

CENTRAL BANK OF ICELAND



2023

BALANCE OF PAYMENTS
EXTERNAL POSITION, AND VULNERABILITIES

Balance of Payments, External Position, and Vulnerabilities outlines developments in Iceland's balance of payments and capital flows and explores the impact of changes in flows on the external position of the economy, the composition of the external position, and the foreign exchange market. In this bi-annual publication the Central Bank of Iceland seeks to provide detailed information on the balance of payments and exchange rate and currency developments, in compliance with legislation applying to the Bank's activities.

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.

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Table of Contents

	Balance of payments in a nutshell	4
I	Global conditions	5
II	Foreign exchange market	10
III	Balance of payments and external position	13
	Current account balance and financial transactions	13
	International investment position	20
	The Central Bank's international reserves	21
	External liabilities	22
IV	Balance of payments scenario 2023-2024	27
	Balance of payments scenario – assumptions	27
	Results of the balance of payments model	32
	Boxes	
	1 Cap on pension funds' FX assets increased	16
	2 Measuring the external position and balance of payments	23
	3 External sector vulnerabilities	28

Balance of payments in a nutshell



In a small open economy, it is important that households, businesses, and the financial system have sufficient resilience against fluctuations in the balance of payments. This became patently obvious when the COVID-19 pandemic changed external conditions without notice, prompting a major adjustment in the economy. Iceland was well positioned when the pandemic struck. Its international reserves were large and its public and private sector debt relatively low, in both historical and international context. This made it much easier for policymakers to mitigate the impact of the pandemic on the economy and on households' and businesses' finances.



Iceland's continuous current account surplus dating from 2009 onwards narrowed sharply in 2020 and turned to a deficit in 2021. The current account deficit implies that investment has exceeded national saving. National savings declined markedly between 2019 and 2021, owing mainly to a 30% contraction in exports in 2020 and fiscal measures during the pandemic. When public health measures were lifted, export revenues grew again, unemployment plunged, and consumption surged, partly because households tapped into the savings they had accumulated during the pandemic. Furthermore, the pandemic affected investment less strongly in Iceland than in trading partner countries. Iceland's investment-to-GDP ratio rose in 2021 and remained high in 2022.



By mid-2023, Iceland's net international investment position was positive by 29% of GDP and its external liabilities equalled 100% of GDP. The debt ratio is the lowest since the turn of the century. The high level of national saving is due, among other things, to Iceland's pension system, which is proportionally the second-largest in the OECD, with assets equivalent to 186% of GDP as of year-end 2022. The pension funds have a substantial investment need, and domestic businesses have therefore not needed to seek out as much foreign financing as they might otherwise.



Since the global financial crisis, risk appetite has subsided and monetary and macroprudential policies have been tighter in Iceland than in most other advanced economies. Furthermore, foreign funding terms have deteriorated markedly in the recent year. Steeply rising central bank interest rates globally and elevated uncertainty about the global economic outlook caused turbulence in global financial markets in 2022 and 2023. Credit spreads on bank bonds rose sharply as well towards the end of 2022, prompting the banks to temporarily scale down their foreign bond issuance. Financial conditions in global markets have improved again and credit spreads have fallen. Residents have taken advantage of this to refinance foreign-denominated bonds and Iceland's refinancing risk has therefore subsided in the short-term. The stock of highly liquid króna-denominated assets held by non-residents is small and risks stemming from them are therefore limited.

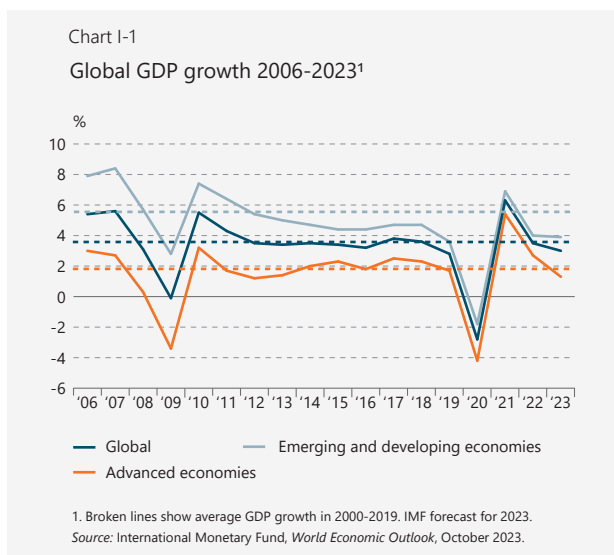


In the balance of payments scenario depicted for 2023 and 2024, a small deficit is expected in 2023 and 2024. Presumably, it will be financed with capital inflows. The financial account excluding changes in the reserves will then turn negative, mainly because of inward foreign investment and expected Treasury borrowings, which will push external liabilities higher. The net external position is projected to be 25% of GDP by the end of 2024. It is also projected that the international reserves, which stood at 19% of GDP at the end of September, will remain ample relative to key reserve adequacy metrics. Prospects for foreign currency flows and Iceland's external position depend largely on economic developments. Access to global financial markets could also deteriorate again, and spreads on foreign market funding could rise.

Global conditions



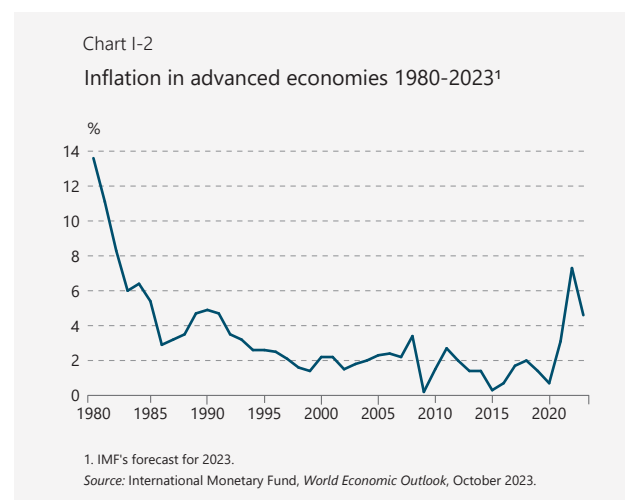
The global economy rebounded strongly in 2021...
The COVID-19 pandemic that struck early in 2020 triggered the largest global economic contraction since World War II (Chart I-1). The economy rebounded strongly in 2021, driven by pent-up demand from the pandemic and discretionary government measures; however, supply chain problems, rising energy prices, and a setback in the fight against the pandemic impeded the economic recovery as the year advanced. The interactions among these factors also caused inflation to surge from mid-2021 onwards and demand to weaken.



... but the economic outlook deteriorated and uncertainty mounted after the invasion of Ukraine
The GDP growth outlook deteriorated and global economic uncertainty escalated sharply after Russia invaded Ukraine in late February 2022. The invasion

and the resulting sanctions imposed on Russia by Western countries caused a spike in energy and commodity prices, pushing global inflation even higher. Among advanced economies, inflation jumped to a forty-year high of 7.3% in 2022. Households' living costs therefore surged in a short period of time, and real disposable income shrank, cutting into domestic demand. Elevated uncertainty and high input prices also had a negative effect on firms' investment plans. Furthermore, the war and the sanctions gave rise to serious concerns about Europe's energy supplies, which adversely affected economic activity on the Continent, as natural gas imported from Russia had accounted for a large share of Europeans' energy use.

Global GDP growth in 2022 was also restricted by unusually weak output growth in China, the world's second-largest economy. The effects of the pandemic and the stringent public health measures imposed by the Chinese authorities were a major factor in this, as



pandemic-era restrictions remained in effect far longer in China than in advanced economies. Problems in the Chinese real estate market also impeded economic activity in the country.

Widespread monetary tightening has cut into global GDP growth but is offset by a strong employment situation

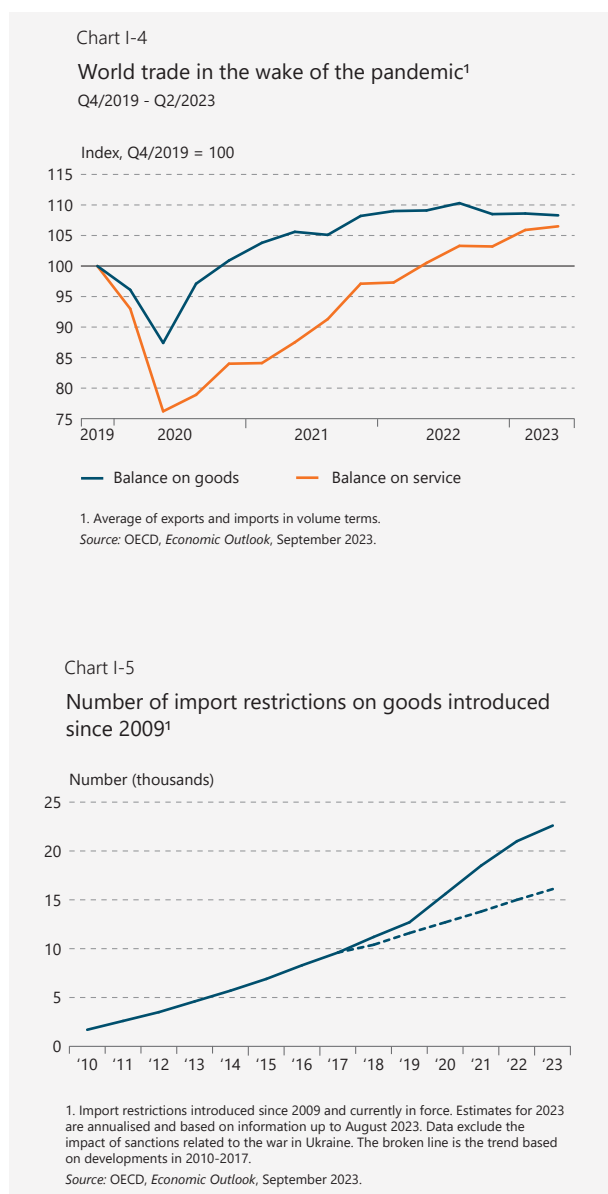
Weaker global GDP growth over the course of 2022 is due also to the monetary tightening implemented by central banks worldwide in a bid to bring inflation under control. Central bank rates in the US and the eurozone are at their highest in over two decades (Chart I-3).



However, a favourable employment situation in leading advanced economies has mitigated the effects of higher living costs and supported households' disposable income. The savings accumulated by households during the pandemic also cushioned against the effects of the cost crunch on domestic demand, as well as discretionary fiscal stimulus measures. Although fiscal deficits in advanced economies shrank swiftly after the pandemic, they are still larger relative to GDP than they were beforehand.

Growth in world trade has lost pace after strong gains in 2021

World trade rebounded strongly in 2021, after contracting in the year beforehand. Goods trade weighed heavily in the recovery, as public health restrictions were still in effect, curtailing households' spending on both domestic services and overseas travel (Chart I-4). Household demand therefore shifted more strongly to goods, and by year-end 2021 global goods trade was



much brisker than it had been before the pandemic. It would have been even more buoyant had it not been for global supply chain bottlenecks and difficulties with cross-border shipping, which escalated over the course of the year. Global services trade then grew steadily as disease prevention measures were eased and the global tourism industry recovered, owing to substantial pent-up demand for services. Services trade grew by 12% year-on-year in 2022, overtaking the pre-pandemic level. At the same time, growth in goods trade eased as households shifted their consumption from goods to services.

Despite the continuing recovery of global tourism and the resolution of supply chain problems, the outlook is for growth in world trade to slow markedly this year. This is due mainly to weaker global output growth, but also to an increase in the weight of domestic services in the household consumption basket.

The steep appreciation of the US dollar in 2022 had a negative impact as well, owing to the widespread use of the dollar in the pricing of cross-border trade. Furthermore, the number of new trade barriers and the past few years' shift towards increased protectionism have probably caused growth in world trade to weaken more than it would have otherwise (Chart I-5).

Global financial conditions deteriorated in 2022 ...

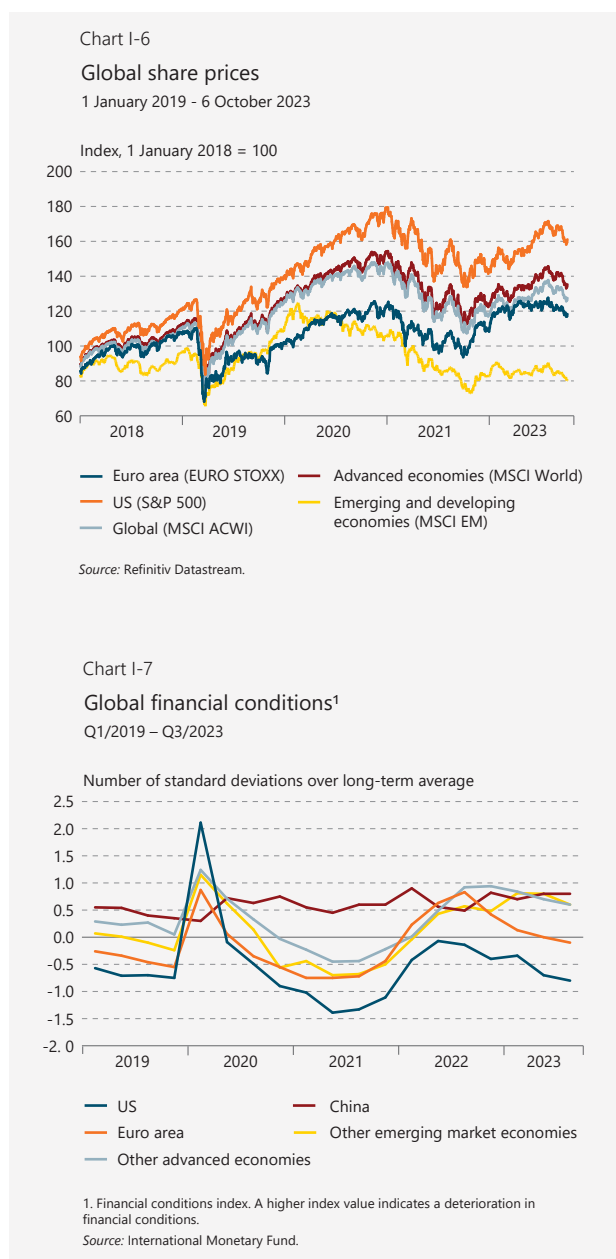
Global asset prices softened in 2022, credit spreads on high-risk financial assets widened, and financing costs increased (Chart I-6), owing in particular to a poorer economic outlook, elevated global uncertainty, and larger-than-expected interest rate hikes by leading central banks. In most advanced economies, financial conditions grew tighter than they had been, on aver-

age, in the previous decade (Chart I-7). They deteriorated perhaps the most in the eurozone, where they were compounded by concerns about energy supplies. In autumn 2022, financial conditions in the eurozone were broadly on a par with their poorest from the pandemic era. Financial conditions in many emerging economies also worsened significantly, as US interest rate hikes and the appreciation of the US dollar during the year adversely affected many countries, particularly fragile economies with substantial dollar-denominated debt.

... but have rebounded somewhat in advanced economies

Financial conditions in advanced economies started to improve again in late 2022, however, in line with increased optimism about averting a recession in 2023, partly because of an improved energy situation in Europe and stronger economic activity in the US. Despite continued policy rate hikes and tighter private sector access to credit, this trend has broadly continued into 2023, particularly in the eurozone and the US, apart from a hiccup caused by turbulence in the international banking market this past March. The continued improvement in financial conditions is largely attributable to higher equity securities prices and narrower spreads on risky financial assets. For the most part, this probably reflects stronger market expectations that advanced economies will manage a "soft landing"; i.e., that central banks will be able to bring inflation down without a severe decline in economic activity or a spike in unemployment. If this more favourable scenario materialises, central banks will be less likely to raise policy rates further and could perhaps begin to lower them again in coming quarters. The US Federal Reserve's recent announcements that interest rates will probably be kept high for longer than previously anticipated could prompt a revision of these expectations, however, with the associated asset price correction and rise in credit spreads.

In China, however, financial conditions are broadly unchanged despite support measures taken by the People's Bank of China. A key factor in this is China's weaker-than-expected economic recovery in 2023 and the ongoing problems in the real estate market. A hardening of the trade disputes between China and advanced economies, the US in particular, have also added to investors' concerns. As a result, share prices in China have fallen, and capital outflows have gained pace. Financial conditions in other emerging economies have deteriorated even further this year and are somewhat tighter than they were, on average, in 2022.



Credit spreads on Icelandic banks' foreign bond issues have fallen after surging in 2022

Icelandic banks' foreign funding conditions deteriorated markedly in 2022, in line with worsening financial conditions among advanced economies and elevated uncertainty in global financial markets. Credit spreads on their foreign-denominated bond issues surged by as much as 4 percentage points during the year, to a level higher than in 2015, when they first began issuing foreign bonds after the 2008 financial crisis (Chart I-8). The banks temporarily reduced their foreign issuance as a result.

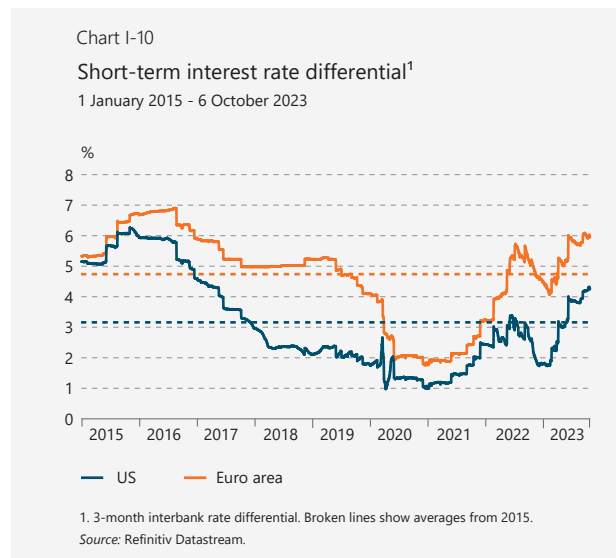
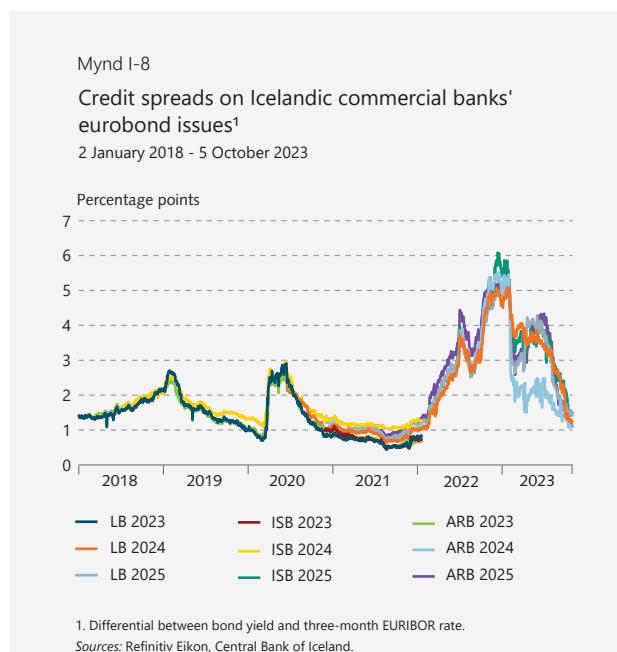
Spreads began falling again in early 2023, however, prompted by increased optimism and reduced

global economic uncertainty. They kept declining as the year progressed, apart from a temporary spike in the wake of the international banking market turmoil in March, and are now broadly back to the pre-pandemic level. Spreads on the Republic of Iceland's foreign obligations have narrowed as well in 2023, after increasing last year, and are similar to the pre-pandemic level by most measures (Chart I-9). Even though spreads on the Treasury and domestic banks' foreign obligations are roughly where they were before the pandemic, funding costs are far less favourable, owing to the rise in policy rates and government bond rates the world over.

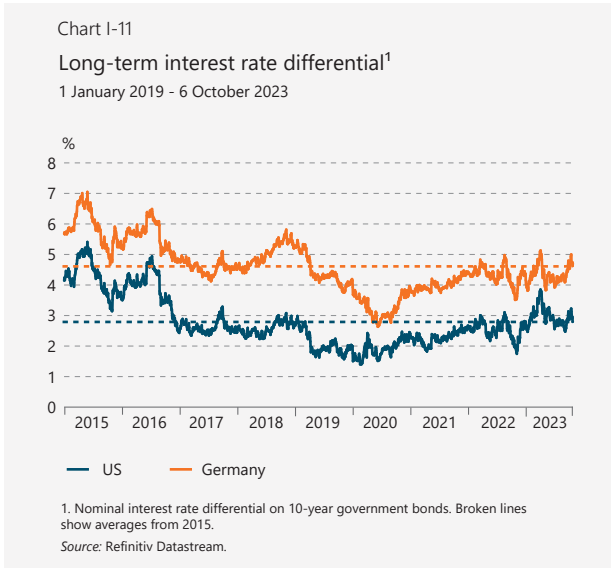
The interest rate differential with abroad has widened

Yields on government bonds issued by advanced economies soared in 2022 and have more or less continued to climb in 2023. In many cases, bond yields are at their highest in a decade and a half. The rise in government bond yields reflects the steep and rapid policy interest rate hikes implemented in the recent term, as well as the expectation that interest rates will be kept high for a while to come. Furthermore, quantitative tightening measures taken by major central banks, especially the US Federal Reserve, have fostered higher government bond yields. Moreover, the rise in yields probably reflects higher inflation expectations and risk premia, owing to the increase in inflation and a more uncertain global inflation and output growth outlook.

Yields on Icelandic Treasury bonds have also been on the rise in the past two years, in line with Central Bank policy rate increases. By late September, the yield on ten-year Treasury bonds had increased to nearly 8%, its highest since autumn 2011. Icelandic Treasury yields have also risen more in the past two years than yields



on comparable US and German government bonds, as central bank interest rates have been raised more in Iceland, in response to more persistent inflation, a bleaker inflation outlook, and stronger economic activity. The interest rate differential with abroad has therefore grown and is wider than the average of the past eight years (Charts I-10 and I-11).



Foreign exchange market



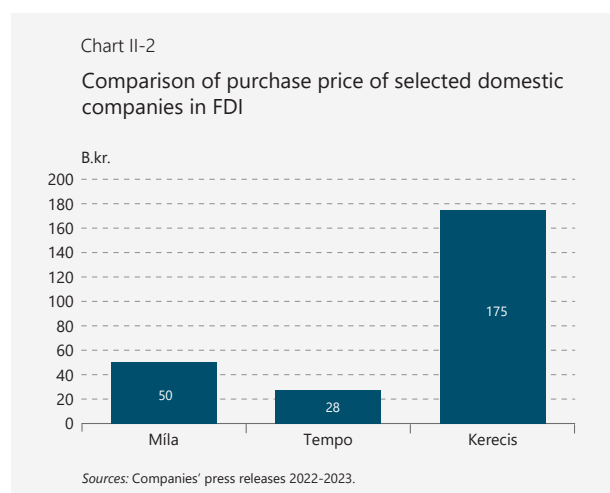
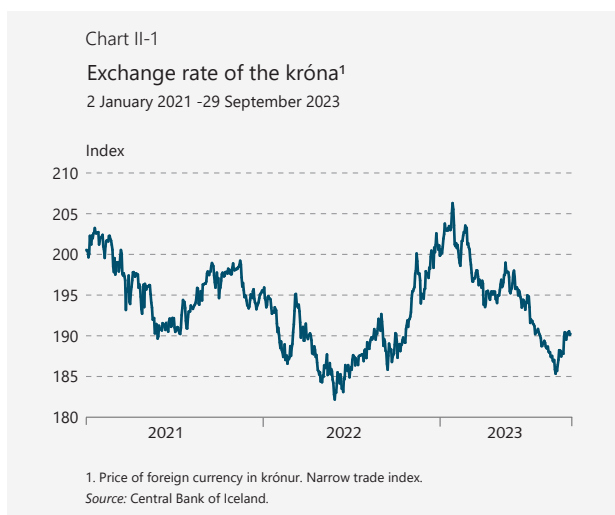
Volatility and elevated uncertainty in global markets affected the domestic foreign exchange market in 2022

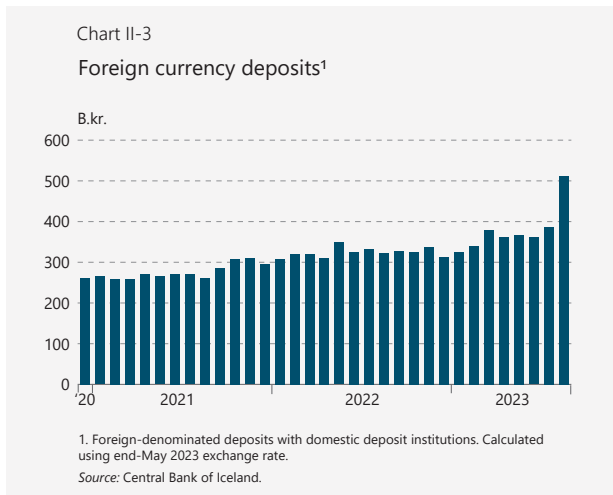
By early 2022, when all of the pandemic-related public health restrictions had been lifted, it was hoped that tourism, one of Iceland's key export sectors, would recover swiftly. The invasion of Ukraine, which began around that time, added to the uncertainty about the pace of the recovery, and it was unclear what impact the invasion would have on other export sectors and on economic developments in Iceland and abroad. Policy rate hikes implemented at differing speeds by leading central banks, increased global economic uncertainty, and divergent economic and inflation prospects for Iceland's key trading partners made their mark on the foreign exchange market, as could be seen in unusually wide internal fluctuations in major currency exchange rates during the year. For instance, the US dollar appreciated by 8.2% against the króna, while the

euro appreciated 2.6%. In 2022 as a whole, the króna weakened by just over 2% in trade-weighted terms. Even though capital inflows for investment in equity securities grew, some of these inflows were volatile and some were financed with domestic loans. As a result, the investments did not counteract foreign currency outflows stemming from the current account deficit and the pension funds' increased foreign investment.

The króna strengthened this summer due to increased foreign investment

Challenging global financial market conditions contributed to the weakening of the króna by nearly 10% from September 2022 through January 2023. Conditions improved for example, in a decline in credit spreads on the Icelandic banks' foreign bond issues, which nevertheless remained historically high. Brisk activity in Iceland's key export sectors (tourism in particular) and inflows of foreign capital strongly affected the foreign exchange market during the summer. Developments in

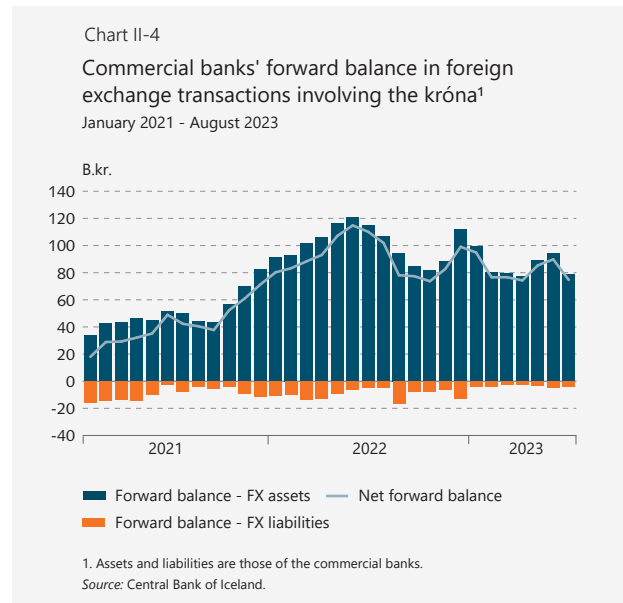




the tourism industry year-to-date suggest that it has reclaimed its previous strength, and the announcement of a foreign company's acquisition of Icelandic biotech firm Kerecis in early July gave rise to expectations of unusually large currency inflows over a short period of time. It was partly because of these factors that the exchange rate rose over the summer. The appreciation reversed in part in September and totalled 5% over the first three quarters of 2023. The Kerecis deal, which was finalised in August 2023, was unusually large in Icelandic context, totalling 175 b.kr. (4.2% of GDP), and therefore much larger than the acquisitions of telecom company Míla and software firm Tempo by foreign buyers in 2022 (Chart II-2). The purchase price in the Kerecis transaction was paid in foreign currency, and because the company had been owned mainly by a broad group of resident investors, there was a distinct possibility that the trade would have some impact on the exchange rate. However, the exchange rate changed little after the transaction was settled and foreign currency deposits with domestic banks increased significantly by August-end.

Better balanced foreign exchange market and reduced exchange rate volatility in 2023

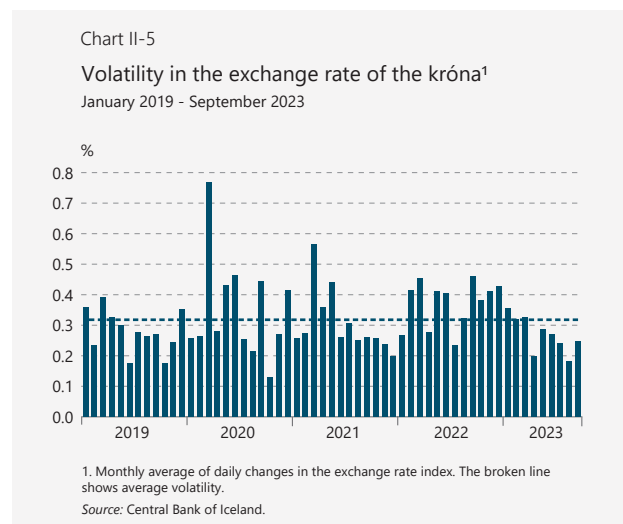
In mid-2021, Parliament passed a new Foreign Exchange Act, which removed the last of the capital controls imposed in 2008. The associated amendments to rules on derivatives trading involving the Icelandic króna were very important for foreign exchange market participants. Such derivatives trading had been prohibited since 2008, with the exception of hedging instruments expressly authorised by the Central Bank. The amendments restored the authorisation to trade in derivatives, irrespective of the purpose of the transaction, which strongly affected activity and turnover in the foreign exchange market. This expanded opportunity



for derivatives trading, together with reduced unrest in foreign markets, doubtless helped to smooth out currency flows in the market and reduce short-term exchange rate volatility during the period.

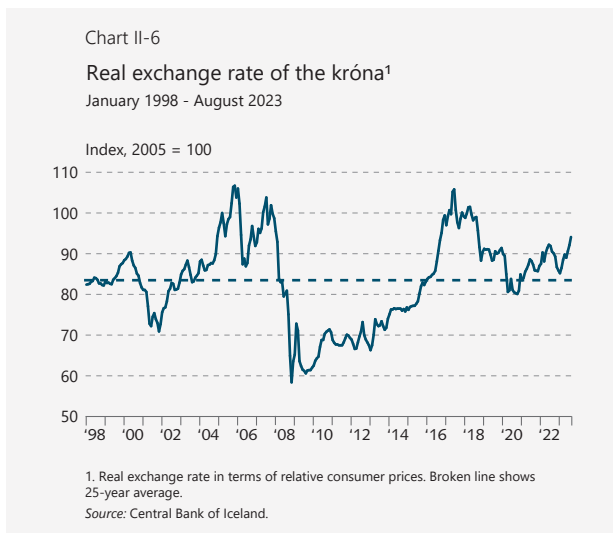
Central Bank scales down FX market intervention

The Central Bank intervenes in the market in order to mitigate volatility when it considers such intervention warranted. The Bank sold foreign currency in January 2023 for 3 b.kr. but had not participated further in the market by the end of September. This is a change from 2021 and 2022, when the Bank both bought and sold currency. In 2021 it was a net seller in the amount of 22.7 b.kr., and in 2022 it was a net purchaser in the amount of 13.2 b.kr. The Bank has accounted for a negligible share of total market turnover thus far in 2023, owing to reduced exchange rate volatility and signs that foreign currency flows to and from the country are better balanced than before.



The real exchange rate has risen and is 13% above its 25-year average

As of August 2023, the real exchange rate had risen by 17% from its COVID-era trough in April 2020. The increase was driven initially by a nominal appreciation of the króna, which strengthened apace after the pandemic, reflecting market expectations of growth in tourism after an 80% contraction in 2020. Inflation surged in Iceland, driven by strong growth in domestic demand. The recent rise in the real exchange rate can therefore be attributed to higher inflation in Iceland than in trading partner countries. In August, for example, the real exchange rate had risen by 4% year-on-year, mainly because of this disparity in inflation, although the nominal exchange rate had also risen by 1% year-on-year over the same period.



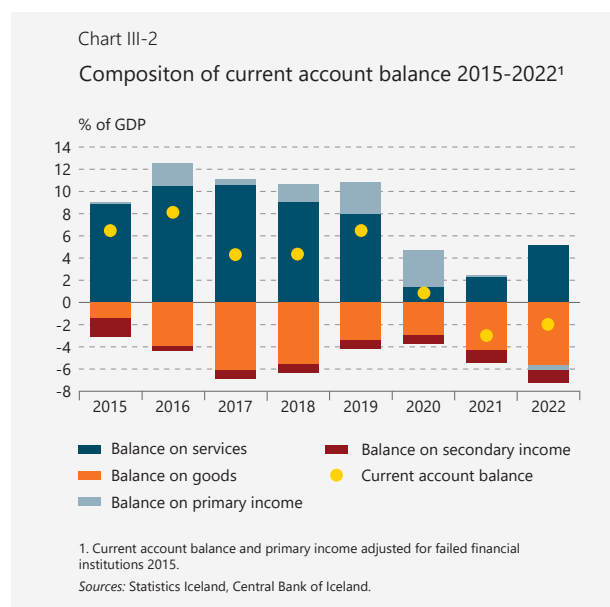
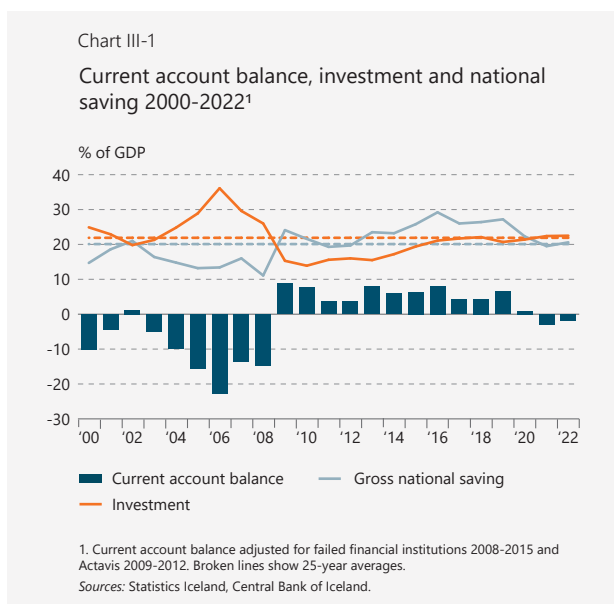
Balance of payments and external position



Current account balance and financial transactions

Reduced saving turned the current account from surplus to deficit

Tourism-generated export revenues collapsed with the onset of the COVID-19 pandemic in early 2020, but a sizeable primary income surplus ensured that the current account balance was still marginally positive (Charts III-1 and III-2).¹ In 2021, the 3% of GDP current account deficit was Iceland's first since the 2008 financial crisis. Stemming mainly from the pandemic-induced collapse in tourism revenues and a negligible



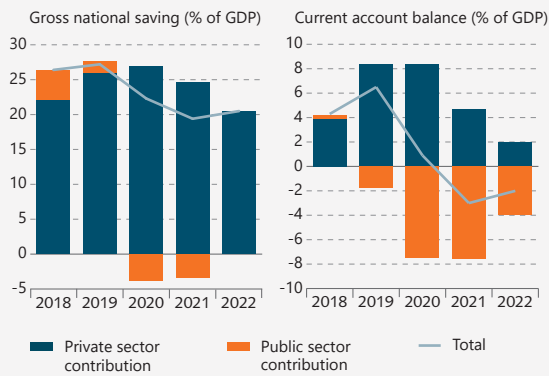
surplus on primary income. The current account deficit narrowed to 2% of GDP in 2022, owing to a strong rebound in tourism, albeit offset by a further deterioration in the primary income balance and a larger goods account deficit alongside a surge in domestic demand.

The current account deficit implies that investment has exceeded national saving in the recent term. National saving declined markedly between 2019 and 2021, in tandem with the contraction in export revenues and fiscal stimulus during the pandemic. The general government primary balance, which had been in surplus by an average of just over 3½% of GDP during the five years before the pandemic, turned to a 6-7% deficit in 2020 and 2021. The post-pandemic improvement in the fiscal position came somewhat later in Iceland than in many other economies, and

1 Primary income includes returns and interest payments of external assets and liabilities as well wages and other transfers between residents and non-residents. See IMF BPM6 for further information <https://www.imf.org/external/pubs/ft/bop/2007/pdf/bpm6.pdf>

Chart III-3

National saving and current account balance 2018-2022¹



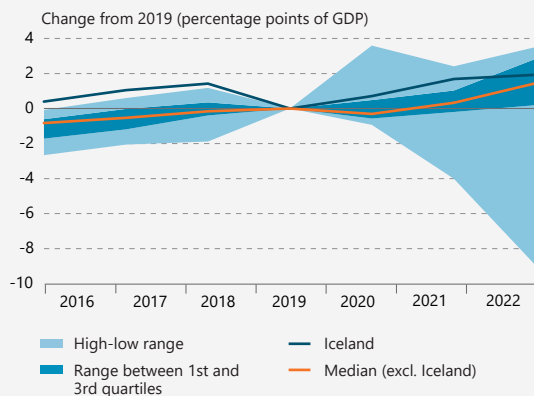
1. The sectoral distribution of national saving is obtained from Statistics Iceland's income accounts. The contribution of the private sector to the current account balance is the difference between private sector saving and private sector investment (business and residential investment and inventories). The contribution of the public sector to the current account balance is the difference between public saving and public investment.

Sources: Statistics Iceland, Central Bank of Iceland.

the deficit made a negative contribution to the current account balance, offsetting the positive contribution from a high private sector saving level sector saving (Chart III-3). National saving grew slightly once again in 2022, rising to 20.6%. A smaller deficit on the general government balance counterbalanced the lower private sector saving ratio. At the same time, the investment ratio increased somewhat over the course of 2021 and remained high in 2022, as it seemed that the pandemic had affected investment less in Iceland than in trading partner countries (Chart III-4). The outlook is for the current account to be affected by the continued shrinking of the fiscal deficit, and the declining household saving ratio in the coming term.

Chart III-4

Investment in Iceland and main trading partners 2016-2022



Source: International Monetary Fund.

Increased domestic demand has focused on imports and led to a trade deficit

The trade balance has shown a deficit for the past three years, after an uninterrupted surplus over the eleven years beforehand. The surplus on services trade more than doubled year-on-year in 2022, to 5.2% of GDP, driven by increased activity in tourism. Nevertheless, it was smaller than the surpluses during the pre-pandemic period, which averaged 9% of GDP in 2013-2019. The larger services account surplus in 2022 was offset by the goods account deficit, which widened from 4.3% of GDP in 2021 to 5.6% in 2022, Iceland's largest deficit on goods trade since 2007. The value of imported goods equalled 34% of GDP in H2/2022, the largest share since 1988 (Chart III-5). Historically strong goods imports are due primarily to greater imbalances in the domestic

Chart III-5

Goods and services imports¹

Q1/2010-Q4/2022



1. Two-quarter moving average. Broken lines show average from 1998. There is an inconsistency in the data on service imports, as trade in intellectual property has been excluded for 2018-2022.

Sources: Statistics Iceland, Central Bank of Iceland.

Chart III-6

Terms of trade including and excluding aluminium prices¹

Q1/2015 - Q4/2022



1. Terms of trade for goods and services excluding the impact of aluminium prices on export prices and excluding the impact of alumina prices on import prices.

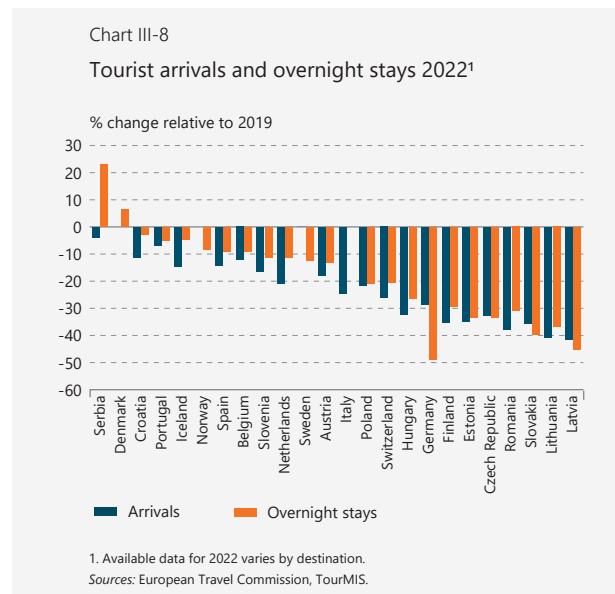
Sources: Statistics Iceland, Central Bank of Iceland.

economy, which have been manifested in surging domestic demand alongside hefty pay rises. In addition, import prices rose in tandem with soaring commodity prices as a result of the war in Ukraine. Furthermore, the post-pandemic jump in household consumption focused strongly on imported goods and services, owing to pent-up demand that had accumulated during the pandemic. Moreover, the investment-to-GDP ratio rose in 2022 in spite of strong GDP growth, but share of imports in investment is generally high.

Terms of trade improved by 2.4% in 2022, on top of a 3.9% improvement in 2021 (Chart III-6). They began to deteriorate again in H2/2022, concurrent with the decline in aluminium prices, and by the end of the year were broadly back to the pre-pandemic level. Recent developments in terms of trade are due in large part to developments in aluminium prices, which skyrocketed following the invasion of Ukraine. Excluding aluminium products, terms of trade improved by 0.1% in 2022, after deteriorating by 2.5% in 2021.

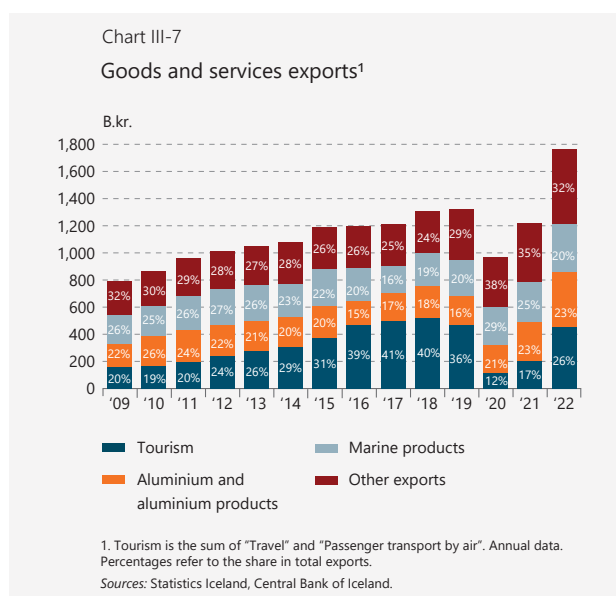
The composition of exports in 2022 still reflected the impact of the pandemic, despite the rapid rebound in tourism

The change in Iceland's current account balance in the wake of the pandemic was one of the largest in the OECD, owing to the weight of services exports and tourism-generated revenues in GDP. The post-pandemic recovery was rapid as well, and the 2022 resurgence of tourism one of the strongest in Europe (Charts III-7 and III-8). By H2/2022, foreign tourist arrivals were back to the 2019 level, and tourists' average spending was higher than before. Tourism-generated revenues in 2022 as a whole were below the pre-pandemic level, however, due



to a reduction in the domestic airlines' revenues from passenger transport. Weaker revenues stemmed from several factors, including a slower rise in the number of transit passengers; i.e., those travelling via Iceland to other destinations. Total revenues from tourism accounted for 26% of total export revenues in 2022, as compared with 40% in 2018. Nevertheless, total export values were historically high in 2022, owing mainly to increased revenues from aluminium product exports, which stemmed in turn from steep price hikes. Aluminium export values accounted for 23% of total exports, well above the 2015-2019 average of 17% (Chart III-7). The impact of aluminium prices on export revenues was not reflected to the same degree in an improved current account balance, however, as the price of imported alumina rose at the same time and the aluminium companies' increased profits generated a larger deficit in the primary income account. Aluminium export values nearly doubled from 2020 through 2022, from about 200 b.kr. to 400 b.kr., but the positive impact on the current account balance came to just under one-third of that amount.

Exports other than tourism, marine products, and aluminium products have also grown apace in the recent term, accounting for about a third of total year-2022 export values, as compared with roughly a fourth in 2015-2019. In this context, silicon firms' stronger revenues due to higher silicon metals prices had an effect similar to that of aluminium products: higher export values can also be seen as an increase in profit in the primary income account, and the impact on the current account balance is therefore less pronounced.²



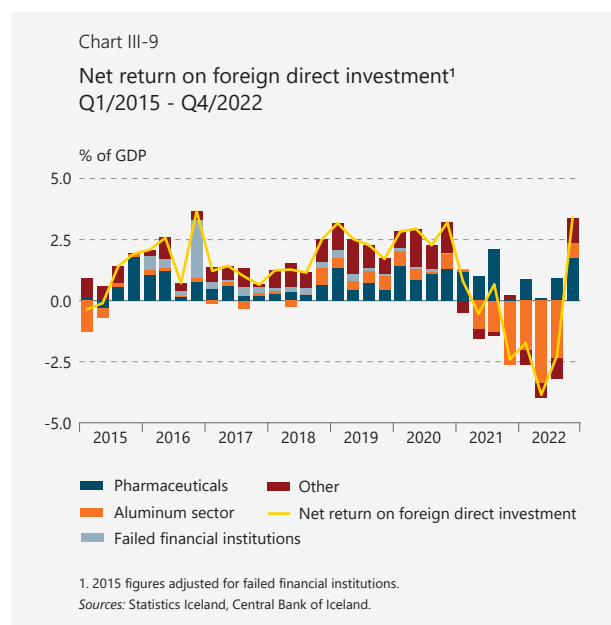
2. The profits of foreign-owned domestic companies are recorded as expenses in the current account balance.

Exports of farmed fish doubled between 2019 and 2022, thereby explaining another part of increased growth in other exports. Furthermore, pharmaceuticals exports grew somewhat in H2/2022.

The primary income balance turned from a record deficit to a record surplus within the year

The balance on income (primary and secondary income combined) showed a nearly uninterrupted surplus from end-2015 through 2021, whereupon it flipped to a deficit that ballooned in 2022, breaking a ten-year record in Q2. This record deficit then reversed course, and late in the year the income account showed its largest surplus since 2010. These wide swings in the primary income balance are due in particular to changes in returns on foreign direct investment (Chart III-9). Profitability has developed in line with the performance of foreign-owned domestic companies, especially in the aluminium and silicon metals industries, which has fluctuated dramatically in the recent term, in tandem with movements in aluminium and commodity prices following the pandemic and Russia's invasion of Ukraine. Pharmaceuticals companies' losses also grew considerably again in late 2022. The performance of Icelandic-owned companies abroad has been less volatile. In 2022 as a whole, the deficit on primary and secondary income measured 1.6% of GDP, the largest since 2015.

Interest income on foreign assets grew steadily over the course of 2022, in tandem with rising foreign interest rates, prompting a rise in net foreign interest income, particularly in H2. Net secondary income also grew somewhat during the year, partly because of increased exportation of wage income by foreign workers in Iceland, concurrent with the accelerated economic recovery and the associated expansion of the foreign labour force.



Box 1

Cap on pension funds' FX assets increased

In March 2023, Parliament passed amendments to the Act on Mandatory Insurance of Pension Rights and on Activities of Pension Funds, no. 129/1997, thereby approving an increase in the statutory cap on pension funds' foreign currency assets.¹ When the Act was originally passed in 1997, the maximum ratio of their exchange risk was 40% of net assets for payment of pension. Three years later, that maximum was increased to 50%. The amendment passed in March 2023 increases the ratio to 65% of total assets in increments, starting in January 2024 and continuing into 2036.²

It has been clear for some time that the pension funds are extremely dominant in the domestic asset market. There

are 24 companies on the Nasdaq Iceland Main List. Their total market capitalisation was equivalent to 53% of GDP at the end of 2022, and about 40% of that market cap was held by the pension funds, not including shares held through UCITS and other investment funds. The same is true of the bond market, where the total value of highly liquid bonds – i.e., those issued by the Treasury – comes to around 30% of GDP, with almost 40% held by pension funds.

The liberalisation of the capital controls and foreign currency inflows in recent years, including inflows due to inward foreign investment and the current account surplus, have created the conditions for the pension funds to diversify risk in their asset portfolios more effectively, and most of them have expanded their foreign asset holdings relative to total assets. Their FX assets vary as a share of their total assets, however (see Chart 1). At the end of 2022, eight of

1. See Act no. 129/1997: <https://www.althingi.is/altext/153/s/1378.html>.

2. The cap will rise by 1.5 percentage points per year for the first four years and then by 1 percentage point per year thereafter, until it reaches the 65% maximum.

21 pension funds, including one of Iceland's three largest ones, were close to their internal benchmarks for the ratio of FX assets to total assets, or within 2 percentage points of them.³ It was therefore considered necessary to reduce the likelihood the funds' crowding-out effect on domestic asset markets in the future by easing the restrictions on their exchange rate risk while giving them greater scope to diversify risk in their asset portfolios.

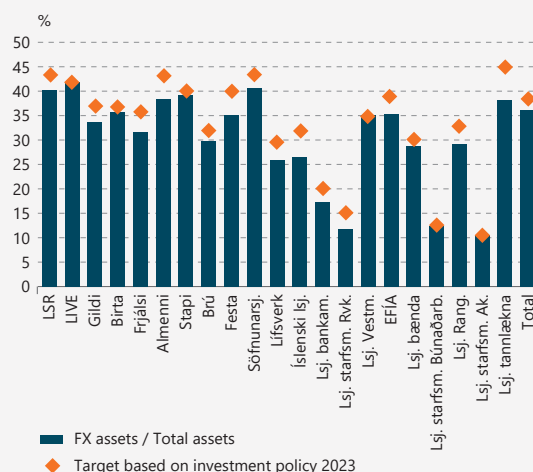
At the end of 2022, the pension funds' total assets equalled roughly 6,600 b.kr. (175% of GDP). Just over a third of these were foreign assets, nearly all of them in the form of unit share certificates. The ratio of foreign assets to total assets has increased steadily since the turn of the century, albeit with pauses, and at times the funds have used derivatives to hedge against exchange rate risk.⁴

In assessing the overall impact of the pension funds' foreign investments on the balance of payments and the foreign exchange market, it is important to note that despite the aging of the Icelandic population, there are still considerable net inflows into the funds. Their disposable funds – premiums net of pension payments and operating expenses – are still positive, at about 100 b.kr. per year, and are estimated to remain positive until at least the middle of the century. The pension funds' foreign currency purchases have been broadly similar to their disposable funds in recent years, apart from the period during the COVID-19 pandemic, and will probably remain so. Further ahead, the funds' flows will probably turn around, however, as returns and principal on foreign assets will be used to pay pension benefits, and the pension funds will then be net sellers of foreign currency.

As long as they use their extra scope for foreign investments, the real exchange rate will be lower than it would be otherwise, thereby creating space in the balance of payments for these investments with a more favourable current account balance than would otherwise result. On the other hand, when the flows turn around and the pen-

sion funds stop adding to their investments, capital flows into the country will be positive and push the real exchange rate upwards and erode the current account balance.⁵

Chart 1
Pension funds' foreign assets as a share of total assets at year-end 2022¹



1. Weighted average of mutual and private pension divisions, as applicable. Pension funds are listed in order of size based on total assets. Source: Central Bank of Iceland.

Chart 2
Pension funds' foreign assets as a share of total assets



Source: Central Bank of Iceland.

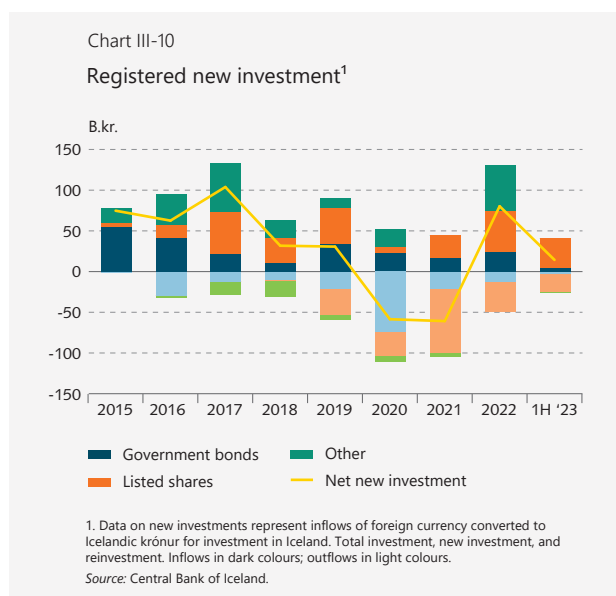
- Historically, the pension funds' internal benchmarks have been somewhat below the statutory maximum so unforeseen events such as wide swings in prices and exchange rates don't push them over the limit. But with the 2023 amendment, the pension funds do not have to react to such movements and may breach the maximum when price and exchange rate movements cause them to do so. On the other hand, they are prohibited from increasing their exchange rate risk through trading while they remain above the maximum.
- For the most part, the pension funds used derivatives to hedge against exchange rate risk in 2006-2008, but they have not done so since the 2008 financial crisis. They could use them to a greater degree in coming years, however, as the statutory amendment also expanded and clarified their authorisations to do so. In this context, though, it should be noted that the pension funds are long-term investors, and short-term currency hedging is expensive. Funds that hedged a large share of their foreign assets against the appreciation of the króna shortly before the 2008 crash lost substantial sums when the króna depreciated.

In the past three years, the pension funds' foreign securities portfolio has made a positive impact on the current account balance in the amount of 39.5 b.kr. per year, owing to dividend payments. Furthermore, price and exchange rate movements in the asset portfolio have improved the net international investment position by an average of 4.7% of GDP per year over the past five years.

- See also (in Icelandic) Már Gudmundsson (2022), *Takmarkanir á gjaldmiðlaðhættu lífeyrissjóða* [Restrictions on pension funds' foreign currency risk].

Foreign investors have mainly bought equities in the recent term ...

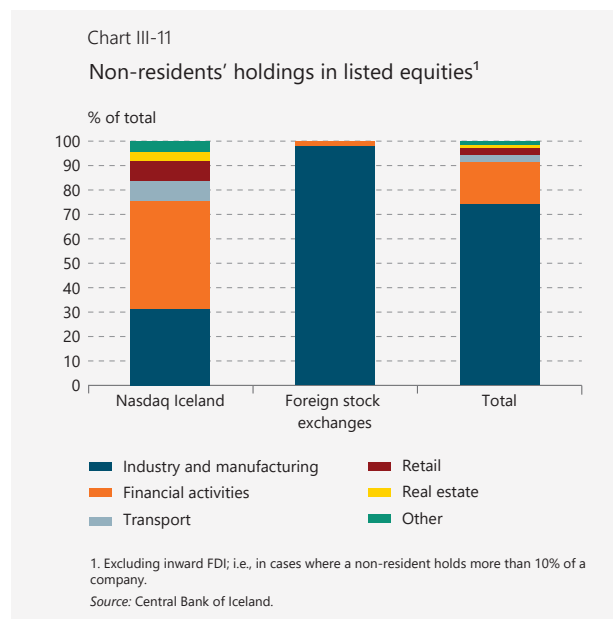
Capital outflows relating to non-residents' securities transactions totalled about 60 b.kr. per year during the pandemic years 2020 and 2021 (Chart III-10). Sales of shares in listed domestic companies constituted the majority, or 73 b.kr., but flows turned around in early 2022, and non-residents' net investment in listed equities in Iceland totalled 26 b.kr. in 2022 and H1/2023. Iceland's promotion from the frontier market category to the secondary emerging market category by index provider FTSE Russell, which took place in three stages from autumn 2022 through early 2023, was the main driver of the shift.



Non-residents held just over 280 b.kr. (7% of GDP) in Icelandic firms as of mid-2023. Of that total, 250 b.kr. (6% of GDP) were invested in listed equity securities. For quite some time, Icelandic companies' shares were listed only on the stock exchange in Iceland, but in the past decade or so, dual listings – i.e., simultaneous listing on a foreign exchange and the Icelandic market – have become more common. Concurrent with this trend, the composition of foreign investors' securities holdings has changed somewhat, with around 60% of foreign-owned equities listed on foreign exchanges at the end of Q2/2023. These represent shares in three domestic companies, whose high market value explains both their prominence in the composition of non-residents' securities holdings and the reason non-residents invested most heavily in the manufacturing and financial sectors (Chart III-11).³

3. Excluding inward FDI; i.e., in cases where a non-resident holds more than 10% of a company.

Because the shares in question are listed abroad and in foreign currency, transactions with them do not directly affect the domestic foreign exchange market.



... while inflows into Treasury bonds are still limited despite a wider interest rate differential

Outflows from non-residents' investments in Treasury bonds were less than outflows from equities in 2020 and 2021, at about 55 b.kr., as non-residents' positions in Treasury bonds had not grown to the same degree as holdings in domestic equities during the years beforehand. Foreign investors have traded only sparsely in Treasury bonds in the recent term, with combined net inflows totalling about 15 b.kr. over the past year and a half. At the end of Q2/2023, Treasury securities owned by non-residents equalled just over 1% of GDP, or around 5% of the issued stock of Treasury bonds.

For the most part, capital inflows from non-residents have been invested in large holdings in unlisted companies recently, including computer and telecom firms and biotech firms, and are therefore classified as foreign direct investment (FDI). Such transactions totalled nearly 60 b.kr. in 2022 and 175 b.kr. in 2023 to date.⁴

Current account deficit largely debt-financed

Private sector entities' net foreign asset accumulation peaked in 2019 following a 6% of GDP increase in net foreign assets, owing to net financial transactions (i.e., excluding price and exchange rate movements).⁵

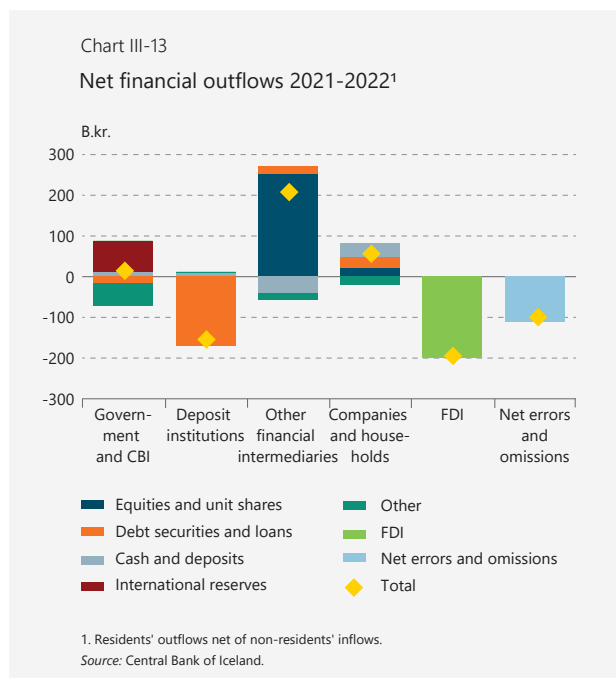
4. For further discussion, see the section on the foreign exchange market.

5. Net errors and omissions in the balance of payments are assumed to stem from insufficient information about private sector entities' financial transactions.

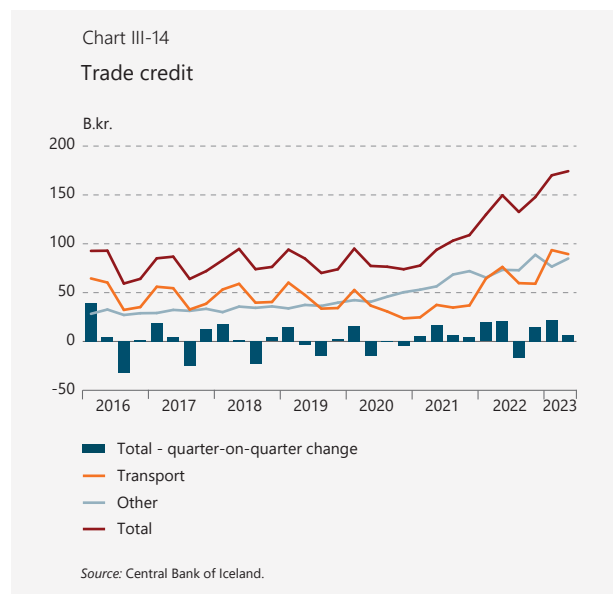
Private sector asset formation subsided when external trade reversed and the current account balance flipped from surplus to deficit in 2021 and 2022. The deficit was financed mainly with increased private sector debt (Chart III-12). Net asset formation was therefore negative by 3% of GDP in 2021 and about the same amount in 2022.



Growth in private sector debt (due to movement of capital) in 2021 and 2022 can be attributed mainly to an increase in financial institutions' foreign funding during the period. There were also strong inward FDI-related inflows, as is noted above, but inflows due to reinvested earnings of foreign companies' Icelandic subsidiaries – primarily global aluminium companies – were robust as well (Chart III-13).



Icelandic non-financial corporations' foreign liabilities contracted during the period, largely because of the aforementioned securities transactions by non-residents and deleveraging of foreign debt. Firms' trade credit with non-residents has increased somewhat in the past two years, however (Chart III-14). Historically, they have fluctuated with changes in the tourism industry, as a large share stems from transportation companies, airlines in particular. Trade credit has generally increased over the first half of the year, when travellers book their plane tickets, and then fallen steeply in Q3, when travellers have completed their trips. The airlines' trade credit contracted sharply with the implementation of travel restrictions during the COVID-19 pandemic. They have increased again with the rebound in tourism, however, and are now somewhat above the pre-pandemic level. Other non-financial corporations' trade credit has been on the rise as well in recent years, although a large share of the increase is due to estimates based on imports of goods and services, which have grown markedly. Thus trade credit has roughly doubled in the past two years.



Foreign asset formation by the public sector, which here includes the Treasury and the Central Bank, was marginally negative in 2021 (Chart III-12), primarily because of a reduction in the international reserves due to Central Bank market intervention and regular foreign currency sales during the pandemic. In 2021 as a whole, however, the reserves expanded by nearly 5% of GDP, but external debt increased by the same amount, mainly because of foreign bond issuance by the Treasury and the International Monetary Fund's (IMF) allocation of special drawing rights (SDR) to the

Central Bank. Net public sector asset formation was positive in 2022, however, as the Treasury paid down foreign bonds in the amount of just over 2% of GDP.

International investment position

Net IIP moves broadly in line with asset markets

In mid-2023, Icelanders' foreign assets exceeded non-residents' Icelandic assets, and the net external position was therefore positive by 29% of GDP (Chart III-15). It improved more or less continuously from the 2008 financial crisis through year-end 2021, when it reached 39% of GDP, one of the best outcomes in Iceland's history. Low interest rates and a glut of liquidity pushed global asset prices steeply higher, and Iceland's net securities holdings grew markedly in 2020 and 2021. Uncertainty relating to the pandemic prompted investors to seek out secure assets such as US Treasury bonds. Sales of Icelandic Treasury bonds and listed equities in the amount of 3.4% of GDP therefore reduced investors' securities positions.



Over the course of 2022, it became clear that global inflation would be more persistent than previously expected. Central banks raised interest rates, and governments' COVID-related stimulus measures expired in most economies. Securities prices therefore tumbled in 2022. The MSCI World Index, for instance, fell by more than a fourth in the first three quarters of the year, and Iceland's net IIP dropped by 18% of GDP. The depreciation of the króna by a full 5% in Q4 pulled in the opposite direction, however, and the net external position deteriorated less over the year as a whole, or by 14% of GDP. Then, in H1/2023, it improved by 4% of GDP, driven mainly by higher foreign securities prices,

concurrently domestic securities fell in price over the same period.

Positive net external position due to international reserves and pension funds' sizeable securities holdings

When the net IIP is broken down by major entities, it can be seen that the positive external position is due largely to the pension funds' foreign asset portfolio, which generated a net external position of 57% of GDP as of end-Q2/2023 (Table III-1). The pension funds' foreign investments and higher foreign securities prices explain to a large extent Iceland's growing securities position in recent years.

Table III-1 Breakdown of the international investment position as of end-Q2/2023

% of GDP	Foreign assets	Foreign liabilities	Net position
Pension funds	63	7	57
Central government and Central Bank	20	9	11
Direct investment, special purpose entities	1	1	0
Municipality-owned companies	0	1	-1
FDI, pharmaceuticals sector	3	5	-2
Other entities	15	18	-3
State-owned companies	0	5	-5
FDI, other entities	13	19	-6
FDI, energy-intensive sector	1	9	-8
Deposit institutions	12	26	-14
Total	129	100	29

Source: Central bank of Iceland.

The combined net public sector position (the Treasury and the Central Bank) was positive by 12% of GDP at the end of Q2/2023, mainly because of the Bank's international reserves, although this is offset by the foreign Treasury bonds issued to finance the reserves and by non-residents' Treasury bond holdings. On the other hand, the net position of companies owned by the State and local authorities, mainly energy companies, was negative by 6% of GDP, as their assets are almost exclusively domestic, while their activities are partially financed from abroad.

The deposit institutions' net external position was negative by 14% of GDP, partly because the commercial banks issue foreign bonds to fund their foreign-denominated lending to Icelandic borrowers, mainly export companies and other companies with foreign currency revenues. Even though the banks' external position is negative, their net foreign exchange position was in balance and in compliance with Central Bank rules stipulating that the currency mismatches on their balance sheet may not exceed 10% of their capital base.

FDI was negative by 16% of GDP, but this position is strongly affected by the financing structure of a few international firms with activities in Iceland, such as aluminium and pharmaceuticals companies.

Weaker króna improves the net IIP

Iceland's external assets totalled 5,193 b.kr. (129% of GDP) at the end of Q2/2023, while external liabilities were 4,035 b.kr. (100% of GDP). External assets were denominated in foreign currencies for the most part, but about 17% of external liabilities were in Icelandic krónur, primarily pension obligations to non-residents, non-residents' Icelandic securities holdings, and inward FDI. The composition of the external position is such that when the króna depreciates by 10%, the net IIP improves by 4% of GDP, all else being equal.

Table III-2 Currency composition of external liabilities as of end-Q2/2023

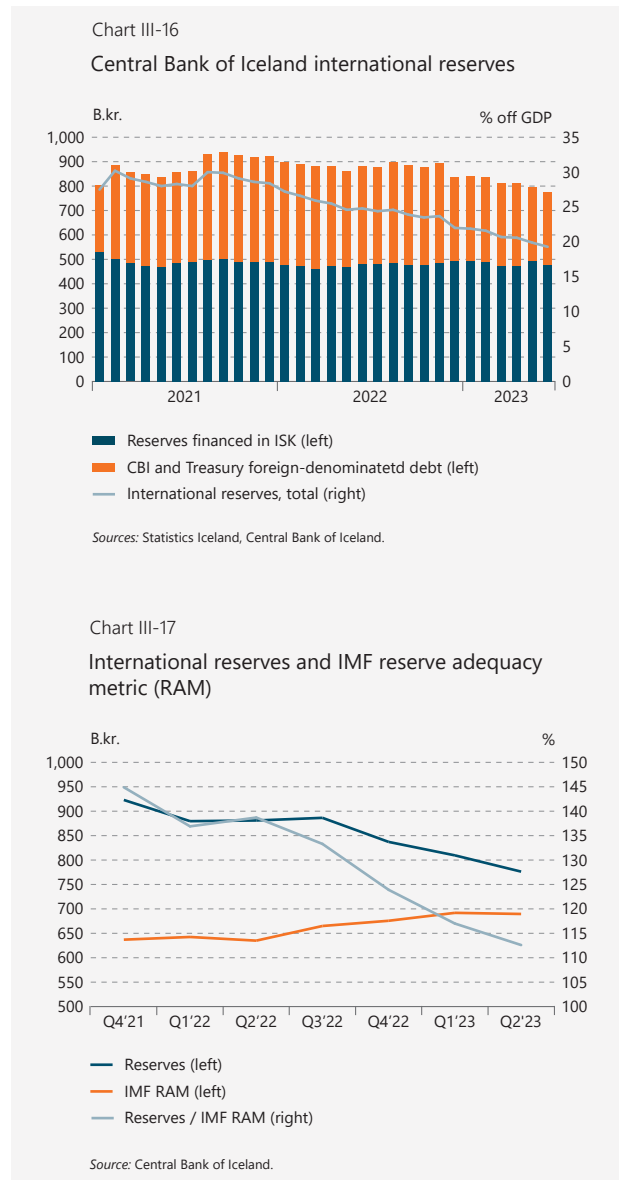
B.kr.	ISK	FX	Total
FDI – equity	63	727	790
FDI – loans	49	562	611
Portfolio investment – equities	135	148	283
Portfolio investment – unit shares	11	0	11
Portfolio investment – Treasury and HFF bonds	49	0	49
Portfolio investment – bank bonds	6	763	768
Portfolio investment – other debt instruments	1	99	101
Portfolio investment – CBI2016 certificates of deposit	0	0	0
Derivatives	0	25	25
Bank deposits	74	69	143
Deposits with the Central Bank	2	0	2
Corporate borrowings	36	414	450
Bank borrowings	0	50	50
Borrowings, other	0	1	1
Pension obligations	265	0	265
Trade credit	0	174	174
Counterpart, SDR	0	76	76
Other liabilities	0	233	234
Total	691	3,343	4,035

Source: Central Bank of Iceland.

The Central Bank's international reserves

The international reserves have shrunk but remain ample in terms of key reserve adequacy metrics

The Central Bank's international reserves totalled 776 b.kr. at mid-year 2023, or 19% of GDP (Chart III-16). They have shrunk by 10% of GDP since year-end 2021, owing mainly to Treasury bond instalment payments and buybacks. The reserves have been reduced by price and exchange rate movements as well. As a result, they have not kept pace with GDP growth in the recent term.



The international reserves equalled 113% of the International Monetary Fund's (IMF) reserve adequacy metric (RAM) in mid-2023, whereas the Fund recommends a ratio of 100-150%, depending on current circumstances (Chart III-17).⁶ For comparison, the ratio of the reserves to the RAM was close to the upper threshold of that range before the pandemic. The reserves totalled 139% of short-term foreign liabilities and covered five months' worth of imported goods and services, while at the end of 2021, they equalled 187% of short-term liabilities and covered nearly nine months of imports.

Even though the reserves have declined, they still exceed key reserve adequacy metrics. Non-residents' highly liquid króna-denominated assets amount to

6. The RAM comprises 5% of exports, 5% of money holdings, 30% of foreign short-term liabilities, and 15% of other foreign liabilities (excluding inward FDI).

only 3.2% of GDP, or 16% of the international reserves, and have remained virtually unchanged relative to GDP in the past two years.

Domestic entities' credit ratings rise

Iceland's sovereign credit rating was upgraded to A/ A2 when the capital controls were lifted in early 2017. Moody's upgraded Iceland to the same grade two years later. The sovereign rating represents a ceiling for other domestic entities' credit ratings in international markets. From 2017 through end-2022, public sector debt declined by 3½ percentage points, to 68% of GDP, and Iceland's external liabilities fell by 13% of GDP. Two of the three agencies that assign credit ratings to the Republic of Iceland have changed the outlook on their ratings from stable to positive, partly because of smaller deficit on the general government balance and reduction in the debt-ratio. After this was done, the outlook on Landsvirkjun's credit rating was changed from stable to positive and the company's rating affirmed at BBB+, after having been upgraded by one notch in mid-2021. The commercial banks' credit ratings, on the other hand, have been upgraded recently. The highest rating currently held by an Icelandic commercial bank is A3, one notch below the sovereign.

External liabilities

External liabilities have increased in krónur terms but have fallen as a share of GDP

At the end of Q2/2023, Iceland's external liabilities totalled 100% of GDP, including 73% of GDP due to net external debt.⁷ External liabilities have increased by 546 b.kr. since year-end 2020, or just over 15%, but have fallen by 19 percentage points relative to GDP. The rise in external liabilities is due to financial transactions, as net inflows from non-residents totalled 615 b.kr. during the period. Other changes – mainly price and exchange rate movements – lowered external liabilities by 69 b.kr. The currency composition of external liabilities has changed somewhat. As of mid-2023, 17% of liabilities were denominated in krónur, a decline of 7 percentage points since year-end 2020.

Repayment profile for external long-term debt

Residents' external long-term debt – i.e., bonds issued abroad and direct borrowings – totalled 38% of GDP at the end of Q2/2023. The majority of it was debt owed

by the commercial banks, in the amount of 20% of GDP. Foreign debt owed by the Treasury and public-owned companies came to 12% of GDP.

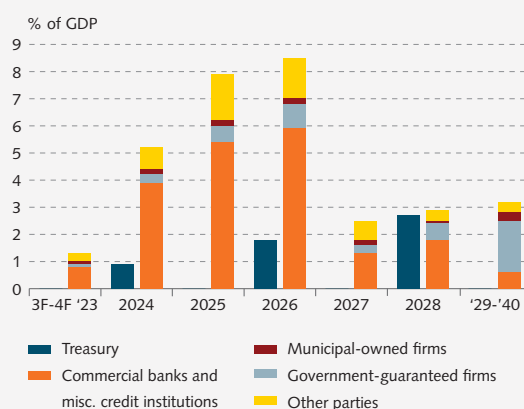
Terms in the market have deteriorated with rising interest rates, and issuance of foreign-denominated bonds has subsided from its 2021 peak. Foreign-denominated Treasury bonds mature every other year, with instalments and buybacks totalling 3.2% of GDP since year-end 2021. The Treasury last issued a bond in foreign markets in February 2021. As a consequence, Treasury foreign debt has declined by around one-third in a year and a half.

Foreign debt owed by Government-owned companies (energy firms in particular) has also declined recently, albeit not to the same degree. At the end of Q2/2023, over half of these firms' foreign debt took the form of loans from foreign financial institutions, with only 30% maturing in the next three years.

The commercial banks' foreign long-term funding accounted for about half of Iceland's foreign market issues and borrowings as of mid-2023. It constituted roughly 15% of the banks' total funding and just over 120% of foreign-denominated lending to customers. The banks have also used foreign bond issues to strengthen their liquidity position and satisfy minimum requirements for own funds and eligible liabilities (MREL), as the domestic market for eligible liabilities is currently not large enough.

The banks' foreign bonds are generally issued with maturities of 2-5 years, depending on market conditions at the time in question. Their funding consists of euros (70% of the total), US dollars (6%), and other Nordic currencies (24%). As of mid-2023, some 70% of the commercial banks' foreign long-term debt

Chart III-18
Repayment profile of long-term foreign debt¹



1. Based on end-Q2/2023 position.

Sources: Statistics Iceland, Central Bank of Iceland.

7. External debt with a known payment profile; i.e., excluding equity securities, unit shares, derivatives, and FDI in corporate equity.

was scheduled to mature in the next three years (Chart III-18).

As foreign funding markets grew tighter in mid-2022, concurrent with elevated uncertainty and rising spreads on bank bonds, the banks increasingly sought out short-term funding through repo transactions with foreign commercial banks, in part to maintain strong liquidity. A portion of their year-2022 bond issues were therefore not sold to non-resident investors but used instead for these repo transactions. The agreements mature in the next six months. They accounted for 6% of the banks' long-term debt as of end-Q2/2023. In comparison, instalments on foreign debt maturing in 2024 constituted around 20% of the banks' long-term debt. The terms on offer started to improve this summer, whereupon the banks refinanced most of their

year-2023 maturities and some of the debt maturing in 2024.

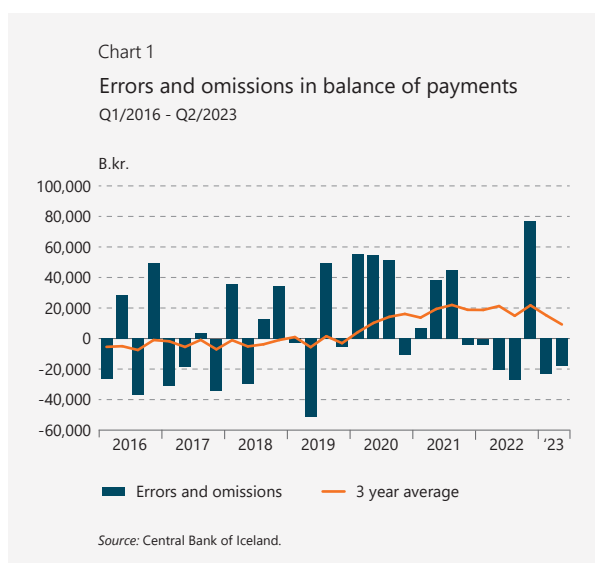
New minimum requirements for domestic financial institutions' own funds and eligible liabilities (MREL), which took effect in spring 2022, make more stringent funding requirements of the three large systemically important banks.⁸ Under these requirements, the banks must have so-called eligible liabilities available, in addition to conventional capital instruments. Among other requirements, eligible liabilities must have a residual maturity of more than 12 months. Based on the current composition of the banks' unsecured bond issues, the MREL should lengthen the repayment profile of their foreign debt and foster timely refinancing.

8. Central Bank of Iceland Rules no. 666/2021.

Box 2

Measuring the external position and balance of payments

The external position of the economy is compiled and published on a quarterly basis by the Central Bank of Iceland. It consists of the balance of payments and the international investment position. The Bank compiles the external position based on the standard laid down in the International Monetary Fund's (IMF) *Balance of Payments and International Investment Position Manual* (BPM6). The BPM6 defines presentation, methodology, valuation, and terminology.



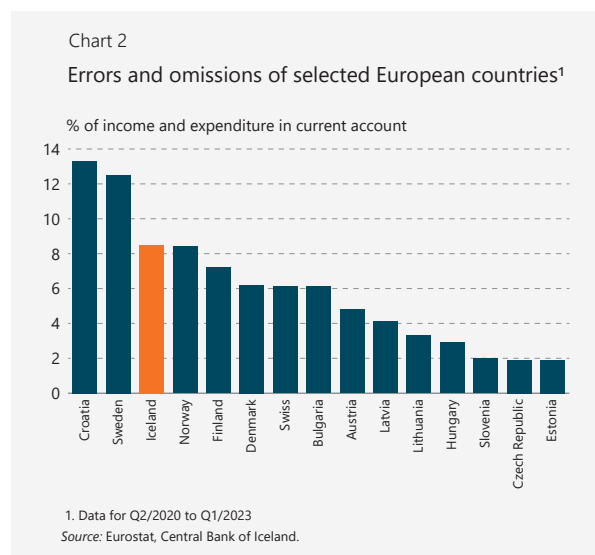
Information gathering in connection with the balance of payments is not flawless and cannot be so. As a result, the accounts generally contain an item called "net errors and omissions". It is justifiable to expect this item to be small and neither persistently positive nor persistently negative in the long run. It can fluctuate somewhat between periods, however. In terms of the three-year moving average, Iceland's balance of payments showed little error during the period from 2016-2019 (Chart 1). The average of the errors item began to rise in 2020 and 2021 but then declined again starting in Q2/2022.

The higher values for errors and omissions in balance of payments accounting do not necessarily indicate the quality of stock figures in the international investment position. In general, the stock figures the Bank receives are very reliable. In some instances, however, when information about transactions is not available, financial account entries are estimated based on the change in stock figures. This can give rise to an error due to fluctuations in prices and exchange rates or to imprecise averages – for instance, when the average exchange rate or price for a given quarter does not necessarily reflect changes in underlying assets or liabilities during the period in question.

In making comparisons between countries, it is useful to compare errors and omissions with the average of

revenues and expenditures in the current account balance for the same quarter.¹ On average, the errors and omissions item in the Central Bank's statistics is about the same as that in Norway, at about 8% of combined revenues and expenditures in the current account balance (Chart 2). The Nordic countries and Croatia have relatively large errors items relative to other European countries.

Chart 2 does not take account of whether the errors are positive or negative; it merely indicates whether errors can be found in the balance of payments statistics. The measure in Chart 3, on the other hand, indicates cumulative errors, whether positive or negative. It therefore shows whether the countries concerned have persistent errors in either direction. The Nordic countries clearly have the largest errors, no matter which measure is used. On the other hand, the cumulative measure shows that Iceland's errors are persistently positive, while the other Nordic countries have persistently negative errors, with Finland recording the largest ones. Persistent positive errors could indicate that revenues in the current account are underestimated or that expenditures are overestimated. They could also suggest that the increase in assets in the financial account is overestimated or that the increase in liabilities is underestimated. The reverse is true of persistent negative errors.

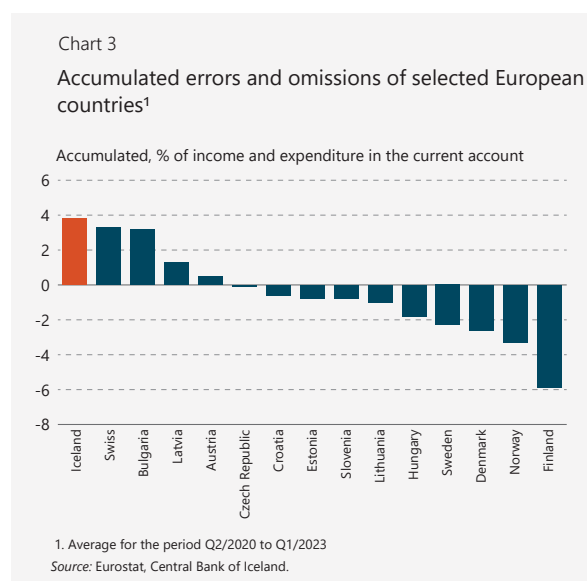


A number of factors could explain errors and omissions. It should be noted that a large share of European countries' foreign trade is conducted in euros, and the effects of exchange rate movements are therefore less pronounced than in the case of countries with an independent currency. As a result, the probability of errors is reduced.

1. The sum of revenues from imports and exports of goods, services, and primary and secondary income, divided by two.

Most of the countries with a large proportion of errors had an independent currency during the period covered by the data.²

The Central Bank faces a variety of challenges in connection with the measurement of the external position. The population for the measurement comprises all domestic entities that conduct business with foreign entities, which number in the thousands. The transactions concerned are of various kinds, both large and small. The most extensive of them are transactions relating to direct investment and portfolio investment, which cover most of the entities and transactions about which the Bank compiles information. The Bank also gathers data from entities that have received bank loans from foreign credit institutions, have foreign bank accounts, conduct derivatives trading, or have accounts payable and receivable involving foreign counterparties on their books. In addition to these are parties that send development aid, receive grants or wages from overseas, or act as intermediaries for foreign private pension



savings. Iceland's goods and services trade is measured by Statistics Iceland.

The weight of the transactions described above varies widely and goes hand-in-hand with the frequency of measurements. As a general rule, the greater the weight in the external position is, the greater the frequency of measurements. The scope of each entity's transactions is also taken into account. If an entity conducts large-scale business, it is necessary to receive data more frequently. Smaller entities send data less frequently; for instance, once a year. But this is a guideline rather than a strict rule, and the frequency

2. Croatia joined the eurozone on 1 January 2023.

of submittal also depends, among other things, on access to the data and the nature of the transactions concerned. Most of the data the Bank uses are quarterly, while some are monthly or yearly. Parties that carry little weight in the external position are spared the frequent data submittal requirement. In this way, the Bank attempts to moderate the strain on reporting parties.

In its approach, the Central Bank mainly uses the census method for its measurements. This is highly suitable for small economies like Iceland, where it is easy to reach the entire population. In many larger countries, measurements are taken by sampling, which includes a share of those who conduct foreign transactions. Estimations are then made to gross-up the whole external position. There are advantages and disadvantages to both methods. Broadly speaking, the census method is more appropriate for small economies, while sampling is better suited to larger ones. If the sampling method is used, a number of factors can affect the accuracy of the measurements, including sampling errors; i.e., when the sample does not reflect the characteristics of the population. It can also be difficult to estimate the impact of the sampling results if the total population is not a known variable. Nevertheless, this method can give a more accurate view of the balance of payments as regards the relationship between the current account and the financial account. On the other hand, it can be very difficult to find the “right” sample when the population is small and a limited number of entities are proportionally much larger than all of the others combined, as is the case in Iceland.

How do we know which entities conduct business with foreign parties and therefore belong in the population? The Central Bank has a range of information on which it can rely, including the national registry, the Business Register firms’ annual accounts, and data on foreign exchange transactions. Other sources include news coverage of foreign business, including foreign borrowing and direct investment.

It can vary from one period to another which entities fall within the population, particularly when the economy is buoyant and firms seek out foreign markets or foreign investments more actively. In a few instances, there can be a lag between the time the entity commences foreign transactions and the time the Bank receives information on them. In some cases, there are few entities that conduct a given type of business, thereby ensuring fairly reliably that coverage is complete; i.e., that the Bank has included all of the parties concerned. Examples include parties that act as intermediaries for foreign private pension savings, those that conduct derivatives trading, and those that send

funding for development work. By the same token, because there are relatively few entities in the Icelandic financial market, it is reasonably easy to obtain information about their transactions with foreign parties via regular reporting.

Even so, it cannot be said that the information always gives a complete and accurate view of Iceland’s external position. This applies in particular to the balance of payments, but in that case the errors and omissions item can give an indication of the quality and consistency of the information available to the Bank. In order to understand this item, an explanation of the fundamental principle underlying the balance of payments is necessary. For each transaction, two entries are made, the amounts of which should be equal.³ For example, importation of goods is entered in the current account, but payment for the goods is recorded in the financial account. According to IMF methodology, the results of the financial account less the sum of the current account and the capital account should be zero.

In most instances, it is impossible to pair the two transactions, as the relevant data come from different parties and vary greatly in nature. For example, information on goods imports comes from the customs system at Iceland Revenue and Customs, to which Statistics Iceland has access for the compilation of data on goods trade, yet information on payments for the goods can be found in the importers’ bank statements. In both instances, the Central Bank has access only to summarised data and is therefore unable to pair the transactions. The Central Bank has information only from domestic entities. This makes it even more complicated to pair the transactions if the importer in question pays for the imports with a transfer from a bank account held with a foreign bank. The situation grows more complicated still if the seller grants the importer a grace period and the importer pays for the goods a few months later. In such cases, the importation may be entered by Statistics Iceland in Q1, while payment may be entered in Q2. This would create a positive error in Q1 and a negative one in Q2. In general, such mismatches should net out over time – say, over the space of a full year. On the other hand, fluctuations in currency exchange rates could easily lead to errors when the two transactions occur with a time lag between them. Invoices for cross-border trade are frequently issued in foreign currency. For example, if a product costing a million euros is imported in Q1, when the EURISK exchange rate is 150, the relevant entry will be in the amount of 150 m.kr. But if the króna has appreciated by 10 kr. against the euro by the

3. If a transaction falls under the current account, an offsetting entry is made to the financial account. In the case of financial transactions, two entries are made to the financial account.

time payment is made, the latter transaction will be in the amount of 140 m.kr.

Because each item is measured independently, with information from different parties, as is described above, there is always uncertainty about whether the figures will match. The aforementioned example of importation and the subsequent payment can be regarded as one of the simpler transactions entered to the balance of payments. Foreign trade both became simpler and contracted markedly following the collapse of the commercial banks in 2008. Since 2018, when the last of the capital controls were lifted, domestic companies have engaged in more diverse types of cross-border trade. For example, a number of companies have listed their stock on two equity markets, so that trading can take place both in Iceland and on foreign exchanges. The Central Bank does not have the same access to information on trades taking place outside Iceland as it does in the case of domestic trades. Most companies with dual stock market listings are highly valuable in Icelandic context, and foreign investors own sizeable holdings in them. Custodians of the shares could be in Iceland or abroad. With the liberalisation of the capital controls, there is nothing to prevent domestic entities from using foreign custodians, and this practice has grown somewhat more common. As a result, foreign investors' holdings in these securities could be overestimated, as the Bank has no information from foreign custodians.

The foreign direct investment (FDI) environment has also changed radically in recent years. It is more common than before that FDI (either outward or inward) is set up with a complex corporate structure and orchestrated so that the investment goes from the investor's home country to one or more other countries before the chain of ownership reaches Iceland. This practice is used increasingly in large and small investments alike. Far more detailed information is needed on such transactions, and sometimes Bank employees must devote considerable time to mapping out

the transactions involved so that they are measured correctly in Iceland's external position. If the Bank does not have all of the necessary information, measurement errors can occur. Whether the errors come to light later on is uncertain. On the other hand, it is clear that the Bank has no other option than to base its work on the information that it gathers and receives at any given time. In spite of thorough searches for errors or inconsistencies, it can easily transpire that the information provided to the Bank is incorrect. This can happen with FDI and other data as well.

The Central Bank works continuously on improvements and responds to changes in circumstances that must be accounted for in measuring the external position. The information that it collects on the basis of the Central Bank Act is satisfactory. But there is always room for improvement. For instance, the Bank no longer receives data from operating entities' tax returns – data that previously provided reliable information on resident entities' cross-border transactions. Opportunities lie in increased cooperation with Statistics Iceland, which could guarantee that the Bank receives better information on importers and exporters of goods and services. This, in turn, would make it easier for the Bank to pair transactions in the current account and financial account, as is discussed above. It is worth noting that some of the errors in the balance of payments accounting from 2018 are due to the treatment of intellectual property in the services account. In February 2023, Statistics Iceland decided to remove cross-border transactions due to intellectual property use – both imports and exports – from services account data retroactive to 2018, thus reducing the surplus on services trade. As a result, there is a break in both series before and after year-end 2017. Transactions conducted by the companies in question were removed from the services account balance but are still part of the financial account balance, thereby creating an error in the statistics.

Balance of payments scenario 2023-2024

IV

The Central Bank's balance of payments model was developed as a tool for extrapolating Iceland's balance of payments and external position, estimating foreign currency flows, and forecasting developments in the current account and financial account. The model requires assumptions about developments in important macroeconomic variables such as the trade balance and the exchange rate of the króna, which are obtained using the Bank's macroeconomic model (QMM), as well as a number of additional assumptions such as capital flows, returns, and interest rates on Iceland's assets and liabilities. This chapter examines the assumptions underlying the balance of payments scenario prepared by the Bank and explains the results.

Balance of payments scenario – assumptions

Economic outlook

The balance of payments scenario is based on the Bank's macroeconomic forecast, published in *Monetary Bulletin* 2023/3. According to that forecast, average GDP growth among Iceland's main trading partners is projected to shrink from 3.2% in 2022 to 1.1% in 2023. Although this is well below the average of recent decades, it is a stronger growth rate than was previously expected. Trading partner inflation is expected to keep declining in the coming term but not reach 2% until H1/2025. It is assumed that central bank interest rates in main trading partner countries have peaked or will do so in the near future. On the other hand, it is expected that interest rates will be kept higher in coming years than previously thought.

The forecast assumes that domestic economic activity will slow markedly, with demand growth falling from 6.6% in 2022 to 1.9% in 2023 before rising again to 2.5% in 2024. GDP growth is expected to subside to 3.5% in 2023 and 2.6% in 2024. Tourist arrivals in Iceland are estimated at 2.2 million in 2023 as a whole, as this summer saw the second-highest tourist numbers on record. Exports are projected to grow by nearly 5% this year, while import growth is expected to slow significantly in response to reduced investment activity, as investment has the highest import share of GDP components. The trade deficit is never the less expected to widen slightly, driven by a 4% deterioration in terms of trade, which in turn is due largely to lower aluminium prices. The terms of trade

Table IV-1 Balance of payments scenario – key assumptions

	2021	2022	2023	2024
Foreign short-term interest rates %	-0.2	1.3	4.5	3.7
Central Bank key interest rate ¹ (%)	1.1	4.2	7.8	
Spread on Treasury foreign issues (%)	0.7	1.1	1.2	1.0
Spread on commercial banks' foreign funding (%)	1.0	3.2	3.2	2.7
Exchange rate of the króna ² (% change; an increase represents a depreciation of the króna)	-2.4	-3.0	2.1	-0.4
GDP growth ² (%)	4.5	7.2	3.5	2.6
Trading partner GDP growth ³ (%)	6.1	3.2	1.1	1.1
Terms of trade for goods and services ³ (% change)	3.9	2.4	-4.1	0.1
Trade balance ³ (% of GDP)	-2.0	-0.4	-1.1	-0.9

1. The key rate for 2023 is the average over the first nine months of the year.

2. Trade-weighted exchange rate index (narrow trade basket). Forecast from *Monetary Bulletin* 2023/3 for 2023 and 2024.

3. Forecast from *Monetary Bulletin* 2023/3 for 2023 and 2024.

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

are expected to remain unchanged in 2024, however.¹ The trade deficit will therefore widen from 0.4% of GDP in 2022 to 1.1% in 2023 and then narrow to 0.9% in 2024. The forecast assumes that the exchange rate of the króna will remain unchanged from the current level, thereby appreciating by an average of 2% in 2023, and hold steady in 2024. Risk premia on residents' foreign financial obligations have declined after rising steeply in 2022. Concerns about global financial markets have subsided since last March and financial conditions have improved and residents have taken advantage of this to refinance foreign-denominated bonds. Funding terms have deteriorated, however, in line with the rise in central bank interest rates and government bond yields worldwide. It is assumed that the funding terms offered to the Treasury and to Iceland's investment-grade banks will improve slightly more, but spreads on the banks' issuances are expected to remain above the spread on the Treasury. Comparable investment-grade banks abroad have also seen their credit spreads rise, owing to the uncertainty that steeply rising interest rates cause in global financial markets, at a time when private and public sector debt is historically high in much of the world, unlike the situation in Iceland.

1. On average, a 1% deterioration in terms of trade results in a permanent deterioration of the trade balance by 0.4% of GDP.

Uncertainty about prospects for foreign currency flows and Iceland's external position relates in large part to economic developments. The recent sharp rise in domestic interest rates could dampen activity more rapidly than is currently expected, and move the current account into a surplus sooner than the forecasts provides for. Global financial conditions could also deteriorate again and spread on foreign market funding could rise, which would widen the current account deficit in the short term. Probability of large-scale capital outflows are low, however, as the stock of non-residents' króna-denominated liquid assets is very small in historical terms. Developments in terms of trade are always highly uncertain. Weaker economic activity in China could adversely affect commodity prices and the GDP growth outlook for trading partner countries. By the same token, commodity prices could rise more than expected if supply chain bottlenecks develop – for instance, due to the escalation of war or to severe climate events (such as El Niño), but changes in economic prospects for the world's largest countries and more rapid deceleration of inflation than is currently expected could also have an impact.

Box 3

External sector vulnerabilities

For a small open economy with an independent floating currency, it is important to build up strong resilience against fluctuations in the balance of payments. This became patently obvious when the COVID-19 pandemic changed external conditions abruptly and without notice, bringing about a major adjustment in the economy. Iceland was well positioned when the pandemic struck. Its international reserves were large and its public and private sector debt relatively low, in both historical and international context. This made it much easier for policymakers to mitigate the impact of the pandemic on the economy.

A relatively wide range of factors can affect the external position and balance of payments in a small open economy with an independent currency, potentially giving rise to changes in foreign investors' risk appetite and risk

assessment. A number of indicators have proven useful in identifying underlying vulnerabilities that could potentially trigger an external crisis. Among them are substantial current liabilities, a persistent current account deficit, and a high foreign-denominated debt-to-GDP ratio. These can reflect unsustainable consumption growth, asset price bubbles, or dwindling competitiveness.

Studies of external sector risks show that two variables are especially strong predictors of potential crisis: limited international reserves (Chapter III) and a significant deviation of the real exchange rate from its equilibrium. Rapid credit growth and a swiftly deteriorating current account balance are also considered reliable predictors.¹

1. For further information, see International Monetary Fund (2010), "The IMF-FSB Early Warning Exercise".

Table 1 shows several indicators of imbalances in Iceland's external and macroeconomic position in 2022, together with benchmark values defined by Eurostat.²

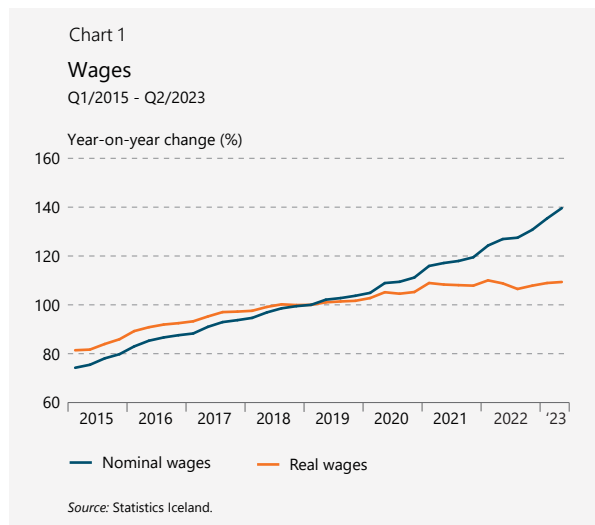
Table 1 Indicators of external imbalances and competitiveness 2022¹

	Current account balance	Net international investm. position	Real effective exchange rate	Export market shares	Nominal unit labour cost
Unit	3 year average % of GDP	% of GDP	3 year % change	5 year % change	3 year % change
Threshold	-4/6	-35	± 11	-6	12
Value for Iceland	-1.4	24.8	-0.6	-26.3	17.3

1. Data for export market shares are for 2021.

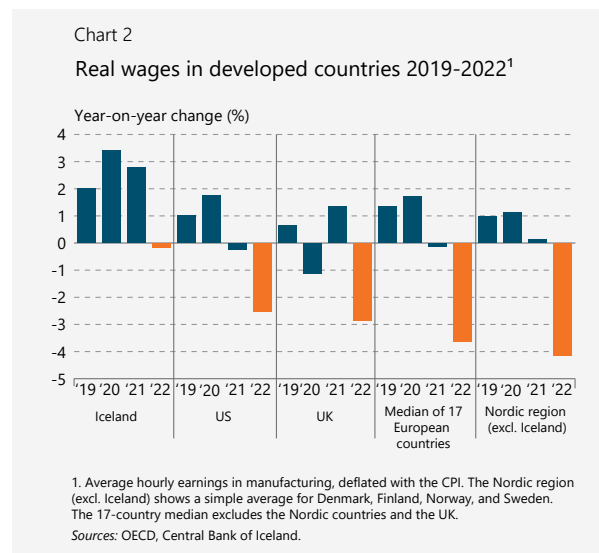
Sources: International Monetary Fund, Statistics Iceland, Central Bank of Iceland.

The table includes a range of economic indicators that are intended to show whether currency flows have changed significantly or macroeconomic imbalances have accumulated. Iceland's current account balance and net international investment position are well within defined reference limits, and the real exchange rate is broadly unchanged. Export market share declined significantly dur-



2. A harmonised measure designed by Eurostat to identify severe macroeconomic imbalances. For further information, see: [Macroeconomic Imbalance Procedure \(MIP\)](#).

ing the pandemic and its impact still weighted heavily in 2021 when the share measured 26.7% lower than 5 years earlier. On the other hand, the rise in unit labour costs is far in excess of the Eurostat benchmark, as wages in Iceland have surged in recent years, concurrent with higher inflation, and without any discernible increase in labour productivity. Labour unit costs increased by 7.6% year-on-year in 2022 and had risen 17.3% since 2019, which has played a part in turning the current account surplus to a deficit. In spite of hefty nominal pay increases, real wages did not rise at all between 2021 and 2022, as the price level rose in line with wages (Chart 1). From 2019 through 2021, real wages had risen considerably more than in other advanced economies, and in 2022 they fell much more in other advanced economies than they did in Iceland, as is shown clearly in Chart 2.

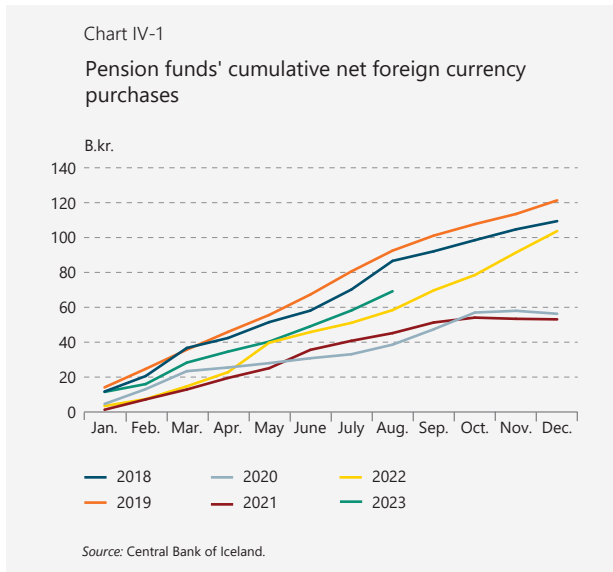


Near-term developments in wage costs are highly uncertain, as the wage agreements currently in effect will expire in early 2024. After the steep wage increases of recent years, pay hikes in excess of productivity growth are likely to be reflected in inflation, as well as adversely affecting firms' competitive position and adding to the current account deficit – which in all probability will lead to a depreciation of the króna.

Estimating capital flows

Preparing a realistic estimate of developments in the balance of payments requires estimates of capital flows for investment by residents and non-residents. In recent years, capital flows to and from Iceland have been due largely to the pension funds' foreign invest-

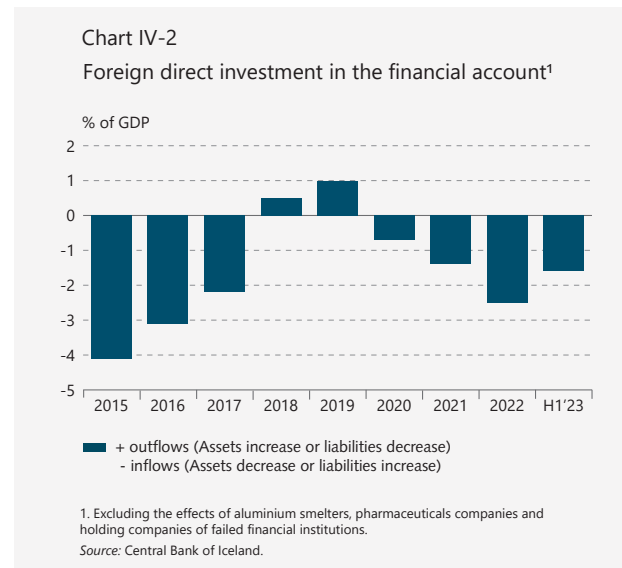
ments. The funds' outflows have fluctuated between 60 b.kr. and 120 b.kr. per year, depending on external conditions (Chart IV-1). Before the pandemic, the pension funds bought currency for the equivalent of 8-9% of export revenues each year, but while the pandemic was ongoing they scaled down their purchases to



4% of export revenues in 2021. Thereafter, the funds gradually added to their foreign investments, as most of them intend to increase their foreign asset ratios in coming years. After turbulence in asset markets and rapid central bank interest rate hikes, the pension funds' total assets fell by 1,3% to 186% of GDP by end-2022. The outlook for this year is for solid returns in global financial markets. Interest rates are high, and the S&P500 share price index, for example, has risen by nearly 20% in 2023 to date. Recent amendments to legislation on the pension funds authorise them to scale up their foreign assets in stages, from the current 50% of total assets to a maximum of 65% by 2036 (Box 1). At the end of 2022, the pension funds' foreign asset ratio was 36%, and most of them were well within permissible limits, even at the current level. Iceland has a young population and is still far from tapping into the savings in the pension system. Net inflows to the pension funds are therefore strong, at an estimated 100 b.kr. (2½% of GDP) per year, not including the substantial returns on the funds' investments. The pension funds' foreign currency transactions year-to-date suggest that their outflows are broadly on a par with net inflows into the funds. The balance of payments scenario assumes that outflows will be roughly 100 b.kr. in 2023, or 5½% of export revenues, and remain unchanged in 2024; however, factors such as the current account surplus, the exchange rate, and foreign market conditions could have an impact on the fund's foreign currency transactions.

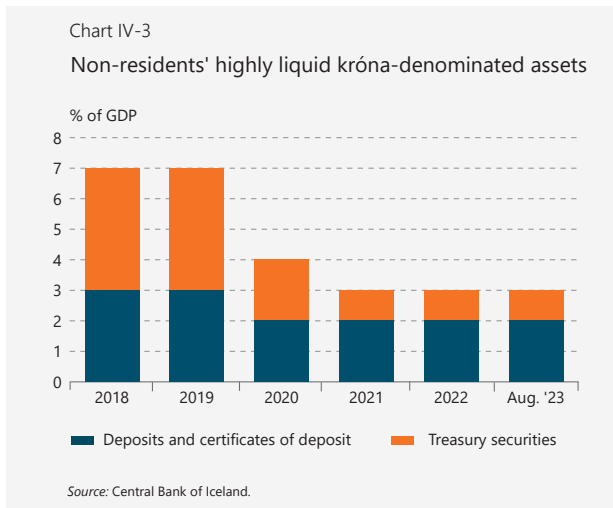
Outflows for the pension funds' investments are offset by investment inflows by non-residents. In the first eight months of 2023, non-residents' inflows for new investment totalled just over 4% of GDP. Most of

these inflows are classified as inward FDI. Therefore, it is estimated that non-residents investment in domestic businesses will be larger than residents abroad creating net FDI inflow, similarly to the past three years (Chart IV-2 and Chapter II). The balance of payments scenario is also based on assumptions about developments in inward and outward FDI, both of which are presumed to move broadly in line with investment and GDP growth in Iceland and abroad.

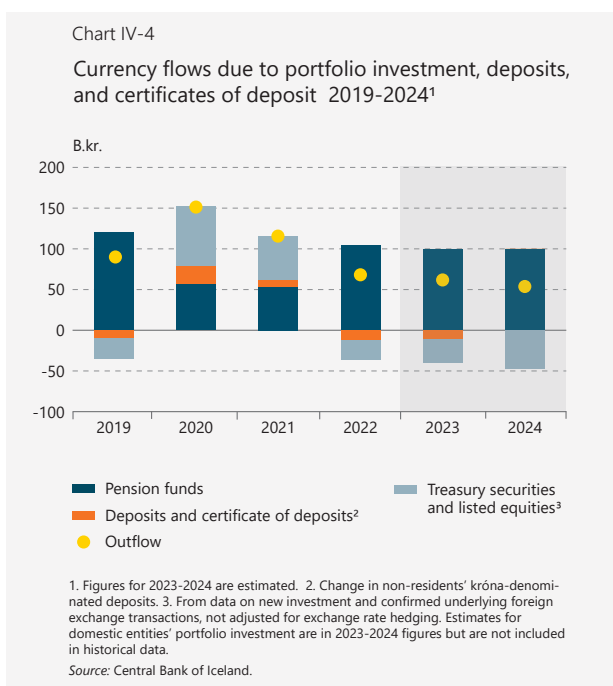


Non-residents' investments in Iceland have centred mainly on equities, primarily shares in unlisted companies. If index provider MSCI promotes Iceland from the frontier markets category to the secondary emerging markets category, as FTSE did in 2022, inflows could turn out larger than is assumed in the baseline scenario, as more capital flows follow MSCI indices than the FTSE. MSCI has previously trailed FTSE in promoting Iceland to a higher category, most recently when it put Iceland into the frontier market category two years after FTSE did so.

An important premise underlying the balance of payments scenario is to estimate potential developments in highly liquid króna-denominated assets, taking account of the fact that they represent volatile capital (Chart IV-3). When Iceland was preparing for the liberalisation of the capital controls, highly liquid króna assets and non-resident investors' deposits were estimated at more than 12% of GDP as of year-end 2016. The removal of controls on some of these assets was part of the final phase of liberalisation in March 2019. Even though Iceland's interest rate differential with abroad has increased, inflows into highly liquid króna assets have not increased discernibly in 2023 to date. As of this August, the balance of highly liquid króna assets and



deposits was virtually unchanged since the turn of the year, at just over 3% of GDP. Monetary tightening has been implemented in larger steps in Iceland than elsewhere, and it is assumed that the wider interest rate differential with abroad will lead to increased investment-related inflows at some point. Nevertheless, the effects are not expected to show until next year, when the interest rate differential is likely to peak. This is based on the assumption that monetary easing in the US and the eurozone will begin next year; i.e., earlier than in Iceland. In sum, foreign currency flows due to portfolio investment and residents' and non-residents' deposits are estimated to record net outflow of 60 b.kr., or 1.4% of GDP, in 2023 (Chart IV-4). This is a slightly smaller amount than in 2022 and far smaller than in 2020-2021, when outflows totalled 4-5½% of GDP. Estimates of



this kind are always subject to considerable uncertainty, however. Depending on a variety of assumptions about economic development in Iceland and elsewhere, capital flows relating to investments by residents and non-residents could lie in a relatively broad range. The interest rate differential with abroad and conditions in global capital markets are among the factors that could change and thereby affect the outcome.

Assumptions about debt refinancing and reinvestment

The above-described assumptions about capital flows affect the financial account, which includes as well instalments on foreign loans, refinancing, and reinvestment of interest and dividends. It is assumed that residents will reinvest all of their interest income abroad. The energy companies have received increased revenues and strong profits from the rise in energy prices. As a result, they have reduced their foreign debt and paid dividends to the Treasury. The Treasury has also paid down debt during the year, but the assumption here is that it will issue foreign bonds in coming months. Rising global interest rates. Have influenced business financing decisions which have sought out financing from more diverse sources other Icelandic bank loans. The banking system's market funding has not kept pace with GDP growth in the past two years. On the whole, the stock of foreign bonds and loans as a share of GDP has declined from 51% in 2022 to the current 41%, about the same as in 2019. In the balance of payments scenario, it is assumed that the commercial banks and the Treasury will refinance all of their foreign debt and that other parties will do likewise.

Developments in the international reserves in the balance of payments model

Because the exchange rate path in the balance of payments scenario is an external variable obtained from the Bank's macroeconomic model, it must be assumed that the international reserves will change if capital inflows and outflows are not equal to one another. As a result, the balance of payments model assumes that the current account surplus over and above estimated debt service, after adjusting for refinancing and other capital flows, will show as an increase in the international reserves:²

$$\text{Current account balance} = \text{Financial account balance}$$

$$\text{excl. reserve activity} + \Delta \text{reserves}$$

2. The capital account is close to 0 and stable. For simplification, it is omitted.

By the same token, the reserves shrink if capital outflows exceed the current account surplus. This is naturally a simplified view of the economy's adjustment to capital flows. In all likelihood, the adjustment would involve interactions between exchange rate movements and reserve activity.

Results of the balance of payments model

Balance of payments scenario for 2023-2024

The charts below show developments in Iceland's NIIP, reserve ratio, financial account excluding reserve activity, and current account balance in recent years, together with a forecast for 2023 and 2024 (Chart IV-5). The results of the balance of payments scenario show that a small current account deficit is assumed for this year. The deficit is expected to narrow by 2 percentage points of GDP relative to 2022, reflecting a turnaround in the primary income balance, which is estimated to improve from a deficit of 1.6% of GDP in 2022 to a

surplus of nearly 1% of GDP in 2023.³ The main difference is that foreign-owned companies' profits flip to losses. Iceland's higher interest rates have relatively little impact on the primary income balance, as non-residents do not hold large króna-denominated positions as they did during the financial crisis, and only 17% of Iceland's external liabilities are in domestic currency. Although the current account deficit has narrowed, it is still far from the surplus seen during the pre-pandemic years. This is due mainly to the past few years' surge in domestic demand, which has pushed the ratio of imports to GDP far above its historical average, while terms of trade are broadly unchanged since 2019. It is assumed that the 2023 current account deficit will be financed with capital inflows. The financial account balance excluding reserves therefore turns negative by 4.6% of GDP in 2023, reflecting net inflows of capital. This is due mainly to expected Treasury borrowing and non-residents' investment in Iceland, but by the same token, foreign debt increases as well. The pension funds' asset formation, however, shows as outflows on

Chart IV-5

Estimated developments in the balance of payments 2023-2024¹



1. Estimates for 2023-2024 are obtained using the BOP model.
Source: Central Bank of Iceland.

3. In the scenario, developments in primary income in 2023 and 2024 are revised relative to the forecast published in the August *Monetary Bulletin*, in accordance with revised balance of payments figures published in early September.

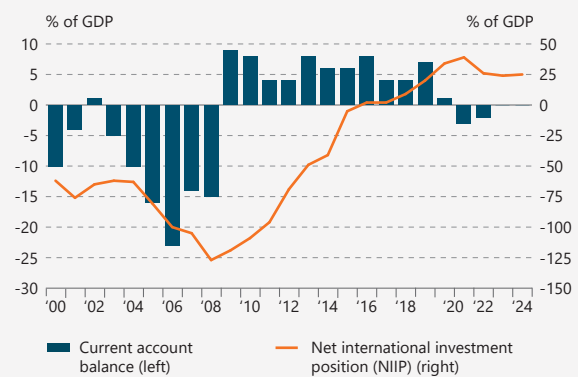
the financial account. The international reserves are strengthened by increased borrowing, but the appreciation of the króna pulls in the opposite direction. The Central Bank's international reserves are estimated to be virtually unchanged year-on-year in 2023, at about 117% of the IMF's reserve adequacy metric (RAM) at the end of the year.⁴ At the end of 2023, the reserves are thus projected to exceed the IMF's 100% reserve adequacy level by just over 120 b.kr., or 3% of GDP, and the reserves as a whole will be equivalent to 20% of GDP. The reserves are expected to shrink marginally in 2024, owing to the current account deficit and Treasury debt service, with a slight depreciation of the króna offsetting the decline. They are projected to equal about 108% of the RAM at the end of 2024.

Iceland's net international investment position at the end of 2023 is estimated at 24% of GDP, the same as at year-end 2022. Although liabilities increase somewhat during the year as a result of capital inflows, external assets increase due to favourable asset price developments in foreign financial markets. The position will improve slightly in 2024, to 25% of GDP at the end of the year, owing mainly to a decline in external liabilities. Liabilities are expected to increase in H2/2023, primarily because of non-residents' investments in domestic companies (Chapter II), but then fall to 100% of GDP by year-end 2024. As before, the outlook for the NIIP is subject to uncertainty. It depends on factors such as developments in the current account balance and capital flows, particularly the interaction with the exchange rate of the króna.

The domestic economy was well positioned to face the impact of the pandemic on the current account and financial account. Ample Central Bank reserves, moderate foreign-denominated debt at the beginning of the pandemic, and a positive NIIP made a major difference. Furthermore, the stock of highly liquid króna-denominated assets and deposits was relatively small at the beginning of the pandemic, at around 200 b.kr., or 25% of the international reserves, in part because capital inflows into highly liquid domestic assets have been moderate since the capital controls were liberalised in March 2017. This was due not least to the Central Bank's capital flow management tool, which was applied between June 2016 and March 2019 and had a dampening impact on foreign

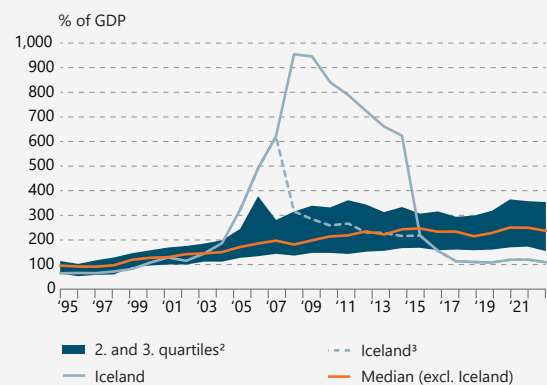
inflows into highly liquid assets such as Treasury bonds. The results suggest that Iceland's NIIP will continue to be at or close to its most favourable level since World War II, and much better than it was before the financial crisis (Chart IV-6). External liabilities will also be low in historical and international context. At mid-year 2023, they totalled 100% of GDP (Chart IV-7). Strong GDP growth in the past decade and investment in excess of the historical average in the past few years have not led to an increase in foreign debt. When the financial crisis struck in autumn 2008, foreign indebtedness was substantial. External liabilities now stem far more from non-residents' holdings in Icelandic companies than they did before the financial crisis. In general, these holdings are largely in domestic currency and are less

Chart IV-6
Current account balance and net international investment position 2000-2024¹



1. Forecast for 2023-2024 obtained using the BOP model. Underlying current account balance 2008-2015 and underlying NIIP for 2008-2014. Sources: Statistics Iceland, Central Bank of Iceland.

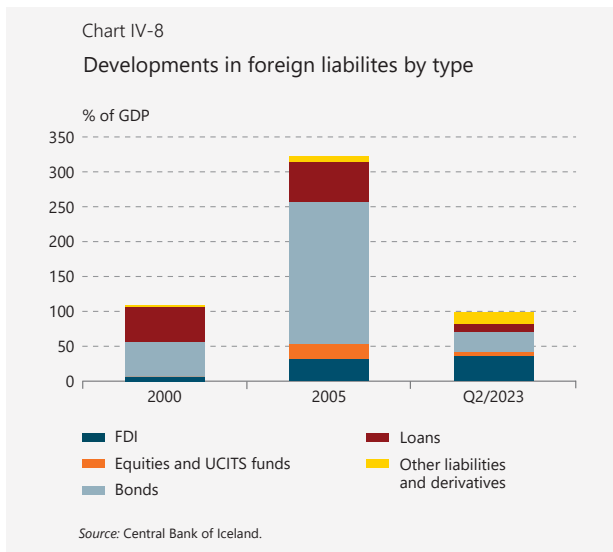
Mynd IV-7
Foreign liabilities in comparison with OECD countries 1995-2022¹



1. Preliminary year-end 2020 figures for OECD countries, based on Q3/2020 data if a later value is not known. 2. If the sample is divided into four quartiles, the blue shaded area shows the second and third quartiles. 3. For Iceland, excluding the debts of the failed financial institutions but adjusted for the estimated impact of their winding-up 2008-2014. Sources: OECD, Central Bank of Iceland.

4. The IMF's reserve adequacy metric (RAM) takes account of the exchange rate regime of the country concerned, as well as a variety of indicators that could affect the balance of payments; i.e., exports, money holdings, foreign liabilities, and short-term liabilities. See also Chapter III in this report and Box II-3 in *Financial Stability* 2017/1.

likely to be influenced by short-term fluctuations (Chart IV-8). Only a small share of external liabilities are short-term financial assets in Icelandic krónur.



Currently available information and the scenario presented here suggest that the outlook for the balance of payments is good and the scope to withstand further external shocks is ample.



BALANCE OF PAYMENTS
EXTERNAL POSITION, AND VULNERABILITIES
2023