1 December 2023

Memorandum

To: Financial Stability Committee
From: Central Bank of Iceland

***Re:* Background to the decision on the countercyclical capital buffer**

The Central Bank of Iceland Financial Stability Committee's (FSN) decision from March 15, 2023 to increase the countercyclical capital buffer (CCyB) from 2.0% to 2.5% will take effect on 16 March 2024. Analyses of cyclical systemic risk indicate that it has increased in recent years and is now near or above its historical average. The main drivers of the increase are the surge in real estate prices since the beginning of the pandemic, persistent inflation, and interest rate hikes, which affect debt service burdens and repayment capacity. Conditions in foreign credit markets improved for the Icelandic banks in Q3, after having been tight for a period of time. The banks took advantage of market conditions and refinanced foreign-denominated bonds, thereby reducing their refinancing risk. Spreads have widened somewhat again in Q4. Their returns have been solid thus far in 2023, and impairment is limited. The banks' capital position remains strong. Increased capital shores up financial system resilience and better enables the system to withstand shocks. Increasing the CCyB creates the scope to lower it again later if circumstances permit.

According to the Act on Financial Undertakings, the CCyB for exposures in Iceland shall generally range between 0% and 2.5%. It may exceed 2.5%, however, if the risk factors underlying the FSN's assessment warrant a higher buffer rate.[1]

Recent economic developments and outlook

The domestic economy remains tight, and GDP growth is driven mainly by tourism. Even so, in Q3, year-on-year GDP growth fell to 1.1%, and private consumption contracted by 1.7% in real terms. Unemployment is close to its historical low, and there are signs that it has now bottomed out. The monetary stance has been tightened, and inflation has eased slightly. Nevertheless, inflation remains high, and the outlook is for a more gradual disinflation process in 2024 than was previously envisioned. Rising interest rates have increased debt service burdens, and persistent inflation has impeded real wage growth. The seismic activity on the Reykjanes peninsula has exacerbated domestic economic uncertainty. The scenarios

[1] cf. Article 85(a), Paragraph 3 and Article 85(b), Paragraph 1 of the Act on Financial Undertakings, no. 161/2002.

currently considered the most likely will probably have limited impact, although some borrowers' situation is both difficult and highly uncertain. Globally, GDP growth looks set to be muted in 2023 and 2024, but the situation is uncertain. Global inflation has fallen considerably in recent months, but underlying inflation has fallen more slowly, and the outlook is for central bank interest rates to remain high.

Private sector debt

At the end of September 2023, household debt had fallen 2.1% year-on-year in real terms but had grown in nominal terms by 5.8%, down from 6.7% nominal growth in June. Excluding the effects of the indexation component of indexed loans, nominal growth measured 2.1%. Just under half of household debt is indexed to the CPI. Net new credit system mortgage lending to households has picked up in recent months. Nevertheless, the total stock of new loans is still somewhat below its long-term average, as new lending was sharply lower from year-end 2022 through spring 2023.

With rising nominal interest rates, debt service on new lending and existing variable-rate loans has increased, particularly on non-indexed loans. This alone weakens demand for credit, but in addition, the Central Bank's rules capping debt service-to-income ratios have grown more stringent with rising interest rates. Household demand for indexed loans – both new loans and refinancing of previously existing debt – has grown markedly in recent months. Because indexed loans generally have a lower debt service burden early in the loan period than comparable non-indexed loans do, they can provide households some shelter from the rising interest burden accompanying interest rate hikes. Indexed loans are growing as a share of the outstanding household mortgage stock, measuring 49% in September, up from 47% in June. This trend can be expected to continue while nominal interest rates remain high.

Household debt totalled 75.5% of GDP and 145.7% of disposable income at the end of September. Both ratios have been on the decline in the recent term, and the COVID-era spike in the debt-to-GDP ratio in the prevailing low interest rate environment has largely reversed.

Growth in domestic corporate debt has lost pace in the past several months.[2] As of September 2023, businesses' domestic debt had fallen in real terms by 0.9% year-on-year, whereas in June it had risen by 1.6%. The banks' net new lending to businesses has eased. Issuance of new indexed corporate loans has increased, particularly loans to real estate companies

[2] Domestic debt owed by non-financial companies comprises debt to domestic financial institutions in the form of loans and bonds. Total debt includes domestic debt plus debt owed to foreign financial institutions and marketable bonds issued abroad by non-financial companies.

and construction firms. At the end of September, total corporate debt equalled 75.5% of GDP, which is low in historical context.

On the whole, private sector debt has been relatively stable in real terms over the past two years. As of September, it equalled 151.6% of GDP, its lowest since 1998. The past few years' changes in the debt ratio have been driven primarily by fluctuations in GDP.

Arrears on loans granted to households and businesses by the systemically important banks are low in historical terms but have been rising slowly in 2023 to date. The facility-level non-performing loan (NPL) ratio on loans to households was 0.85% at the end of September and had increased by 0.15% year-to-date.[3] As of end-October, 1.4% of loans to households were frozen, as compared with 0.9% at the beginning of the year.[4] The corporate NPL ratio was 2.4% at the end of September, and as before, arrears were most pronounced among companies in the accommodation and food services industry, at 5.7%. The share of frozen corporate loans has fallen somewhat in 2023, to 2.8% by the end of October. It is assumed that tighter financial conditions will continue to show in increased arrears, but in this context, it should be noted that arrears can come to the fore with a time lag.

Real estate market

Real house prices have risen in the past three months, after having fallen somewhat over the first seven months of the year. The capital area house price index, which measures real prices in greater Reykjavík, continues to fall year-on-year – by 4.6% at the end of October. The past few months' rise in house prices was somewhat unexpected, as the number of homes advertised for sale has increased rapidly since mid-2022. At the end of November, some 4,700 residential properties were listed for sale, as compared with 2,400 at the turn of the year and a mere 1,000 at the April 2022 trough. In the first ten months of 2023, housing market turnover contracted in real terms by 17% year-on-year in greater Reykjavík, and by marginally more than that elsewhere in the country. The contraction in turnover during this period was broadly similar for condominium housing and detached housing.

House prices remain high relative to fundamentals, indicating a significant imbalance in the market. In greater Reykjavík, prices were 7.4% above their estimated long-term trend at the end of October.

The commercial real estate (CRE) price index, which captures real prices in the capital area, rose by 7.7% year-on-year in Q3, to a full 17% above its estimated long-term trend. The index implies that as yet, interest rate

[3] The facility-level non-performing loan ratio is calculated according to European Banking Authority (EBA) standards. Under this method, a customer's loan is classified as non-performing if it is in arrears by 90 days or more, or if the borrower is deemed unlikely to pay their obligations when due.
[4] Figures on frozen loans are compiled using the cross-default method.

hikes have not had a strong negative impact on the CRE market. In the first nine months of 2023, turnover in registered CRE transactions in greater Reykjavík contracted in real terms by 56% between years, but it had been historically strong over the same period in 2022. The large CRE firms' operating performance has fluctuated widely in recent quarters, owing to changes in investment asset valuations. The companies wrote down their investment asset values in Q3, after a large upward revaluation in Q2. Returns on investment assets measured 5.7% in Q3, slightly higher than in the same quarter of 2022. The calculated risk premium declined by 1.2 percentage points over this period, however, owing to a rise in Treasury bond yields, which puts downward pressure on CRE prices, all else being equal.

The banks

The domestic systemically important banks' (D-SIB) net interest income continued to rise year-on-year in the first nine months of 2023, owing mainly to balance sheet growth and higher returns on liquid assets. Higher interest rates, credit growth, a turnaround in net financial income, and limited impairment have strengthened the banks' operating performance in the recent term. Their return on equity measured 11.8% in the first nine months of 2023, up from 10.4% for the same period a year earlier.

The banks' impairment account currently stands at a historically low 0.73% of their loan portfolio. It is important that the banks be forward-looking in recognising impairment in accordance with current accounting rules. The banks' cross-default NPL ratio rose in the first nine months of the year, on both household and corporate loans.[5] Their facility-level NPL ratio measured 1.6% in Q3, as compared with 1.4% at the turn of the year.[6] Rising interest rates and increased financing costs have an adverse effect on loan quality.

In general, it can be said that signs of increased financial distress among debtors are limited, as the employment level is high and economic activity is brisk. Some segments of the economy are more vulnerable than others, however, particularly those that have been hit by significant cost increases, such as restaurants and other companies in the services sector. Rising input prices, wage costs, and rent have put pressure on many companies' operations, and financing costs are up sharply as well.

The banks' domestic market-based funding is homogeneous and is limited almost entirely to covered bonds. Conditions in foreign credit markets have been challenging for quite a while, but in the third quarter this year they developed favourably, and credit spreads on the banks' foreign bond issues

[5] Under the cross-default method, all of a borrower's loans are considered non-performing if one loan is frozen or in arrears by 90 days or more, or if the borrower is deemed unlikely to pay their obligations when due.
[6] The facility-level non-performing loan ratio is calculated in accordance with EBA standards.

narrowed markedly. The banks used the more favourable conditions to issue foreign-denominated bonds on more favourable terms than before, thereby reducing their refinancing risk. The credit spreads have widened again in the forth quarter. The buyer group for the banks' unsecured bond issues in both Icelandic krónur and foreign currencies needs to be broadened.

The D-SIBs' combined capital ratio was 24.0% at the end of Q3, after rising by 0.3 percentage points since the turn of the year. Taking into account the increase in the CCyB rate to 2.5% in March 2024, the banks' capital ratios are 3.2-4.1% above the overall required ratio after its increase.

Overall assessment of cyclical systemic risk

Financial conditions have grown markedly tighter this year, but a statistical assessment does not indicate that they are unusually tight in historical terms. Interest rates have risen swiftly, and domestic inflation has proven persistent. Private sector credit growth has been limited overall, and the credit-to-GDP ratio remains below its long-term trend. It is expected to keep declining if credit growth remains moderate and the GDP growth outlook positive.

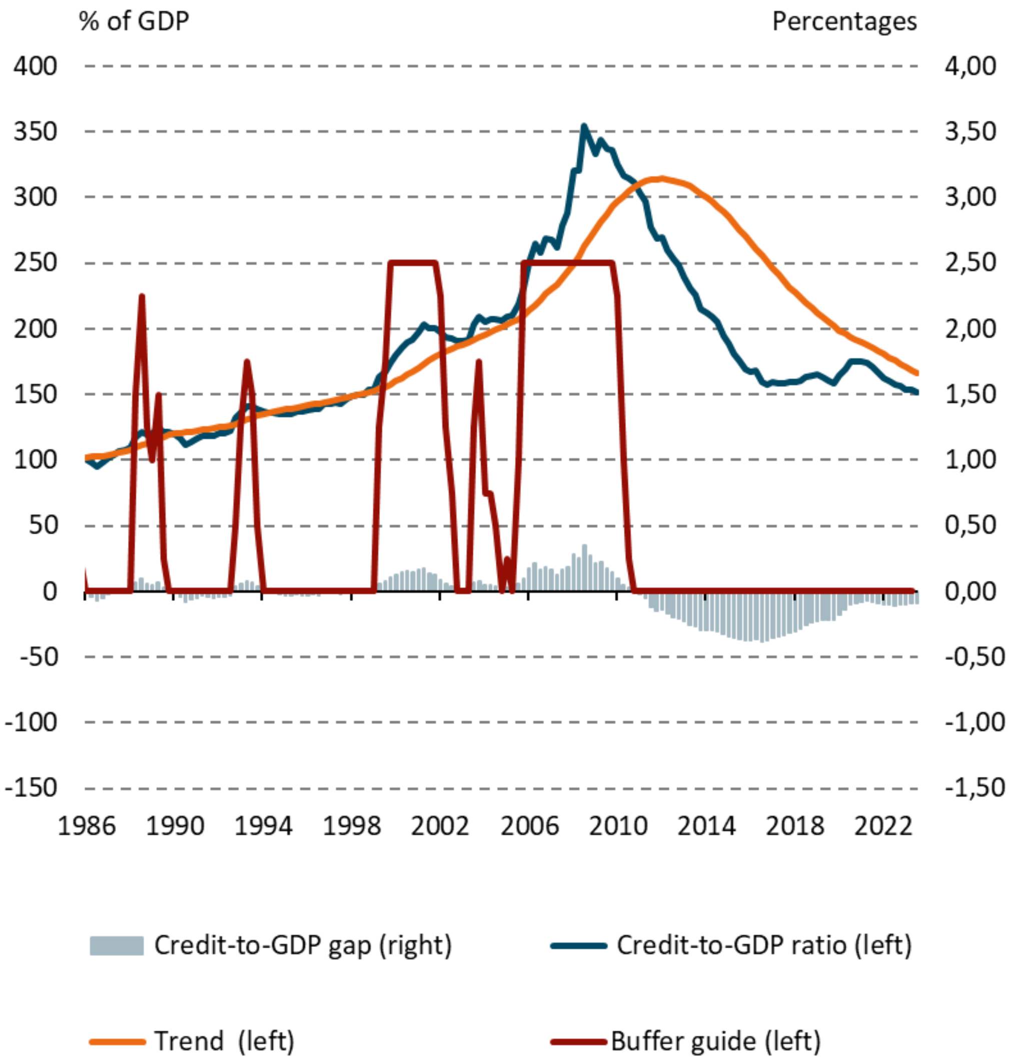
The combined effect of rising interest rates and tighter borrower-based measures has slowed the rise in house prices and somewhat mitigated imbalances in the market. The number of properties for sale has risen, and the average time-to-sale has grown longer. Significant imbalances remain, however, between house prices and fundamentals, and the likelihood of a price correction grows as financing costs increase.

The banks' core operations have been strong, and their access to credit markets improved in recent months. Credit spreads on their foreign-denominated bond issues have fallen somewhat in H2, after a surge in H1.

A composite measure of the financial cycle indicated a continued upward phase in Q3/2023. The upward cycle was driven by all sub-cycles. The housing cycle has lost pace slightly, whereas the funding cycle has picked up a bit. The drop in real house prices in greater Reykjavík over the past twelve months is not yet reflected in the assessment of the medium-term cycle. The domestic systemic risk indicator (d-SRI) declined in Q3, for the seventh quarter in a row. Developments during the quarter were due in particular to falling real share prices and positive developments in the current account. The indicator is just below its historical average. The decline is driven by the fall in the private sector debt-to-GDP ratio and a shrinking current account deficit. The overall assessment suggests that the accumulation of cyclical systemic risk has slowed in H2/2023.

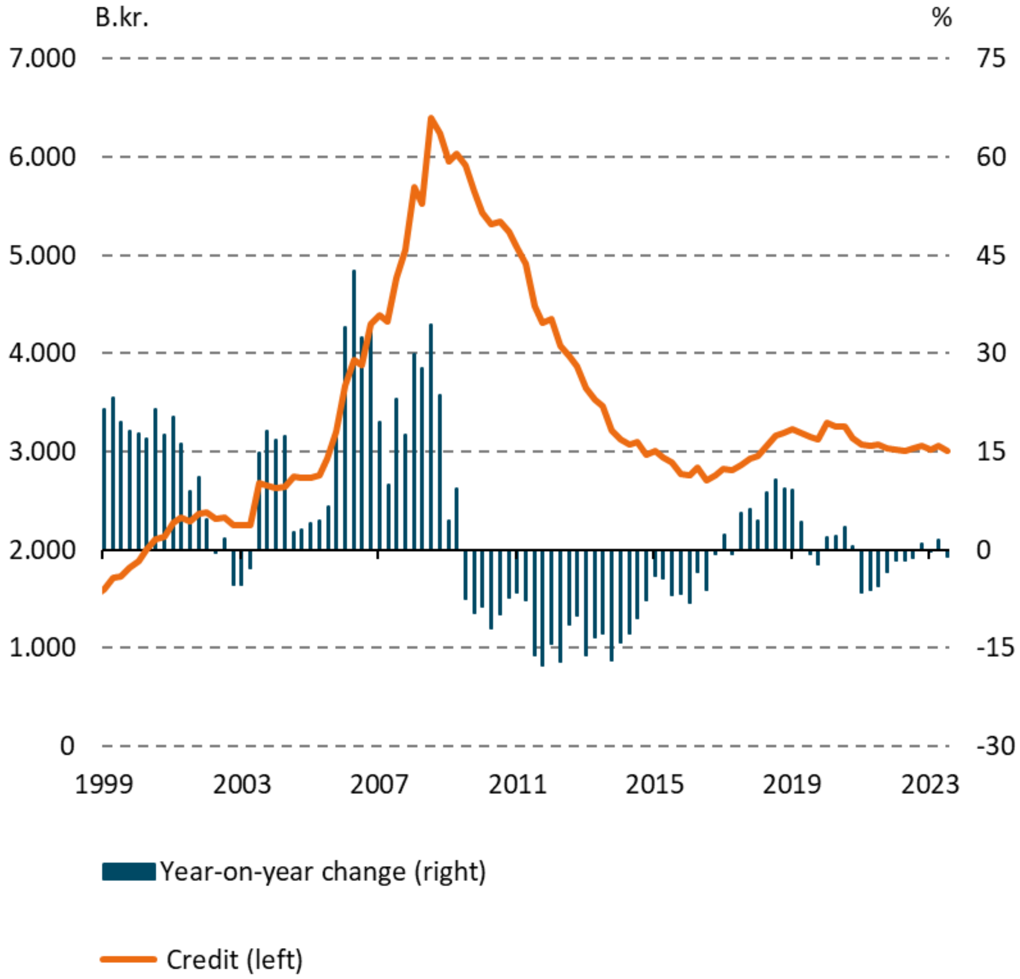
Appendix – Charts

Credit-to-GDP ratio, gap and buffer guide



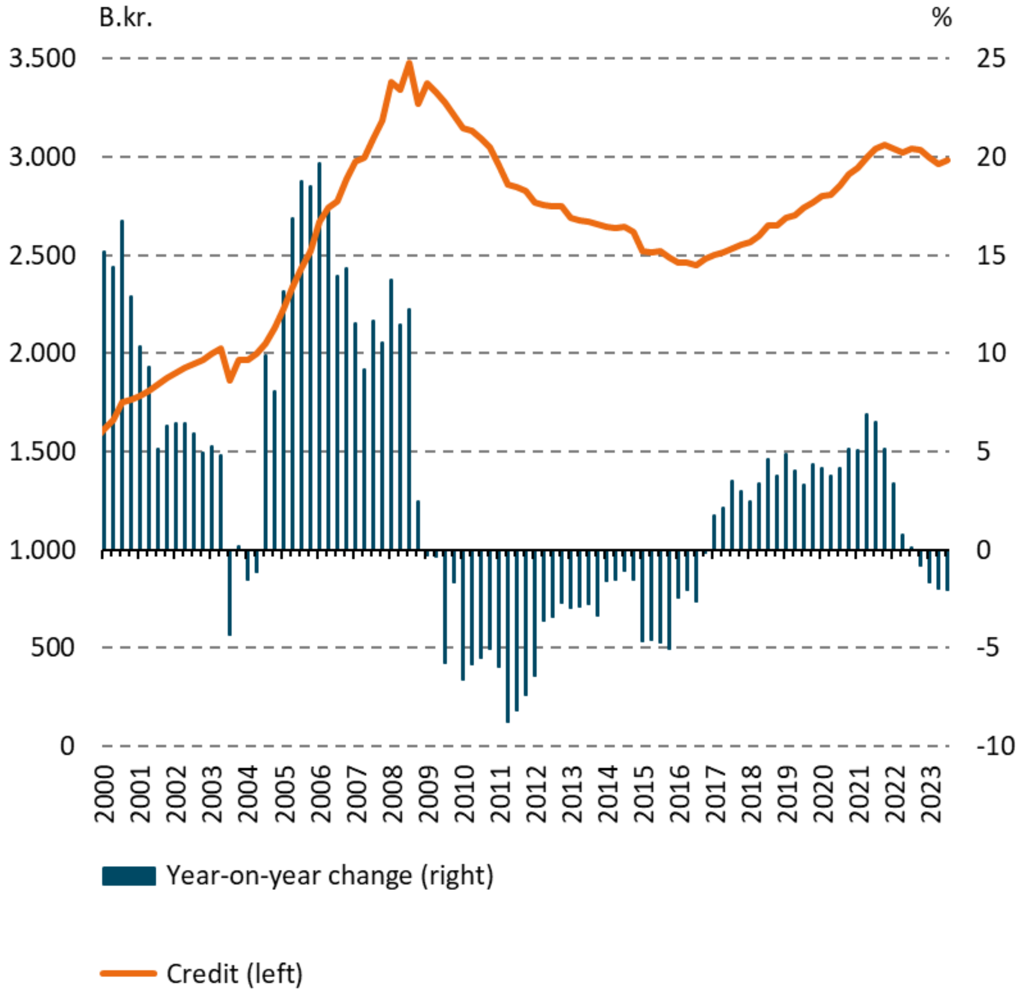
Total credit to households and firms, at claim value, as a percentage of the last four quarters GDP. The trend component is obtained with a one-sided Hodrick-Prescott filter with λ=400.000.
Sources: Statistics Iceland, Central Bank of Iceland.

Real credit to firms



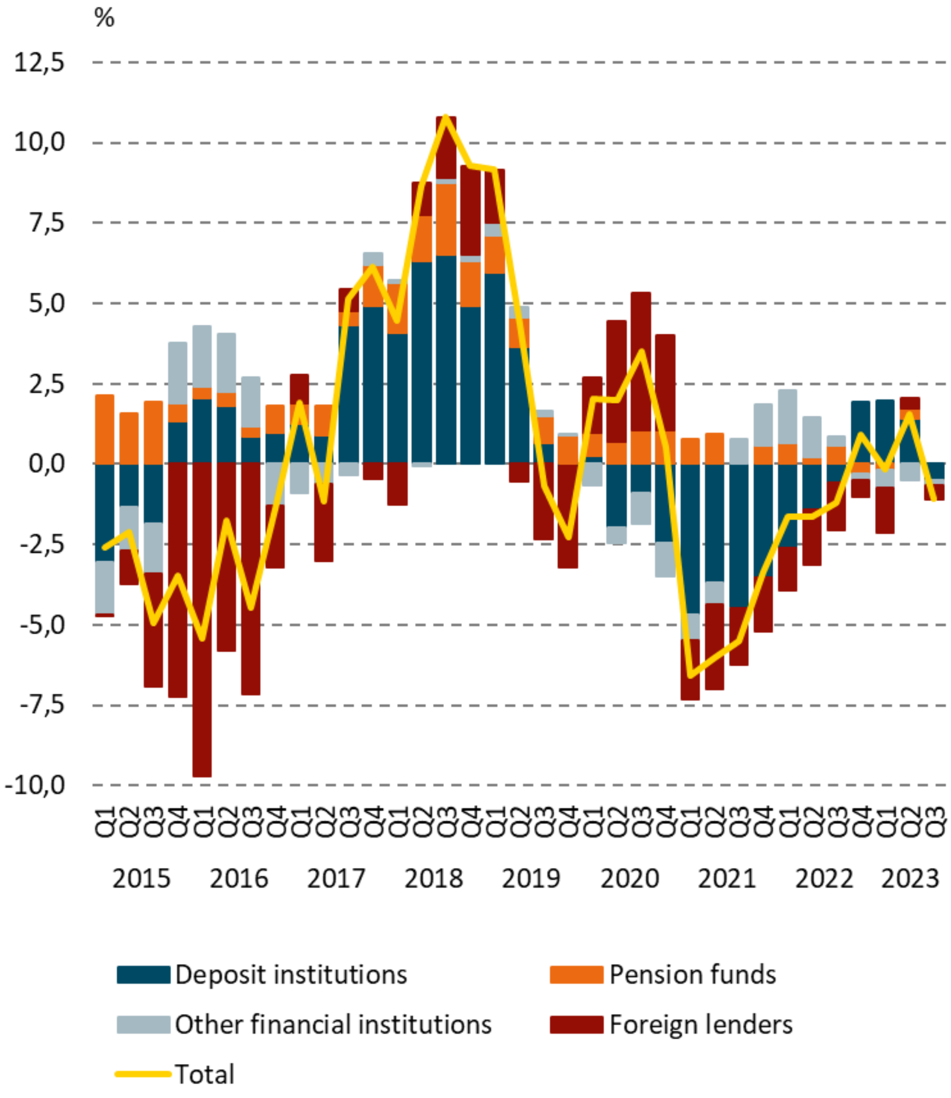
Claim value of credit to non-financial firms, at constant prices. Deflated with the consumer price index.
Sources: Statistics Iceland, Central Bank of Iceland.

Real household credit growth



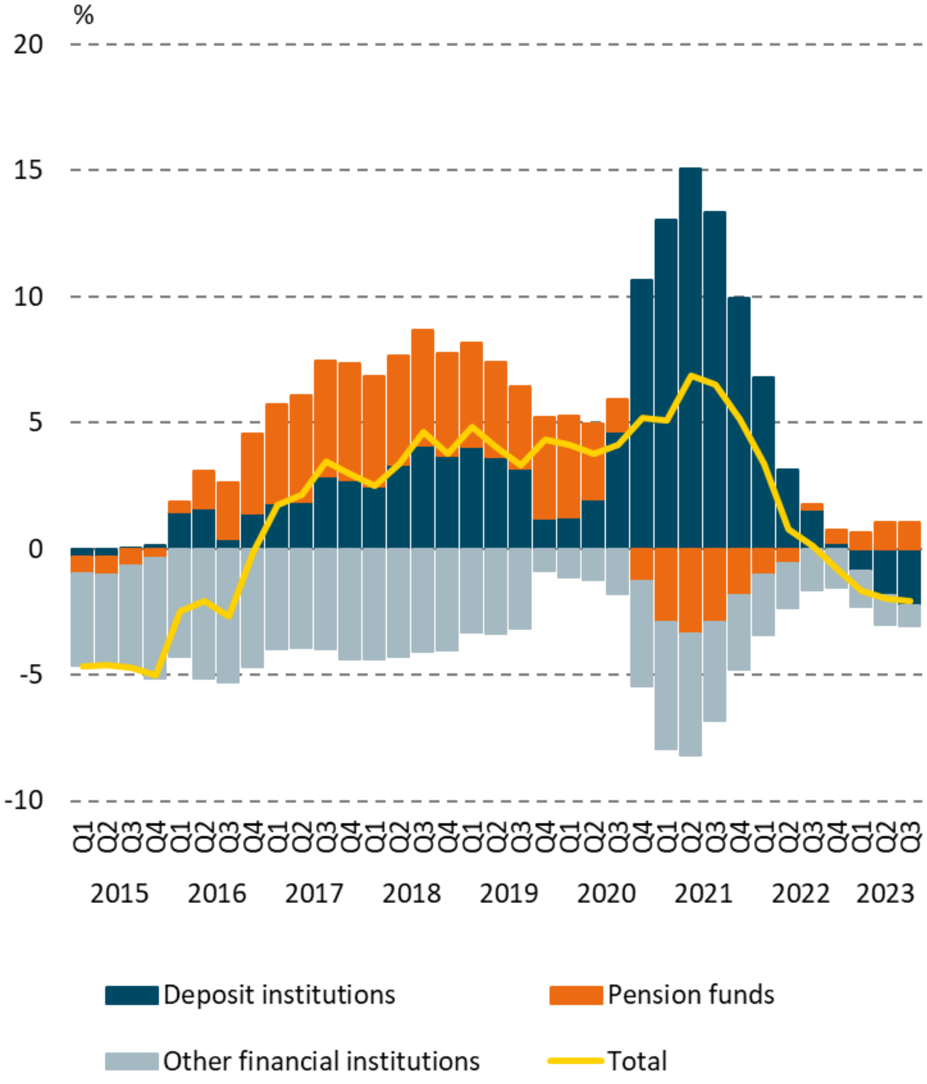
Claim value of total credit to households, at constant prices. Deflated with the consumer price index.
Sources: Statistics Iceland, Central Bank of Iceland.

Corporate debt real growth disaggregated by lender type



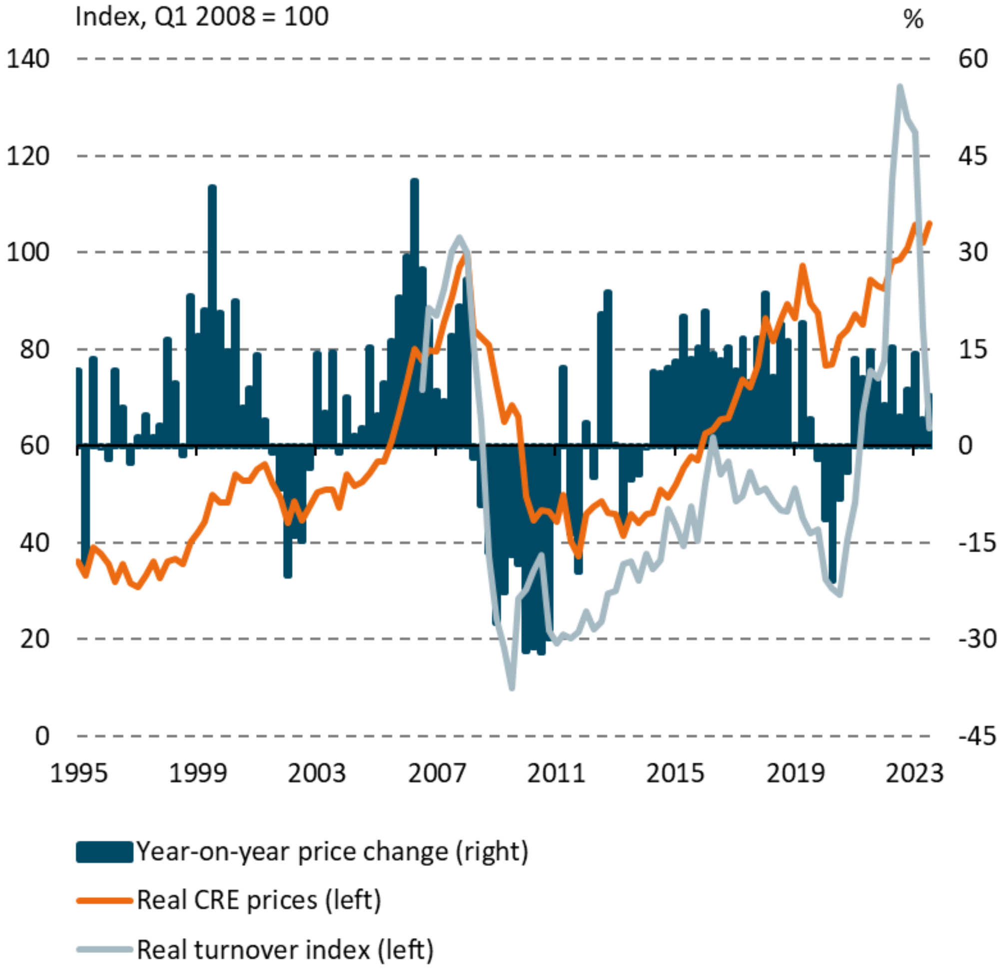
Claim value, deflated with the CPI, year-on-year change in aggregate and contribution of each lender type.
Sources: Statistics Iceland, Central Bank of Iceland.

Household debt disaggregated by lender type



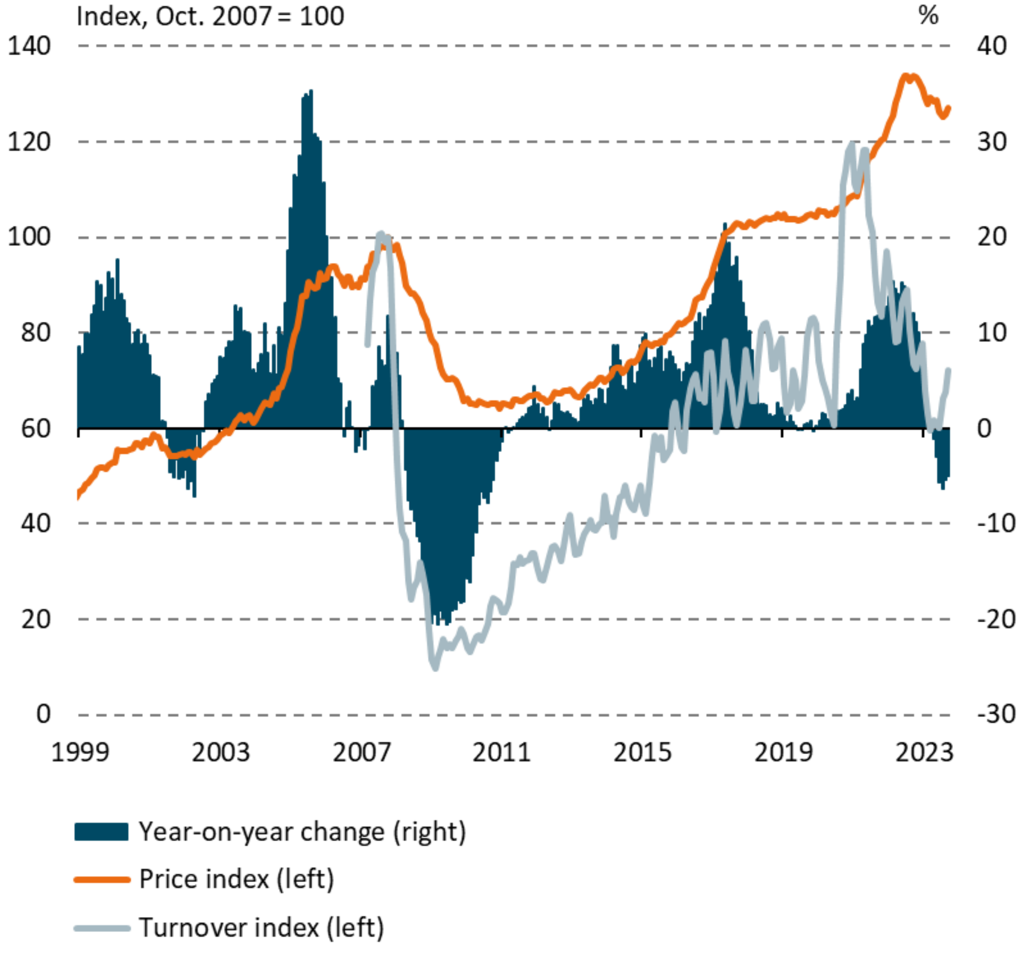
Real year-on-year change. Debt to financial institutions and issued marketable bonds.
Sources: Statistics Iceland, Central Bank of Iceland.

Real commercial property prices and turnover in the capital area



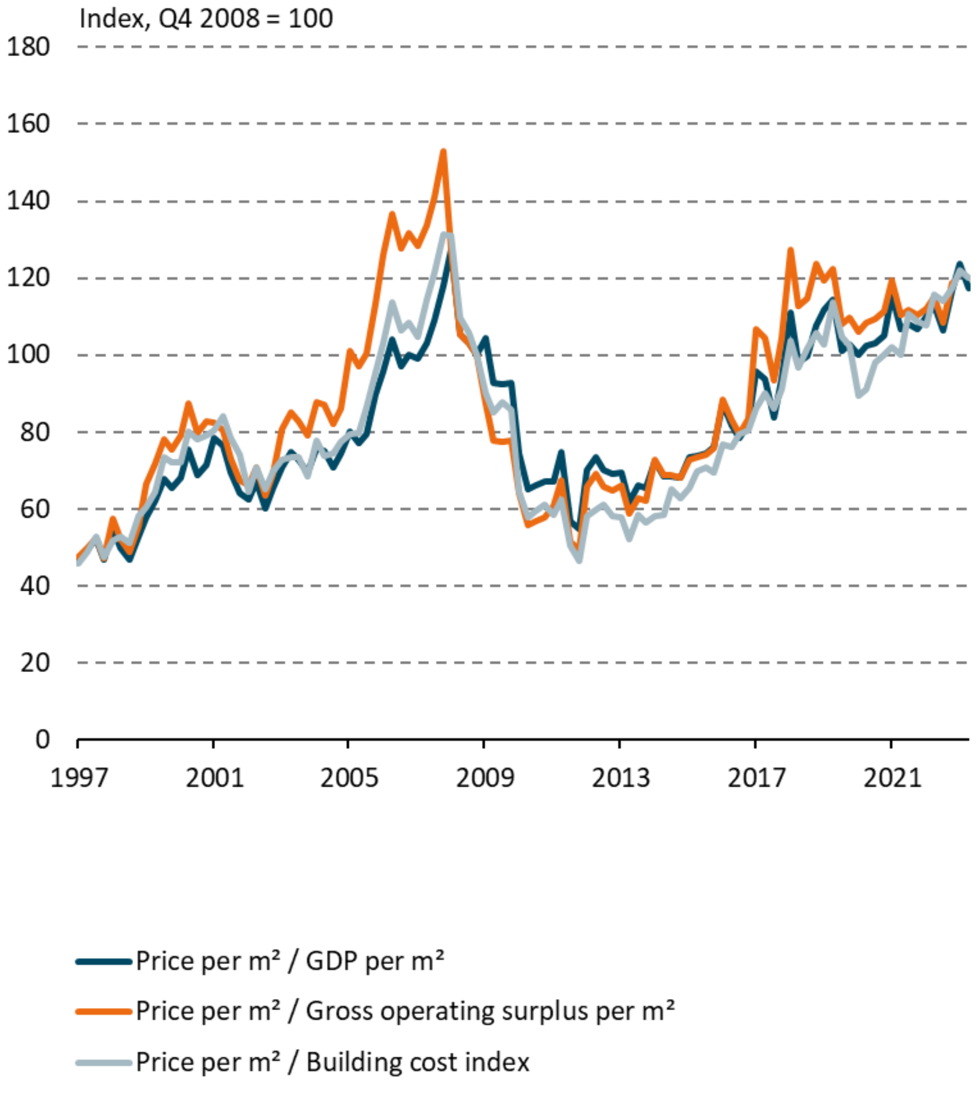
CRE price index, deflated with the CPI. The index shows the weighted average price of industrial, retail, and office space. The turnover index, deflated with the CPI, shows a four-quarter moving average. The most recent observations are preliminary.
Sources: Registers Iceland, Statistics Iceland, Central Bank of Iceland.

Real house prices and turnover in the capital area



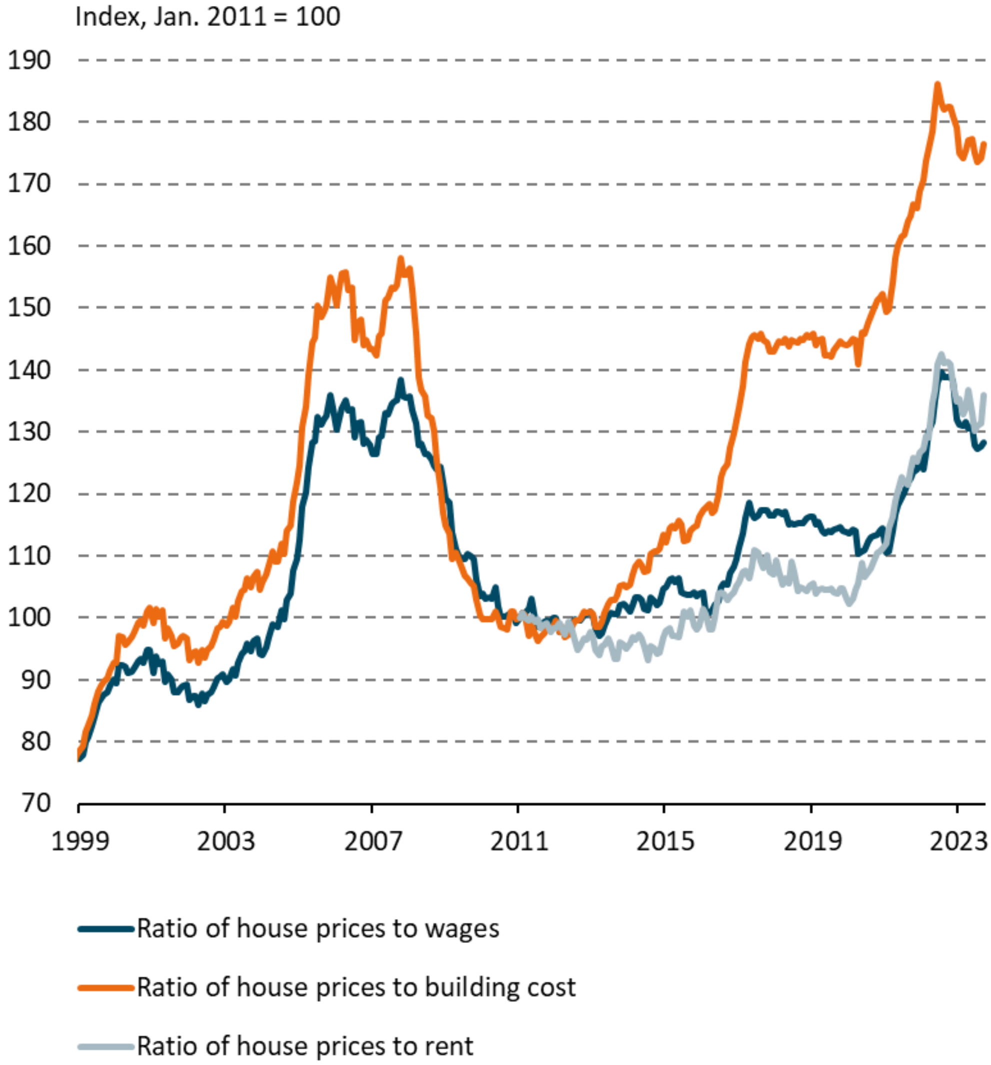
Capital area house price index, deflated with the consumer price index. The turnover index shows three-month average turnover, deflated with the consumer price index. The turnover data are linearly interpolated in 2Q/2015 to correct for a strike at the Reykjavík Commissioner's office.
Sources: Registers Iceland, Statistics Iceland, Central Bank of Iceland.

Commercial property price ratios



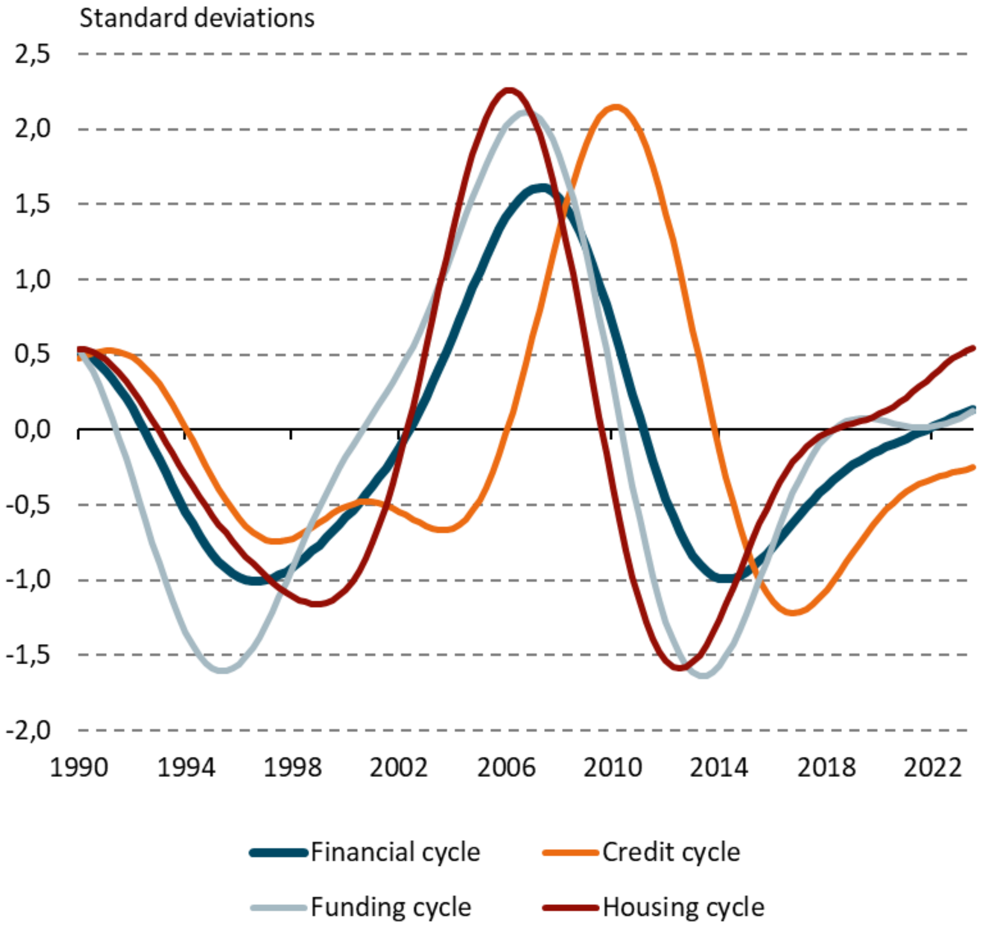
Annual data for gross operating surplus are non-linearly interpolated.
Annual data for the CRE stock are linearly interpolated.
Sources: Registers Iceland, Statistics Iceland, Central Bank of Iceland.

Capital area house prices and determining factors



Sources: Registers Iceland, Statistics Iceland.

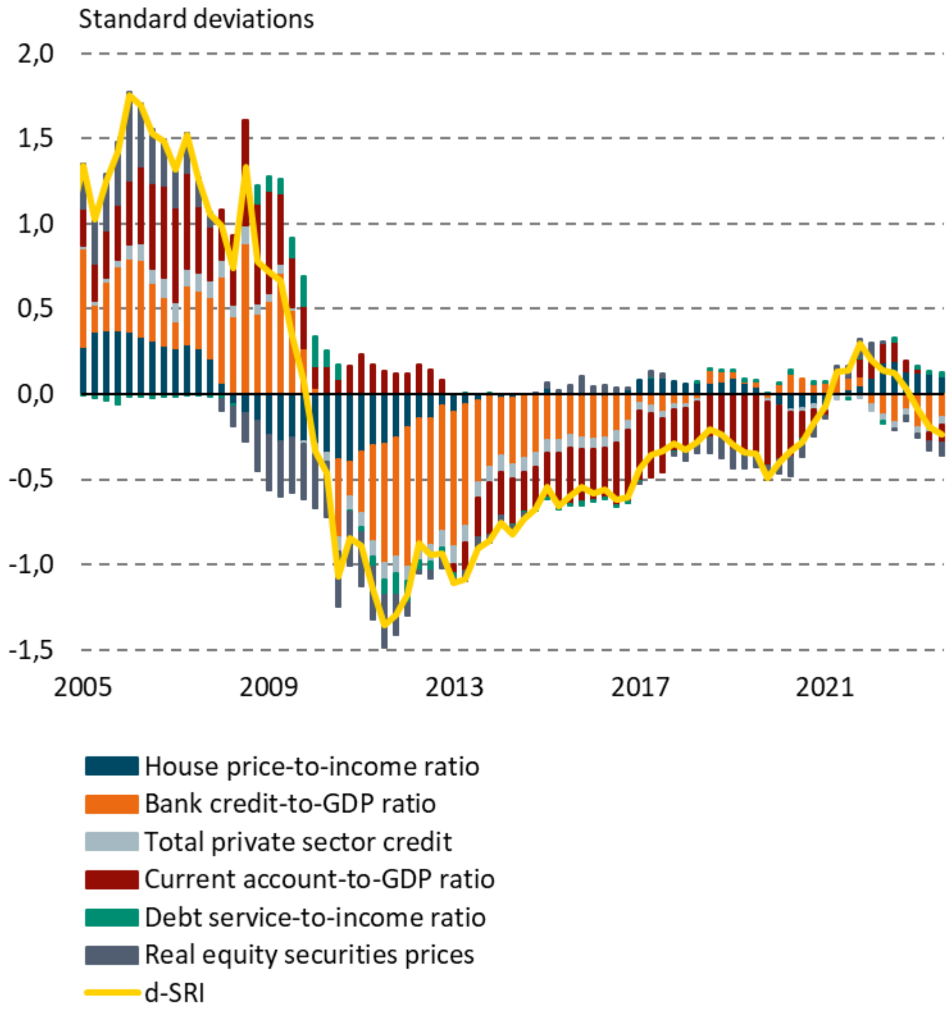
Financial cycle and subcycles



The financial cycle, the blue line, is a simple average of the subcycles. Each subcycle is a simple average of cyclical components from variables related to credit, housing, and bank funding, respectively. Cyclical components are obtained with a Christiano-Fitzgerald band-pass filter with a frequency band of 8-30 years.

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

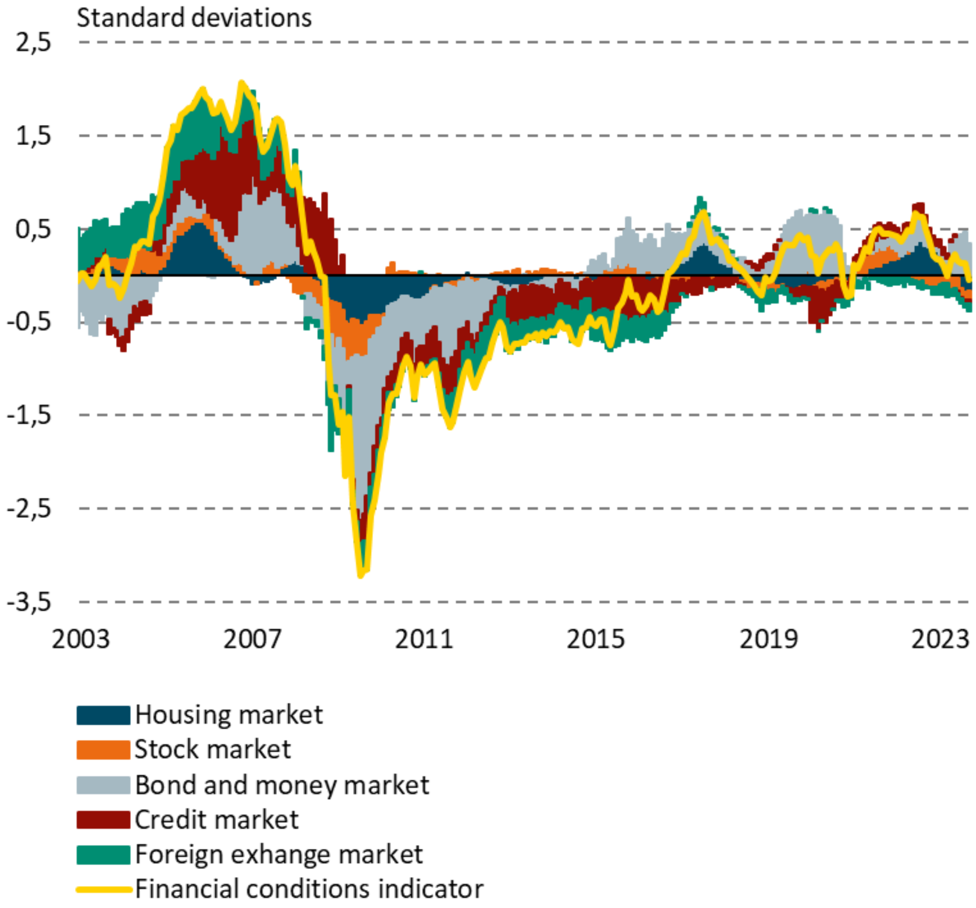
Domestic systemic risk indicator (d-SRI)



For the debt service-to-income ratio, data is lacking from Q1 2020 and onwards. The same value is repeated from that time to minimize the structural break in the indicator.

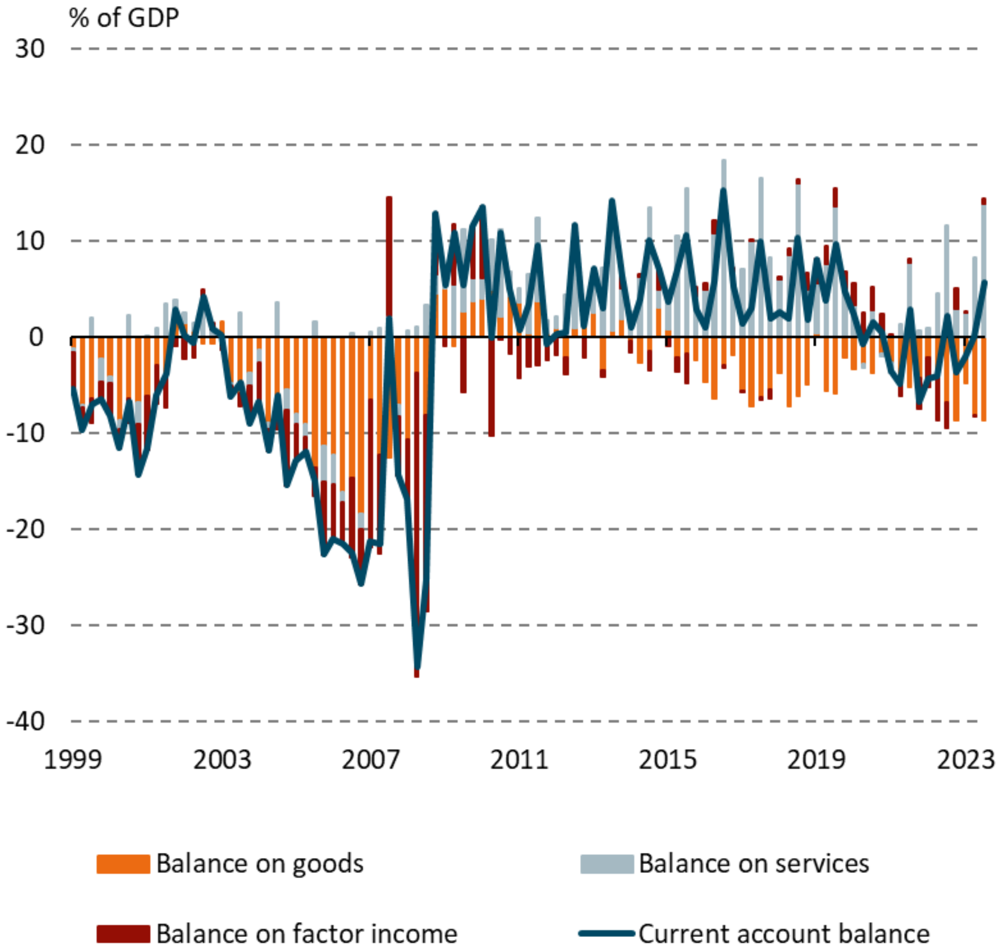
Sources: Statistics Iceland, Central Bank of Iceland..

Domestic financial conditions



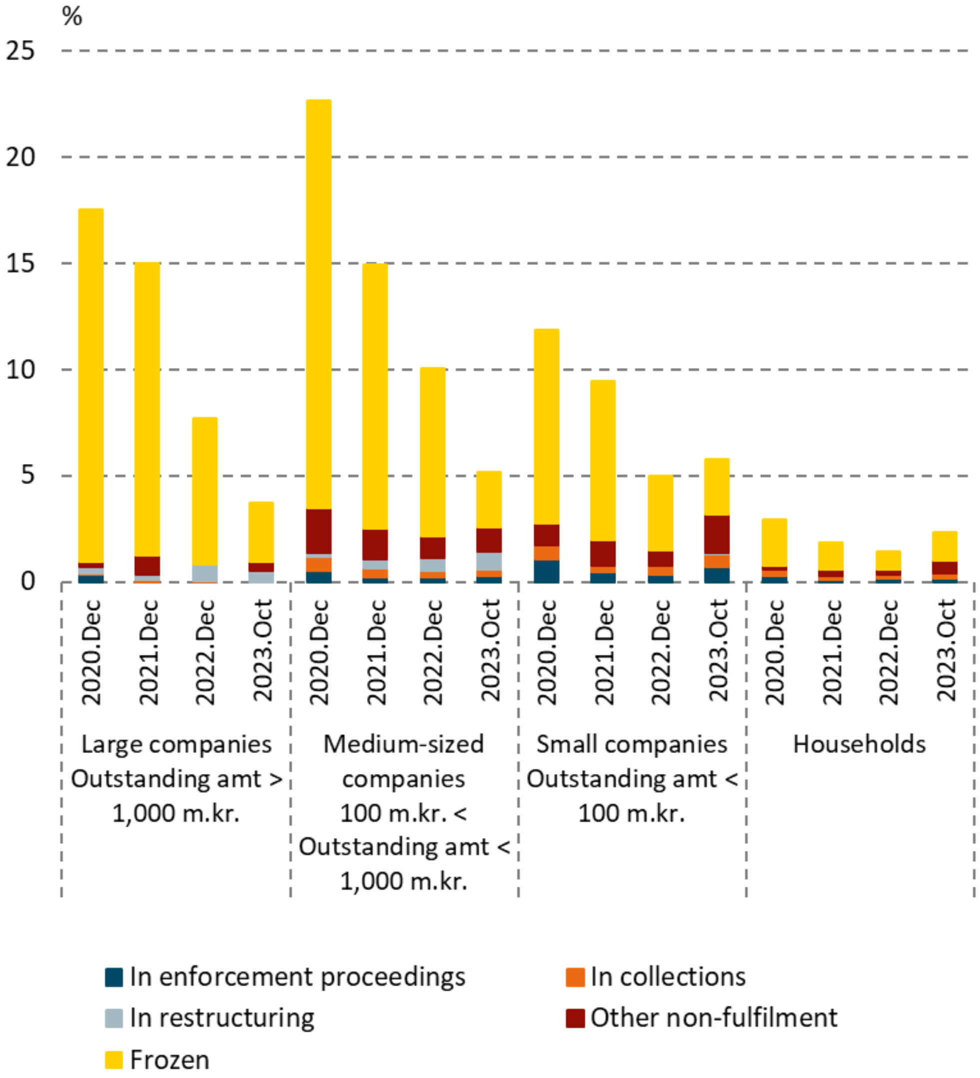
The financial conditions indicator consists of the first three principal components of selected indicators of financial conditions, scaled so that the mean is 0 and the standard deviation is 1. A lower index value indicates a deterioration in financial conditions. The estimation period is 2002-2023. *Sources*: Housing and Construction Authority, Nasdaq OMX Iceland, Statistics Iceland, Central Bank of Iceland.

Current account balance



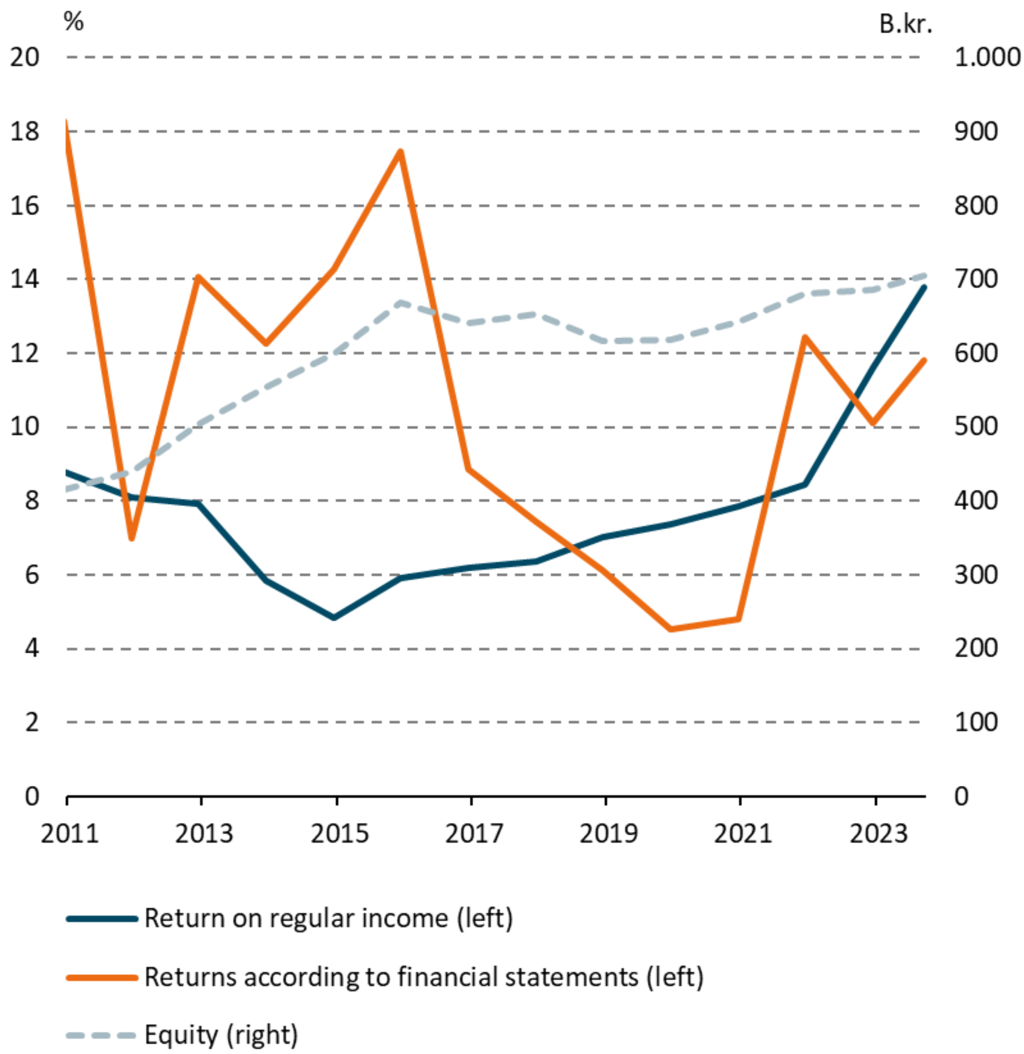
The effects of failed banks on factor income and the balance on services from Q4/2008 to Q4/2016 are ignored. From 2009 through 2012, the effect of Actavis on the balance on income is also ignored, owing to inaccurate data during the period. Secondary income is included in factor income.
Sources: Statistics Iceland, Central Bank of Iceland.

Status of non-performing loans, by borrower and type of impairment



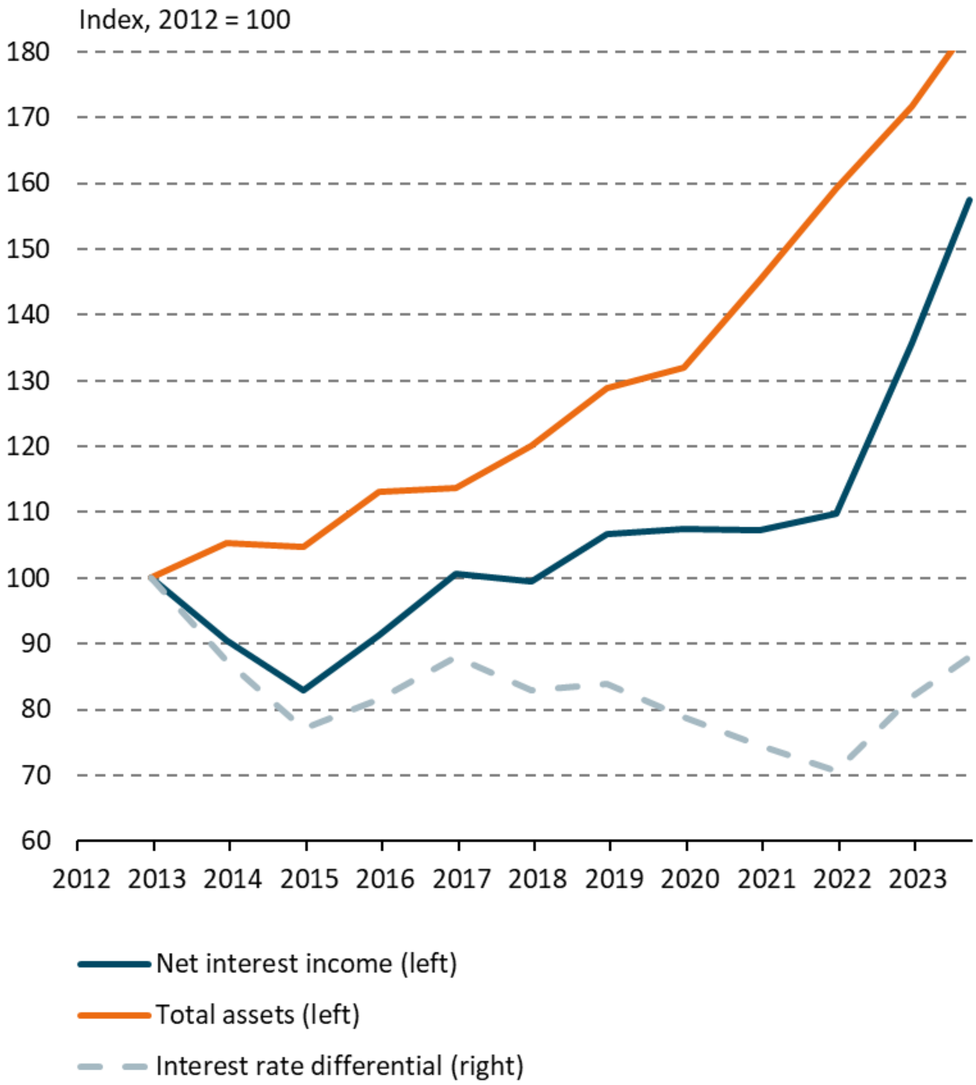
Cross-default non-performing loans, share of loans within each category.
Domestic systemically important banks, parent companies, book value.
Source: Central Bank of Iceland.

D-SIB: Returns



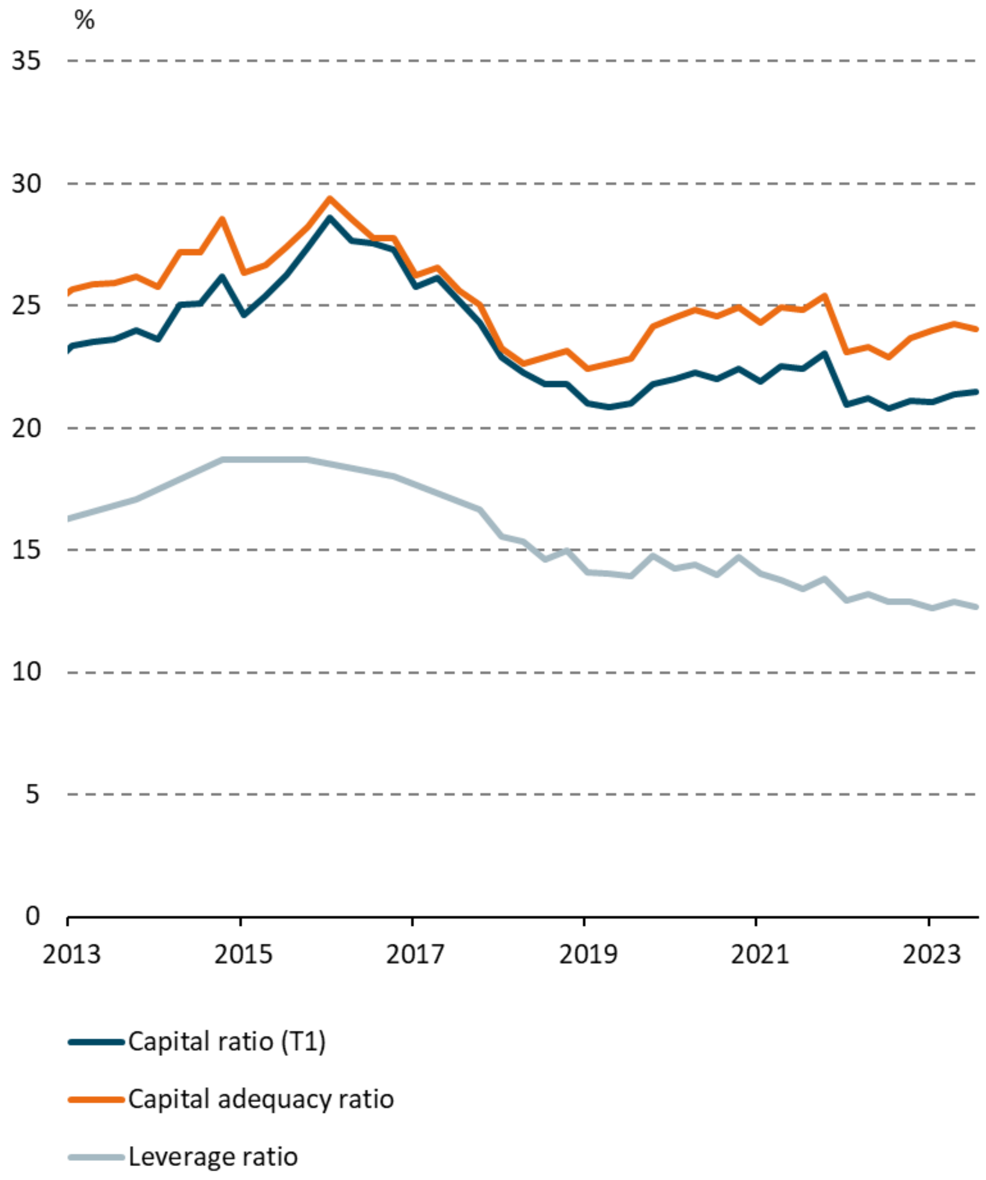
Returns are calculated on average equity, consolidated figures. The return on regular income is based on net interest income and fee/commission income net of regular expenses. The tax rate is 20% and is based on average equity. Valitor is excluded in 2017-2020.
Sources: Commercial banks' financial statements.

D-SIB: Net interest income, interest expense and interest rate differential



Domestic systematically important banks, consolidated figures. Yearly data. 2023 figures are annualised Q3 data.
Sources: Commercial banks' financial statements.

D-SIB: Capital and leverage ratios



Domestic systemically important bank, consolidated figures.
Sources: Commercial banks' financial statements.