than over the same period in 2023. The year-on-year increase was slightly larger than was projected in February, as that forecast assumed that the volcanic eruptions would have a stronger impact on demand for travel to Iceland. As in Q4/2023, the increase in visitor numbers was not matched by developments in hotel bed-nights or spending per tourist. Foreign nationals' bed-nights at registered guest accommodation declined by 3.3% year-on-year in Q1/2024, and hotel occupancy rates were lower than in the same period a year ago. It therefore appears that tourists shortened their stays even further between years, and that the average length of stay (LOS) was shorter than in the same period before the pandemic (Chart III-15). This can also be seen in a continuing decline in average spending by tourists, which was down 7% year-on-year in Q1, although this is probably due in part to the above-mentioned shortage of data.3

The outlook is for travel-related exports to have contracted more during the quarter than was previously assumed. Domestic airlines' export revenues from passenger transport appear to have grown in line with expectations, however, in tandem with the increase in seat availability, which was about the same in Q1 as in the same guarter of 2018 (Chart III-16). The volcanic eruptions and related media coverage continued to affect both travel bookings to Iceland and airlines' passenger load factors in January, but the effects appear to have diminished over the course of Q1, (Box 1 contains further discussion of the impact of the volcanic eruptions on exports and the economy more broadly). The ratio of transit passengers to total passengers remained somewhat higher than before the eruptions, however. There is also the prospect of a continued contraction in cargo transport and other non-tourism services during the quarter.

Given the sudden change that has taken place since the volcanic eruptions started, it is possible that the ratio of foreign tourists to total passengers at Keflavík Airport has been overestimated recently, and that the changes in LOS and tourist spending actually reflect a smaller increase in visitor numbers.



The outlook for tourist numbers in 2024 has worsened marginally since February

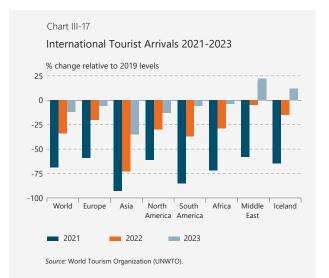
Towards the end of 2023, tourist numbers in most of the world had returned to the pre-pandemic level (Chart III-17). In recent months, international air traffic has remained at about the same level as in the same period of 2019, and the status of airline bookings appears relatively stable. The outlook is also for continued growth in travel between the US and Europe, although indicators suggest stronger demand for travel to less expensive destinations.⁴

The outlook for flight availability to and from Iceland in 2024 is broadly unchanged from the February forecast, and the status of airline bookings appears similar to the same period in 2023. Nevertheless, the share of transit passengers is expected to be higher than in 2023, and demand for travel to Iceland appears to have decreased slightly. The status of hotel bookings also appears worse than at the same time in 2023, although Google searches for flights to Iceland and accommodation in the country are broadly unchanged. The outlook for tourism therefore appears to have deteriorated since the February forecast, and it is now assumed that just under 2.3 million tourists will visit Iceland this year. The year-on-year rise is due primarily to increased flight availability in H1/2024, while in H2, visitor numbers are expected to be lower than in the February forecast, and as a result, the total for H2 will be virtually unchanged relative to the same period in 2023.

Services exports are expected to grow more slowly in 2024 than was projected in February, owing to reduced tourist spending in Q1/2024 and the prospect of fewer tourists and weaker growth in other services in H2. Growth in services exports is now projected at 1.7%, compared to 4% in the February forecast. There is some uncertainty, however, about visitors' LOS and spending while in Iceland, as the tourist group changes markedly with the seasons. The outlook for services exports in the next two years is broadly in line with the February forecast, however, as tourism is still expected to grow slightly, concurrent with a further increase in domestic airlines' flight offerings.



^{5.} According to data from hospitality software firm Godo on the booking status of accommodation nationwide.



Year-2023 goods exports exceeded the February forecast ...

Goods exports grew by 1.1% year-on-year in 2023, compared to the 1.3% contraction expected in the February forecast. The difference is due to Statistics Iceland's revision of data for the first three quarters of the year, as goods exports are now estimated to have grown by 0.4% year-on-year instead of contracting by 1.3%, as in the previously published figures. The lion's share of the revision stems from a smaller contraction in marine product exports, which shrank by 7.9% in 2023 as a whole, whereas in February the contraction was projected at 10% (see also Box 2). Last year's contraction in marine product exports is largely attributable to a year-on-year reduction in catch quotas for cod and capelin, and furthermore, a large share of already caught capelin roe is still held in inventory. In addition, the export value of farmed fish was revised upwards from previously published figures. For 2023 as a whole, other goods exports grew by 13%, owing largely to growth in exports of other manufactured goods, offset by a contraction in exports of ferrosilicon and farmed fish. The production of aluminium for export also increased by just over 1%, as had been assumed.

... and the outlook for 2024 has improved

The outlook is for Q1 goods exports to have been stronger than was forecast in February, particularly exports of aquaculture products. Export growth is also expected to be stronger in other quarters of the year, owing largely to the prospect of increased pharmaceuticals exports. In February 2024, Alvotech received approval from the US Food and Drug Administration (FDA) for the sale of its biosimilar of the rheumatoid arthritis drug Humira, and exports to the US are expected to begin in Q2/2024. On the other hand, marine product exports are expected to grow by 1% instead of the 2.2% projected in February, owing to base effects from a smaller contraction in 2023. As in February, aluminium exports are projected to increase marginally this year, but the cutback in electricity from Landsvirkjun to heavy users affected aluminium companies' production in the first four months of the year. Total goods exports are expected to grow by 2.5% this year, about 1 percentage point more than was assumed in February. Aquaculture exports are still expected to increase over the next two years, but now there is also the outlook for other goods exports to grow more strongly than previously projected, owing to the aforementioned changes in pharmaceuticals exports.

Growth in total exports broadly unchanged in 2024 but set to pick up in 2025

Total exports are projected to grow by 2.1% in 2024, slightly less than was forecast in February, due to the prospect of weaker services exports versus stronger goods exports (Chart III-18). Because of base effects, growth in services exports will be stronger in 2025 than previously estimated, while the outlook is for stronger goods exports throughout the forecast horizon because of increased pharmaceuticals industry exports.

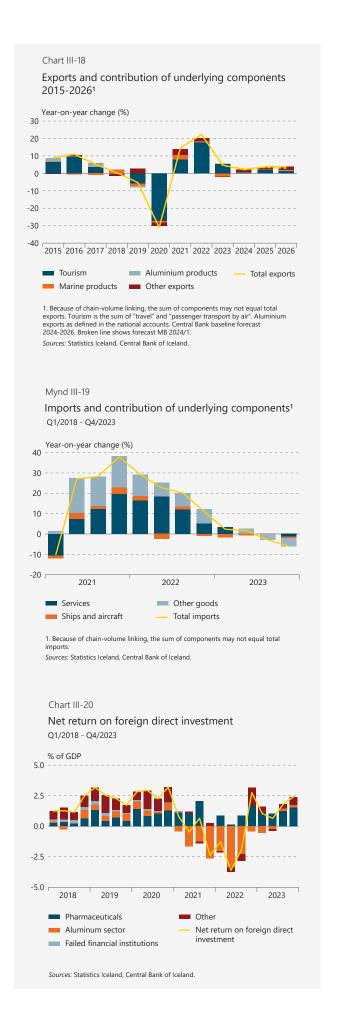
Imports set to contract in line with developments in domestic demand

Imports of goods and services contracted by 6% in Q4/2023 and by 1.4% in 2023 as a whole, as was forecast in February (Chart III-19). The contraction for the full year is due largely to reduced goods imports, which shrank by 6.9% in Q4. On the other hand, there are signs that Q1/2024 turned out stronger than had been forecast in February, particularly imports of investment goods. Pulling in the other direction is the prospect of weaker import growth in H2, in tandem with reduced growth in domestic demand; therefore, goods imports are expected to increase by 2% over the year as a whole, as compared with the 2.9% growth forecast in February.

Services imports also began to contract towards the end of 2023. Icelanders' spending abroad shrank in the last three quarters of the year, but in Q4 this was compounded by a contraction in other services imports. As a result, total services imports contracted by 4.2% during the quarter, although they grew by 1.2% in 2023 as a whole. Icelanders' travel abroad was somewhat stronger in Q1 than was forecast in February, and there are signs that their average spending rose rather sharply, overtaking expectations. The outlook for services imports over the remainder of 2024 is broadly in line with the previous forecast, however. Due to the prospect of weaker goods imports in H2, total imports are now expected to increase by 2% this year instead of the 2.4% projected in February. The outlook is for somewhat weaker growth in 2025 as well.

Current account deficit turns to a surplus

The current account deficit measured 2.7% of GDP in Q4/2023, slightly less than was forecast in February. For 2023 as a whole, the current account showed a surplus of 1% of GDP, but significant changes were made to data for the first three quarters of the year and for previous years because of Statistics Iceland's revisions of exports of marine and aquaculture prod-



ucts, as well as the revision of primary income. The current account deficit measured 1.7% of GDP in 2022 instead of the previously estimated 2.3%, and the year-2023 surplus was also a full 1 percentage point larger (see Box 2). The balance on goods and services trade was broadly unchanged year-on-year; however, there was a 110 b.kr. turnaround in the primary income balance, owing primarily to a poorer performance among aluminium companies in tandem with the decline in aluminium prices during the year, which was reflected in stronger returns on net foreign direct investment (Chart III-20).

As was forecast in February, external trade is expected to be broadly in balance this year. The services account surplus is projected to be smaller than was forecast in February, but this is offset by the prospect of a smaller goods account deficit (Chart III-21). The same factors will come into play next year, when the trade balance is expected to show a surplus of 0.8% of GDP, a noticeable turnaround from the persistent deficits in 2020-2023. The current account will show a surplus of roughly the same amount, which will remain broadly unchanged over the forecast horizon.

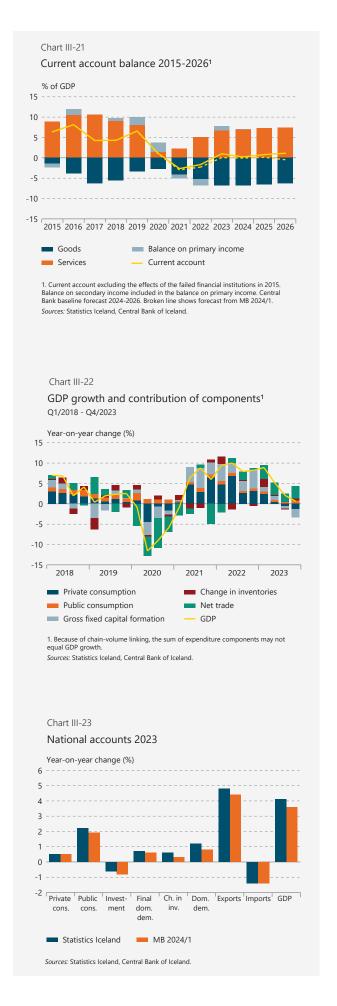
GDP growth

2023 output growth stronger than forecast in **February**

Seasonally adjusted GDP grew by 0.9% quarter-onquarter in Q4/2023, somewhat below the February forecast. Year-on-year GDP growth measured 0.6%, the weakest Iceland has seen since Q1/2021, when contractionary effects from the pandemic were still in evidence (Chart III-22).

Despite a weaker-than-expected growth in Q4, the growth rate for the full year turned out to be 4.1%, or 0.5 percentage points above the February forecast. This reflects Statistics Iceland's upward revision of GDP growth for the first three quarters of 2023, from 4.2% to the current estimate of 5.3%. Stronger year-2023 output growth relative to the February forecast can be attributed primarily to increased inventories, which probably stem in large part to unsold stocks of capelin products, and in addition, external trade was slightly more favourable (Chart III-23).

Statistics Iceland also revised GDP growth figures for 2020-2022, particularly to include revising year-2022 growth upwards from 7.2% to 8.9%, Iceland's strongest output growth rate in more than half a century (see Box 2).



Although driven strongly by buoyant tourism, 2023 output growth was relatively broad-based

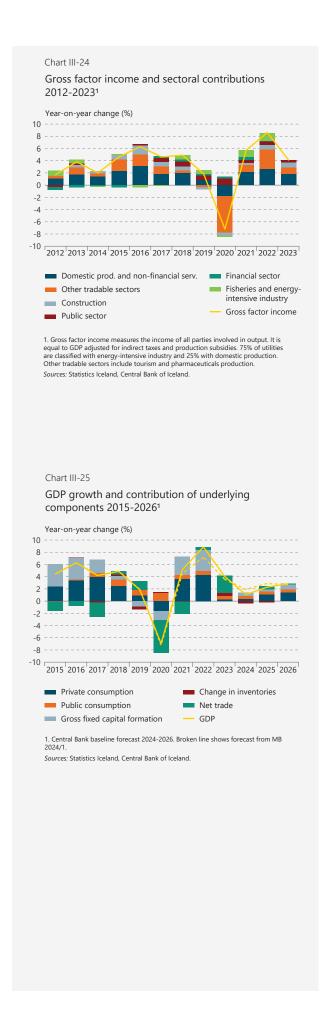
Last year's GDP growth was driven primarily by favourable external trade, especially the surge in tourism. This can also be seen in the production accounts, which show significant growth in domestic manufacturing and services during the year (Chart III-24). Activity in the fishing, energy-intensive industry, and financial services sectors was unchanged in 2023, but in miscellaneous services and IT activity grew strongly between years, accounting for a third of growth in domestic non-financial manufacturing and services. The slow-down in output growth between 2022 and 2023 is reflected in weaker growth in virtually all sectors of the economy, but as in the two years beforehand, growth remained broad-based.

The GDP growth outlook has deteriorated since February

GDP is estimated to have contracted by just over 3% year-on-year in Q1/2024, driven mainly by the aforementioned downturn in private consumption, which explains the lion's share of the expected contraction of nearly 3% in domestic demand, and compounded by a negative contribution from net trade. This is a larger contraction in GDP than was forecast in February.

The GDP growth outlook for 2024 as a whole has also deteriorated since February. Growth for 2024 is now projected at 1.1%, or 0.8 percentage points below the February forecast (Chart III-25). This is due mainly to a poorer outlook for domestic demand growth, as private consumption and investment are expected to grow more slowly this year, as has previously been discussed.

The bleaker outlook for domestic demand is also the main reason for the downward revision of the year-2025 output growth forecast from 2.9% in February to the current projection of 2.3%. On the other hand, the GDP growth forecast for 2026 has been revised slightly upwards.



Labour market and factor utilisation



Labour market

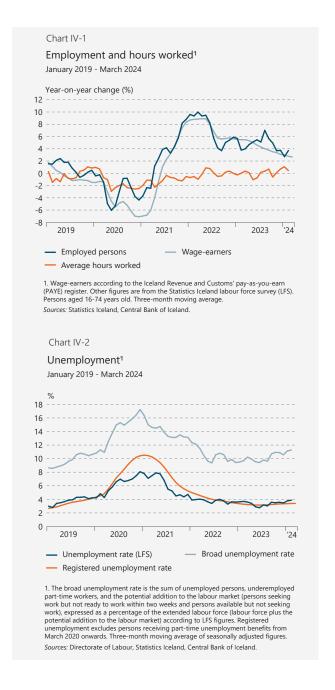
Job growth continues to ease ...

According to Statistics Iceland's labour force survey (LFS), total hours worked grew by 4.1% year-on-year in the three months to February. Of that amount, the number of employed persons grew by 3.7%, and the average work week extended by 0.4% (Chart IV-1). Statistics Iceland is currently revising LFS figures in the wake of its review of population data (see Box 2). However, this is already reflected to a large extent in the LFS so the revision should be relatively modest.

Clearer signs of slower job growth can be seen in the number of persons on the pay-as-you-earn (PAYE) register. By that measure, year-on-year job growth began to ease more decisively in mid-2023, and in Q1/2024 it measured 2.7%. Job development varies between sectors, however; for instance, it was still brisk in sectors relating to airlines, travel agencies, the real estate market, utilities, and miscellaneous specialised services. At the same time, job numbers have risen more slowly in the retail and wholesale trade sector, and they have fallen year-on-year in the hospitality industry and in information and computer technology (ICT).

... and unemployment is inching upwards ...

According to seasonally adjusted LFS results, the labour participation rate has held stable at nearly 80.5% since year-end 2022. The employment rate was also relatively stable early in the period but has eased since late 2023. As a result, unemployment has inched upwards, measuring 3.9% in the three months to February (Chart IV-2). A broader definition of unemployment, which includes groups that are close to being considered



unemployed, indicates that labour market tightness has eased somewhat more quickly in the recent past. Statistics Iceland has not published LFS results for Q1/2024, but until that time, the increase in broad unemployment has been concentrated in two groups that do not fall under the LFS definition of unemployment: i.e., those who are looking for a job but cannot start work within two weeks, and those who are willing to work but are not looking for a job.

Registered unemployment began to rise gradually in mid-2023, but from October through March 2024 it has held unchanged at 3.4%. In the near future, developments in unemployment could be affected by the situation in Grindavík, as it appears that wage subsidies for Grindavík residents could expire at the end of May. If so, some of them could be forced to rely on unemployment insurance.

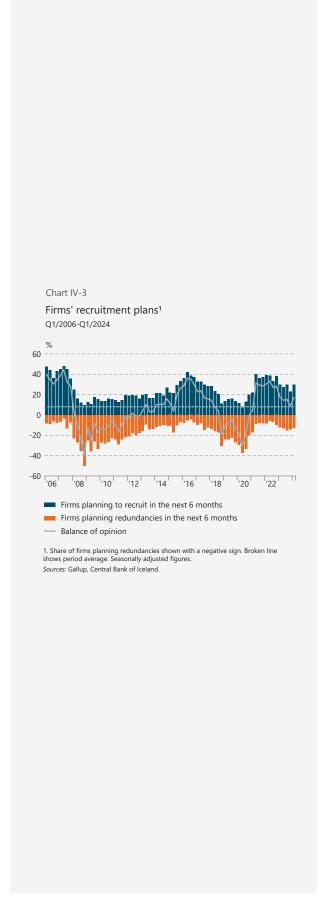
... but labour demand is still strong ...

According to the seasonally adjusted results of Gallup's spring survey among executives from Iceland's 400 largest companies, just under 30% of firms were planning to recruit staff in the next six months, and only 12% were planning to downsize. The balance of opinion was therefore positive by 17 percentage points, and it rose again, after having declined in the winter survey (Chart IV-3). According to the survey, labour demand began to decline in mid-2022 but has remained just above its historical average since mid-2023. The survey indicates that job numbers will rise the most in construction; industry and manufacturing; and finance and insurance; whereas in other sectors the balance of opinion among executives was close to its historical average.

... as was population growth in Q4/2023

New population data from Statistics Iceland show that population growth slowed more in 2023 than previously thought. In Q4, the population increased 2.3% year-on-year, and the annual growth rate was flat between quarters. In comparison, previous figures had indicated 3% population growth in Q3/2023 (see Box 2). In spite of this downward revision, population growth is very strong in historical context. It is expected to keep easing over the forecast horizon, in line with reduced immigration alongside better alignment between Iceland's business cycle and that of trading partner countries.

Tight labour market to give way to a slack in 2024 Although the domestic labour market has begun to slow down, some tightness remains. Firms' recruitment



plans indicate that job growth will continue in the near future, and the Bank's baseline forecast assumes that job numbers will increase this year. According to the forecast, total hours worked will increase by 2% this year, somewhat below the February forecast and 3 percentage points less than in 2023 (Chart IV-4). The rise in total hours worked will ease even further in 2025 but then start to pick up again in the final year of the forecast horizon.

Even though job numbers continue to increase, the labour market is expected to ease and a slack to develop late in 2024. The labour market slack is expected to peak in 2025 and then taper off towards the end of the forecast horizon. The baseline forecast assumes that unemployment will measure 4.8% in 2024, as was projected in February. On the other hand, unemployment is expected to be higher and more persistent in 2025 than was forecast in February, and to remain above 4% towards the end of the forecast horizon.

Indicators of factor utilisation

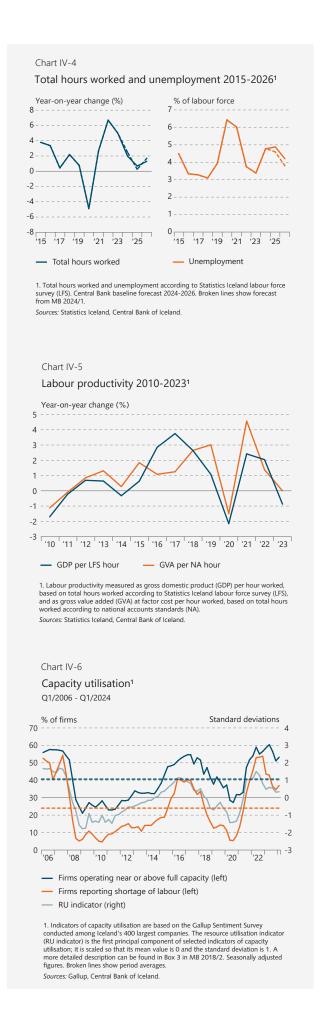
Productivity growth weakened in 2023

According to figures from Statistics Iceland, labour productivity was flat in 2023, after increasing in the two years beforehand (Chart IV-5). Productivity growth for 2020-2022 was revised concurrent with the release of the national accounts in February, and the growth rate turned out stronger than previously estimated (see Box 2). Over the period from the onset of the pandemic in 2020, productivity grew by an average of just over 1% per year, in line with the average growth rate during the period between the financial crisis and the pandemic.

Another measure of productivity that is based on GDP per hour according to the LFS gives broadly similar results, although it indicates even weaker developments before the pandemic. By this measure, productivity contracted by nearly 1% in 2023 and looks set to do the same in 2024. This trend is expected to reverse during the forecast horizon, and GDP per hour is projected to grow by an average of 1½% per year in 2025-2026.

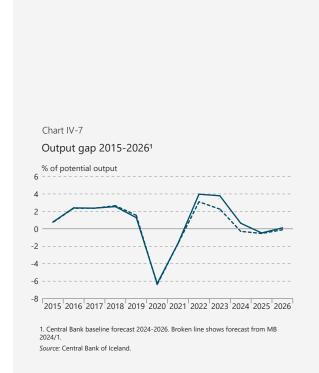
Wider and more persistent output gap expected

According to the seasonally adjusted results of Gallup's spring survey, 37% of company executives considered themselves short-staffed and 53% reported that their firms would have difficulty responding to an unexpected increase in demand. Both ratios were still roughly 12 percentage points above their historical averages.



The resource utilisation (RU) indicator, which combines various indicators of factor utilisation, remained flat between quarters but still indicates the presence of demand pressures in the economy (Chart IV-6).

As is discussed in Box 2, GDP for 2021-2022 was revised upwards concurrent with the publication of the national accounts in February 2024. Furthermore, year-2023 GDP growth proved to be stronger than had been projected in February. About half of this revision of GDP is estimated to stem from increased potential output, while the other half is judged to be cyclical, and the estimate of the output gap for these years has therefore been revised. As a result, the output gap at the beginning of 2024 is wider than was assumed in the February forecast. It is now estimated to have been 3.8% of potential output in 2023, well above the February forecast of 2.3% (Chart IV-7). As in February, the output gap is expected to narrow somewhat this year and a small slack to open up in 2025, a year later than was forecast in February. This assessment is, as before, highly uncertain. Further discussion of the uncertainties in the forecast, together with alternative scenarios, can be found in Box 1.



Inflation



Recent developments in inflation

Inflation rose again in Q1 ...

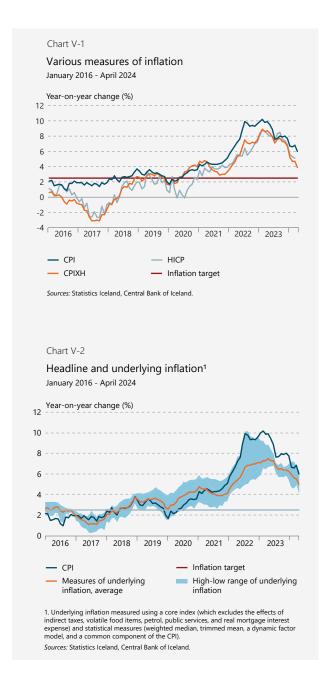
Inflation averaged 6.7% in Q1/2024, exceeding the forecast of 6.3% in the last Monetary Bulletin. Twelvemonth inflation fell steeply at the beginning of the year but picked up again in March. Increases in the price of public services and housing – due particularly to higher house prices in regional Iceland - had the strongest effect on the CPI during the quarter. House prices have risen recently, especially on the Reykjanes peninsula, since residents of Grindavík have been forced to move out of town because of earthquakes and volcanic eruptions (see Chapter II and Box 1). Recent housing-related price list increases by municipalities also had a stronger upward impact on the CPI than at the same time in 2023; in fact, the impact has not been this strong since 2012. The price of foods and private services also rose somewhat in Q1.

... and has been persistent for some time ...

Inflation fell to 6% in April (Chart V-1). The CPI rose by 0.55% month-on-month, with housing and airfares the main upward-pushing items. There were some base effects, as the CPI rose steeply in April 2023. Inflation has been persistent, remaining at or above 6% for more than two years. Inflation excluding the housing component measured 3.9% and has fallen continuously since last autumn. HICP inflation has developed similarly and measured 5.1% in March 2024.

... but underlying inflation continues to decline

Underlying inflation has continued to fall. In terms of the average of various measures, it measured 5% in April, its lowest since January 2022, just before Russia's



invasion of Ukraine (Chart V-2). It also appears that price hikes have gradually become less widespread recently, as the share of the consumption basket that has risen less than 5% year-on-year has increased in 2024 to date (Chart V-3). Inflationary pressures therefore appear less broad-based than before. The contribution from the housing component of the CPI has increased in the past few months, owing to the recent rise in house prices, and housing currently accounts for about half of headline inflation (Chart V-4). At the same time, the contribution of goods and services to inflation has been on the decline. As Chart V-5 shows, recent developments in the housing component have differed from developments in other components.

Statistics Iceland has announced that in June 2024 it will begin using a new method to calculate owner-occupied housing costs in the CPI.1 Instead of the simple user cost method, which has been used in Iceland since 1992, the method of rental equivalence will be adopted, which entails using data from residential leases to estimate the rental equivalence for privately owned property. With this change, real mortgage interest expense will no longer have a direct effect on imputed rent. The short-term effects of this change on measured inflation are uncertain, but all else being equal, measurements of the housing component will probably be less volatile. Measured inflation could prove stickier, however, as a large share of residential leases are indexed to inflation. Nevertheless, alternative measures of owner-occupied housing costs should correlate well in the long run.

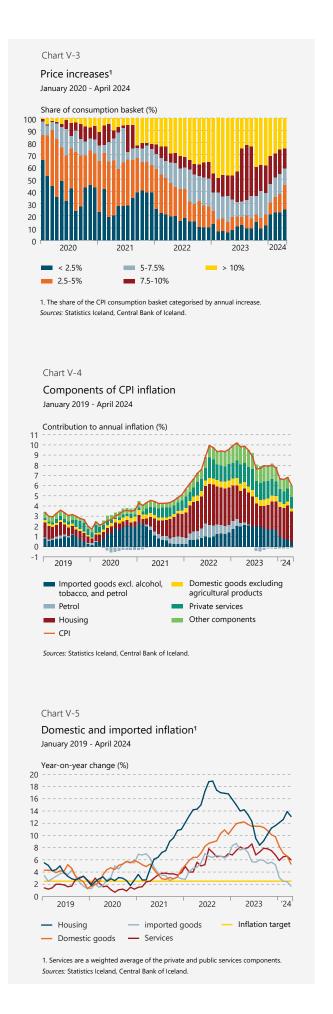
Indicators of inflationary pressures

Although price increases have subsided, domestic inflation remains high ...

Growth in economic activity has lost pace recently, and there are widespread signs of a slowdown in demand. But demand pressures still remain and the housing market is quite strong. As a result, the twelve-month rise in domestic goods prices has eased gradually, to 5.3% in April (Chart V-6). The majority of the price increases are attributable to domestic foods, and groceries prices also rose 5.3% year-on-year.

The annual rise in private services prices has lost momentum as well, measuring 4.9% in April, after peaking at 9.4% in June 2023. Price hikes are still spread across a range of services subcomponents; for

^{1.} See the 26 March 2024 press release and report on the proposed change in methodology on the Statistics Iceland website.



instance, the price of restaurant services, insurance, and maintenance has increased somewhat since last year. On the other hand, international airfares have been an average of about 9% lower in 2024 to date than in the same period of 2023. Public services prices were, however, up 9.1% year-on-year in April, after rising steeply at the beginning of 2024, owing to the aforementioned price list increases.

... but imported inflation has subsided

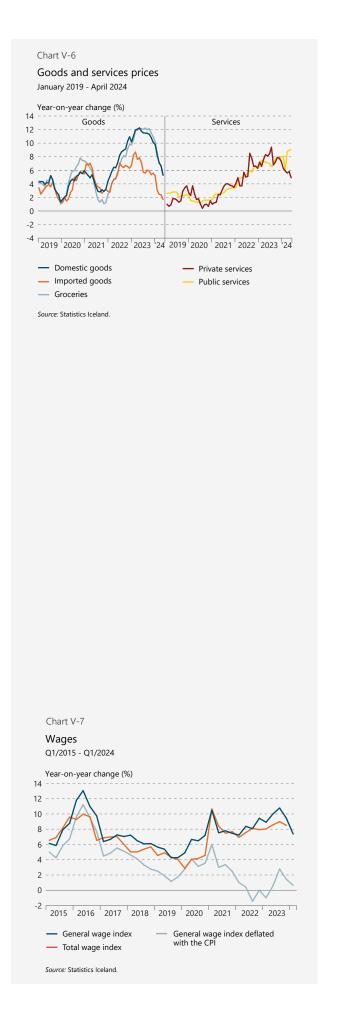
Imported goods prices have risen considerably more slowly: overall, they were 1.7% higher in April than in the same month of 2023. The price of new motor vehicles has fallen recently, as sales have contracted sharply. The price of miscellaneous imported goods such as clothing and furniture was up by only 1.1% between years in April. Imported foods prices had risen far more steeply, however, or 6.2%.

As is discussed in Chapter I, global inflation has eased, and food price inflation has slowed markedly. The króna has been relatively stable in trade-weighted terms thus far in 2024 but is almost 1% weaker than in the same period in 2023. Therefore, even though private consumption has shrunk recently, price hikes on food and services have been extremely persistent, probably reflecting rising wage costs and stubbornly high inflation expectations.

Wage rises to ease over the forecast horizon, but continued inflationary pressures from the labour market are expected

The wage share (wages and related expenses relative to gross factor income) was 60.6% in 2023, an increase of 1.3 percentage points year-on-year, and was therefore 1 percentage point above its twenty-year average. This is due in large part to the deterioration in terms of trade in 2023 (see Chapter I). For instance, the year-on-year rise in the price deflator of gross factor income subsided rapidly, from 9.5% in 2022 to 5.6% in 2023. This also reflects the fact that the contribution of operating surpluses to inflation by this measure declined to a low level. At the same time, the twelve-month increase in unit labour costs gained pace, rising from 7.3% to 7.8% over the same period.

The general wage index rose by 1.6% between quarters in Q1/2024, and by 7.4% year-on-year (Chart V-7). It rose unusually strongly at the beginning of the year, but in addition, the first contractual pay rises in the current round of private sector wage negotiations took effect in March (for further discussion of the new wage agreements, see Box 3).



Negotiations with State and municipal employees were still ongoing just before the publication of this *Monetary Bulletin*. Based on the wage policy set in the ongoing round of negotiations, the outlook is for wages as a whole to rise less in 2024 than in the past three years. On the other hand, wage drift is still adding considerably to contractual pay rises and is expected to continue doing so over the forecast horizon, although the outlook is for the output gap to close over the course of 2025. In addition, labour productivity has increased slowly since the pandemic struck, or by just over 1% per year, on average, over the past four years (see Chapter IV).

Wages per hour look set to increase this year by 5.5%, which is less than was forecast in February (see Box 3). GDP per hour worked is projected to contract by just under 1% and unit labour costs therefore to rise this year by 6.5%, or over 1 percentage point less than in 2023 and about ¾ of a percentage point less than was forecast in February. In 2025 and 2026, unit labour costs are projected to rise by an average of just under 4% per year. If the forecast materialises, there will still be some inflationary pressures from the labour market, although they will subside over the forecast horizon.

Inflation expectations

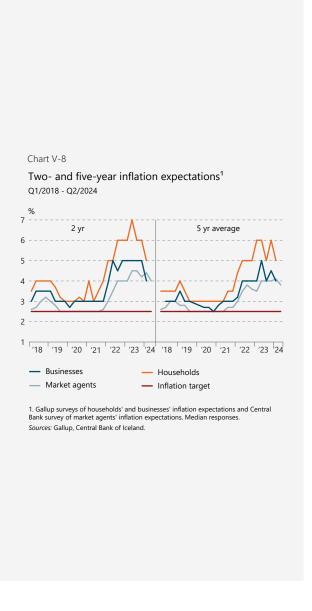
Short-term inflation expectations have fallen

Surveys indicate that short-term inflation expectations have fallen in the recent past and are down year-on-year by most measures, as they are generally affected by recent inflation. Market agents expect inflation to measure 4.6% in one year and 4% in two years (Chart V-8). Corporate executives also expect inflation to measure 4% in two years' time, while households, whose survey expectations are typically higher than those of other respondents, expect it to be 5%.

Surveys show that long-term inflation expectations have fallen as well but remain above target

Long-term inflation expectations have developed similarly. Market agents' long-term expectations declined between surveys. Respondents expect inflation to average 3.8% over the next five years and 3.5% over the next ten. Long-term expectations among households and businesses have also fallen recently: corporate executives project inflation at 4% in the next five years, while households expect it to measure 5%.

The breakeven inflation rate in the bond market rose early in the year, with the ten-year rate reaching 4.1% in April (Chart V-9). Breakeven rates fell slightly



once again in early May, however, and the five-year breakeven rate five years ahead reached 3½%, where it has been for some time, after rising above 3.7% in April.

Inflation and inflation expectations have been above target for a long time, which has undermined the anchoring of inflation expectations (see Box 1 in *Monetary Bulletin* 2023/4). This exacerbates the risk that inflation will be more persistent and harder to manage than would otherwise be the case.

The inflation outlook

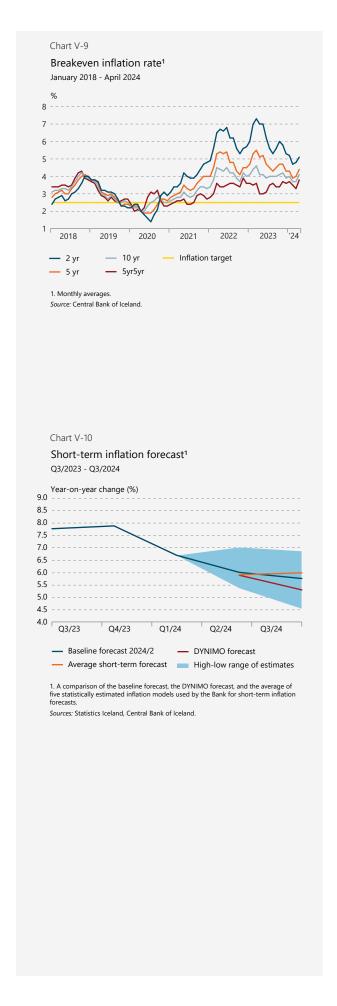
Stronger demand pressures cause inflation to fall more slowly than previously forecast ...

Inflation exceeded the Bank's February forecast in Q1/2024, mainly because house prices and various housing-related fees rose more than expected, and food prices rose slightly more as well. The deteriorating short-term outlook is therefore affected by a poorer initial position. Furthermore, the outlook is for strong housing market activity in the near future – partly because Grindavík residents are moving to new homes – and for house prices to keep climbing (see Box 1). Inflation is projected at 6% in Q2 but is forecast to fall to 5.8% in Q3, which is just over 1 percentage point above the February forecast. This is in line with the average forecast from other models used by the Bank (Chart V-10).

As is discussed in Box 2, Statistics Iceland's revised figures showed that the output gap was considerably underestimated in 2023 and is therefore expected to be wider this year as well. Capacity pressures therefore appear more persistent than previously assumed. This is offset by the prospect of slower wage growth. The outlook is also for weaker imported inflationary pressures, even though global oil prices have risen more than previously expected.

... and inflation is projected to exceed the February forecast for most of the forecast horizon

Even though it is assumed that economic activity will continue to lose pace, the outlook is for inflation to exceed the February forecast for most of the forecast horizon. A slack is not expected to develop in the economy until H2/2025, a year later than was projected in February (see Chapter IV). As is discussed above, inflation expectations have become more weakly anchored, which has contributed to greater inflation persistence than would otherwise occur. Inflation is forecast to fall to 3.5% by the end of 2025 and reach the target in

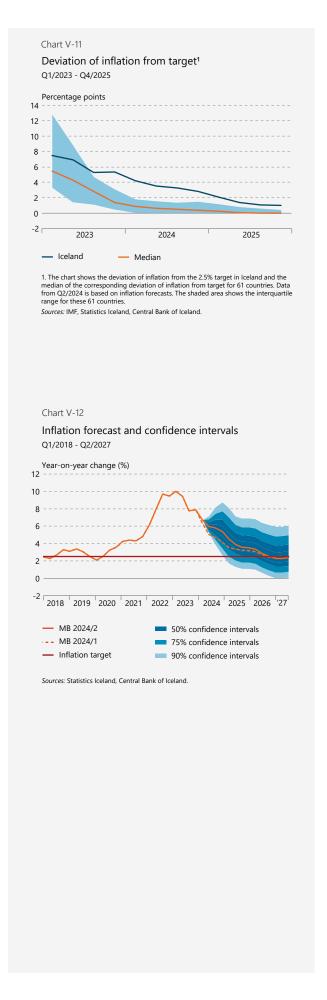


H2/2026, conditional upon the interest rate path in the forecast. As Chart V-11 shows, this is a much slower rate of disinflation to target than is forecast in other countries.² Global inflation is projected to be at target, on average, by mid-2025, whereas the Bank's baseline forecast assumes that inflation in Iceland will still be about 1 percentage point above target at the end of 2025.

... but upside risks to the inflation outlook have receded recently

As is discussed in Box 1, there is still considerable uncertainty about how quickly inflation in Iceland will be brought back to target. Statistics Iceland's change in methodology for calculating owner-occupied housing costs could reduce volatility in the short run, but its effect on measured inflation is uncertain. Furthermore, the global economic outlook is poor and wars have continued unabated, which could dampen domestic economic activity. On the other hand, it could also cause oil and commodity prices to rise more than is assumed. Wage agreements affecting most of the private sector were signed at the beginning of this year, and there is some uncertainty about whether companies will pass higher wage costs through to prices to some extent. On the other hand, the wage contracts have a term of four years, and inflationary pressures from the labour market could therefore ease over time, provided that wage drift does not increase.

In view of all of this, the upside inflation risk in the baseline forecast is likely to have eased recently, although the risk profile remains tilted to the upside. There is a 50% probability that inflation will be in the 2³/₄-5¹/₄% range in one year and in the 2-4¹/₄% range in two years' time (Chart V-12).



^{2.} For further information, see Chapter 1 of the *World Economic Outlook*, International Monetary Fund, April 2024.

Alternative scenarios and uncertainties

The Central Bank's baseline forecast reflects the likeliest economic developments over the forecast horizon. The economic outlook is uncertain, however, and could change in response to changes in key assumptions underlying the forecast. Unforeseen events and new economic policy decisions can also change the economic outlook from one forecast to the next. This Box examines how the seismic activity on the Reykjanes peninsula and the recently introduced fiscal policy measures are judged to affect economic prospects as outlined in the Central Bank's February forecast.

It closes with a discussion of several other uncertainties that could affect the outlook for domestic GDP growth and inflation over the forecast horizon.

Alternative scenario: Seismic activity on the Reykjanes peninsula and its impact on the baseline forecast

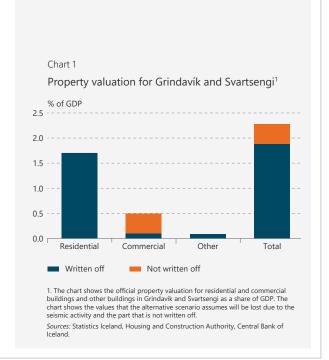
The volcanic activity has had a profound effect on the near-lying community ...

The volcanic activity that began on the Reykjanes peninsula in mid-November 2023 has caused significant damage to infrastructure, as well as to residential and commercial property in and around the town of Grindavík. The town itself had to be evacuated shortly after the disaster began and has been all but uninhabited since. Commercial activities halted, but some companies have been able to move their businesses to other locations, and by now, several companies have been able to resume operation in the town.

It is difficult to assess the economic effects of the disaster while it is still ongoing and appears unlikely to end in the immediate future. What is clear, however, is that it has had a profound impact on the lives of people in Grindavík. This Box attempts to assess the impact of the disaster on the economy as a whole, however, and on how it affects the Bank's baseline forecast. If the volcanic activity spreads and causes even more damage, the economic impact will clearly be greater than is described here.

According to Registers Iceland, nearly 1% of Iceland's population (slightly more than 3,700 people) lived in Grindavík just before the eruption began. There were 1,120 households in the municipality, and the official property

Box 1 of Financial Stability 2024/1 contains a detailed discussion of the various measures taken by the Government in connection with the seismic activity and the financial system's exposure to the shock.



value of residential housing there was 72.9 b.kr. This is equivalent to 1.1% of the country's total housing stock and 1.7% of GDP (Chart 1).

In assessing the macroeconomic impact of the seismic activity, it is assumed that it will no longer be possible to live in Grindavík, and for the purposes of the alternative scenario, all residential property in the community is therefore written off.² In addition to this is municipality-owned property with an official real estate value of 3.4 b.kr, which is also written off in full. Commercial real estate in the community is valued at just over 21 b.kr., but excluding property at Svartsengi and property owned by the community's two largest fishing companies, which is not assumed to be affected, the official value is around 6 b.kr. The alternative scenario assumes that ²/₃ of this amount, or 4 b.kr., will be lost.

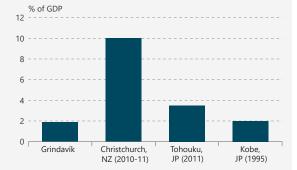
In all, then, it is assumed that just over 80 b.kr. will be lost from the country's capital stock. This is equivalent to 1.9% of GDP and 0.4% of the estimated capital stock at the end of 2023. As Chart 2 indicates, this is comparable to the loss sustained during the natural disasters in Kobe, Japan, in 1995, and slightly less than in Christchurch, New Zealand, in 2010 and 2011, and Tohoku, Japan, in 2011.³

... but the impact on the economy as a whole is limited

The Bank's QMM model is used to assess the macroeconomic impact of the seismic activity. In addition to the aforementioned 80 b.kr. write-off of the value of the capital stock, it is assumed that fewer tourists will visit Iceland this year because of the volcanic activity. Bookings began to decline as soon as the earthquakes started, and it appears that airline ticket sales to Iceland were below expectations in the first months of 2024 (see Chapter III). It is assumed that, due to the volcanic activity, tourist numbers were nearly 10% lower in Q1/2024 than they would have been otherwise and will be down by a full 2% over the year as a whole. Growth in services exports will therefore be about 1 percentage point weaker this year, and growth in total exports will be 0.5 percentage points weaker (Chart 3a). These effects will then taper off over the course of the forecast horizon.

Writing off property in Grindavík has a negative wealth effect on those who live in the community and, all else being equal, will reduce their private consumption. Offsetting this, however, are the Government measures that

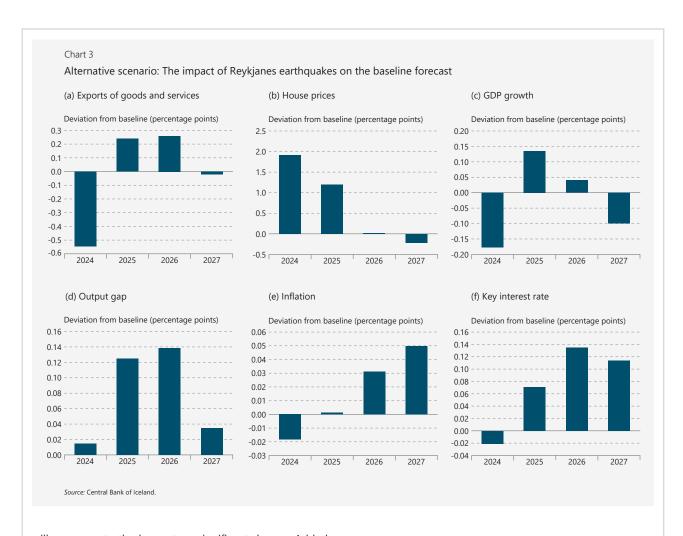
Chart 2
Estimated damage in Grindavík compared to selected other earthquakes



Sources: Parker and Steenkamp (2012), Central Bank of Iceland.

The value of the housing stock to be written off exceeds the estimated cost of the Government's buy-up of property in the community, which is estimated at roughly 61 b.kr.

In all of these instances, however, there was significant loss of life as well. See M. Parker and D. Steenkamp (2012), "The economic impact of the Canterbury earthquakes", Reserve Bank of New Zealand *Bulle*tin, 75, 13-25.



will compensate the losses to a significant degree. Added to this is the cost of moving to a new community, plus a possible increase in housing-related consumption spending associated with moving to a more expensive area. Overall, the seismic activity will therefore have a relatively limited impact on private consumption and will be likelier to bolster it slightly in 2024 and 2025.

The effects on the housing market are stronger, however. Writing off a portion of the housing stock reduces the supply of housing. This will create price pressures in the market when Grindavík residents start looking for a new home to replace the property they have lost. It is assumed here that this impact will resemble the estimated effects of immigration on house prices.⁴ As Chart 3b shows, the total impact is that house prices rise by 2 percentage points more in 2024, and by 1 percentage point more in 2025, than they would have otherwise. By 2026, then, house prices will be nearly 3% higher than they would be otherwise.

Because of the volcanic activity, GDP growth will be about 0.2 percentage points weaker in 2024 than it would

See Lúðvík Elíasson and Önundur P. Ragnarsson (2018), "The effects of Airbnb on the residential housing market", Central Bank of Iceland Working Paper no. 76.

have been otherwise, although the effects will reverse to an extent in 2025 (Chart 3c). Despite the adverse impact on GDP growth, however, the output gap will be marginally wider over the entire period (Chart 3d). This is because the negative impact of the seismic activity on the capital stock, and therefore on potential output, outweighs the impact of weaker GDP growth.

Although rising house prices primarily reflect an increase in relative prices due to the natural disaster, measured inflation will rise slightly as well. Added to this is the effect of a wider output gap, which means that inflation will be marginally higher than it would have been otherwise (Chart 3e). According to the monetary policy rule in the model, the Central Bank's key interest rate will have to be marginally higher over the period than would otherwise have been needed (Chart 3f).⁵ On the other hand, the overall effect of the seismic activity on inflation, interest rates, and economic activity appears to be very limited, as Chart 3 illustrates.

Alternative scenario: The impact of recent fiscal measures on the baseline forecast

New spending plans in connection with recent wage agreements ...

Concurrent with the signing of private sector wage agreements in March, the Government published a statement on fiscal measures aimed at supporting the agreements (for further discussion, see Box 3). At that time, the Government had already announced measures in connection with the natural disaster on the Reykjanes peninsula, including plans to buy up residential property owned by residents of Grindavík, as is explained earlier in this Box.

Then, in mid-April, the Government introduced its new fiscal strategy plan, which outlines these measures in further detail. Most of the measures entail increased transfers to households. The most prominent item for 2024 is an interest subsidy in the amount of 6 b.kr., which will only be paid this year. Over the lifetime of the wage contracts, however, the items that weigh heaviest are the increase in child benefits and the lengthening of childbirth leave, which are estimated to cost a combined 31 b.kr. over the term of the agreements (2024-2027), or an average of 7.7 b.kr. per year. Added to this is an increase in housing benefits for renters, which amount to

This is in line with a typical monetary policy response to natural disasters, which can be likened to a supply shock that exacerbates inflationary pressures when inflation expectations are not firmly enough anchored. See, for example, A. Cantelmo, N. Fatouros, G. Melina, and C. Papageorgiou (2022), "Monetary policy in disaster-prone developing countries", International Monetary Fund Working Paper no. 22/67.

8.8 b.kr. over the term of the contracts. In all, transfer outlays are therefore estimated to rise by 45.7 b.kr. over this fouryear period. On top of this is a 13.8 b.kr. increase in public consumption spending, most of which is due to the decision to cover the full cost of meals in primary schools. And finally, there is an increase of 9.7 b.kr. in initial equity contributions in support of home purchases in 2026 and 2027. The total cost to the Treasury of these measures is 69.1 b.kr. over the fouryear period, or 1.6% of year-2023 GDP (Chart 4).

In order to evaluate the effect the measures will have on the growth rate of economic activity, it is necessary to examine them in the context of their impact on the fiscal balance. All else being equal, the Treasury outcome will deteriorate this year by 12.4 b.kr., or the equivalent of 0.3% of year-2023 GDP, as a result of the measures (Chart 5). The effects are smaller in 2025, but new expenditures totalling 1.6 b.kr. will be added (the difference between 14 b.kr. in 2025 expenditures and 12.4 b.kr. in 2024, as shown in Chart 4). An additional 9 b.kr. in expenditures will be added over the two years thereafter, and all else being equal, the Treasury outcome will be 23 b.kr. poorer in 2027 than it would have been otherwise, which translates to a deterioration of slightly more than 0.5% of year-2023 GDP.

... boost households' disposable income and aggregate demand in the economy ...

The Bank's QMM model is used to assess the macroeconomic impact of these measures. As the measures are currently structured, it is clear that they will be of greatest benefit to lower-income families with children. Increased transfers to these families in the form of higher benefits and fully subsidised school meals will bolster their disposable income, which should stimulate their demand for goods and services, all else being equal.⁶ As Chart 6a shows, these measures will increase private consumption by an additional 0.1 percentage points this year and an additional 0.3 percentage points in 2025. The effects will gradually taper off after that. By 2027, private consumption will be almost 0.6% higher than it would have been otherwise.

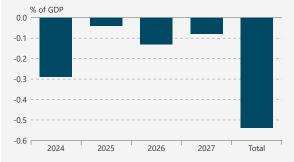
More rapid economic activity also tends to stimulate investment, although this is offset by a crowding-out effect from higher interest rates (see below). The effect on business investment in 2024 would be relatively limited, but in the years to follow, investment will grow more slowly than



 Expenditure plans related to newly concluded wage agreements measured as the deviation of the Treasury outcome from a baseline scenario. Increased public consumption expenditure primarly consists of increased expenditure due to free school meals for primary school children. Increased transfers consist of extended childbirth leave and increased interest, housing and child benefits. Increased financial ontributions are related to an increase in inital contributions to support the purchase

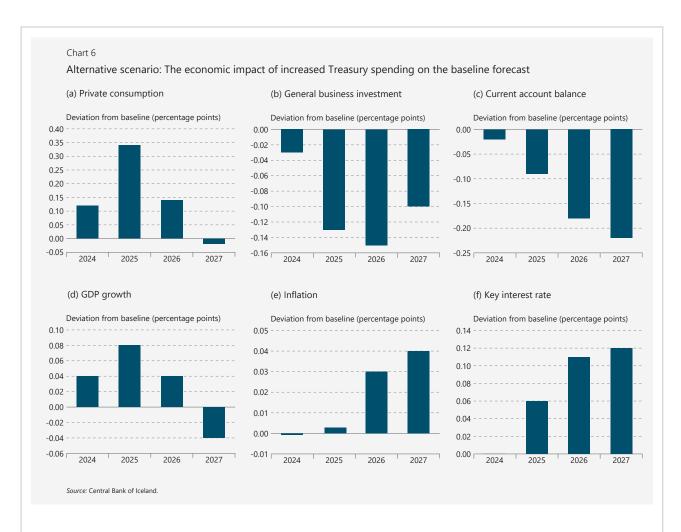
Sources: Ministry of Finance and Economic Affairs, Central Bank of Iceland.

Chart 5 The impact of wage agreement-related fiscal measures on the Treasury outcome 2024-20271



1. Treasury outcome change due to wage agreement-related spending plans measured as a percentage of year-2023 GDP. The figure shows the gross effect of spending plans each year but does not take into account possible countermeasures Sources: Fiscal stragety plan 2025-2029, Central Bank of Iceland.

^{6.} In general, it can be assumed that these households' marginal propensity to consume is above average, and it is therefore assumed that they will spend a larger proportion of the transfers. See, for example, S. E. H. Jensen, Sigurdur P. Ólafsson, Thorsteinn S. Sveinsson, and Gylfi Zoëga (2022), "Mapping educational disparities in life-cycle consumption", Central Bank of Iceland Working Paper no. 89.



it would have otherwise, and by 2027 it will be nearly 0.4% lower than it would be otherwise (Chart 6b).

The crowding-out effect from higher interest rates dilutes the effects of the measures on GDP growth, and in addition, some of the measures will "leak" out of the economy, as a portion of the increase in demand will be directed at imported goods and services. This is reflected in a poorer current account balance over the forecast horizon (Chart 6c). The impact on GDP growth in 2024 is limited, as part of the year will already have passed by the time the measures are implemented. In 2025, however, GDP growth is expected to be stronger by 0.1 percentage points (Chart 6d). By 2027, GDP will be 0.12% higher than it would have been otherwise, and the impact is therefore somewhat less than on domestic demand, which is estimated to be nearly 0.4% higher in 2027.

More rapid growth in economic activity will raise capacity pressures, thereby pushing inflation upwards. The effects are limited, however, particularly in 2024, as expectations of higher interest rates will quickly cause the króna to appreciate, offsetting to demand-side effects of the measures on inflation (Chart 6e). Finally, Chart 6f shows that the monetary policy rule in the model will result in a slightly

higher key interest rate for most of the period. On the whole, though, the impact of the fiscal measures is modest, as they are distributed over a relatively long period of time.

... but proposed mitigating measures could provide a counterweight

Offsetting the impact of these expenditure plans on the Treasury outcome, a number of new consolidation measures have been proposed by the Government. The most prominent of these proposed mitigating measures is the Government's plan to postpone the adoption of a new disability benefits programme, which was to take effect at the beginning of 2025 but is now set to take effect in September of that year. Other plans include reviewing the interest subsidy system, modifying the structure of reimbursements for film production, and a number of other measures to streamline public institutions' operations. The Government estimates that these measures will reduce expenditure growth by 17 b.kr. relative to previous plans for 2025, including a permanent spending cut of 10 b.kr. If these plans materialise, they would offset the deterioration in performance due to the spending plans described above. The overall impact of the measures on the economy as depicted in Chart 6 would be correspondingly smaller.

Other uncertainties

The inflation outlook remains uncertain ...

Although wage agreements for much of the private sector have been finalised, contracts are still pending for public sector workers and the remainder of the private sector (see Box 3). Nor is it clear how the contracts will be implemented at individual workplaces, and there is the possibility that termination clauses could be triggered. Another uncertainty involves wage drift during the forecast horizon, which could prove more persistent than is currently envisioned if economic activity turns out stronger than in the baseline forecast, or if growing concentration in wage distribution gives rise to more wage drift than is currently forecast. On the other hand, if economic activity slows more decisively, wage drift could be overestimated.

The global economic and inflation outlook are uncertain as well. Shipping costs have risen again in the wake of the war in the Middle East, and further escalation of that war or the war in Ukraine could exacerbate supply chain problems and push oil and commodity prices higher. This would impede the decline in global inflation. Among Iceland's key trading partners, however, inflation could fall more rapidly if economic activity proves more sluggish (see Box 1 in *Monetary Bulletin* 2023/4).

Inflation could also turn out more persistent than is assumed if economic activity in Iceland proves stronger than is provided for in the baseline forecast. As is discussed in Box 2, the domestic saving rate appears to be higher than previously estimated, and it is therefore possible that households and businesses can maintain a higher spending level than is currently assumed, even in the face of higher real interest rates. Moreover, economic activity could grow more swiftly and inflationary pressures could therefore be stronger if the fiscal stance is eased more than is assumed in the baseline forecast.

However, Statistics Iceland's recent revision of labour productivity growth in the last few years could suggest that firms have greater scope to absorb cost increases than previously assumed. The forecast could also underestimate how quickly domestic economic activity is subsiding – in view of the swift rise in the Central Bank's interest rates, for example, and the upcoming interest rate reviews on many of the household mortgages taken when interest rates were generally far lower. In addition, the outlook for tourism could prove overly optimistic if, for instance, the seismic activity on the Reykjanes peninsula dampens foreign tourists' interest in Iceland more than is currently assumed, or if the impact of steep domestic cost increases on the competitive position of tourism turns out to have been underestimated.

Weaker anchoring of inflation expectations could also cause inflation to be more persistent than is forecast here. This could happen, for instance, if the impact of recently negotiated wage rises on inflation is underestimated, as there are signs that the impact of wage hikes on inflation has increased in recent years (see, for instance, Box 6 in *Monetary Bulletin* 2023/4). Less anchored inflation expectations could also undermine the króna and impede the transmission of monetary policy to the real economy, thereby making it harder to ensure financial stability.

Finally, it is unclear what effect the change in Statistics Iceland's methodology for calculating imputed rent in the CPI will have on measured inflation after the change takes effect in June. Although fluctuations in the housing component are likely to diminish, it is difficult to determine in advance what the short-term effects on measured inflation will be.

... but the results of the recent wage agreements reduce upside risks for inflation

On the whole, the risk that inflation has been underforecast has probably receded in the recent term, although the risk profile remains tilted to the upside. The newly concluded wage agreements are the major factor here, as uncertainty about wage contracts has weighed heavily in the Bank's recent baseline forecasts.

Recent revisions of historical data

On 29 February 2024, Statistics Iceland published revised national accounts data for 2020-2022, together with revisions of figures for the first three quarters of 2023 and initial estimates for 2023 as a whole. The revisions entailed major changes in historical GDP growth figures, particularly for 2022. In addition, Statistics Iceland recently published revised population data extending back to 2010. This Box focuses on the impact of these revisions on the interpretation of historical economic developments, including the speed of the post-pandemic economic recovery and the developments in the output gap.

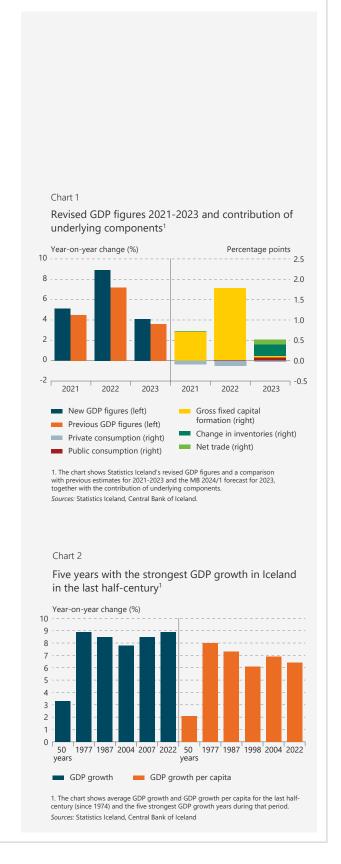
GDP growth has been much stronger in recent years than previously thought ...

According to revised data from Statistics Iceland, GDP growth shrank in 2020 by 6.9%, a slightly smaller contraction than was previously estimated. Furthermore, year-2021 GDP growth was revised upwards by 0.6 percentage points, to 5.1% (Chart 1). The revision for 2022 was far larger, however. GDP growth is now estimated to have measured 8.9% in 2022, or 1.7 percentage points greater than was indicated by previous figures. As Chart 2 indicates, this is the highest GDP growth rate Iceland has seen in fifty years, and to find a more rapid rate of annual growth one has to go back as far as 1971. The output growth rate in 2022 was also nearly three times above the fifty-year average.

The revision of national accounts data also entailed a considerable change in historical figures on per capita GDP growth. Added to this is Statistics Iceland's recent review of population data, which shows that Iceland's population has been overestimated for the past decade or so (for further discussion, see below). Per capita GDP growth is now estimated at 6.4% in 2022, or 1.8 percentage points more than was indicated by previous figures. This is Iceland's fourth-strongest per capita GDP growth rate in the past half-century and more than three times higher than the average for that fifty-year period.

...and the post-COVID economic contraction has reversed in full

As Chart 1 indicates, year-2023 GDP growth turned out somewhat stronger than in the Bank's February forecast. Statistics Iceland's GDP growth estimate for the first three quarters of 2023 were available at the time the forecast



was prepared, but these figures have since been revised upwards. GDP growth for the year as a whole turned out to be 4.1% instead of the 3.6% assumed in the Central Bank's February forecast, although growth in Q4 proved weaker than had been projected in February (for further discussion, see Chapter III).

According to revised figures from Statistics Iceland, year-2023 GDP was nearly 11% above the level recorded in 2019, the last year before the onset of the pandemic. It was therefore 2.9% higher in 2023 than had previously been estimated (Chart 3). Because of the aforementioned revision of population data, the difference in per capita GDP for 2023 relative to previously published numbers was even larger, or 3.5%, some 2.8% above its pre-pandemic level. The per capita GDP lost during the pandemic was therefore recovered in full in 2022, according to Statistics Iceland's most recent figures. According to previous estimates, however, in 2023 it was still 0.7% below the 2019 level and was not projected to return to that level until 2025, three years later than the revised figures indicate.

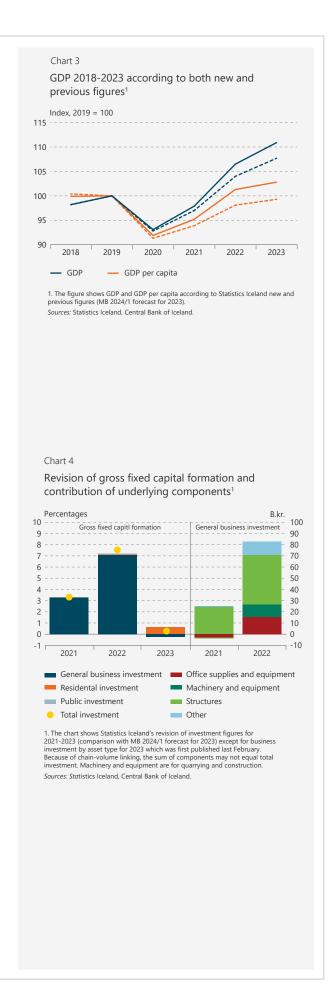
Stronger business investment the main driver of revised historical GDP growth figures

As Chart 1 indicates, most of Statistics Iceland's revision of 2021-2022 GDP growth figures is due to far stronger investment than previous data had indicated. The deviation in the Bank's 2023 GDP growth forecast is due mainly to an increase in inventories, however (see Chapter III).

As can be seen in Chart 4, the revision of business investment explains the majority of the change in investment figures for 2021-2022. The chart shows that investment in buildings and structures weighs heaviest in business investment revision, but that there was also a revision of investment in miscellaneous machinery and equipment in 2022. Presumably, investment in land-based aquaculture and hotels plays a leading role in the revaluation of investment in buildings and structures, but in addition to this is investment in servers for data centres, which Statistics Iceland classifies under office machinery and computers in investment spending.

National accounts review also entailed a revision of external trade data

A part of the national accounts revision entailed a reevaluation of marine product export values, owing to new information from corporate tax returns. The revision revealed that the value of exported marine products was a full 20 b.kr. higher in 2020-2022 than previous figures had indicated. The situation was similar last year, when marine



product export values turned out 16 b.kr. more than previously estimated and a full 5 b.kr. in farmed fish export values were added to the total.

Moreover, historical factor income figures in the current account balance were revised as well, and the contribution from these proved more favourable – by 14 b.kr. in 2022 and by 17 b.kr. in 2023. The difference primarily reflects larger operational losses generated by foreignowned domestic companies (excluding aluminium and pharmaceuticals firms) than previous figures had indicated. Net returns on foreign direct investment were therefore stronger than previously expected.

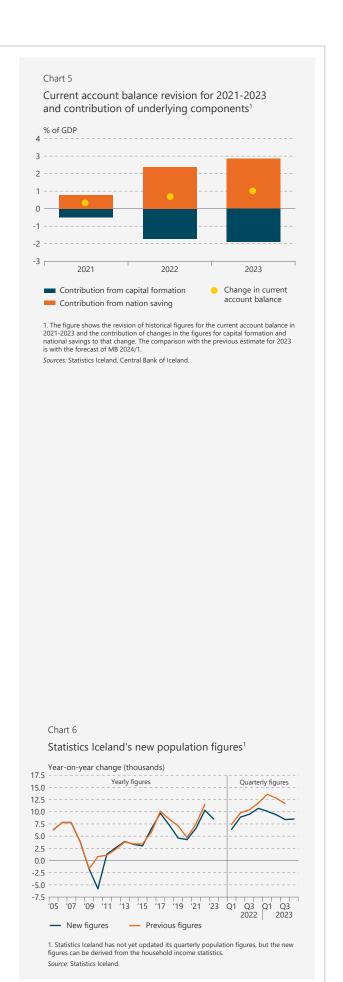
Because of this revision of external trade figures, the current account balance is more positive than previously estimated, or by 1% of GDP in 2022-2023 (Chart 5). Given that the current account balance also reflects the difference between domestic investment and saving, this upward revision suggests that national savings was stronger than previous figures had indicated, and that the revision of the saving level had weighed more heavily in the aforementioned revision of investment activity.¹

Population previously overestimated

When the year-2021 census was taken, it was revealed that the population had been significantly overestimated, as the actual tally showed almost 10,000 fewer residents than official data had indicated. The problem has escalated since then, and by late 2023 the overestimation exceeded 15,000 individuals. Much of the discrepancy is due to the fact that there is little incentive for emigrants to have their names removed from the National Register upon their departure from Iceland.

Statistics Iceland's most recent figures are based on an approach that uses a range of databases to verify individuals' residence in Iceland. The revision of data, which extends back to 2010, shows that the overestimations have developed mainly during economic downswings. For example, the original data suggest that in 2009-2010, following the financial crisis, Iceland's population fell by just over 900 persons, whereas now that same decrease is estimated at 7,500 (Chart 6). Furthermore, there was a sizeable revision following the tourism industry setback in 2019, and again in 2023, when economic activity started to ease in the wake of previous upswings.

As is explained in Box 1 of Monetary Bulletin 2017/2, the current account balance represents the difference between gross domestic saving and investment, and a current account deficit indicates that the domestic saving level is not high enough to finance domestic investment activity, thereby requiring that the shortfall be financed with foreign saving.



Labour productivity has grown more in recent years than previous figures had indicated

Because GDP growth has been revised, labour productivity has grown more strongly in recent years than previous figures had indicated. New data from Statistics Iceland show, for instance, that labour productivity grew by 4.4% between 2019 and 2022, just over 2 percentage points more than previous figures had indicated (Chart 7). A comparable review was carried out using another labour productivity measure, which is based on GDP per total hours worked according to the Statistics Iceland labour force survey (LFS). This measure shows more muted productivity growth over the same period, however, or 2.3%, although Statistics Iceland has yet to review its LFS data in light of the new population figures, which could explain a part of the discrepancy. The revision of previous figures totals over 2 percentage points, similar to the case with Statistics Iceland's labour productivity measure.

Wages and related expenses and wages per hour were revised upwards as well. The most recent numbers show that wages per hour rose by over 20% between 2019 and 2022, or over 3 percentage points more than previous figures had indicated. It can be construed from this that the revision of unit labour costs only had limited impact and that the wage share - i.e., the ratio of wages and related expenses to gross factor income - was virtually unchanged between national accounts publications.

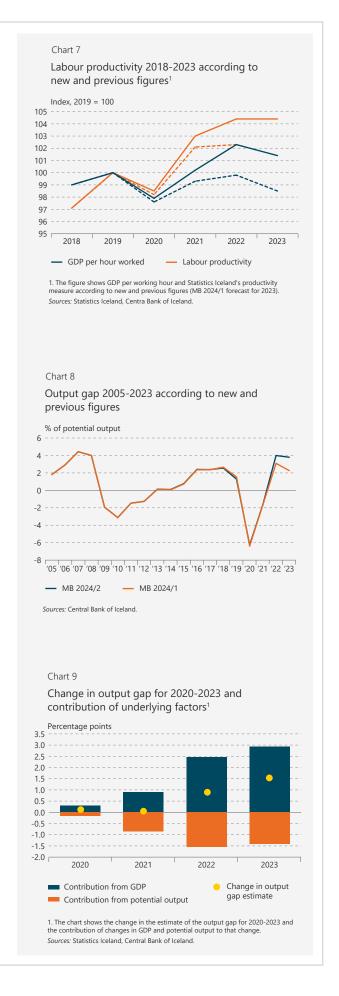
Recent figures show that the 2022 output gap was close to the peak level seen in 2007

Statistics Iceland's revision of historical GDP data has affected the Bank's estimates of the output gap over the period in question. It now appears that the output gap peaked at 4% of potential output in 2022, which is close to its year-2007 high (Chart 8).

The revised estimate of the output gap suggests that it measured about 3.8% in 2023, or 1.5 percentage points above the estimate in the Bank's February forecast (Chart 9). The revision of the national accounts led to a 2.9% increase in year-2023 GDP relative to previous estimates. This revision can therefore be divided more or less evenly between an increase in the output gap and a 11/2% increase in potential output, the latter of which reflects Statistics Iceland's revision of the capital stock, plus the aforementioned revision of population figures and labour productivity data.

Conclusion

Statistics Iceland's revision of historical GDP growth and population data sheds new light on the past few years' eco-



nomic developments. According to the revised data, year-2022 GDP growth was Iceland's strongest in over half a century, and per capita GDP returned to the pre-pandemic level far sooner than earlier figures had indicated.

The revisions are due mainly to investment activity, which proved considerably stronger than previous data had suggested. In spite of this, the current account balance was more favourable than previously estimated, suggesting that the domestic saving rate was somewhat higher than earlier estimates had indicated. As a result, the private sector may have greater scope to sustain strong spending over the forecast horizon than was previously envisioned. On the other hand, productivity has developed more favourably in recent years than had been anticipated, which could indicate that firms have greater scope to absorb cost increases than was previously thought. In spite of this, the positive output gap appears to have been larger than previous figures had suggested, as the boost in potential output did not keep pace with increased domestic demand. It is now thought that the year-2022 output gap was close to its prepandemic peak. If the Bank's baseline forecasts in recent years had been based on this information, they probably would have provided for higher inflation and would therefore have been closer to the actual outcome.

Newly concluded private sector wage agreements

In mid-March, the largest labour unions and associations within the Icelandic Federation of Labour (ASÍ) renewed wage agreements with the Confederation of Icelandic Employers (SA). The contracts have a term of four years and follow directly from the previous contracts, which expired in February 2024. Thus, agreements have been made with the vast majority of the private sector labour market, and the negotiating parties hope that the new contracts will provide benchmarks for other groups. Alongside the signing of the wage agreements, the Government released a statement on measures aimed at supporting the agreements (for further discussion, see Chapter III and Box 1).

A mixture of unit-based and percentage-based pay hikes ...

The new contracts provide a mixture of unit-based and percentage-based pay rises. As Table 1 shows, a general pay rise of 3.25% took effect in February 2024, followed by 3.5% pay hikes at the beginning of each of the next three years. The minimum unit-based monthly rise is 23,750 kr. for each year, which entails that in the first year of the contract, monthly wages below 731,000 kr. will increase by a percentage that is larger than the general pay rise. Because of this, the lowest pay scale for members of the Efling Labour Union will increase by 5.9% this year. In addition to the wage rises, holiday pay is extended for certain groups, and separate clauses are negotiated to cover matters specific to various occupations.

Table 1 Wage rises during the term of the contract

Date	Wage rise
1 February 2024	3.25% or 23,750 kr.
1 January 2025	3.5% or 23,750 kr.
1 January 2026	3.5% or 23,750 kr.
1 January 2027	3.5% or 23,750 kr.

Source: Private sector wage agreements.

... with two types of wage supplements ...

In addition to the pay rises described above, the new contracts provide for two types of wage supplements. The first is a wage scale supplement whose aim is to ensure that groups of workers who are paid according to wage scales do not fall behind the general trend in pay. Under this arrangement, wage scales will rise in line with the increase in the private sector wage index in excess of the rise in the

lowest wage scales. The wage scale supplement is reviewed annually for the first three years of the contract period and is based on the annual change in November of the reference year. If the wage scale supplement is triggered, the resulting wage increase will be paid out in April of the following year.

The second supplement, a so-called productivity supplement, aims to provide wage-earners a share in potential labour productivity growth in 2025 and 2026. As Table 2 indicates, wages will rise by an additional 0.35% if productivity growth exceeds 2% during the reference year, and wages can rise by a maximum of just over 1% if productivity growth exceeds 3%. Further requirements must be satisfied, however, as the supplement is calculated based on a labour productivity index, which takes a value of 100 in the year 2023. Because of this, no supplements will be paid unless the labour productivity index rises above 102 points. If this happens in 2025, the index must also rise by more than 2% in order for the supplement to be triggered again for 2026. Ultimately, it is the role of a special committee to decide on productivity supplement payments. This arrangement should also ensure that unforeseen circumstances that negatively affect the economy do not result in automatic supplement payouts. If the productivity supplement is triggered, it is paid out in April of the following year.

Table 2 Productivity supplement

Labour productivity growth	Productivity supplement
>2.0%	0.35%
>2.5%	0.70%
>3.0%	1.05%

Source: Private sector wage agreements.

... and review clauses centring on inflation and Government measures

The wage agreements are predicated on assumptions concerning developments in inflation and on Government measures. During the term of the contracts, two reviews will be conducted to determine whether the premises of the agreements still hold: the first one in September 2025 and the second in September 2026. For the first such review, twelve-month inflation may not exceed 4.95% in August 2025. This premise will be considered fulfilled, however, if annualised six-month inflation for the period from March through August is 4.7% or lower. Furthermore, the statutory amendments pledged by the Government in its platform statements must have been implemented. For the latter review, twelve-month inflation in August 2026 must be 4.7% or lower; however, the premise will be considered to

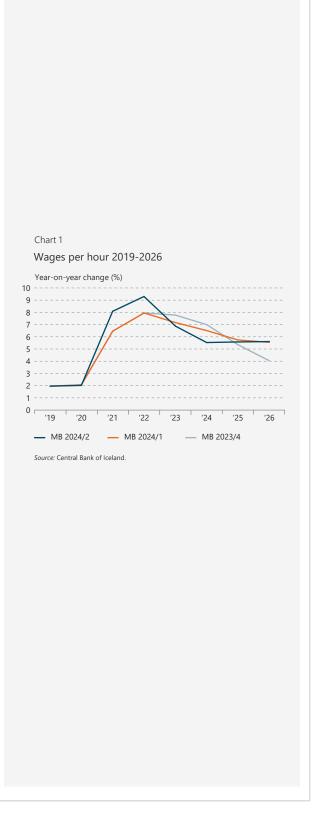
have held if annualised six-month inflation for the period from March through August is 4.4% or lower.

Impact on wage developments in the Central Bank baseline forecast

When the Bank prepared its February forecast, wage agreements had not yet been signed, although the contracting parties were broadly in agreement about the wage clauses they would contain. As a result, the February forecast largely captured the overall impact of the wage contracts, which led to the assumption that pay rises in 2025-2026 would turn out larger than those provided for in the November 2023 forecast. Since February, the outlook for wage developments has been revised in view of the ultimate outcome of the wage agreements and related cost estimates, the re-estimate of wage drift associated with newly published national accounts, and the publication of Statistics Iceland's wage statistics (see also Chapter V).

Overall, the outlook for the aspects of wage developments that are captured in Statistics Iceland's general wage index is broadly unchanged relative to the Bank's February forecast. On the other hand, the revised national accounts indicate that wages rose considerably more in 2020-2022 than was previously estimated, whereas recent figures from the pay-as-you-earn (PAYE) register suggest a slower-than-expected rise at the beginning of 2024. As a result, the outlook is for wages per hour to rise less, on average, in 2024 than was projected in February, although the outlook is broadly unchanged for the two years thereafter. According to the Bank's baseline forecast, wages per hour will rise by 5.5% in 2024 and by a similar amount in 2025 and 2026 (Chart 1).

As in the February forecast, it is assumed that other private sector worker groups and public sector employees will negotiate wage agreements in line with the remuneration policies laid down thus far (for further information, see Monetary Bulletin 2024/1). It is also assumed that wage drift will be in line with the business cycle position and that the changes in wage distribution that have taken place over the past five years as a result of unit-based pay increases will not cause further wage drift. Furthermore, it is assumed that the wage scale supplement provided for in the new contracts will be triggered during the term of the agreements but will lead to relatively small pay rises. Moreover, it is assumed that the supplement will neither creep up the wage scale nor cause comparable pay rises among public sector workers. Nevertheless, these factors and other aspects of this assessment are highly uncertain.



Appendix

Forecast tables

Table 1 GDP and its main components¹

	2022	2023	2024	2025	2026
Private consumption	8.3 (8.5)	0.5 (0.5)	0.7 (1.2)	2.1 (3.1)	2.7 (3.2)
Public consumption	2.3 (2.2)	2.2 (1.9)	2.0 (1.7)	1.8 (1.7)	2.0 (2.0)
Gross capital formation	15.1 (7.6)	-0.6 (-0.8)	2.3 (4.1)	1.4 (3.8)	3.2 (4.5)
Business investment	27.0 (15.0)	0.9 (1.3)	3.9 (5.2)	0.7 (4.6)	3.2 (5.6)
Residential investment	-6.2 (-6.2)	-0.3 (-3.2)	3.5 (4.7)	5.1 (3.0)	4.3 (3.0)
Public investment	5.8 (3.3)	-6.1 (-4.7)	-5.8 (-0.5)	-0.3 (1.8)	1.8 (2.2)
National expenditure	8.2 (6.6)	1.2 (0.8)	1.1 (1.7)	1.7 (2.7)	2.6 (3.1)
Exports of goods and services	22.3 (22.3)	4.8 (4.4)	2.1 (2.7)	3.8 (3.4)	3.8 (3.0)
Imports of goods and services	20.0 (19.9)	-1.4 (-1.4)	2.0 (2.4)	2.4 (2.9)	3.3 (4.1)
Gross domestic product (GDP)	8.9 (7.2)	4.1 (3.6)	1.1 (1.9)	2.3 (2.9)	2.9 (2.7)
GDP at current prices (ISK trillions)	3.88 (3.80)	4.28 (4.16)	4.55 (4.44)	4.84 (4.73)	5.16 (5.02)
Public sector demand ²	2.8 (2.4)	1.0 (1.0)	1.0 (1.4)	1.5 (1.7)	2.0 (2.0)
Total investment (% of GDP)	24.0 (22.3)	23.7 (21.9)	23.3 (21.7)	22.9 (21.8)	22.9 (22.1)

^{1.} Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in MB 2024/1).

Sources: Statistics Iceland, Central Bank of Iceland.

Table 2 Global economy, external conditions, and exports¹

	2022	2023	2024	2025	2026
Marine production for export	1.3 (1.0)	-7.9 (-9.9)	1.0 (2.2)	1.5 (1.3)	2.1 (2.2)
Aluminium production for export ²	2.3 (2.3)	1.2 (1.2)	0.5 (0.4)	1.1 (1.1)	1.0 (1.0)
Goods exports. total	1.5 (1.5)	1.1 (-1.3)	2.5 (1.5)	2.7 (2.3)	3.7 (2.5)
Services exports. total	58.3 (58.3)	9.8 (12.1)	1.7 (4.0)	4.9 (4.4)	4.0 (3.5)
Contribution of net trade to GDP growth (percentage points)	0.5 (0.5)	2.9 (2.7)	0.1 (0.1)	0.6 (0.2)	0.3 (-0.5)
Terms of trade for goods and services	2.5 (2.4)	-5.7 (-5.5)	0.1 (0.0)	0.4 (0.2)	0.6 (0.3)
Trade balance (% of GDP)	-0.2 (-0.4)	-0.1 (-0.3)	0.0 (-0.2)	0.8 (0.1)	1.2 (-0.2)
Current account balance (% of GDP)	-1.7 (-2.3)	1.0 (0.0)	0.2 (-0.1)	0.8 (0.1)	1.1 (-0.5)
Inflation in main trading partners ³	7.6 (7.6)	5.0 (5.0)	2.5 (2.7)	2.1 (2.1)	2.0 (2.0)
GDP growth in main trading partners ³	3.3 (3.3)	1.2 (1.1)	1.2 (1.0)	1.6 (1.6)	1.7 (1.7)

^{1.} Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in MB 2024/1).

Sources: Consensus Forecasts, IHS Markit, International Monetary Fund, OECD, Refinitiv Datastream, Statistics Iceland, Central Bank of Iceland.

^{2.} Public sector demand in the expenditure accounts is the sum of public consumption and public investment.

According to Statistics Iceland's external trade data.
 Forecast based on Consensus Forecasts, IHS Markit, IMF, and OECD.

Table 3 Employment, wages, and factor utilisation¹

	2022	2023	2024	2025	2026
Total hours worked ²	6.7 (6.7)	5.0 (5.0)	2.0 (2.5)	0.7 (0.3)	1.3 (1.7)
Unemployment (% of labour force) ²	3.8 (3.8)	3.4 (3.4)	4.8 (4.8)	4.9 (4.6)	4.2 (3.8)
GDP per hour worked ³	2.0 (0.5)	-0.9 (-1.3)	-0.9 (-0.6)	1.6 (2.7)	1.6 (1.0)
Unit labour costs ⁴	7.3 (7.6)	7.8 (8.6)	6.5 (7.2)	3.9 (3.0)	4.0 (4.5)
Real disposable income ⁵	3.5 (3.1)	0.6 (0.6)	0.6 (3.2)	1.8 (2.4)	3.8 (3.9)
Output gap (% of potential output)	4.0 (3.1)	3.8 (2.3)	0.6 (-0.3)	-0.5 (-0.5)	0.0 (-0.1)

^{1.} Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in MB 2024/1).

Sources: Statistics Iceland, Central Bank of Iceland.

Table 4 Exchange rate and inflation¹

	2022	2023	2024	2025	2026
Trade-weighted exchange rate index ²	3.1 (3.1)	-2.6 (-2.6)	-0.5 (-0.6)	-0.2 (-0.3)	-0.1 (-0.5)
Real exchange rate (relative consumer prices)	3.9 (3.9)	0.9 (0.9)	2.8 (1.6)	1.6 (0.8)	0.7 (0.1)
Inflation (consumer price index. CPI)	8.3 (8.3)	8.7 (8.7)	5.9 (5.0)	3.9 (3.3)	2.8 (2.7)

^{1.} Year-on-year change (%) unless otherwise specified (figures in parentheses are from the forecast in MB 2024/1).

Sources: Statistics Iceland, Central Bank of Iceland.

Table 5 Quarterly inflation forecast (%)1

Quarter	Inflation (year-on- year change)	Inflation (annualised quarter- on-quarter change)
	Measur	ed value
2023:2	9.4 (9.4)	11.4 (11.4)
2023:3	7.8 (7.8)	4.4 (4.4)
2023:4	7.9 (7.9)	5.5 (5.5)
2024:1	6.7 (6.3)	5.7 (4.0)
	Forecast	ted value
2024:2	6.0 (5.0)	8.4 (6.3)
2024:3	5.8 (4.7)	3.5 (3.0)
2024:4	5.3 (4.1)	3.9 (3.3)
2025:1	4.5 (3.6)	2.5 (1.8)
2025:2	3.9 (3.3)	5.8 (5.3)
2025:3	3.6 (3.3)	2.3 (2.7)
2025:4	3.5 (3.2)	3.7 (3.0)
2026:1	3.3 (3.1)	1.7 (1.3)
2026:2	2.9 (2.7)	3.9 (3.8)
2026:3	2.5 (2.4)	0.9 (1.5)
2026:4	2.3 (2.5)	2.6 (3.2)
2027:1	2.3 (2.5)	1.8 (1.6)
2027:2	2.4	4.2

^{1.} Figures in parentheses are from the forecast in MB 2024/1.

Sources: Statistics Iceland, Central Bank of Iceland.

^{2.} According to Statistics Iceland labour force survey (LFS).

3. Based on hours worked according to Statistics Iceland labour force survey (LFS).

4. Compensation of employees as a share of GDP, constant prices.

5. Ratio of disposable income to private consumption price index. Disposable income according to Central Bank estimate, based on Statistics Iceland's sector accounts.

^{2.} Average exchange rate in terms of narrow trade basket. Positive figures represent an increase in the exchange rate of the króna versus the average of other currencies.





MONETARY BULLETIN 2024 2