CZECH NATIONAL BANK

CNB press conference
on the outcome of the spring meeting
on financial stability issues

Financial Stability Report – Spring 2024

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6 June 2024

Contents

Economic environment, aggregate risk assessment (1)

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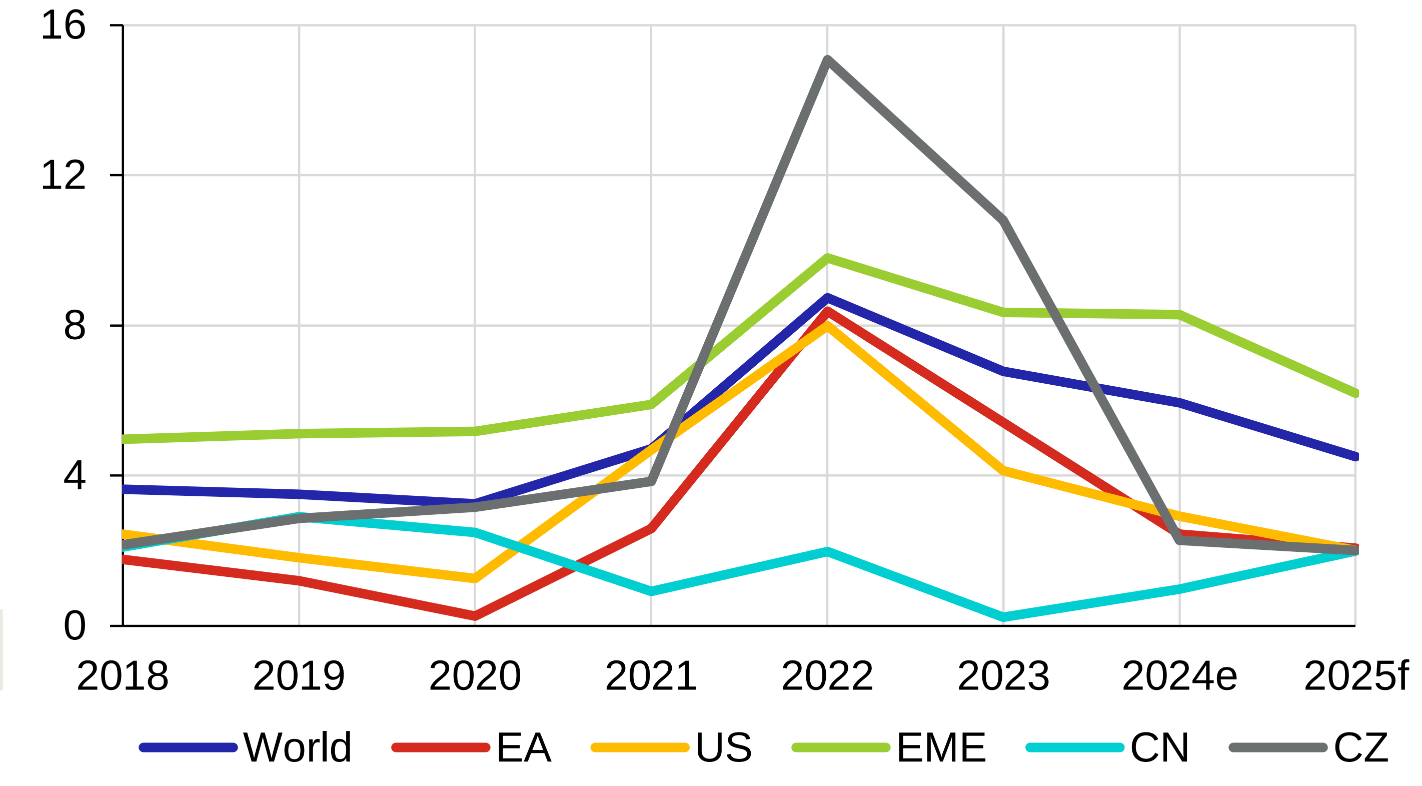
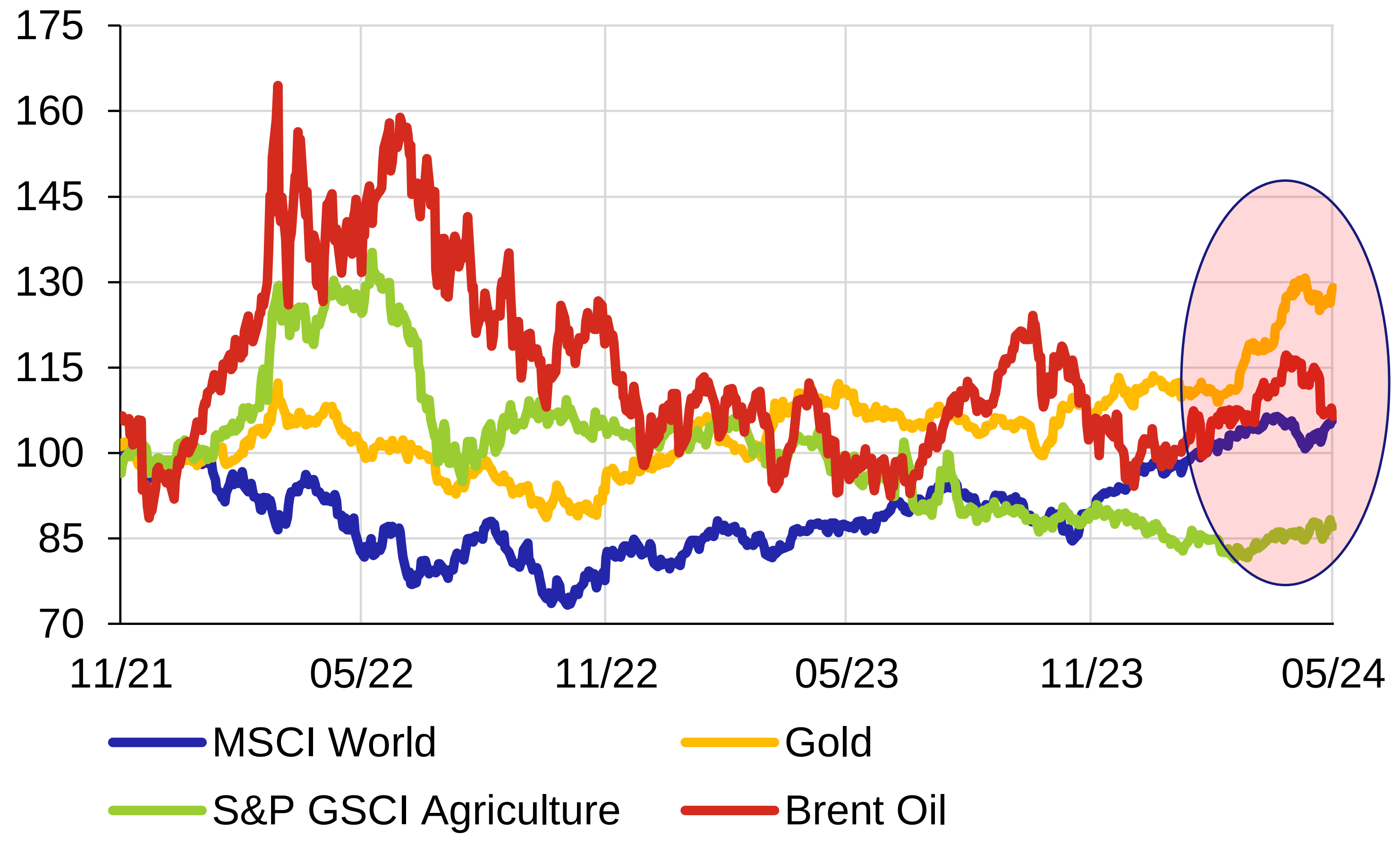
- The decline in inflation has generally led to better economic outlooks:
  - Inflation is returning to the inflation target in advanced countries.
  - Financial market volatility remains moderate.
  - But the growth of the European economy will remain mostly subdued.

Inflation in selected regions
(annual inflation rates in %)

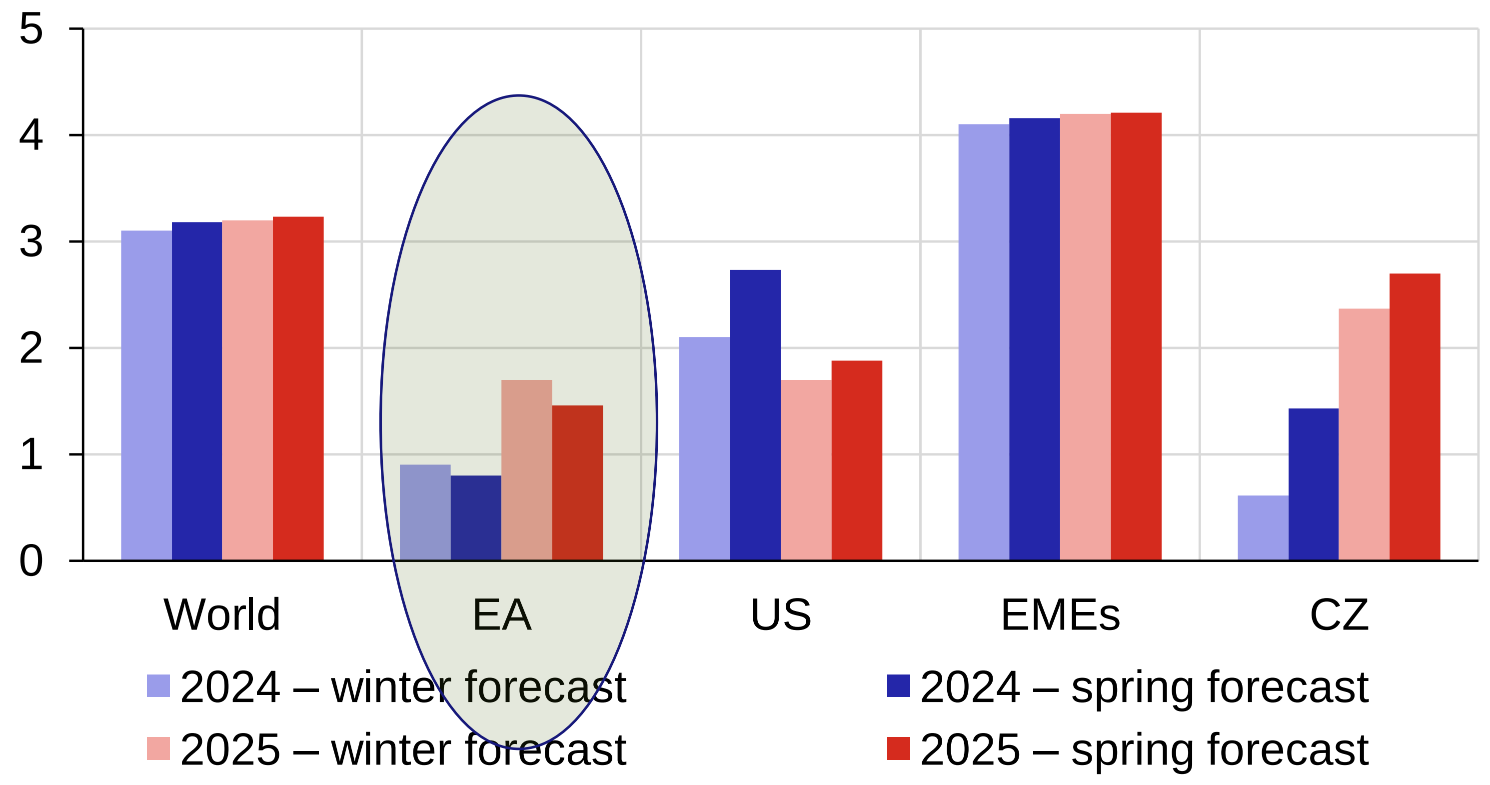


Source: IMF, CNB

Selected financial market indices
(31 December 2021 = 100)



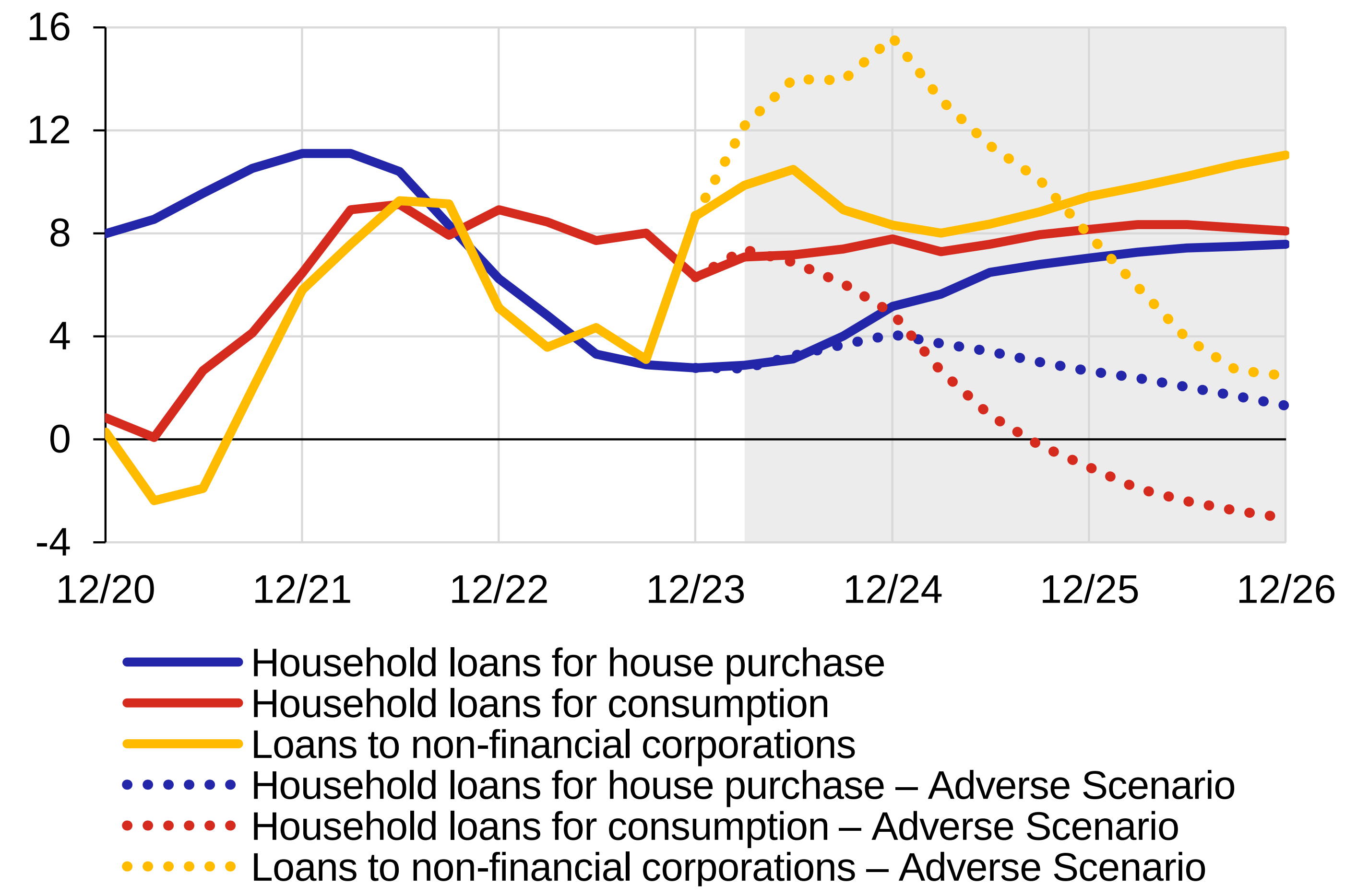
Economic growth forecasts for selected regions
(annual real GDP growth in %)



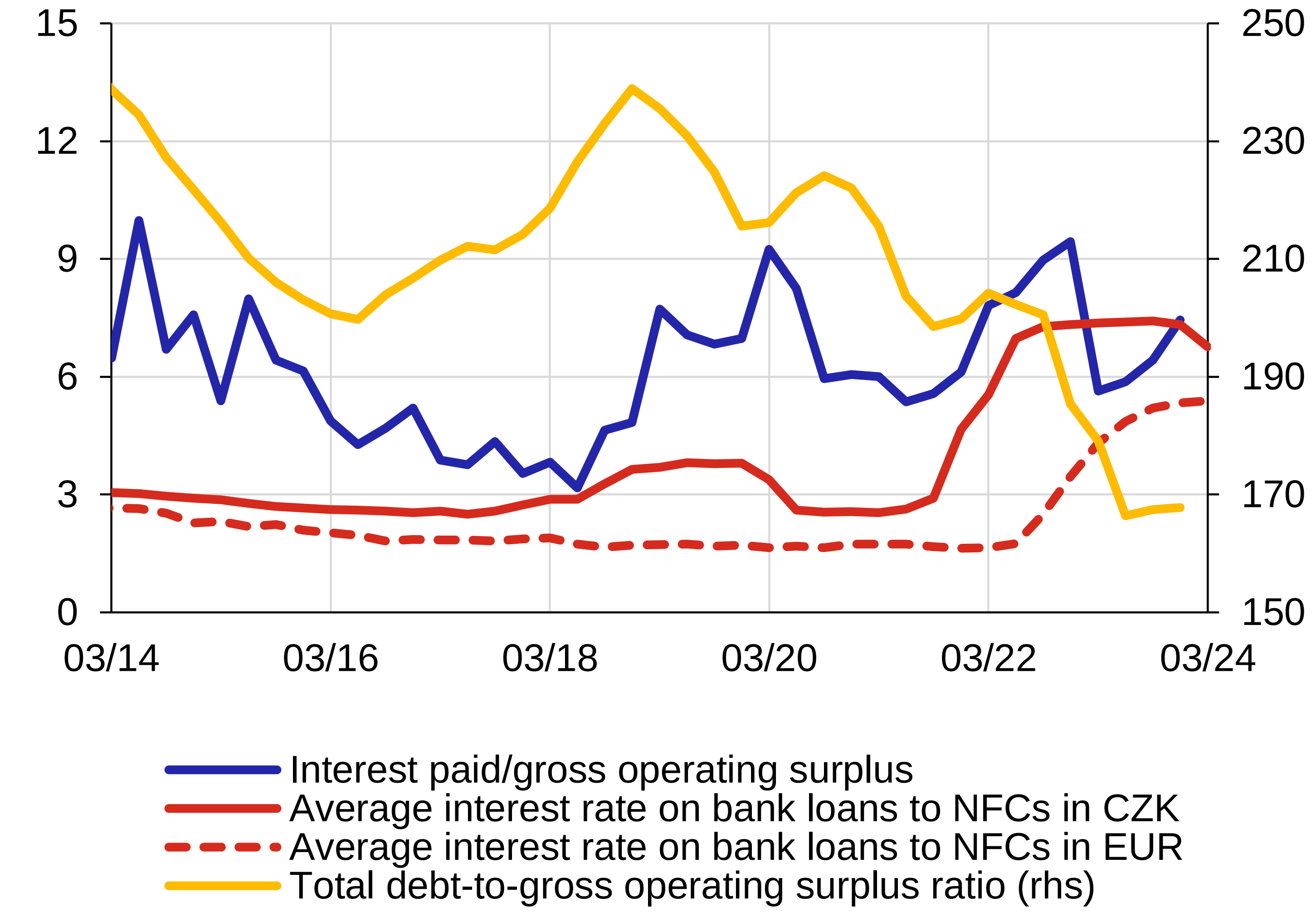
Economic environment, aggregate risk assessment (2)

- Czech GDP growth remains low and the unemployment rate has risen slightly:
  - Lending to non-financial corporations increased at the year-end. The rise in their debt ratio has halted.
  - As for households, lending for house purchase remains low and their overall debt ratio has fallen further. Growth in loans for consumption remains elevated.
  - Corporations and households may face tighter financial conditions for the rest of 2024, with potential impacts on their financial soundness.

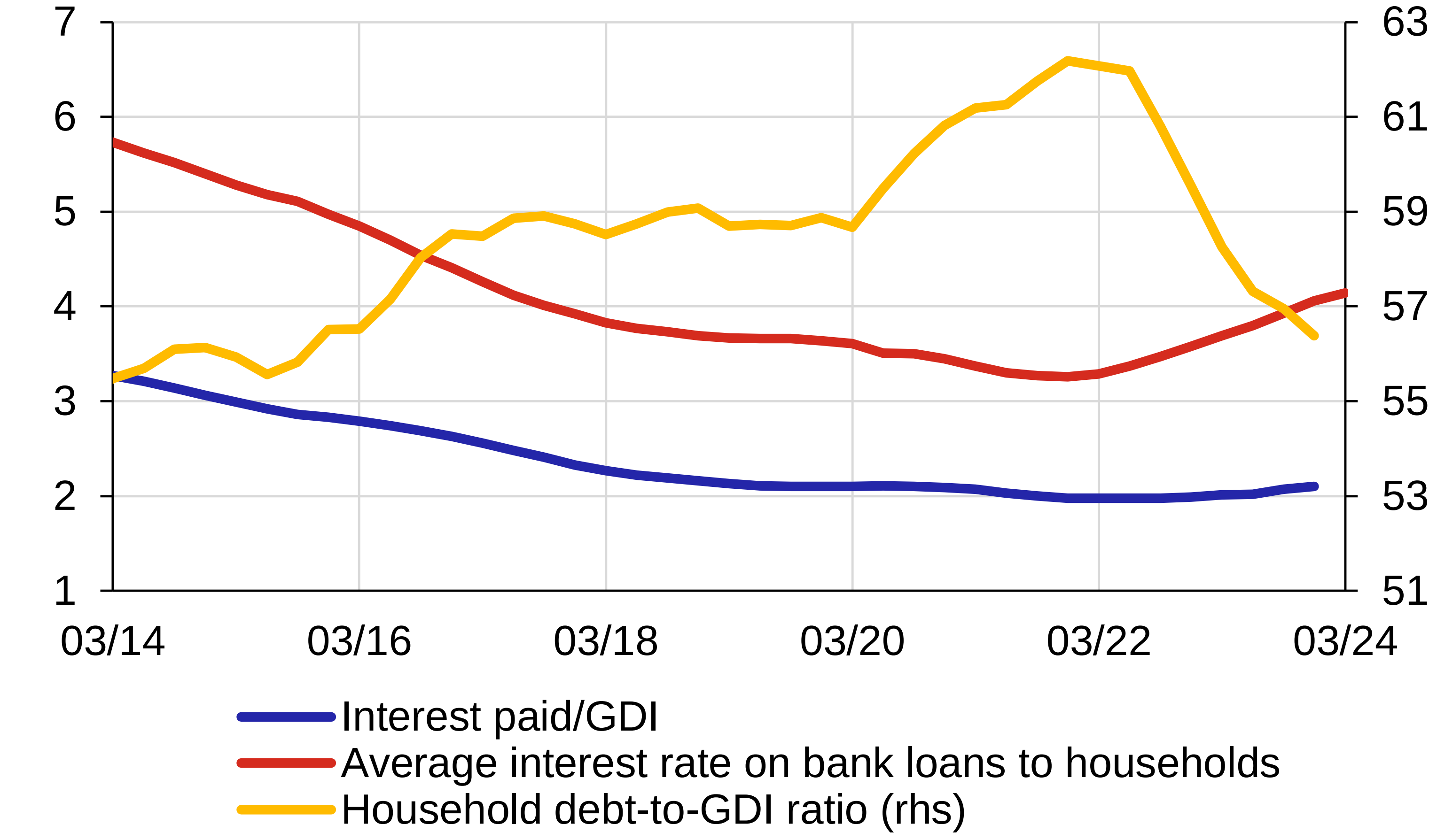
Projections of growth in the stock of bank loans in the private non-financial sector
(year on year in %)



Debt ratio and interest paid by non-financial corporations
(%)



Debt ratio and interest paid by households
(%)



Economic environment, aggregate risk assessment (3)

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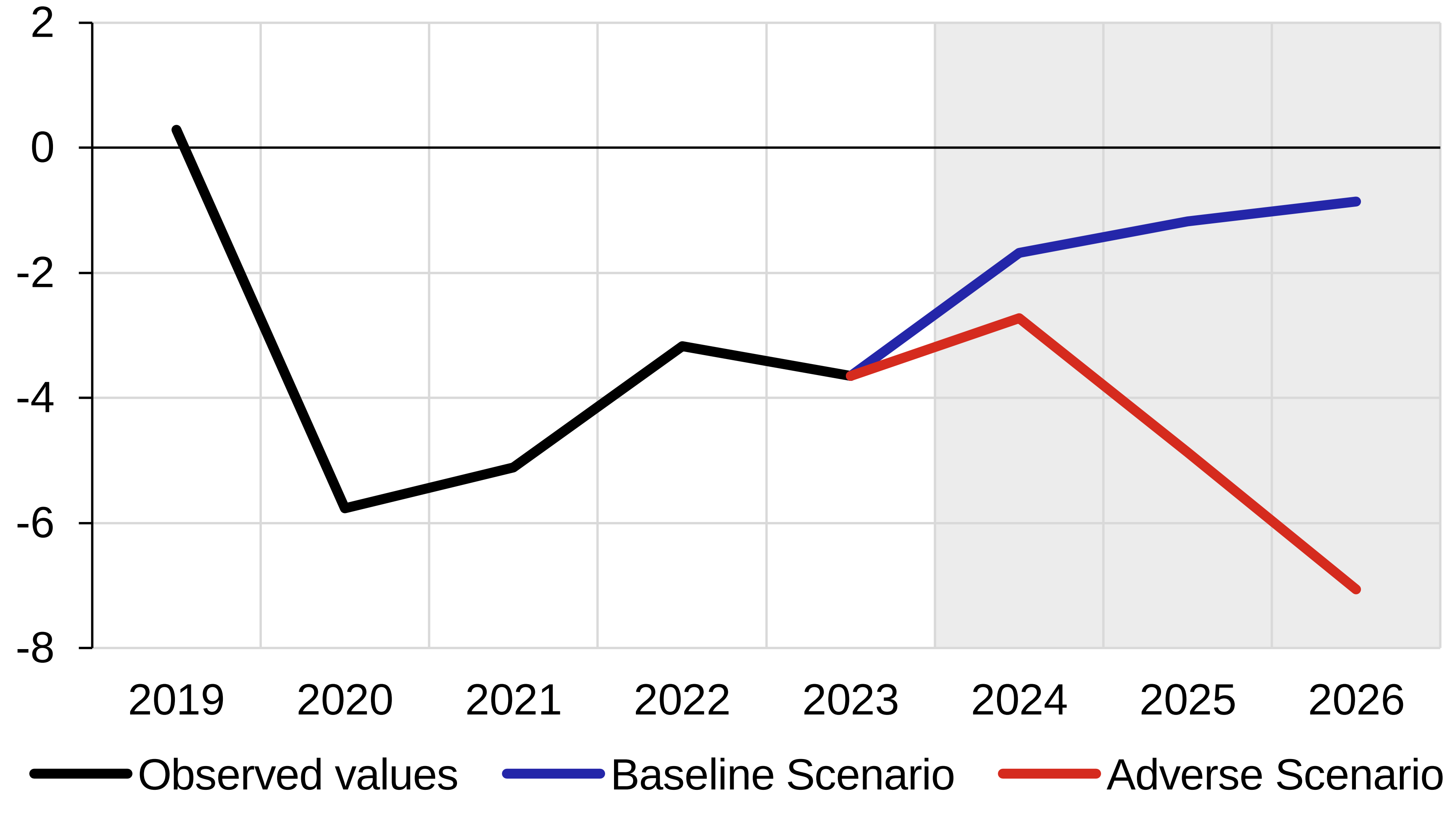
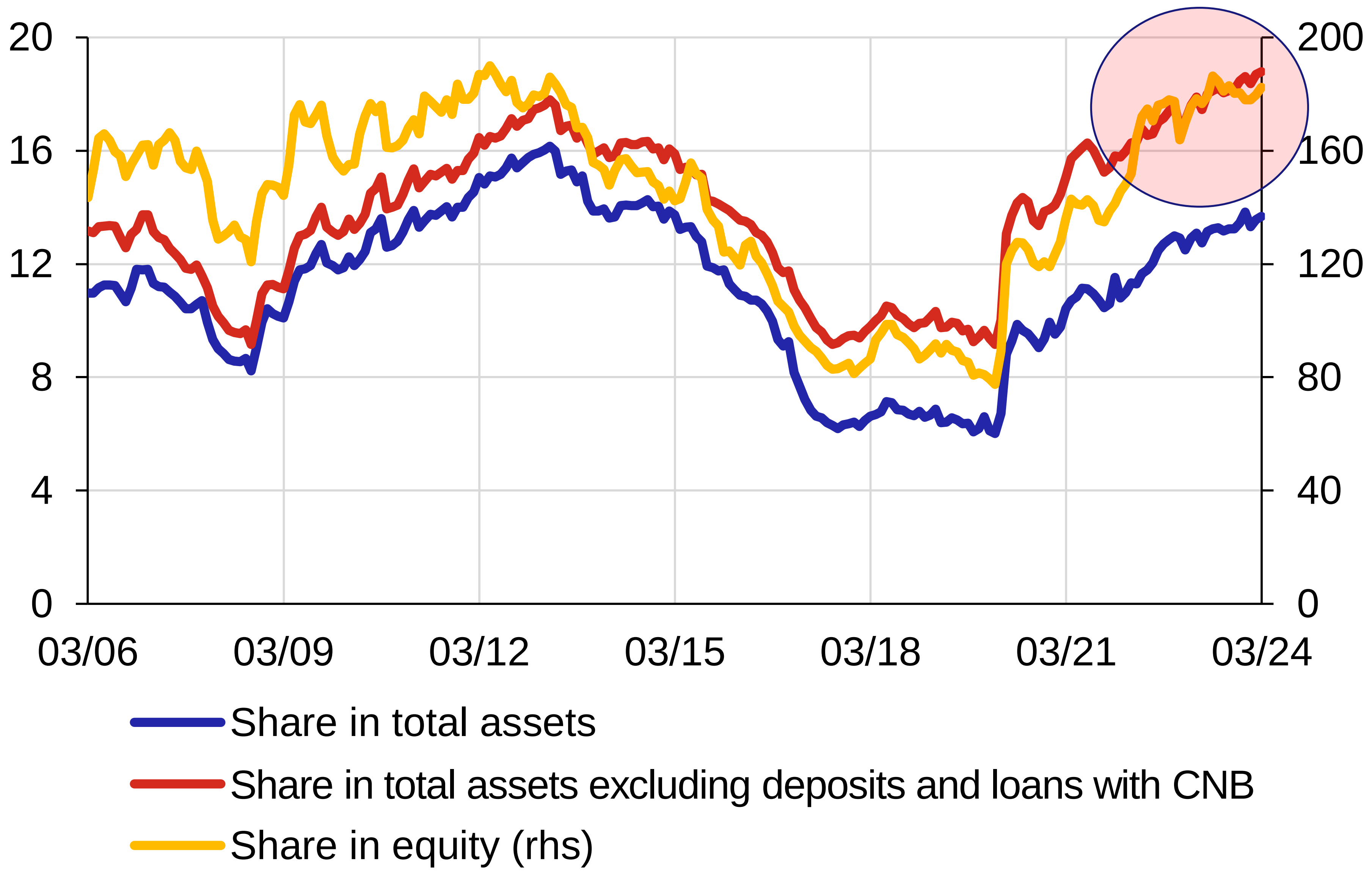
- Persisting general government deficits are increasing the sovereign exposures of domestic banks and the related risk of concentration in their balance sheets.

General government balance
(% of GDP)



Share of general government debt securities on the balance sheets of domestic banks
(%)



Financial stability in May 2024 (1)

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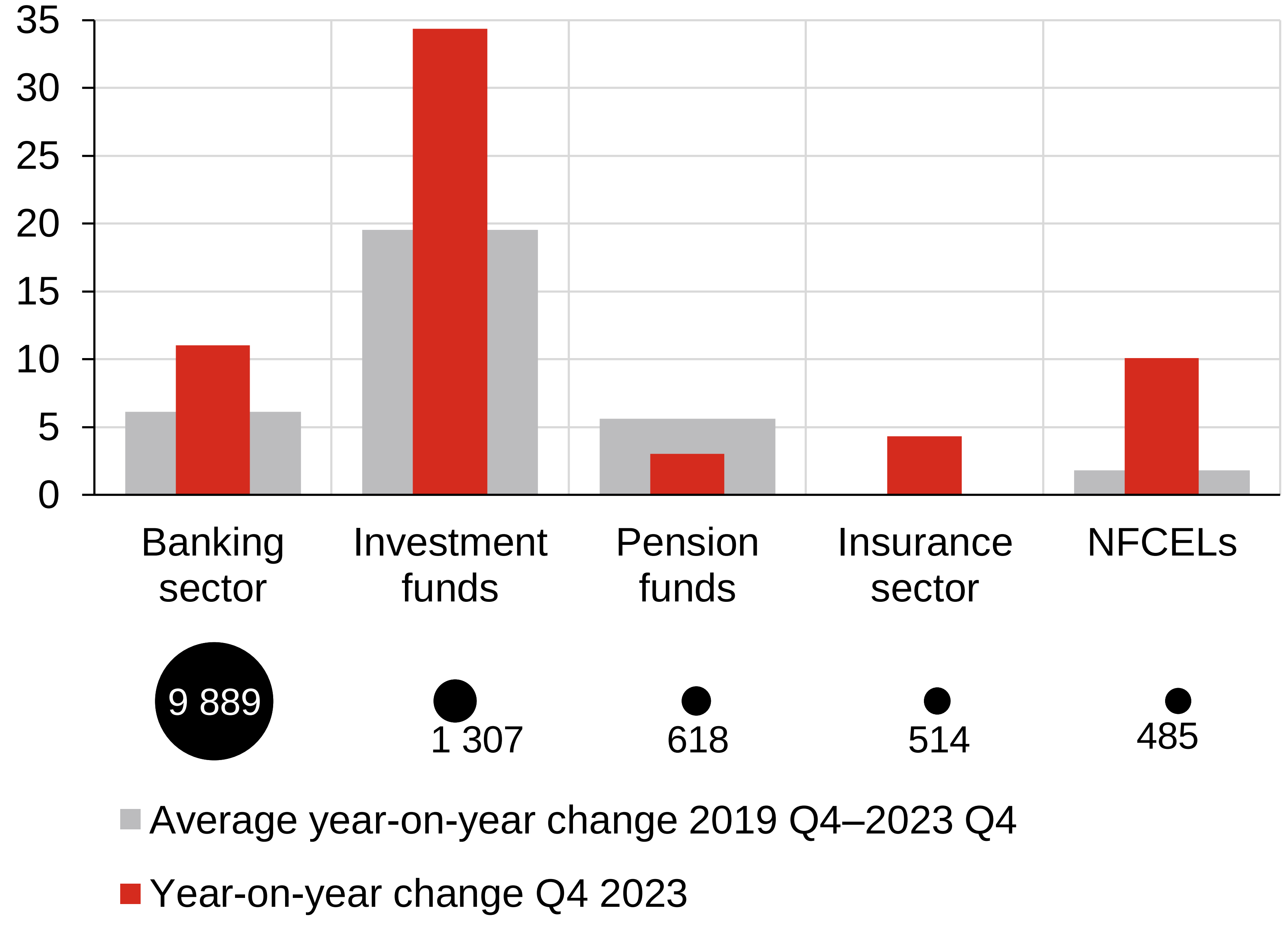
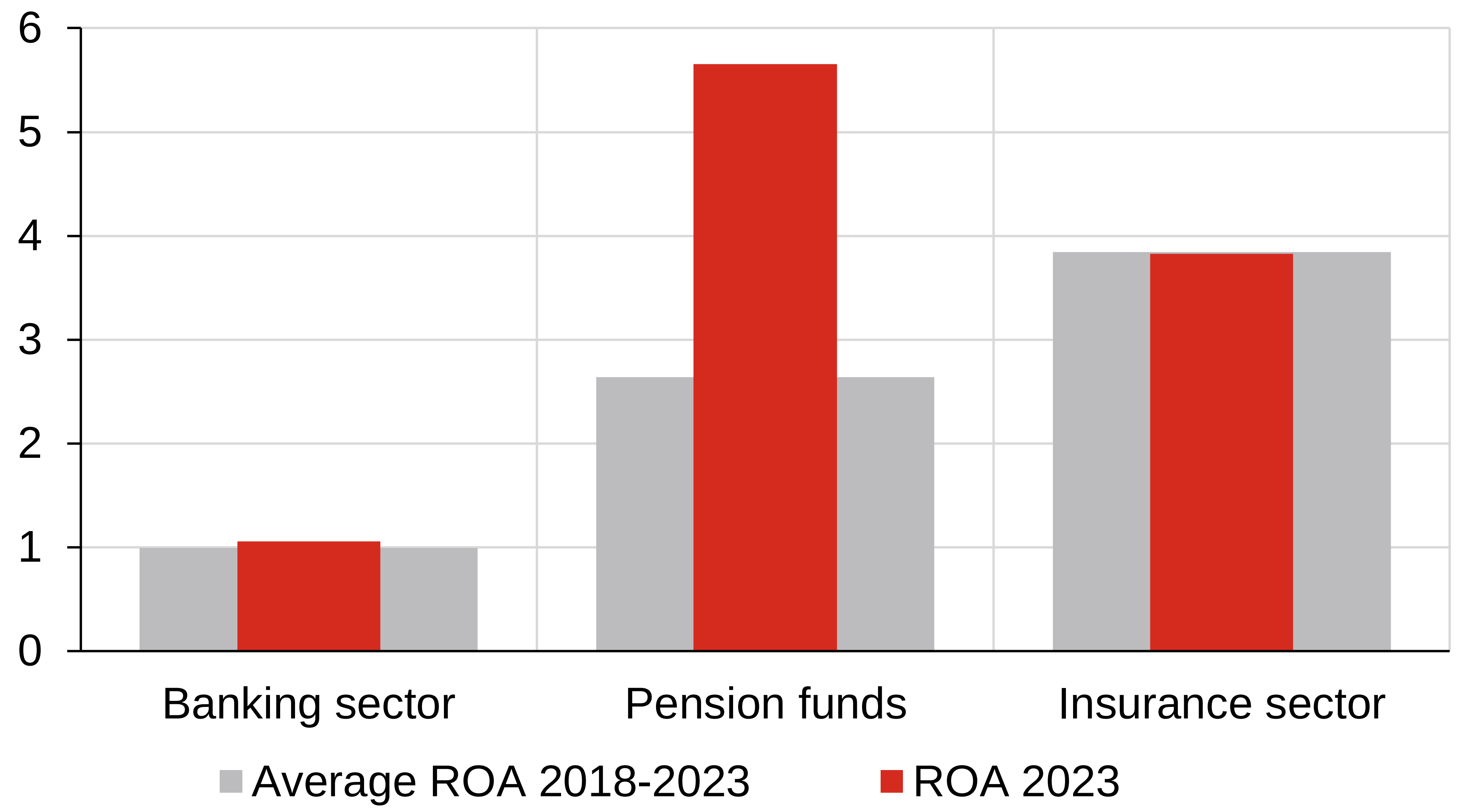
- The situation in the Czech financial sector showed favourable trends in 2024.
- All its segments recorded growth in total assets and maintained good profitability.
  - Their capitalisation and liquidity position is the foundation of their resilience to adverse shocks.

Rates of growth of segments of the financial sector
(in %)



Source: CNB
Note: NFCELs = non-bank financial corporations engaged in lending. The sizes of the circles proportionately show the value of the segments' assets in CZK billions as of 2023 Q4. The banking sector also includes credit unions.

Profitability of the segments of the financial sector
(return on assets in %)

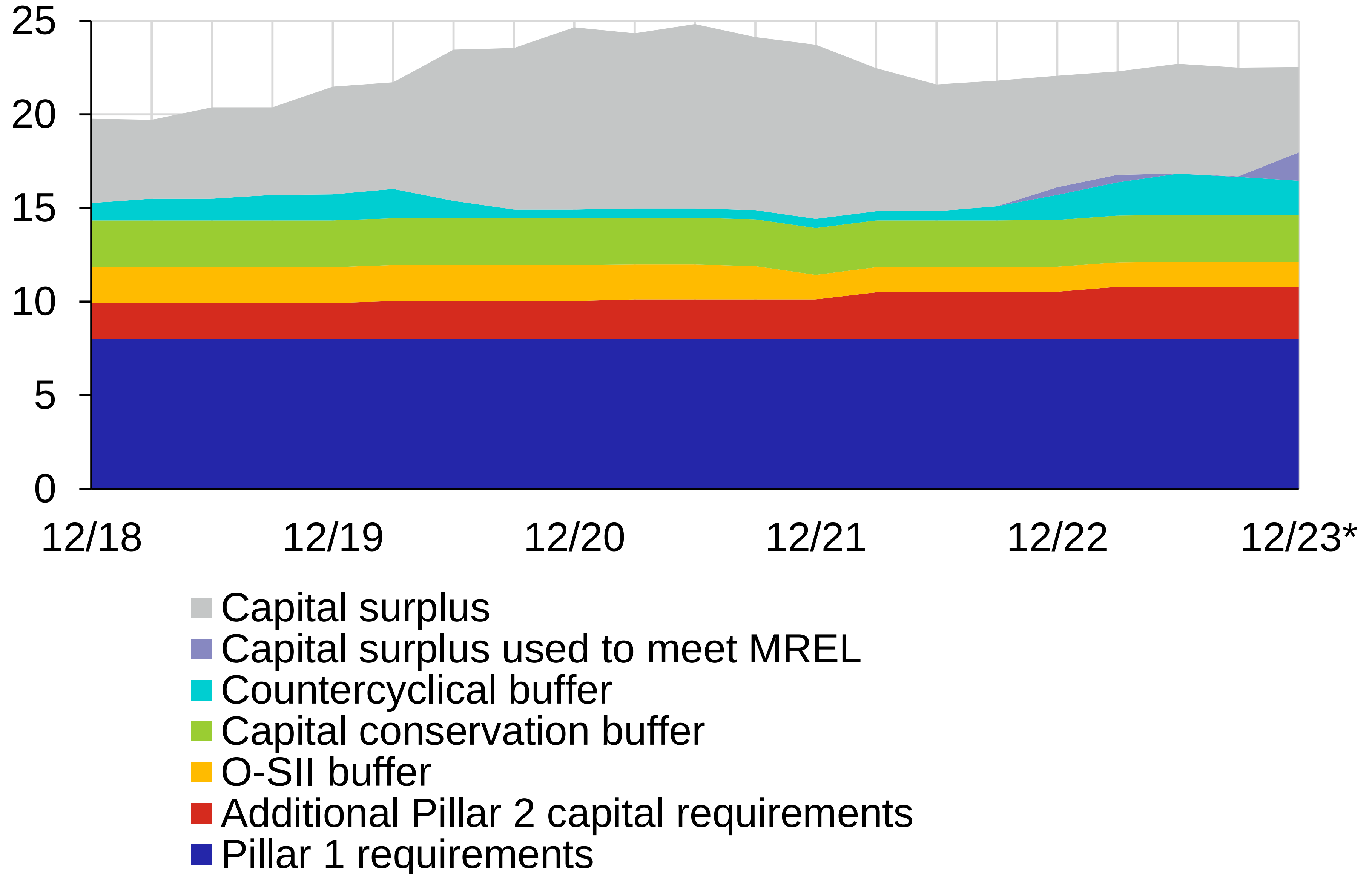


Financial stability in May 2024 (2)

- The crucial banking sector is resilient to adverse shocks.
  - Its capitalisation remains robust thanks to capital buffers and capital surpluses in excess of the regulatory requirements.
    - Capitalisation is comparable to the EU but is following a weakening trend.
  - Built-up resolution capacity (MREL) is also playing a stabilising role.

Structure of capital and capital requirements

(pp)

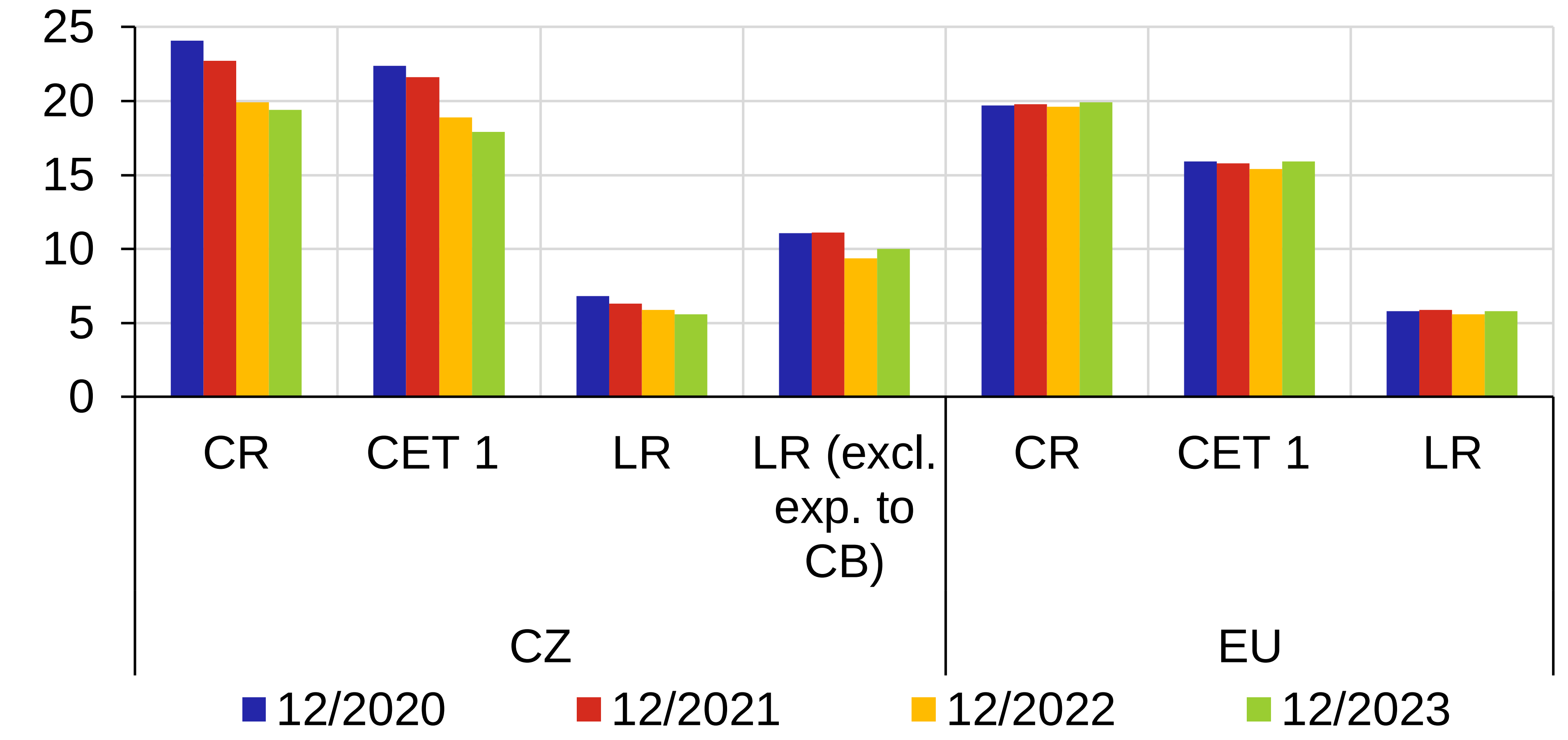


Source: CNB

Note: The end-2023 figure also takes into account the final MREL applicable as of 1 January 2024.

Capitalisation in the domestic and European banking sectors

(%)



Source: EBA

Financial stability in May 2024 (3)

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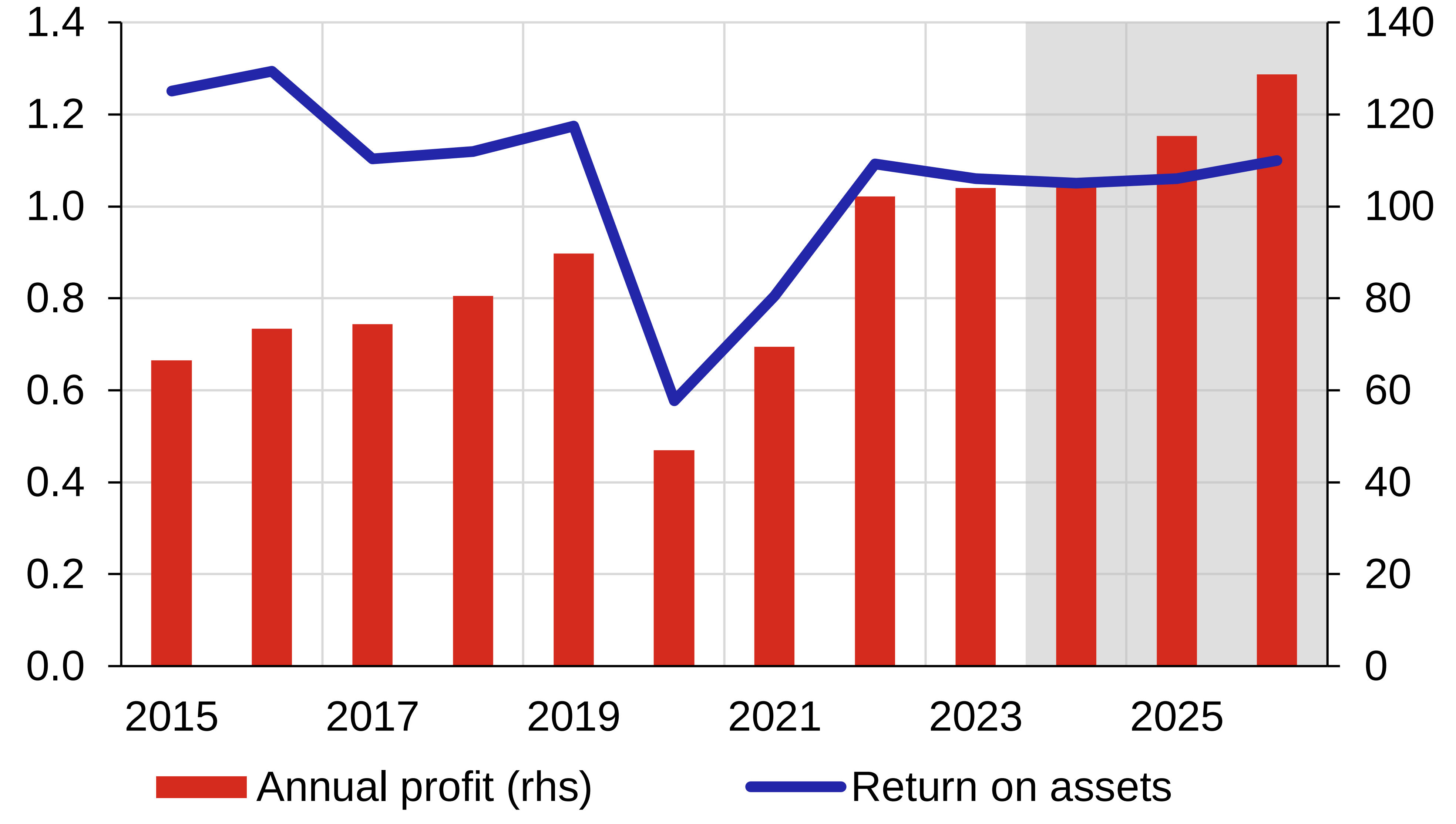
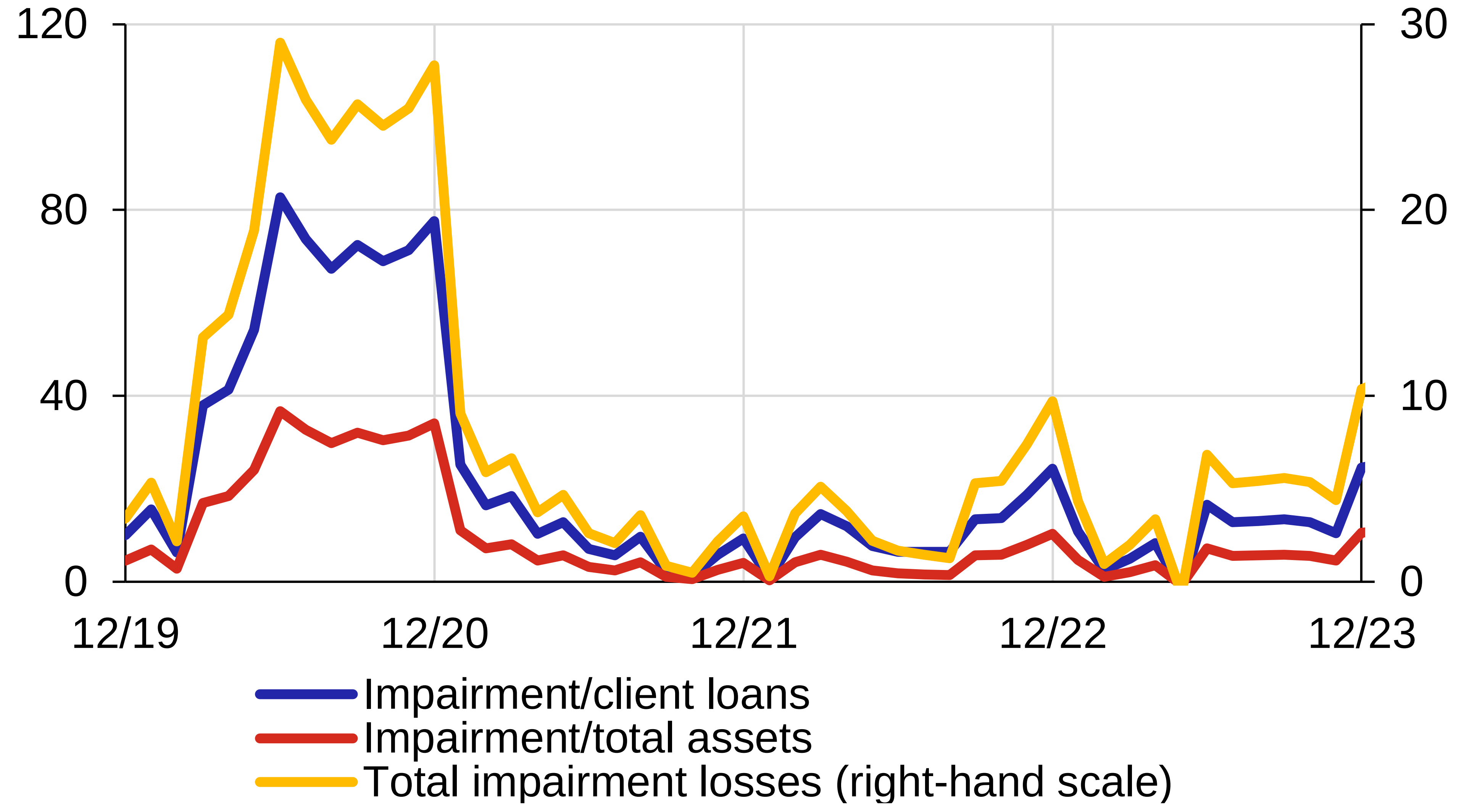
- The profitability of the banking sector decreased slightly in 2023.
  - Net interest income declined year on year and impairment losses increased.
  - However, banks' ability to reinforce capital from profits remains strong.

Return on assets and profit
(%; right-hand scale: CZK billions)



Asset impairment losses
(bp; right-hand scale: CZK billions)



Financial stability in May 2024 (4)

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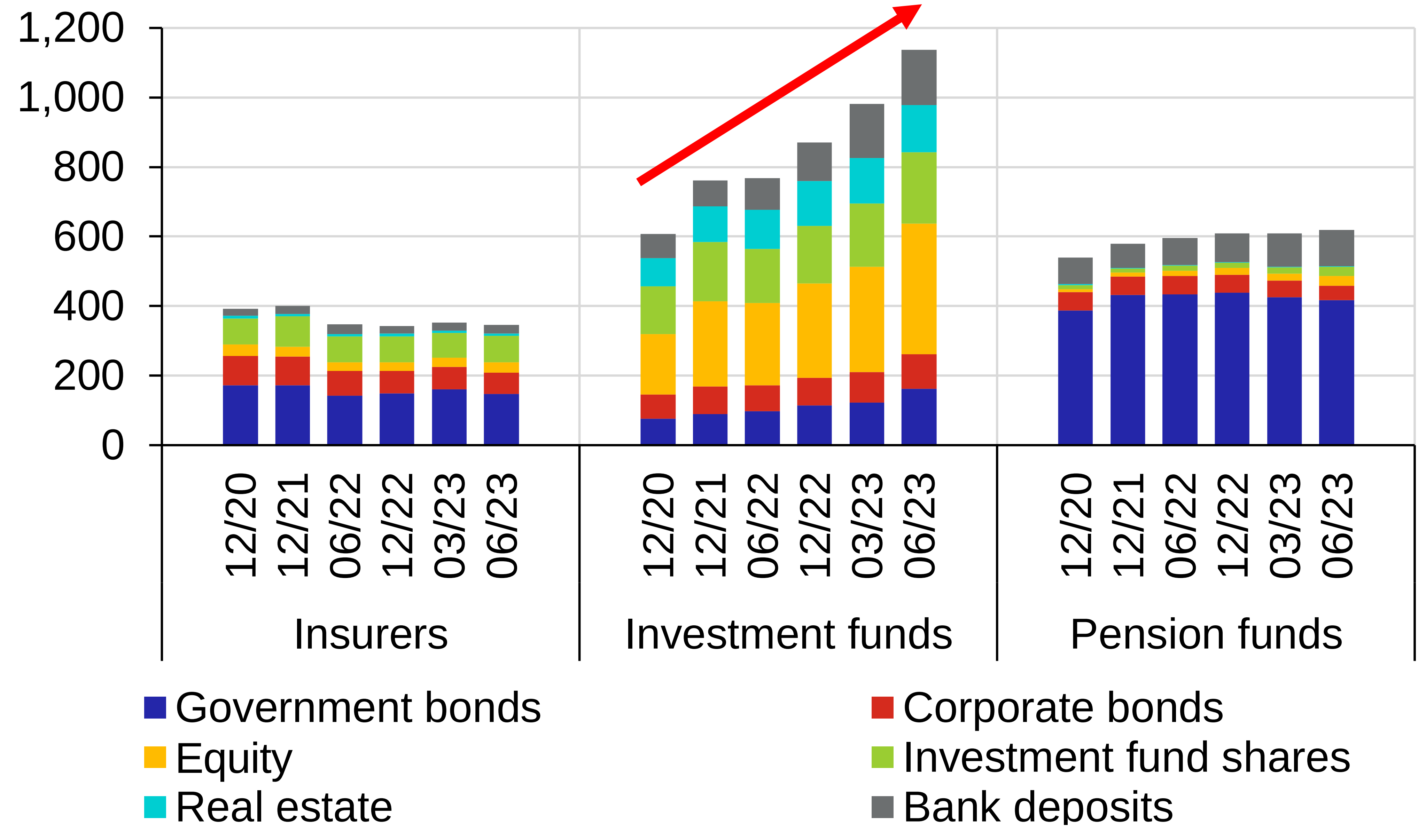
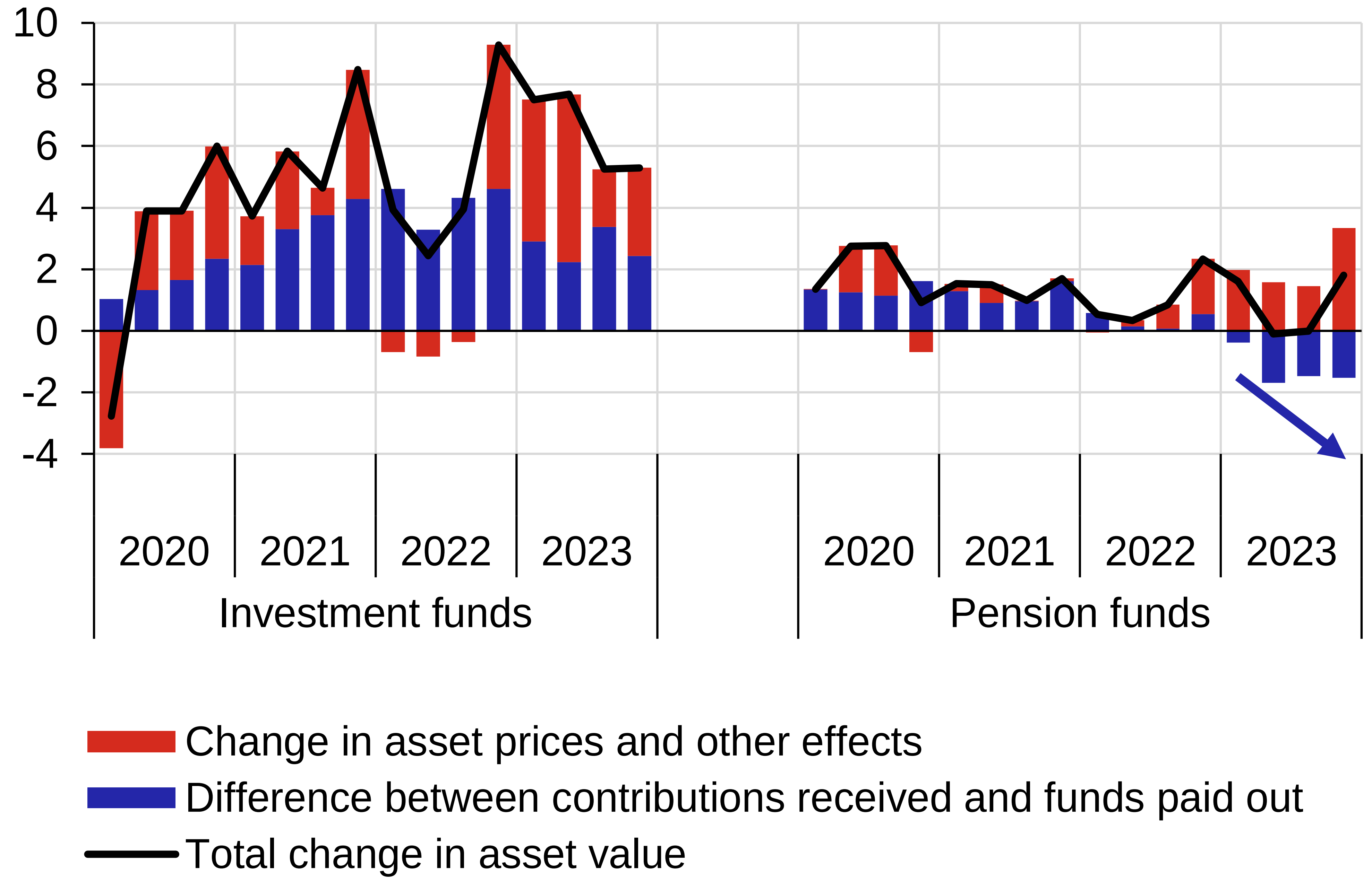
- The domestic non-bank financial sector is stable and resilient.
  - Investment funds continue to show dynamic growth.
  - Pension funds are recording outflows from transformed funds.

Main components of domestic non-bank institutional investors' investment assets
(CZK billions)



Decomposition of the change in the value of investment and pension funds' assets
(q-o-q growth in %; factor contributions in pp)



Contents

1. **Aggregate assessment of risks and overview of CNB’s main measures**

    - **Capital buffers**
        - **countercyclical (CCyB)**
        - **systemic risk (SyRB)**

Decision on capital buffer rates

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- **The Bank Board reacts to developments in the nature of systemic risks by changing the structure of capital buffers. It decided:**
  - to reduce the countercyclical capital buffer (CCyB) rate by 0.5 pp to 1.25% with effect from 1 July 2024,
  - to set the systemic risk buffer (SyRB) rate at 0.5% with effect from 1 January 2025.
- **The overall rate of capital buffers remains unchanged.**

Decision on countercyclical capital buffer rate (1)

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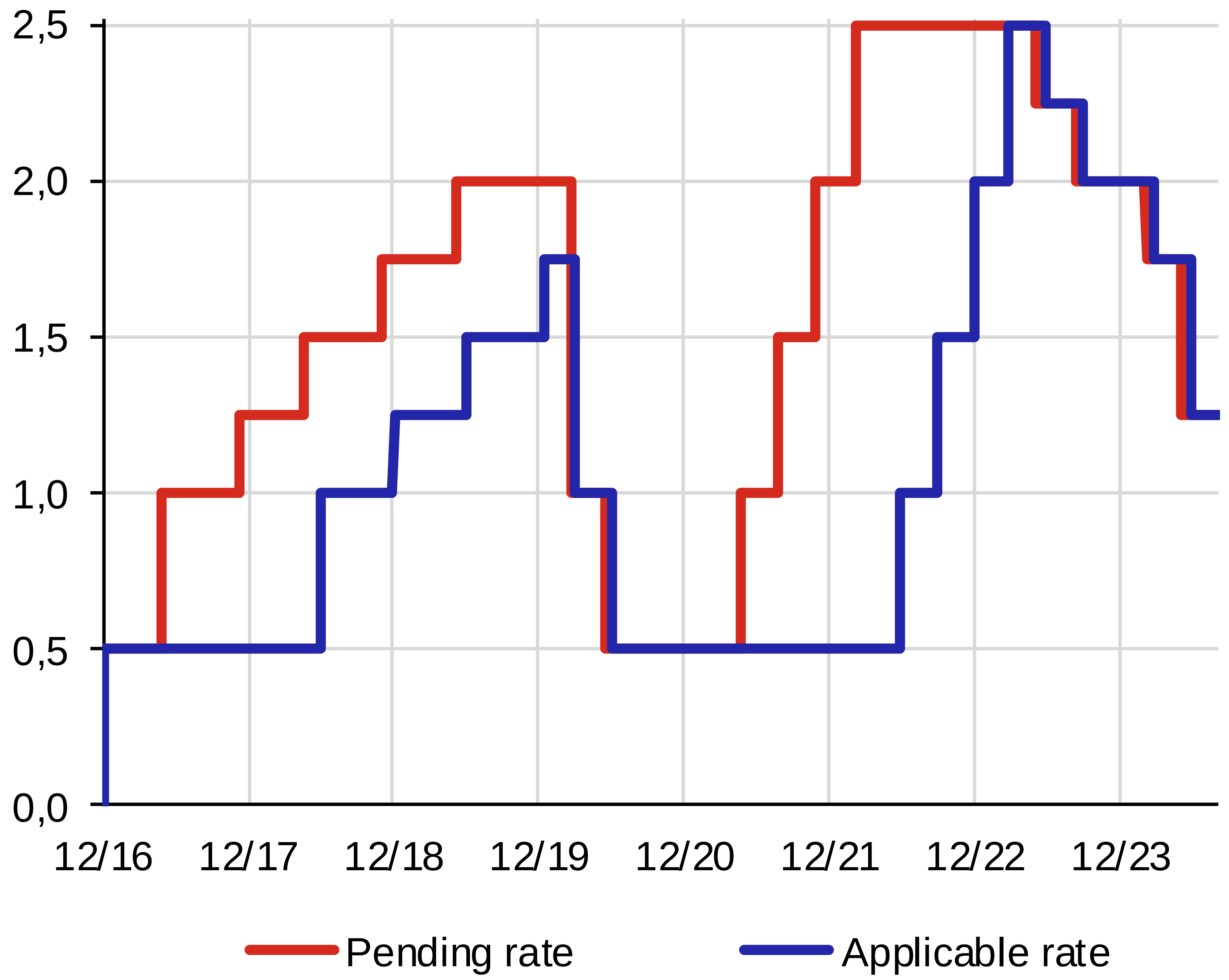
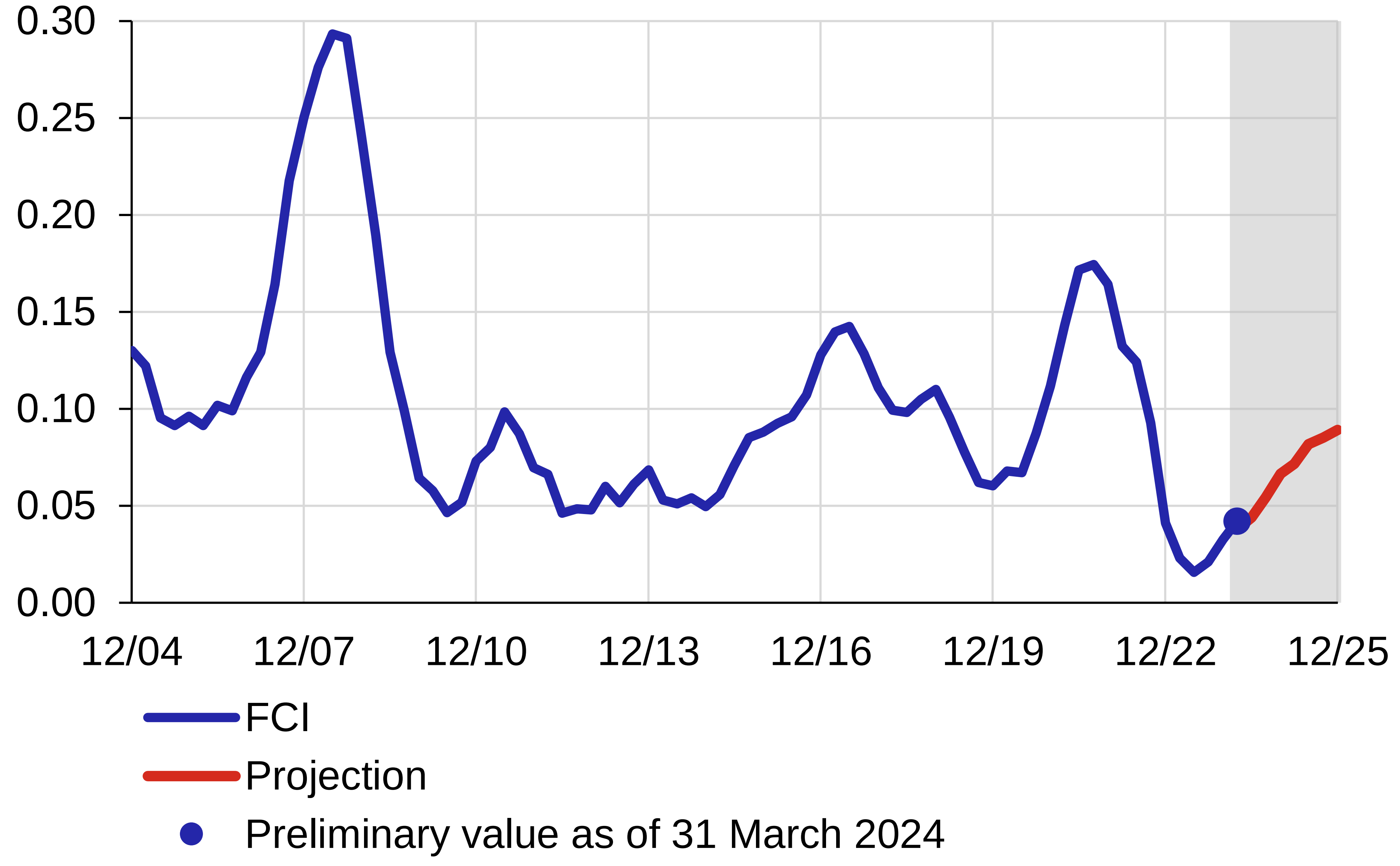
- **The Bank Board decided today to reduce the buffer rate to 1.25%.**
  - It took into account the extent of cyclical risks in the banking sector's balance sheet and the position of the economy in the financial cycle.

Pending and applicable CCyB rate in the Czech Republic
(% of total risk exposure)



Financial cycle indicator
(0 minimum, 1 maximum)



Decision on countercyclical capital buffer rate (3)

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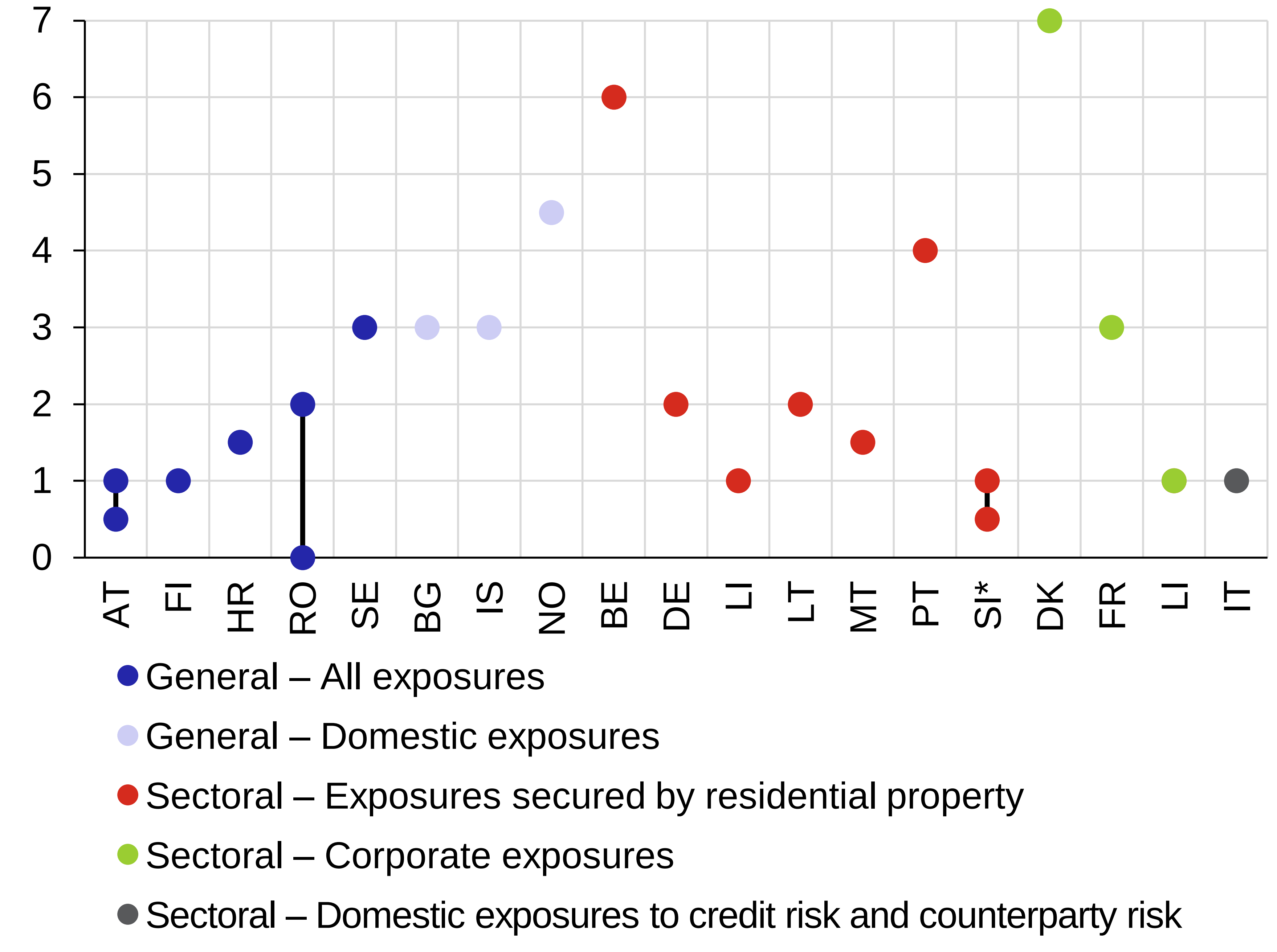
- The CNB expects the CCyB rate to be stable for the next few quarters, as cyclical risks are not expected to change significantly over the outlook of the spring forecast.

- If the position in the cycle near its trough is not accompanied by increased materialisation of credit losses and the cycle is turning upwards, the CNB considers it appropriate to maintain a sufficient CCyB to:
    - prudently cover the risks of any additional materialisation of credit losses from the previous cycle, and
    - simultaneously prevent excessive fluctuations in the regulatory capital requirements when the cycle turns upwards.

Decision on systemic risk buffer

- **The Bank Board decided today to set the systemic risk buffer (SyRB) rate**:
  - **at 0.5%** of the total risk exposure located in the Czech Republic, i.e. around CZK 14 billion of capital,
  - which banks will be required to maintain with effect from **1 January 2025**.
  - Banks should not be limited in financing the real economy after the buffer is introduced if they use their capital surpluses and expected profits for 2024.
- The aim is to strengthen the banking sector's resilience to structural risks, which could lead to highly adverse developments.
- The probability of these risks materialising is increasing in the current geopolitical situation.
- Many European countries apply a SyRB rate and others have recently announced their intention to introduce one.

SyRB rates in European countries
(%; rates applicable or pending as of 5 April 2024)



Source: ESRB

Risks relevant to SyRB in Czech Republic

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- **The key risk identified by the CNB is the domestic economy's high sensitivity to non-cyclical adverse economic shocks against the backdrop of ongoing deglobalisation and decarbonisation and rising geopolitical tensions**

- Openness of the economy
- Concentration in foreign trade

Risk of a foreign macroeconomic shock with an unexpectedly strong impact on the Czech Republic

- Concentration of production and employment in a few sectors

Risk of an adverse spiral between firms' sales and profits, unemployment and domestic demand

Additional structural trends amplifying the potential adverse impacts on the Czech Republic

- Climate transition
- Cyber risk
- Technological change with a potential impact on labour productivity

Risk of non-financial sectors incurring additional costs in a period of highly adverse macroeconomic conditions, decline in competitiveness.

SyRB decision – openness of economy (1)

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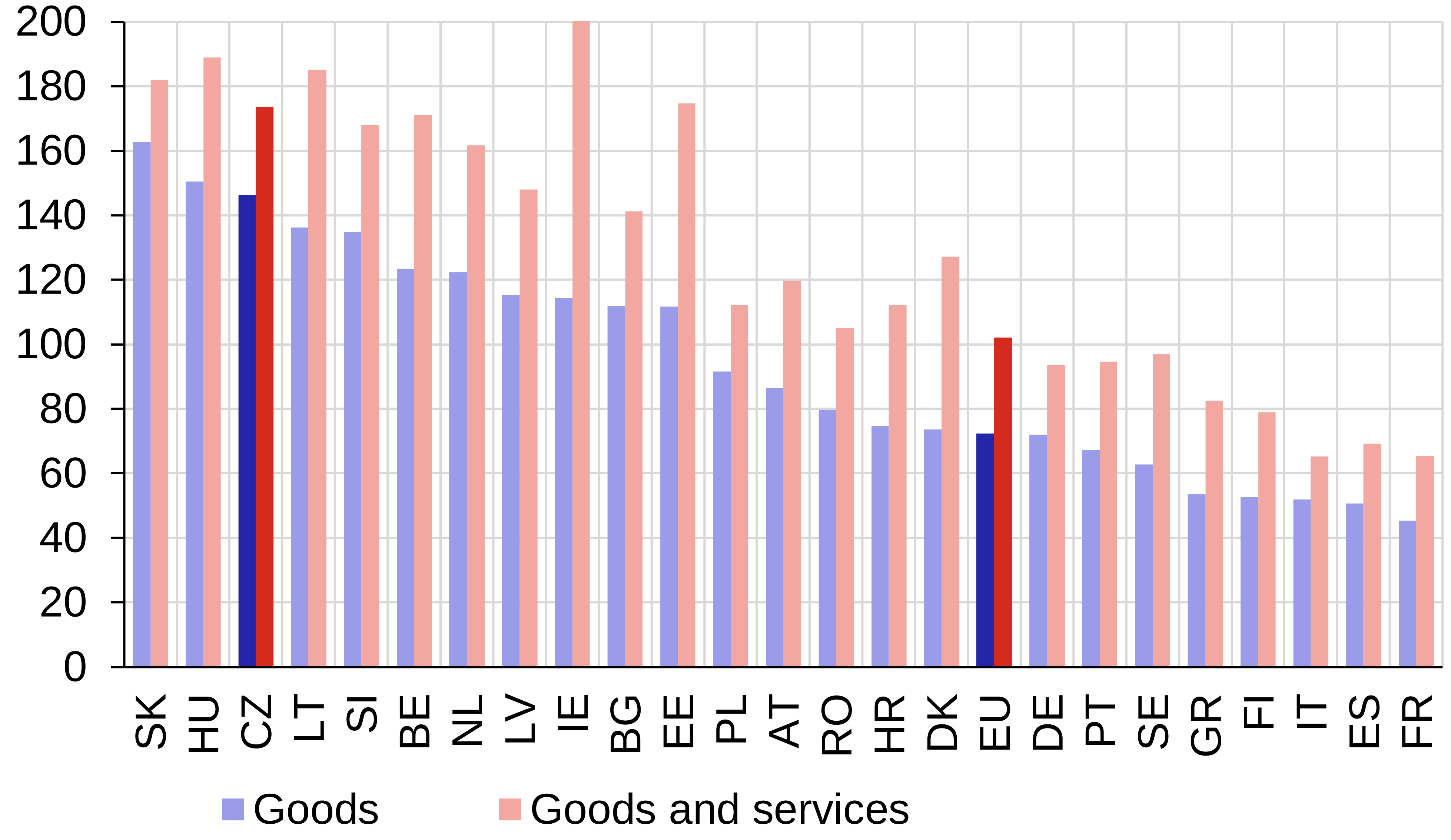
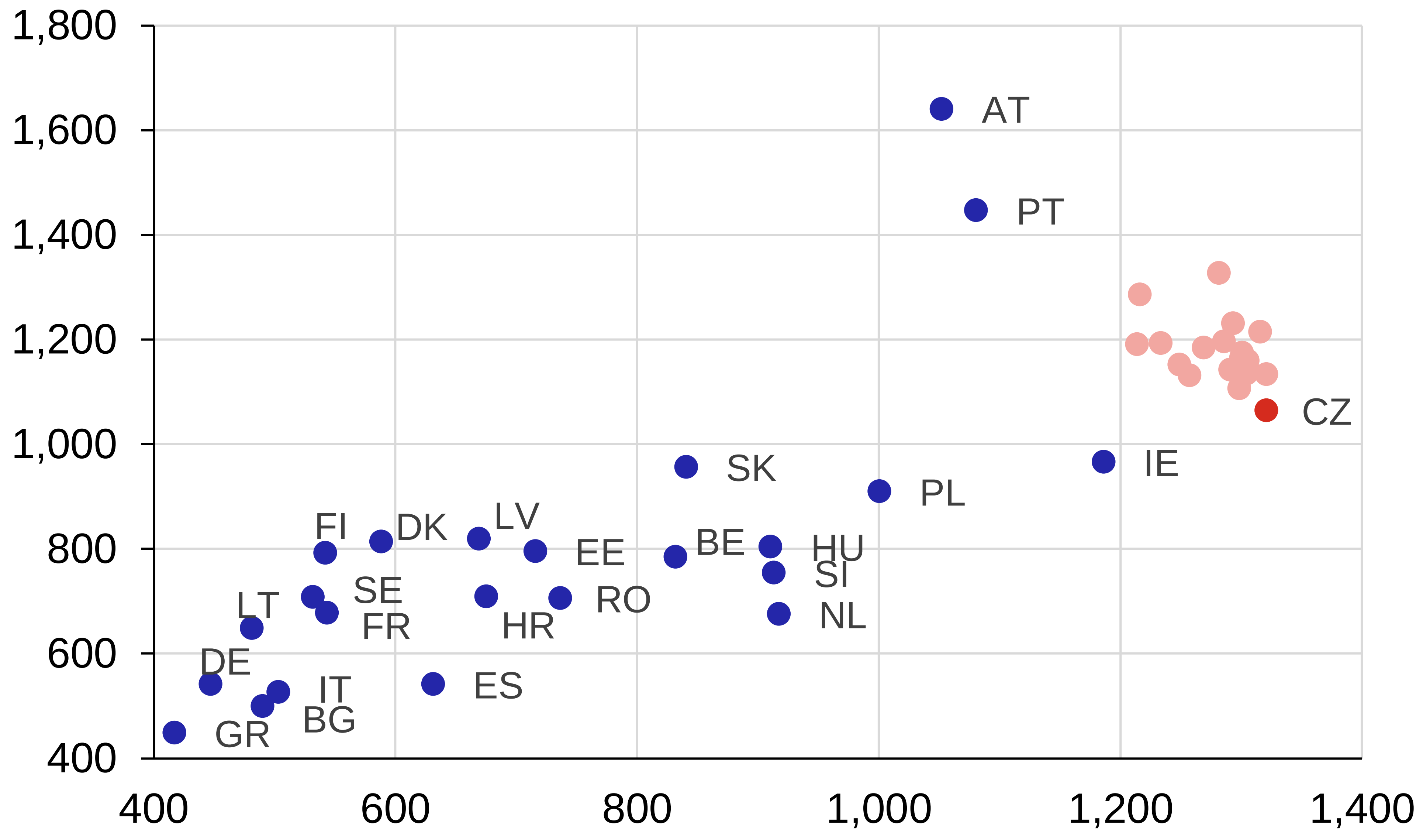
- The degree of openness of the domestic economy and concentration in foreign trade are among the highest by international standards.

Openness indicator for selected EU economies in 2023
(sum of imports and exports in % of GDP; constant 2015 prices)



Source: Eurostat

Index of concentration of selected EU countries' exports and imports to partner countries in 2023
(HHI in points; x-axis: exports, y-axis: imports)



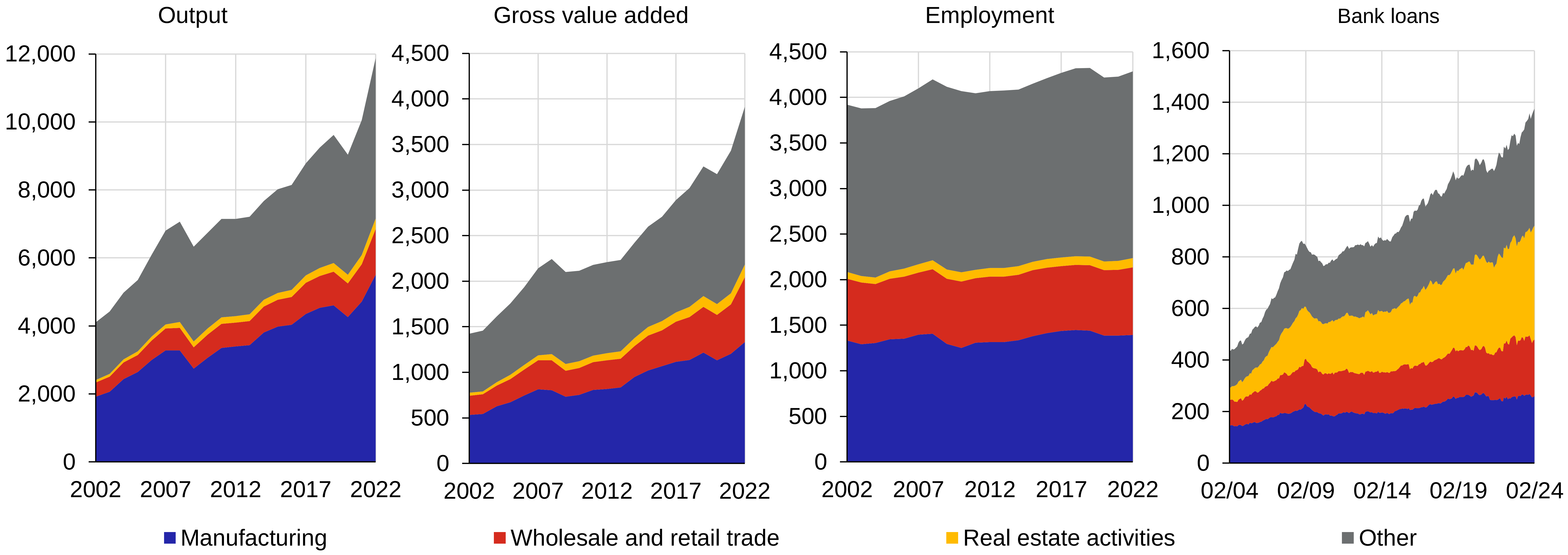
Source: Eurostat

Note: Light red points denote the values for the Czech Republic in the period of 2006–2022.

SyRB decision – structural features of economy (2)

- The sectoral concentration of domestic production and employment is also relevant.

Output, value added, employment and bank loans in the non-financial corporations sector by economic activity
(CZK billions; employment in thousands of persons)

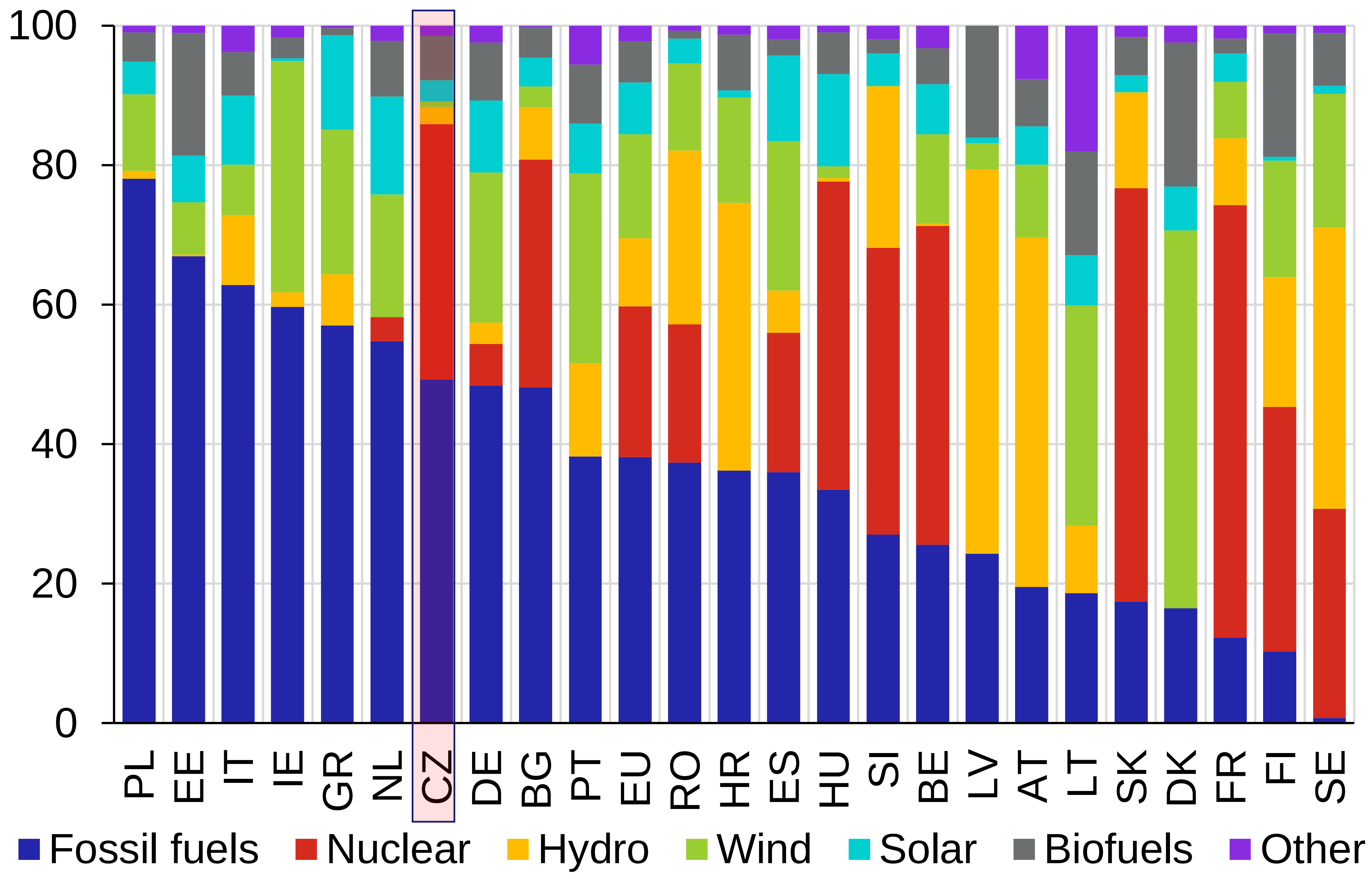


Source: Eurostat, CNB

SyRB decision – structural features of economy (3)

- The perceived vulnerability of the non-financial corporations sector is also fostered by:
  - the potential impacts of climate transition risks amid a high energy intensity of the economy,
  - increased intensity of cyber attacks affecting corporations and financial institutions,
  - technological change with its implications for competitiveness and employment (AI).

Electricity production by source in selected EU countries
(share in gross electricity production in % in 2022)



Source: Eurostat

SyRB decision – stress tests (4)

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- The CNB used the *Adverse Scenario* of the macro stress test to assess the impacts of a deterioration in global economic conditions on the domestic economy and the banking sector:
  - it describes a hypothetical situation in which there is a sharp and deep economic decline originating in the economies of the effective euro area headed by Germany.

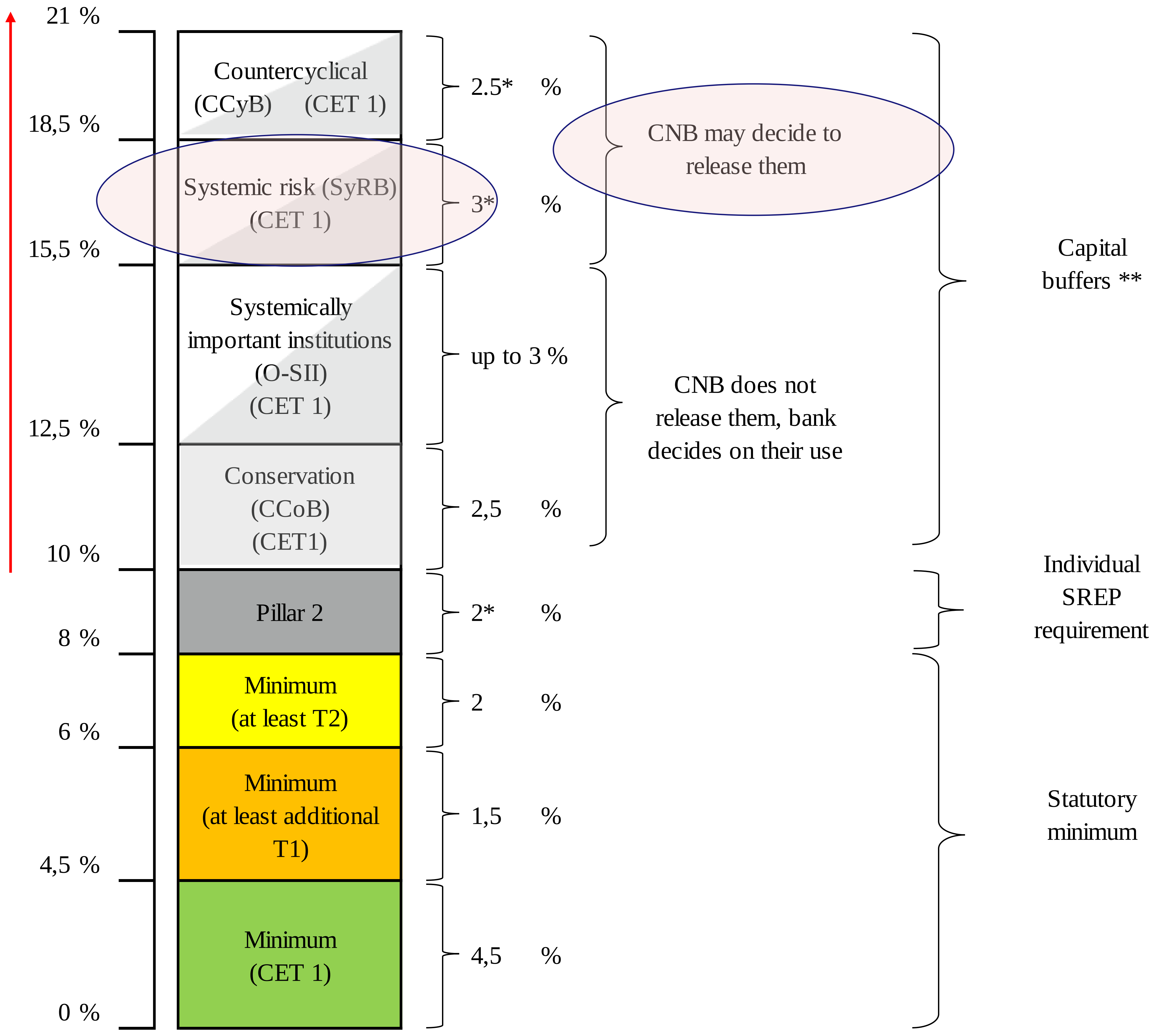
- The results of the test for the domestic banking sector indicate that
  - the impact of the scenario on capital would exceed the current CCyB,
  - the banking sector would have to use the capital conservation buffer (CCoB) and possibly the capital buffer for other systemically important institutions (O-SII). This could lead to reduced lending to the economy.

- Studies suggest that banks may prefer to maintain the regulatory level of capital buffers (CCoB, O-SII) rather than using those buffers to lend to the economy.

Each type of systemic risk has its buffer

- **CCyB 1.25%**: identifiable and measurable risks of a cyclical nature; the **rate set is based on the results of quantitative methods**,
- **SyRB 0.5%**: identifiable risks of a mostly structural nature that are, however, hard to measure credibly; the **rate set depends on expert judgement**, with **stress testing** playing a supporting role,
- **O-SII 0.5%–3%**: identifiable and measurable risks associated with an institution's systemic importance; the **rate set is based on the results of quantitative methods** (scoring) under EBA guidelines,
- **CCoB 2.5%**: risks that are hard to identify and measure; set universally for the entire EU.

Structure of capital requirements



Note: * Expected upper limits, but actual values may be higher
** Sum of O-SII a SyRB buffers higher than 5% is subject to approval by EC

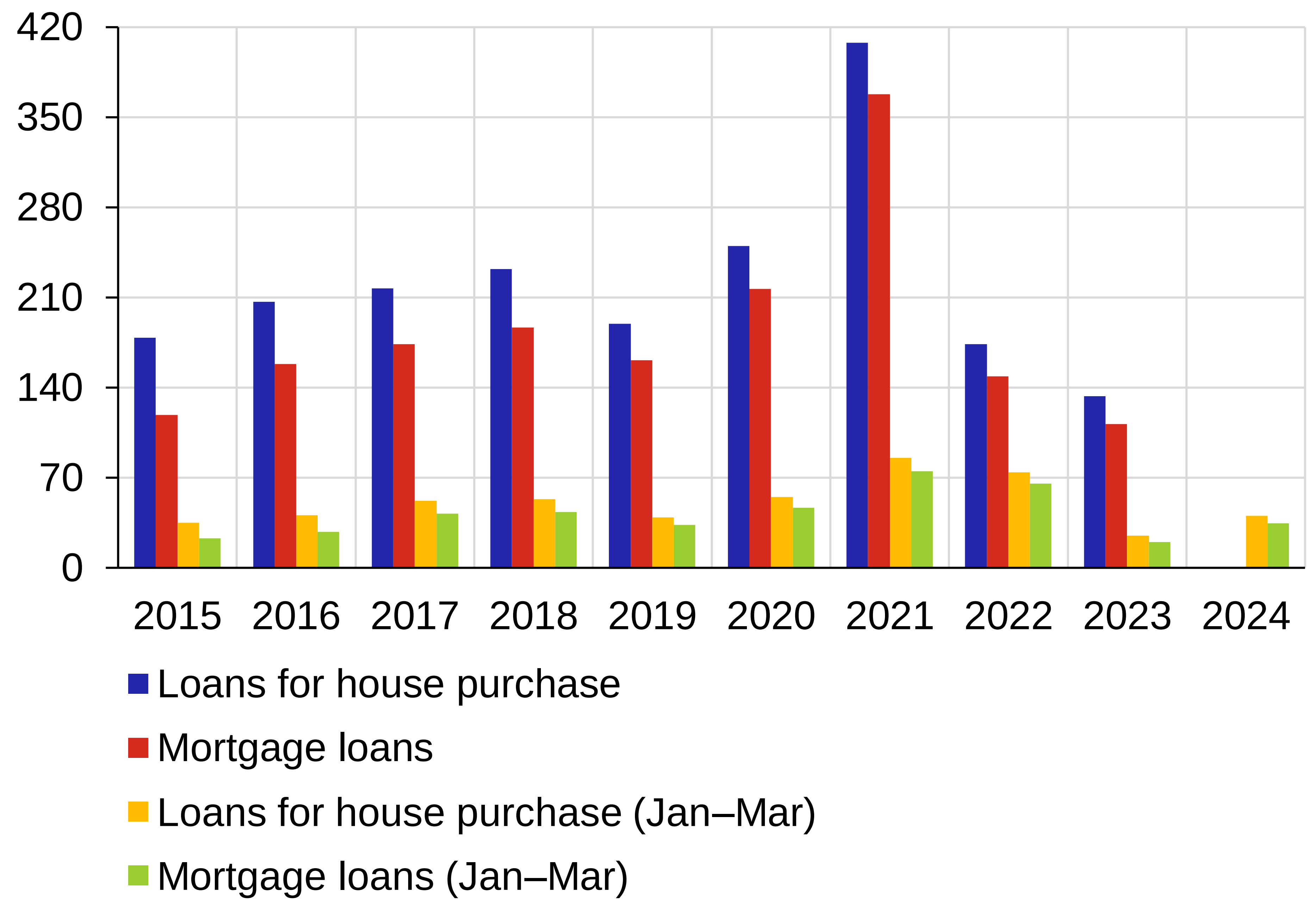
Contents

1. **Aggregate assessment of risks and overview of CNB’s main measures**
   - **Mortgage lending ratios**

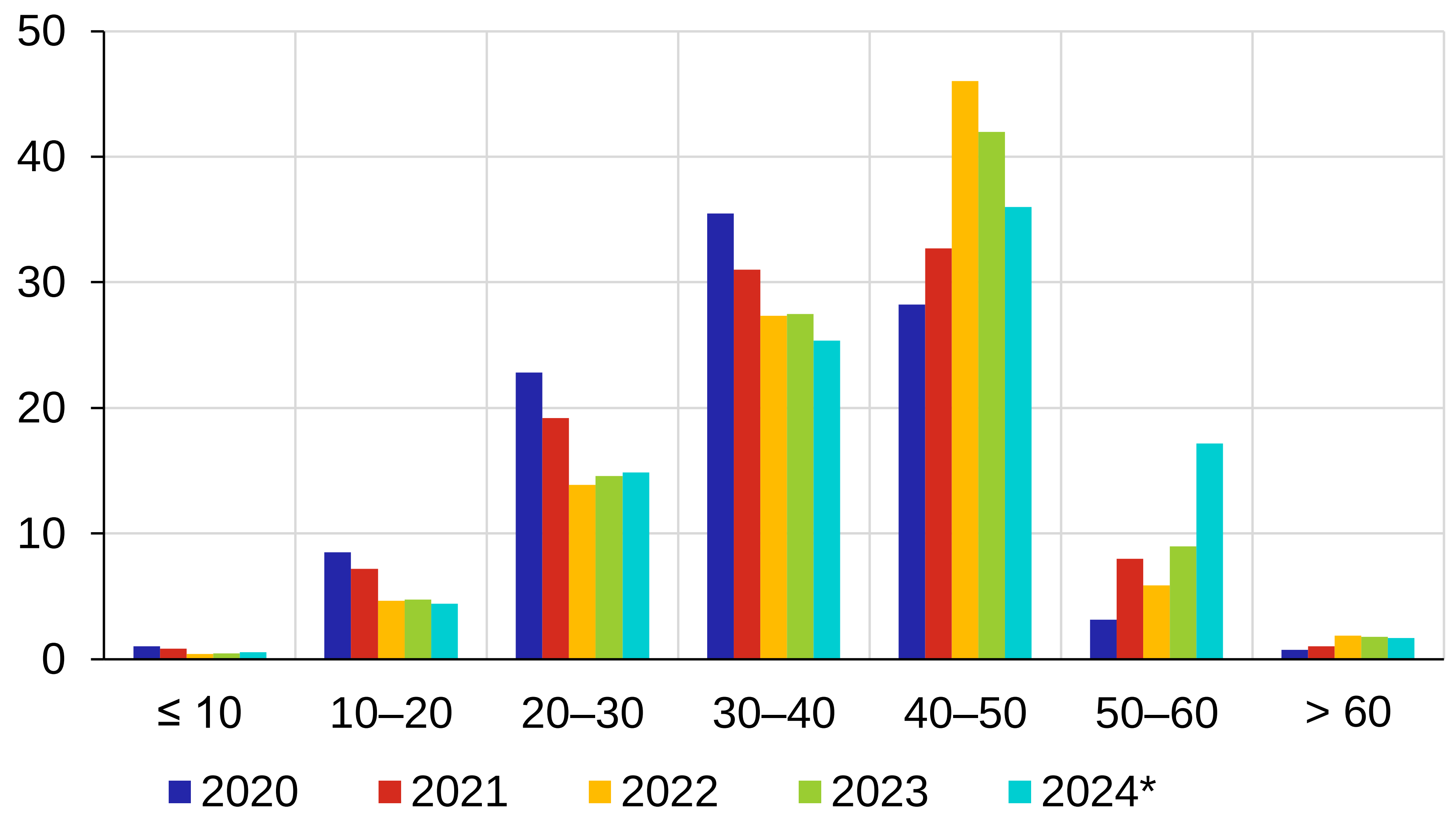
Mortgage lending and property market (1)

- The volume of pure new mortgage loans rose year on year but remained below the long-term average (CZK 39.5 billion in 2014–2023) in January–March 2024.
  - High interest rates continued to dampen lending activity.
  - Banks were compliant with the LTV limits effective since April 2022.
  - The share of mortgage loans with a DSTI of between 50% and 60% increased, but the volume and characteristics of these loans did not have potential for the build-up of systemic risks.

Pure new bank loans for house purchase
(CZK billions)



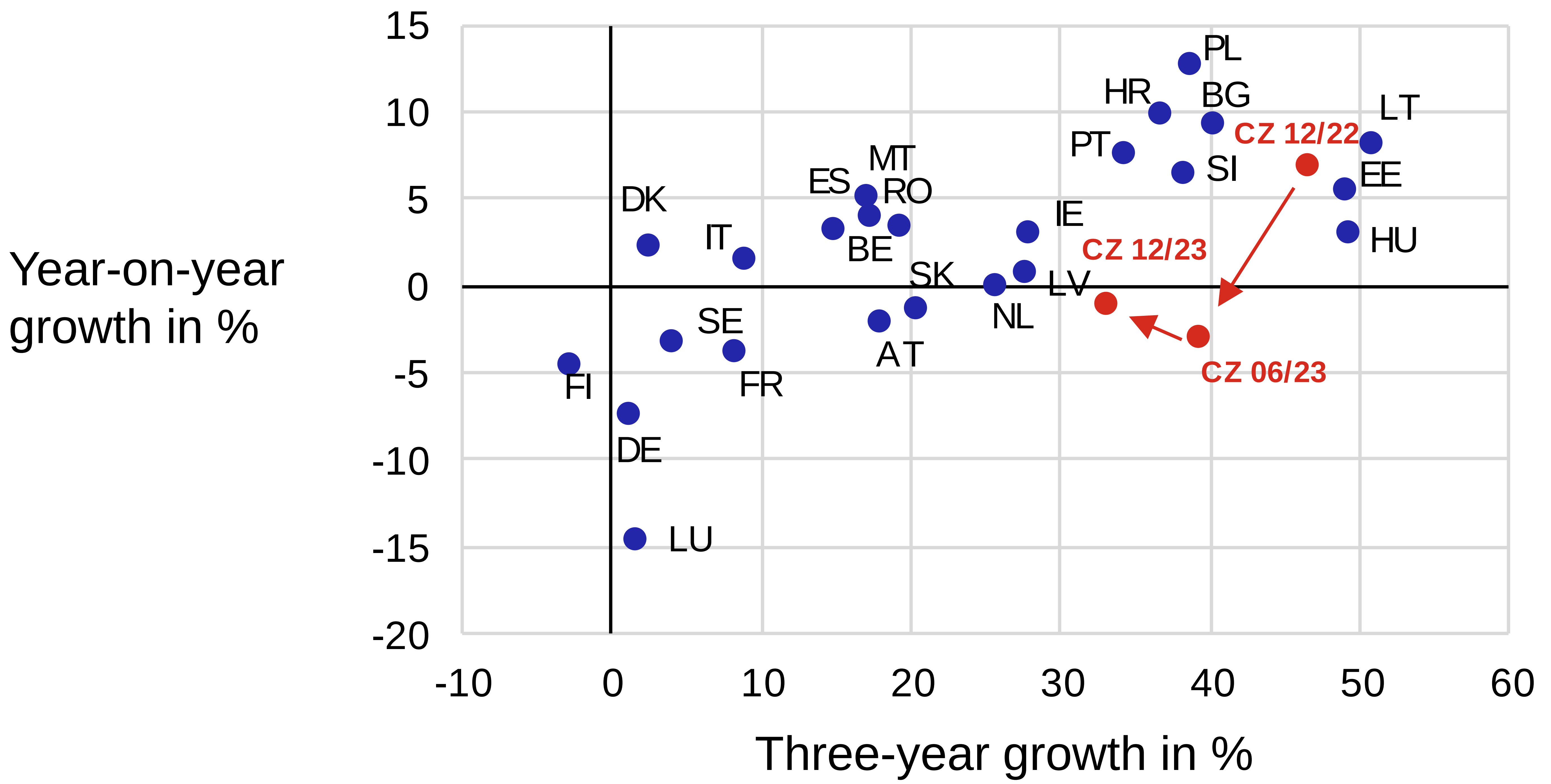
New mortgage loans by DSTI category
(% of total volume; x-axis: DSTI in %)



Mortgage lending and property market (2)

- Following a period of growth in house prices, a correction occurred in the Czech Republic and European countries.
  - Prices were still falling year on year in 2023 due to a continued cooling of the Czech residential property market.
  - However, recent information suggests that the market has probably bottomed out.

Residential property price growth in selected EU countries



Mortgage lending and property market (3)

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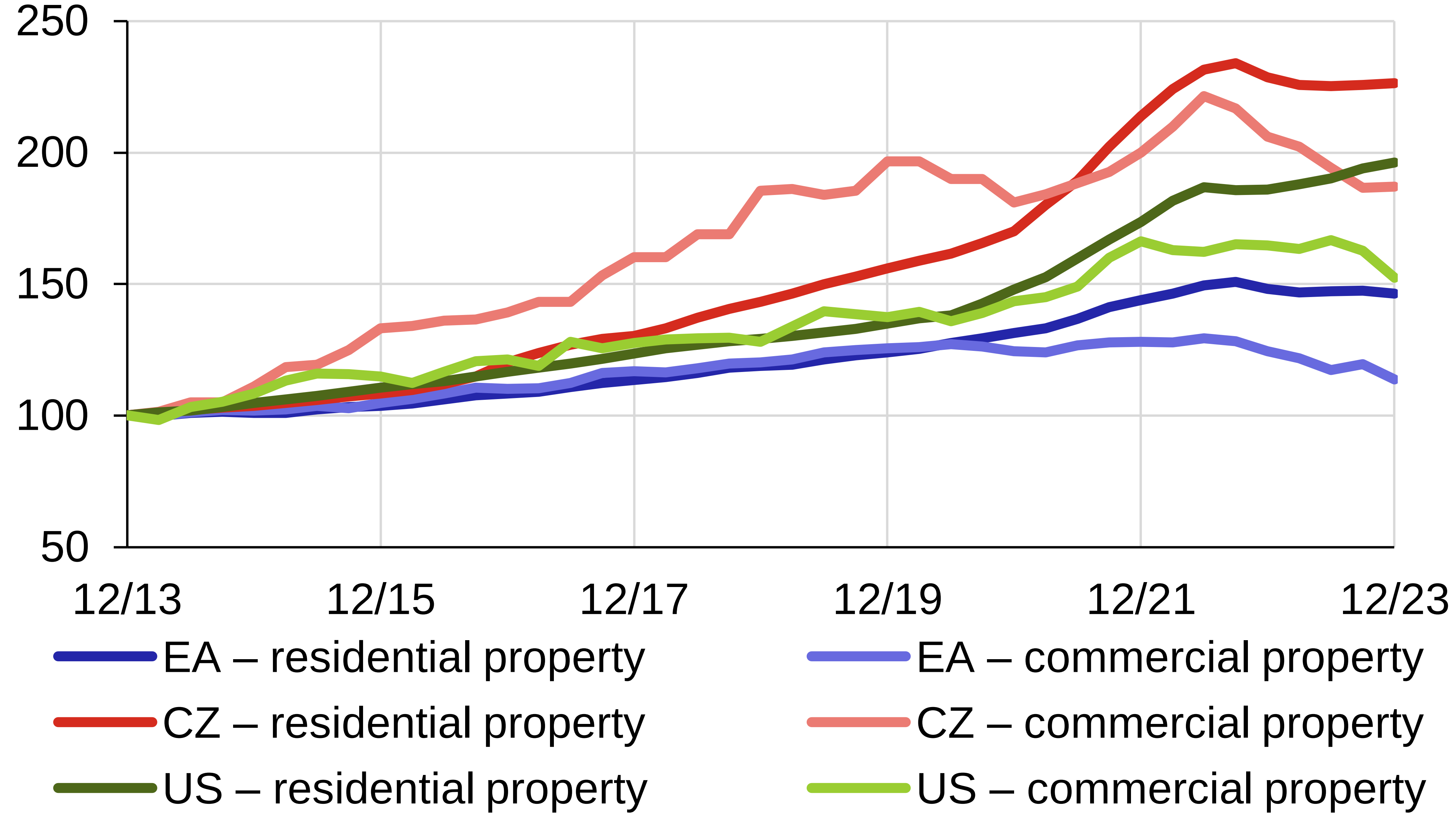
- In a many economies, tight monetary conditions have induced larger decreases in commercial property prices than residential property prices.
- For this reason, coupled with lower yields on office space (the occupancy of which remains much lower than before the pandemic), the quality of the credit portfolios financing this segment is declining in some euro area countries.
- In the Czech Republic, some information suggests that commercial property prices could now be at their trough.

Commercial and residential property price indices

(index: 31 December 2013 = 100)



Mortgage lending and property market (4)

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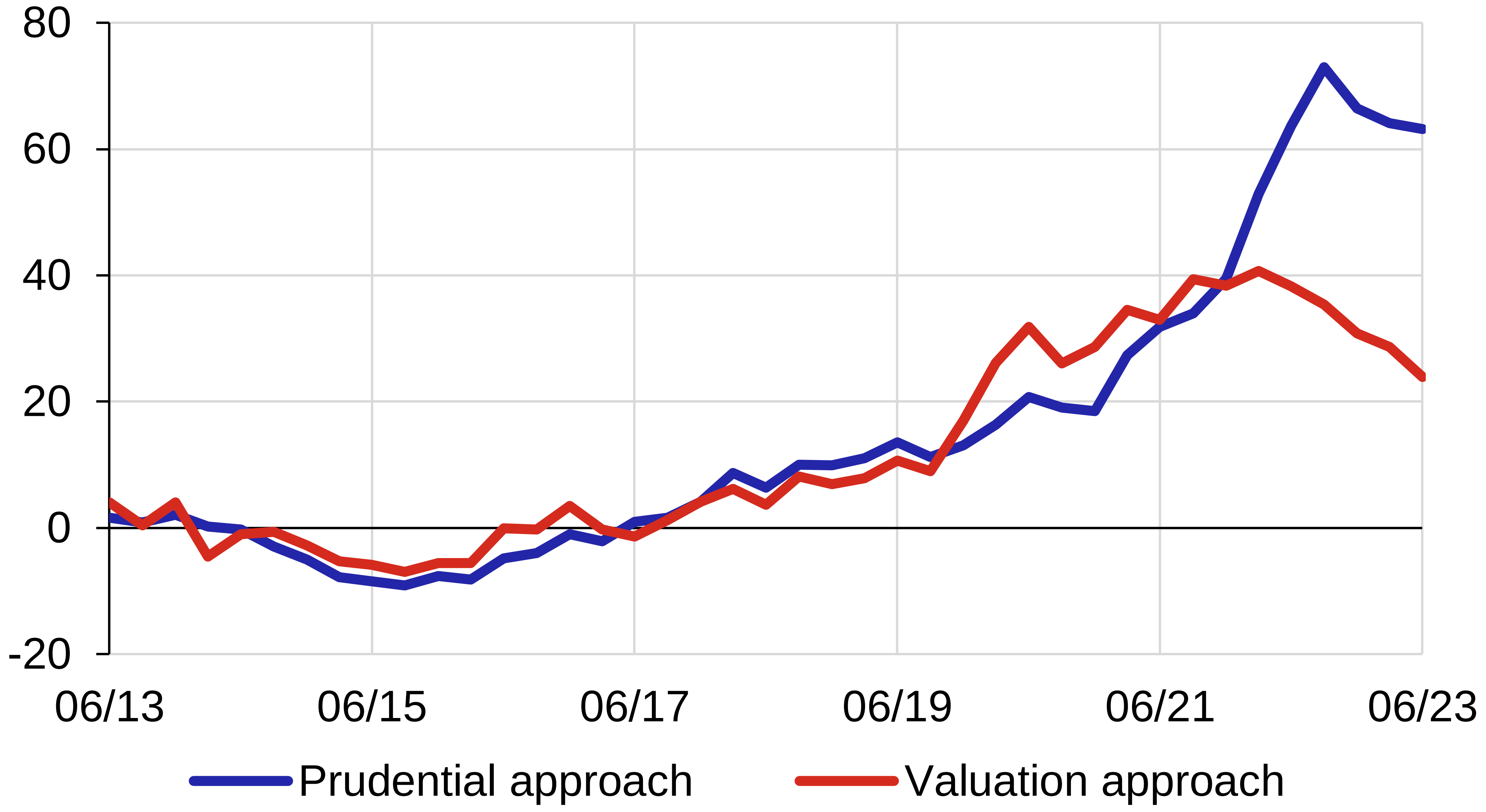
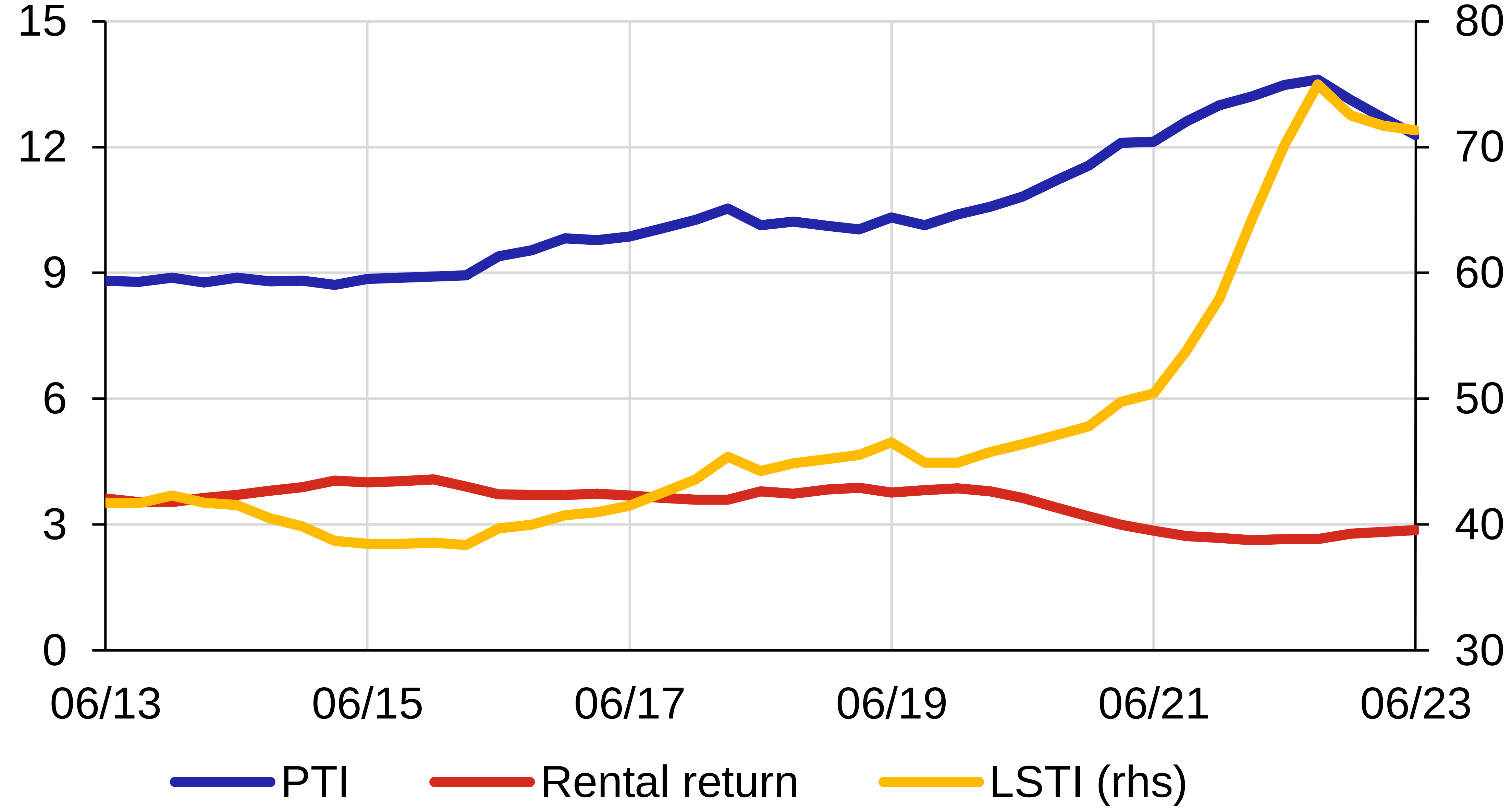
- The degree of overvaluation stopped falling in late 2023, due mainly to renewed growth in apartment prices.
- Under the macroprudential approach, apartments were overvalued by around 62% for the median household purchasing owner-occupied housing. Under the valuation approach, they were overvalued by about 23% for a household buying a buy-to-let apartment.

Estimated overvaluation of apartment prices
(%)



Selected apartment affordability indicators
(PTI in years; yields in %; right-hand scale: %)



Mortgage lending and property market (5)

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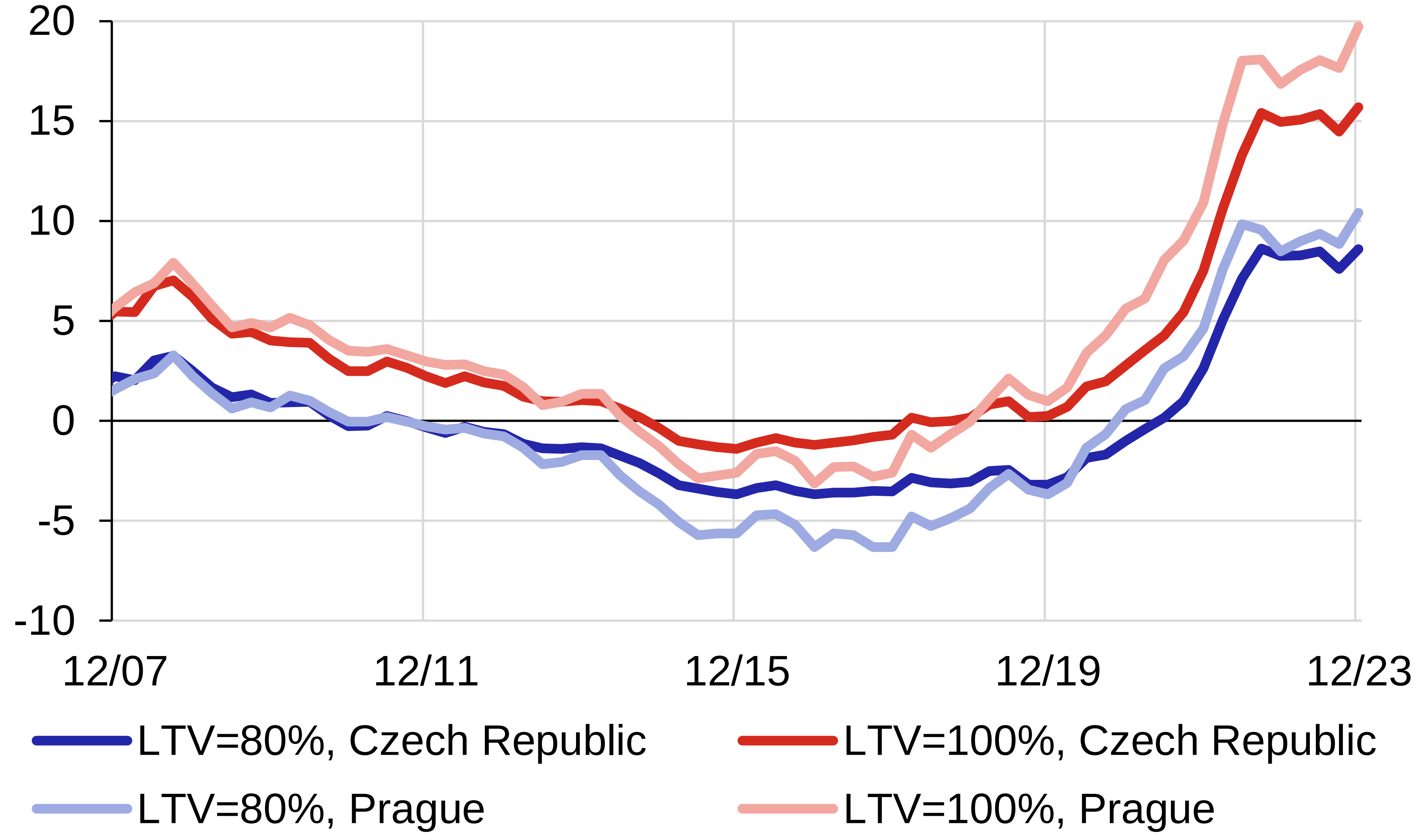
- Prices of new rentals rose year on year. For some households, this may reduce the ability to save the own funds required to buy a property.
- The gap between the monthly instalment of an apartment purchase mortgage and the rent on that same apartment remains very wide for typical initial LTV values. The two options become comparable in terms of monthly expense only at LTV levels of less than 60%.

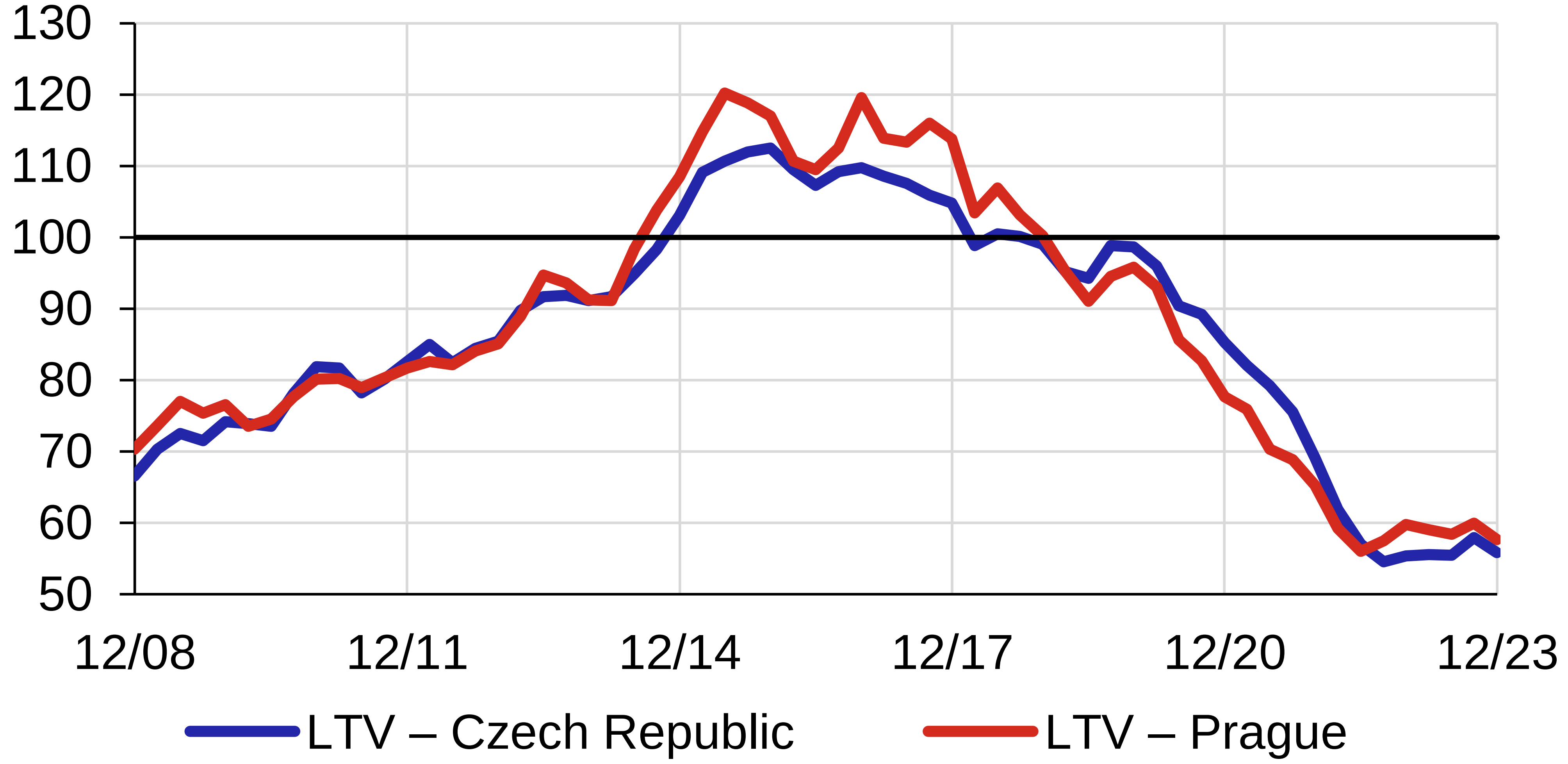
Gaps between mortgage loan instalments and apartment rents

(CZK thousands/month)



LTV balancing mortgage loan instalment and apartment rent

(%)



Limits on mortgage loan ratios (1)

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- The Bank Board decided to **leave the upper limit on the LTV ratio unchanged**.

LTV

Ratio of value of loan to value of collateral.

80%

90%

For applicants under 36 years

if the loan is for the purchase of owner-occupied housing.

- The DSTI and DTI ratios remain deactivated.

In the current calendar quarter, lenders may apply an exemption not exceeding 5% of the total volume of loans provided in the previous calendar quarter.

Limits on mortgage loan ratios (2)

- The Bank Board identified potential risks against a backdrop of recovering mortgage and property markets in an increase in highly risky loans:
  - The share of loans with an LTV of over 80% exceeded 17% and the share of loans with an LTV of 90% reached 12% for the first time since 2017.
  - The volume of loans with an LTV of over 80% and simultaneously a DSTI of over 40% also increased, diverging from the total volume of mortgage loans provided.
  - Therefore, the **LTV limit of 80%** (90%) **remains in effect**.

Changes in Recommendation

- In addition, the Bank Board decided to **expand the applicability of the Recommendation to all consumer credit for housing**. The aim is to:
  - mitigate the risks arising from the provision of all consumer credit for housing,
  - reduce the risk of regulatory arbitrage, in the sense of circumvention of the upper limits on the credit ratios using housing loans not secured by residential property,
  - and create a level playing field for all housing loan providers.

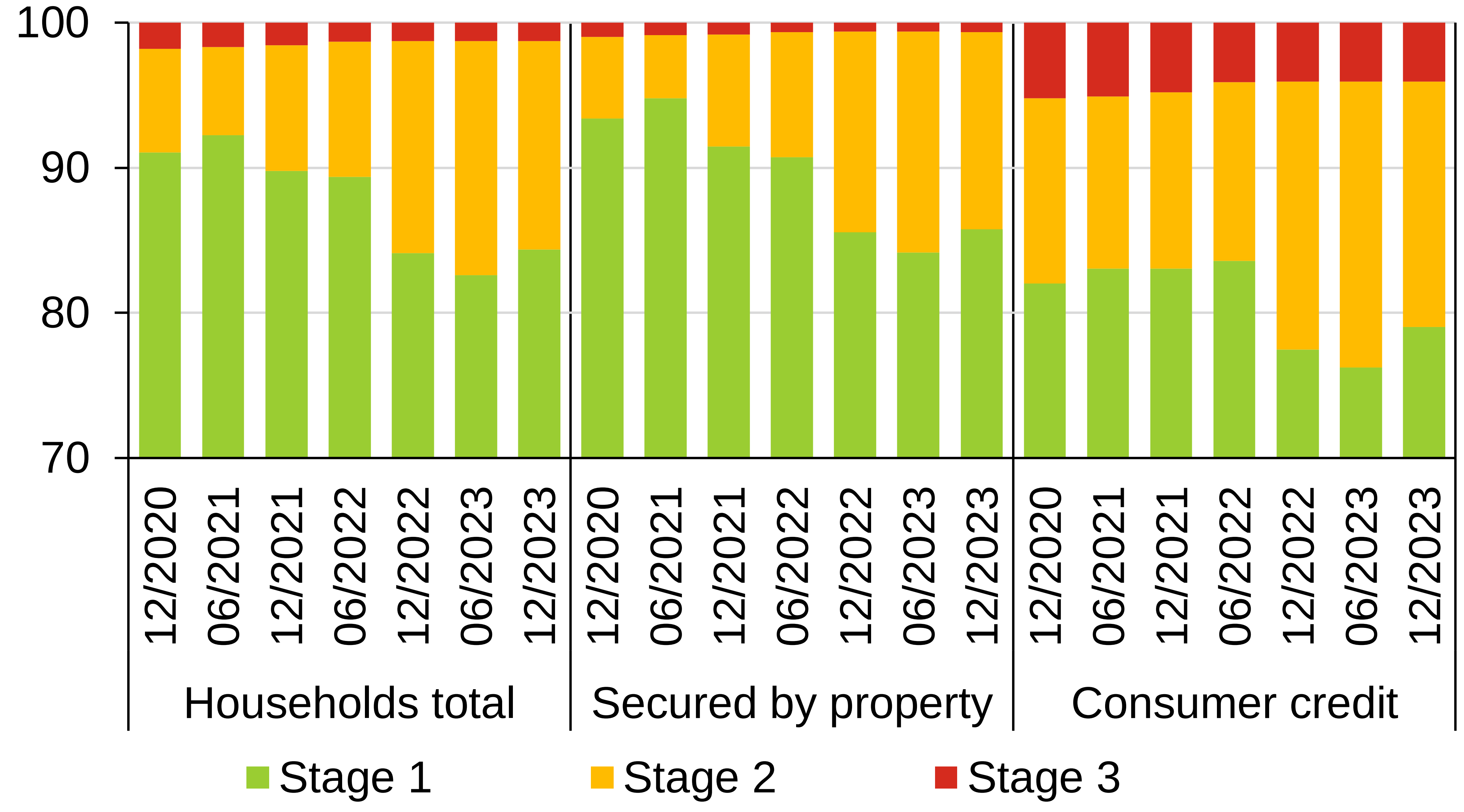
- The Bank Board recommends that housing loan providers assess with increased caution applications for housing loans where the DSTI exceeds 40% and the DTI exceeds 8 net annual incomes. At the same time, the Bank Board recommends that the upper limit on the LTV ratio of no loan secured by residential property should exceed 100%.

- The expanded applicability follows up on the changes in the Recommendation made in March 2024 and was discussed with representatives of the banking sector.

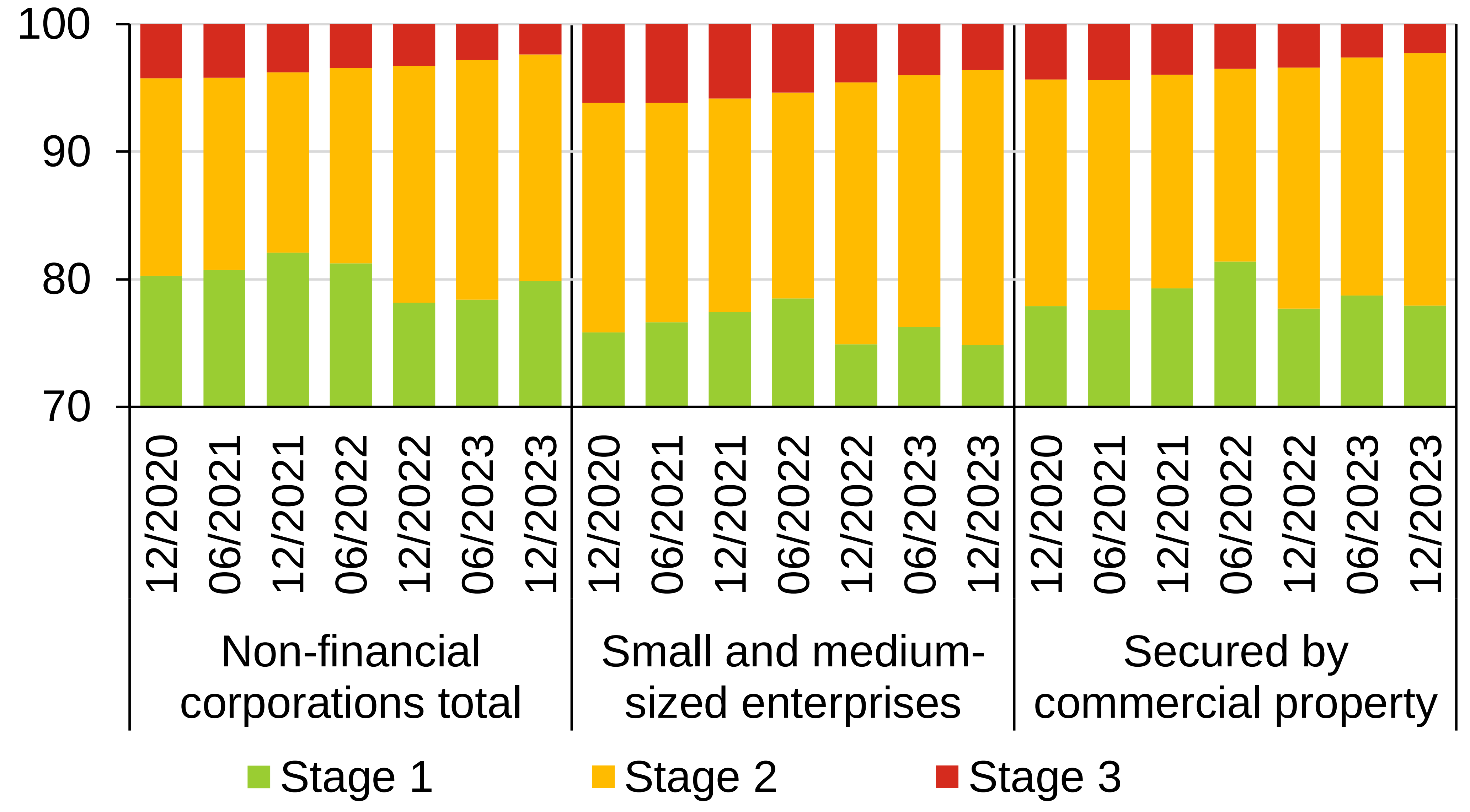
Contents

Initial level of banks' credit risk (1)

Structure of loans by portfolio in the household segment
(%)

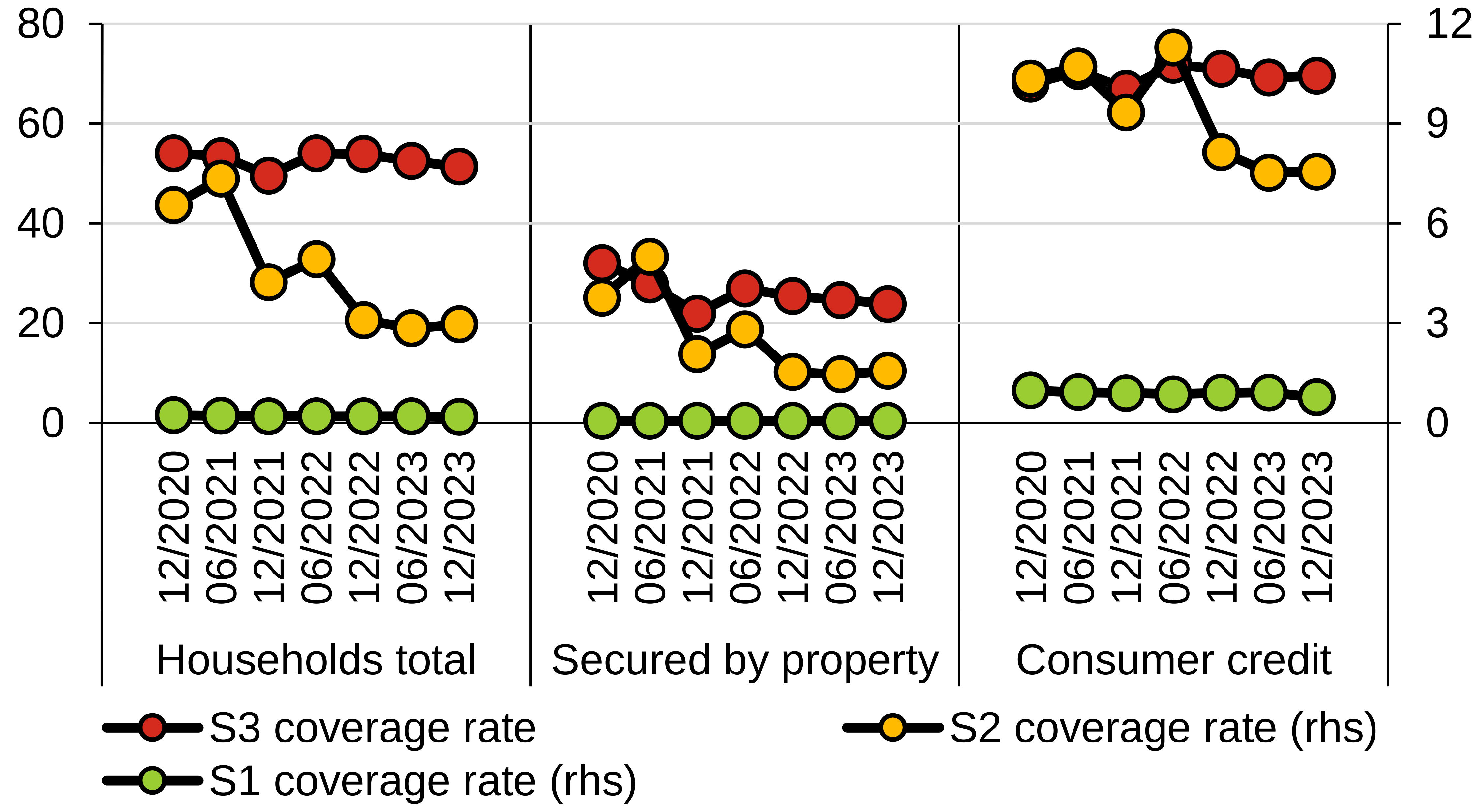


Structure of loans by portfolio in the non-financial corporations segment
(%)

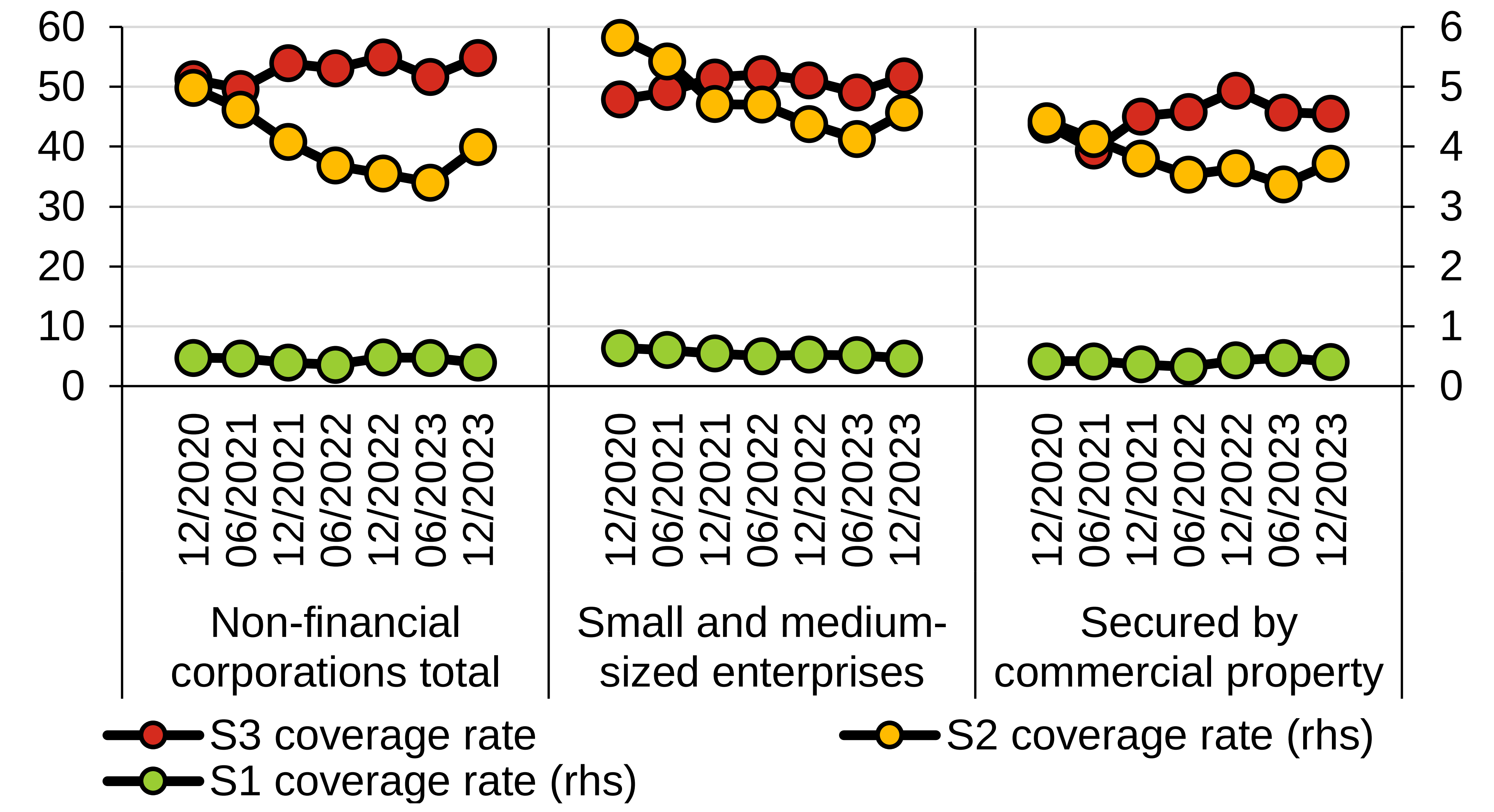


Initial level of banks' credit risk (2)

Coverage of loans by portfolio in the household segment
(%)

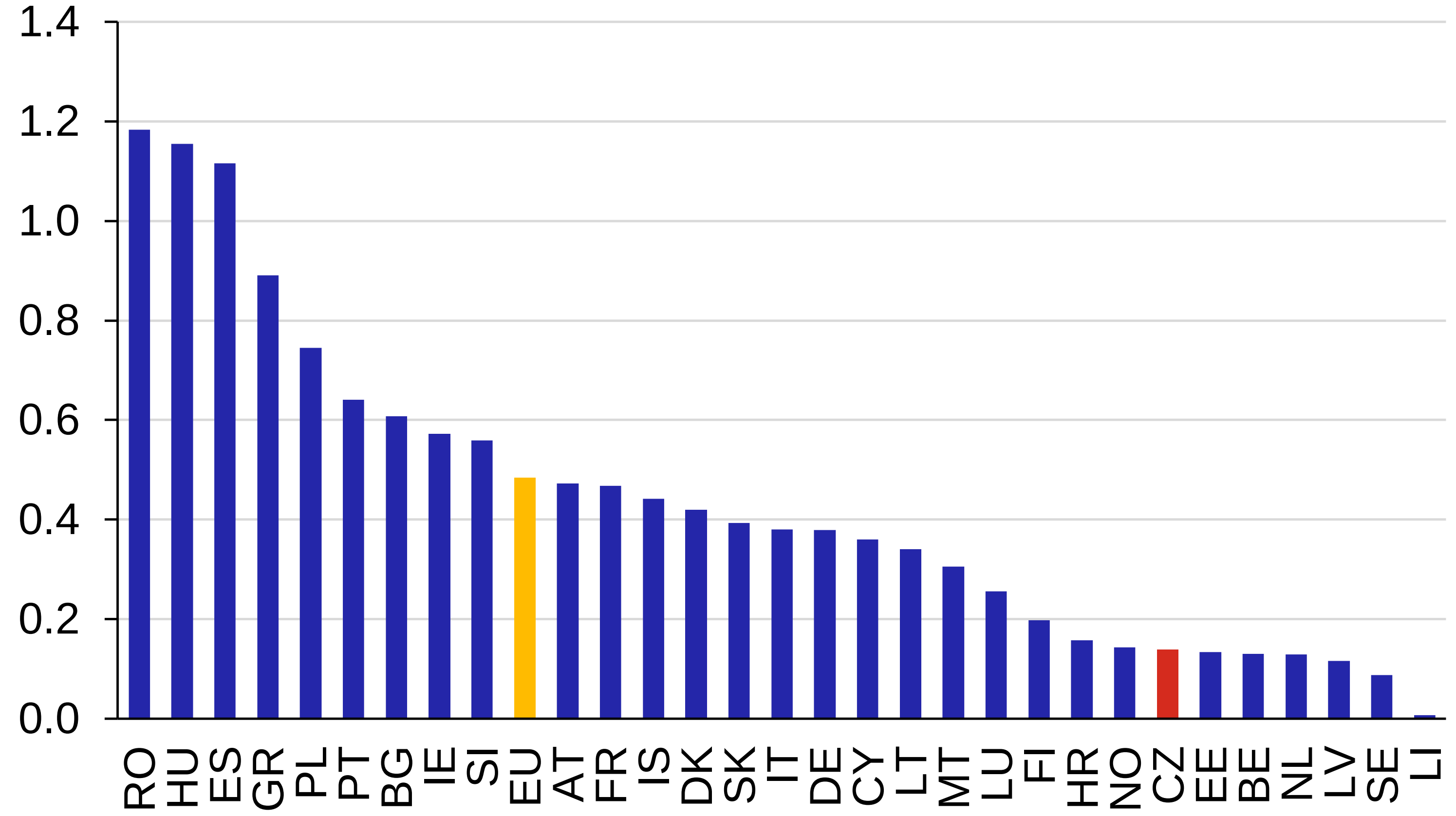


Coverage of loans by portfolio in the non-financial corporations segment
(%)

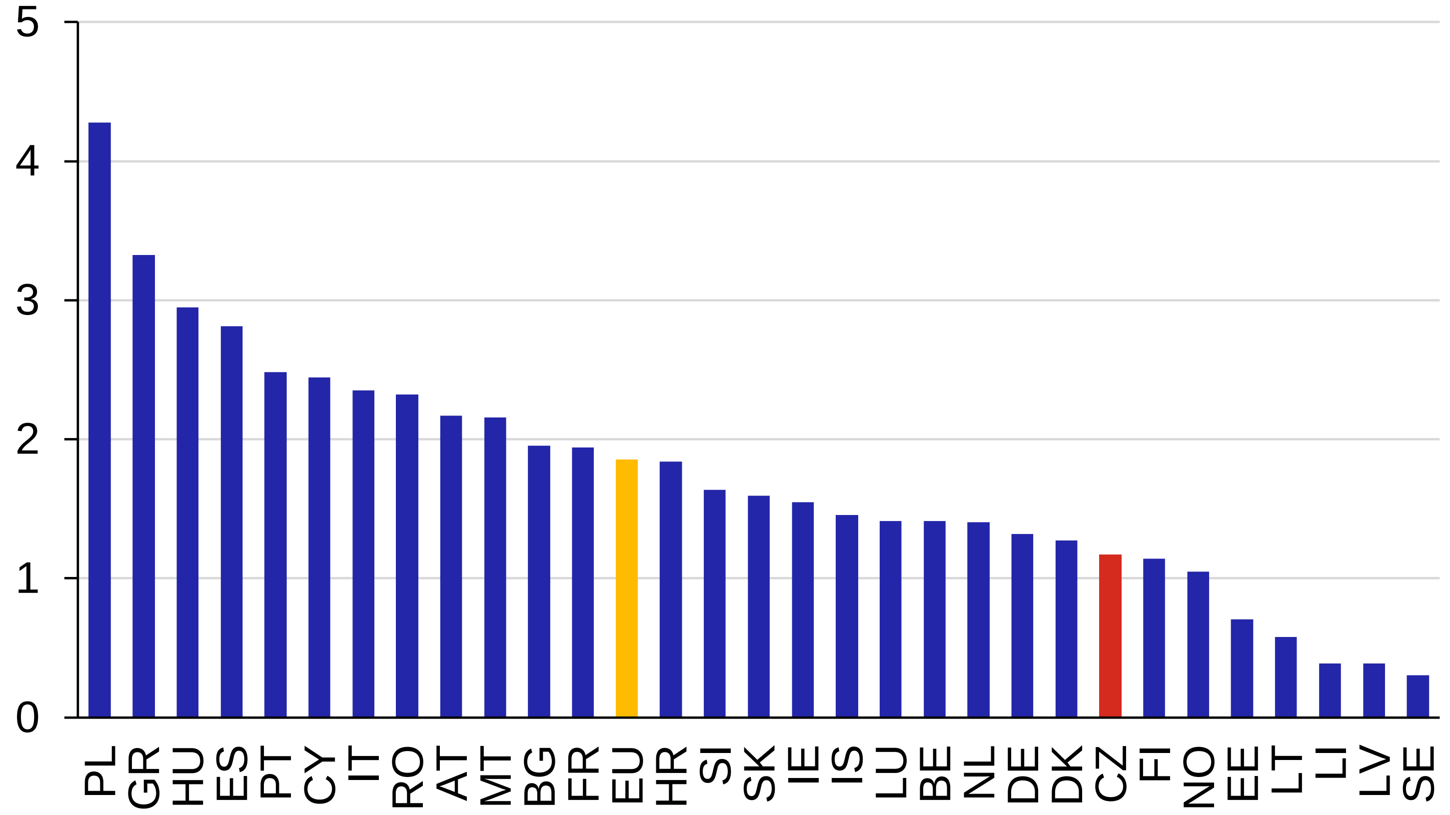


Initial level of banks' credit risk (3)

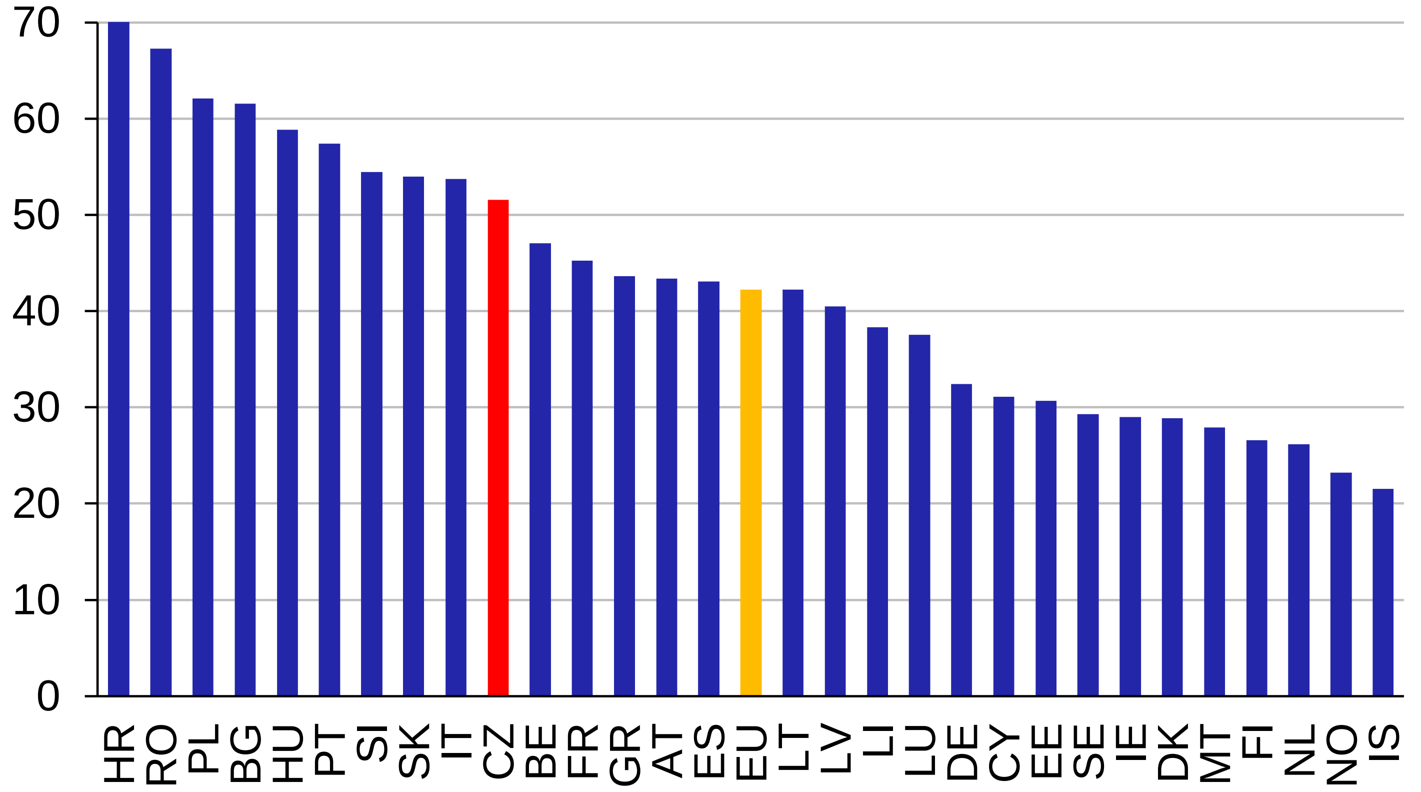
Cost of risk in selected countries in EU
(%; as of 31 December 2023)



Shares of non-performing client loans in selected EU countries
(%; as of 31 December 2023)

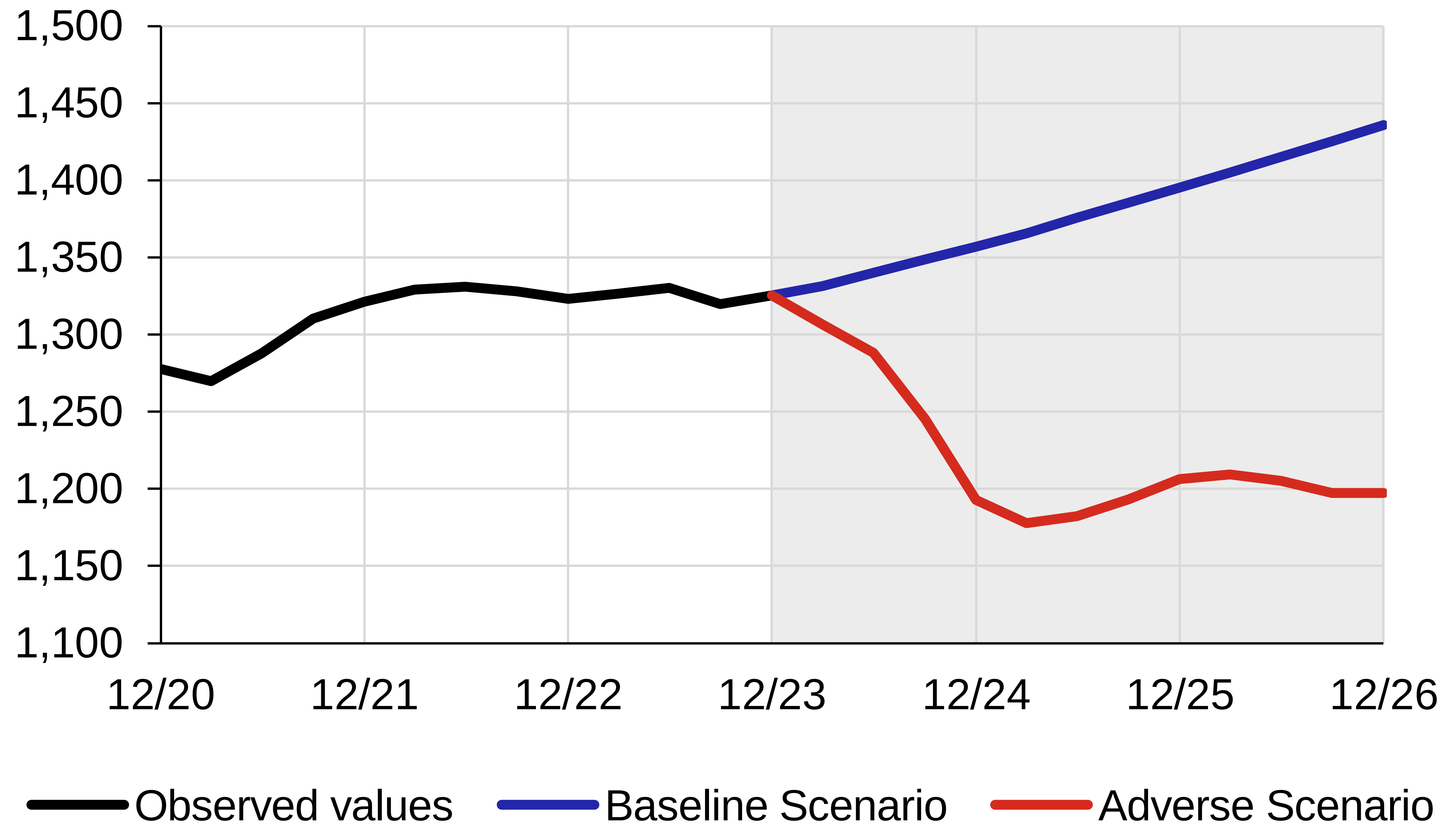


Coverage rates of non-performing client loans by provisions in selected EU countries
(%; as of 31 December 2023)

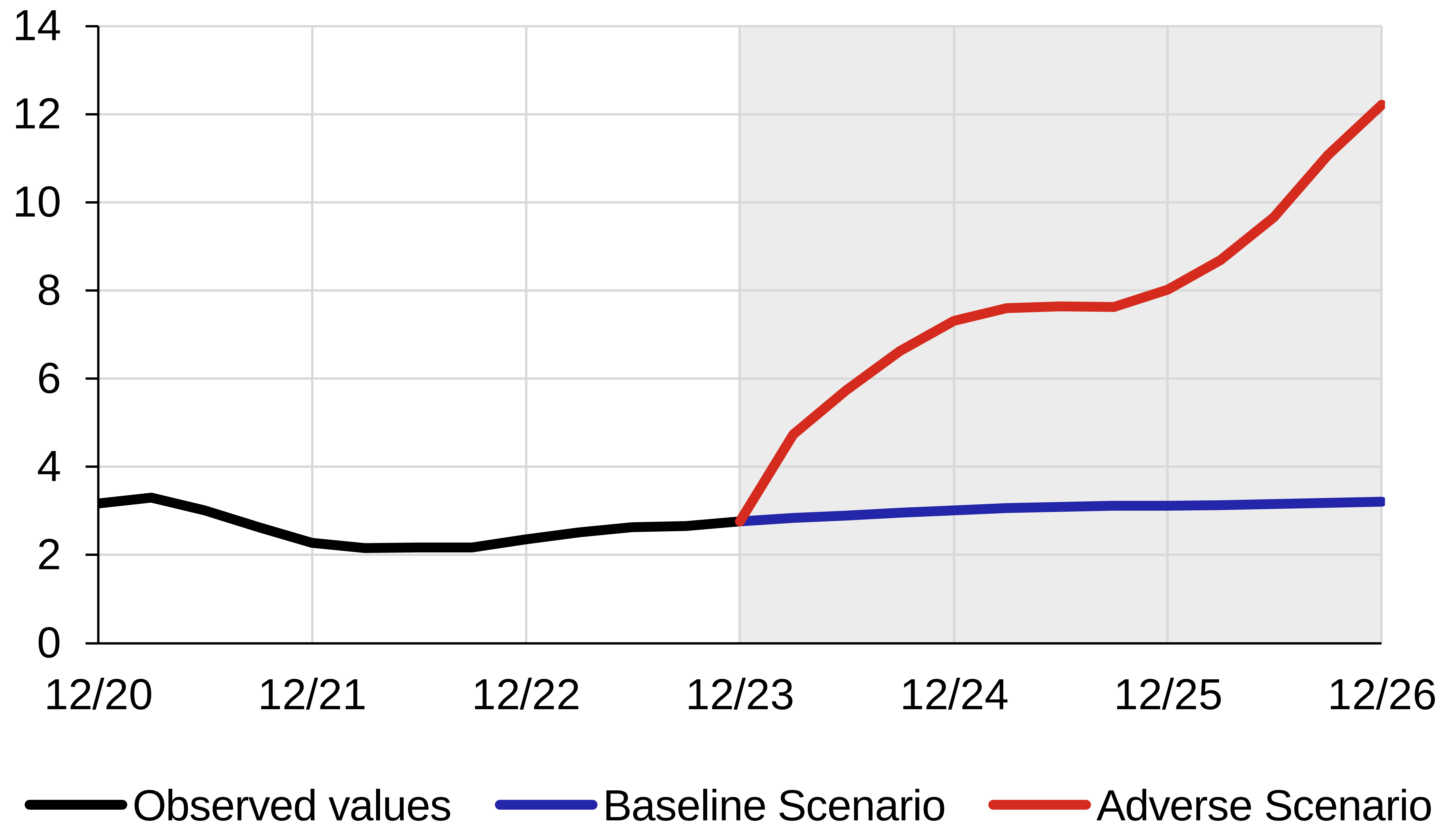


Main characteristics of stress test scenarios (1)

Alternative scenarios: real GDP
(CZK billions; quarterly data)



Alternative scenarios: unemployment rate
(%)



Main characteristics of stress test scenarios (2)

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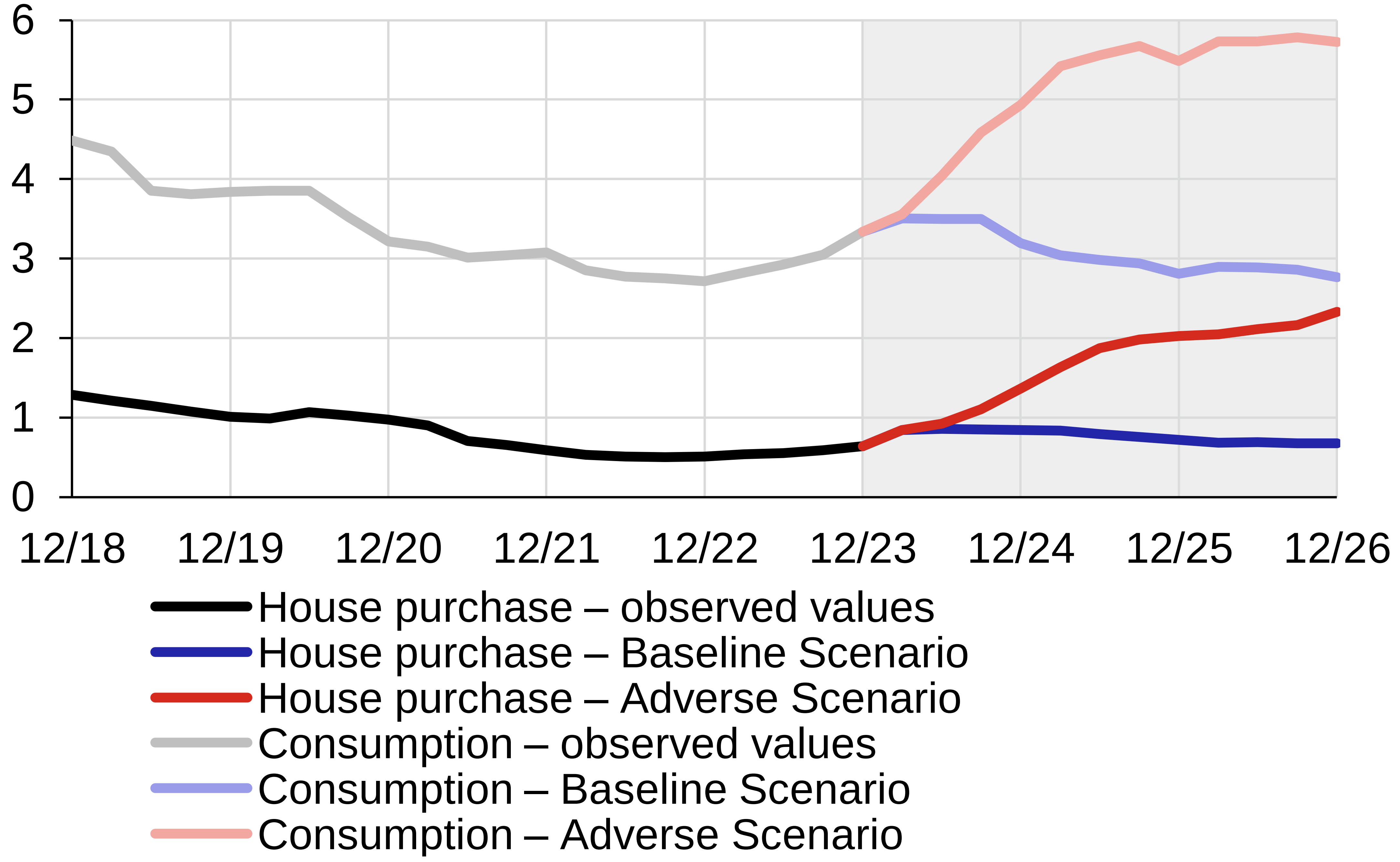
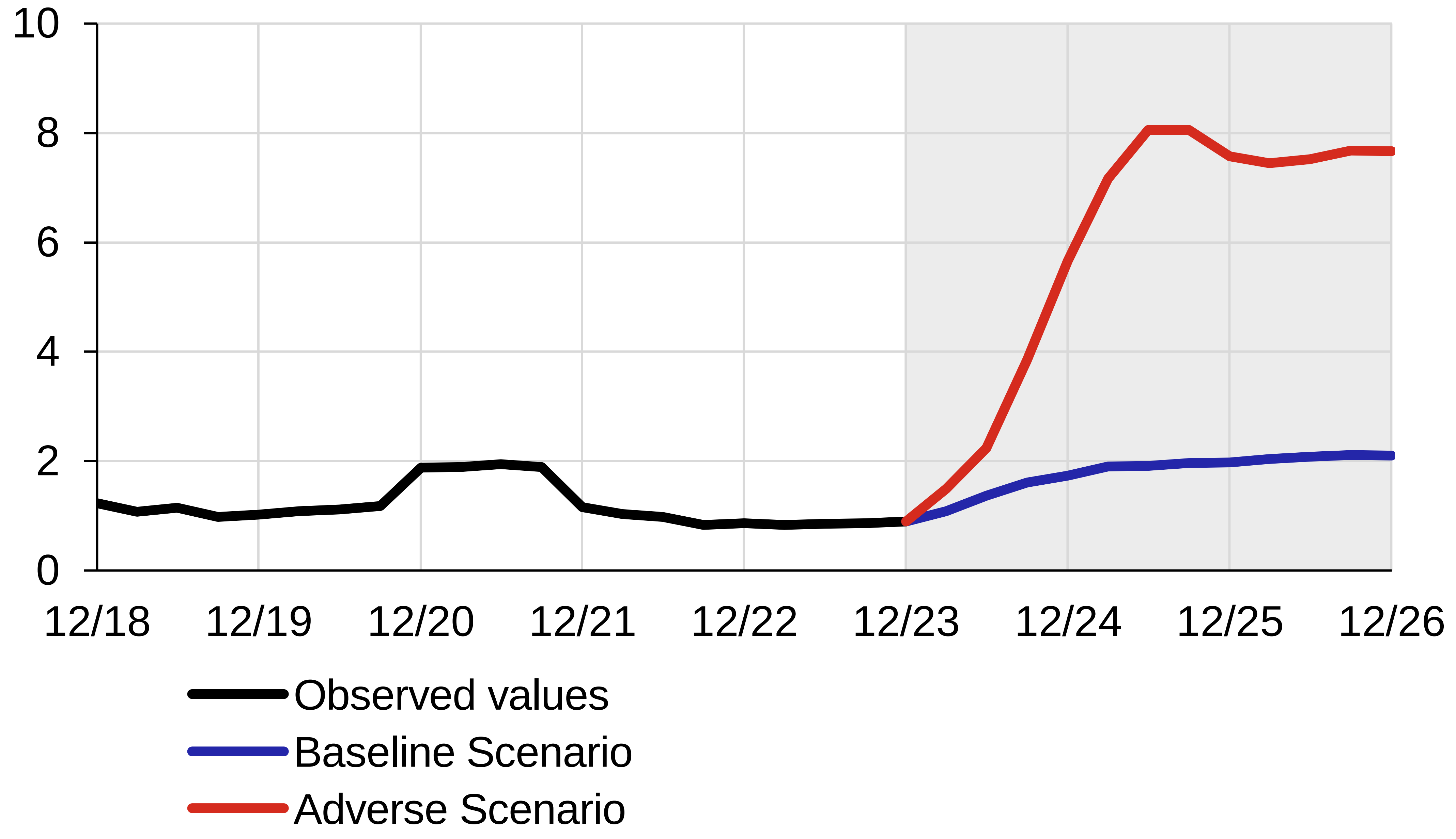
12M default rate on loans to households by scenario

(%)



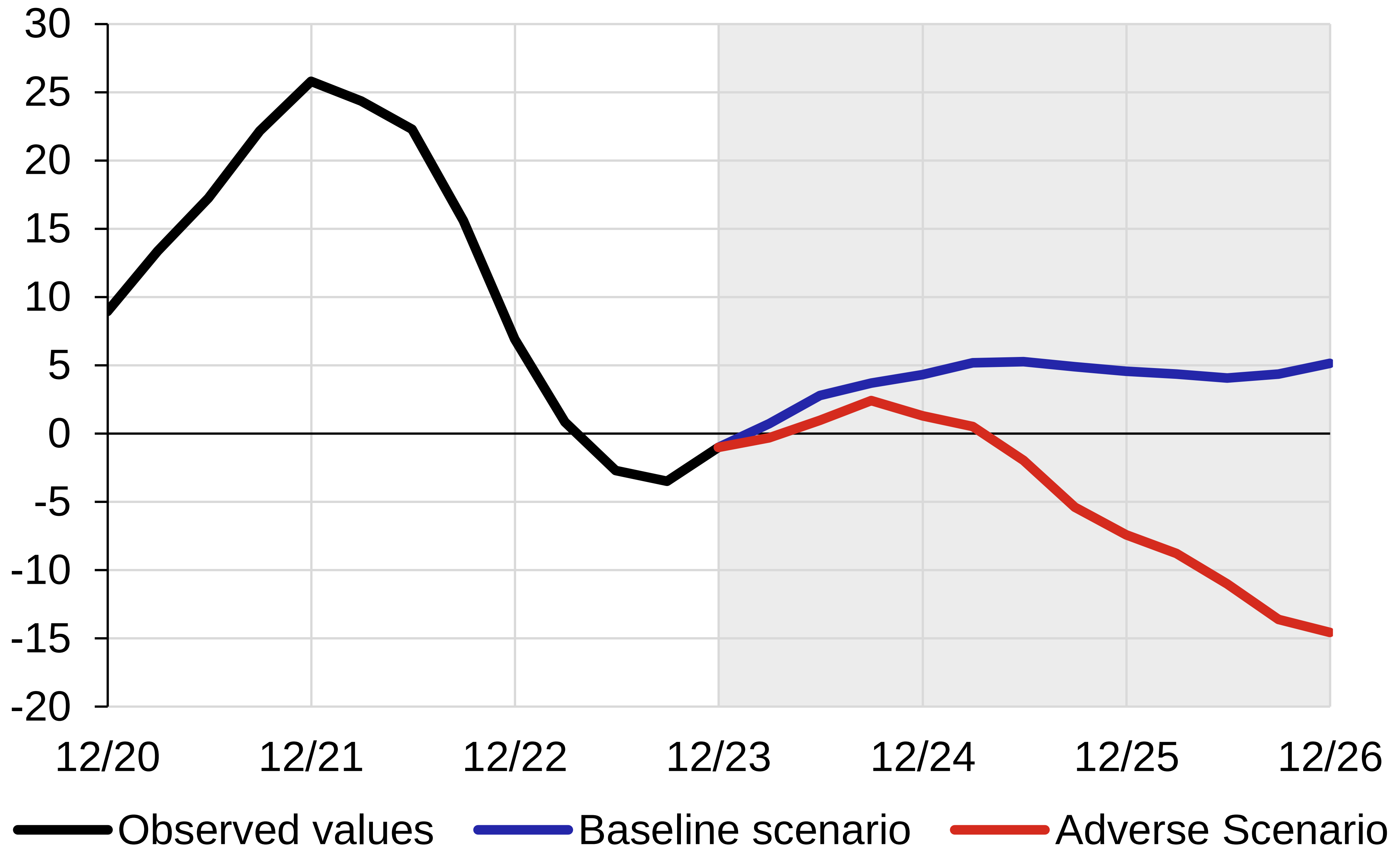
12M default rate on loans to non-financial corporations by scenario

(%)

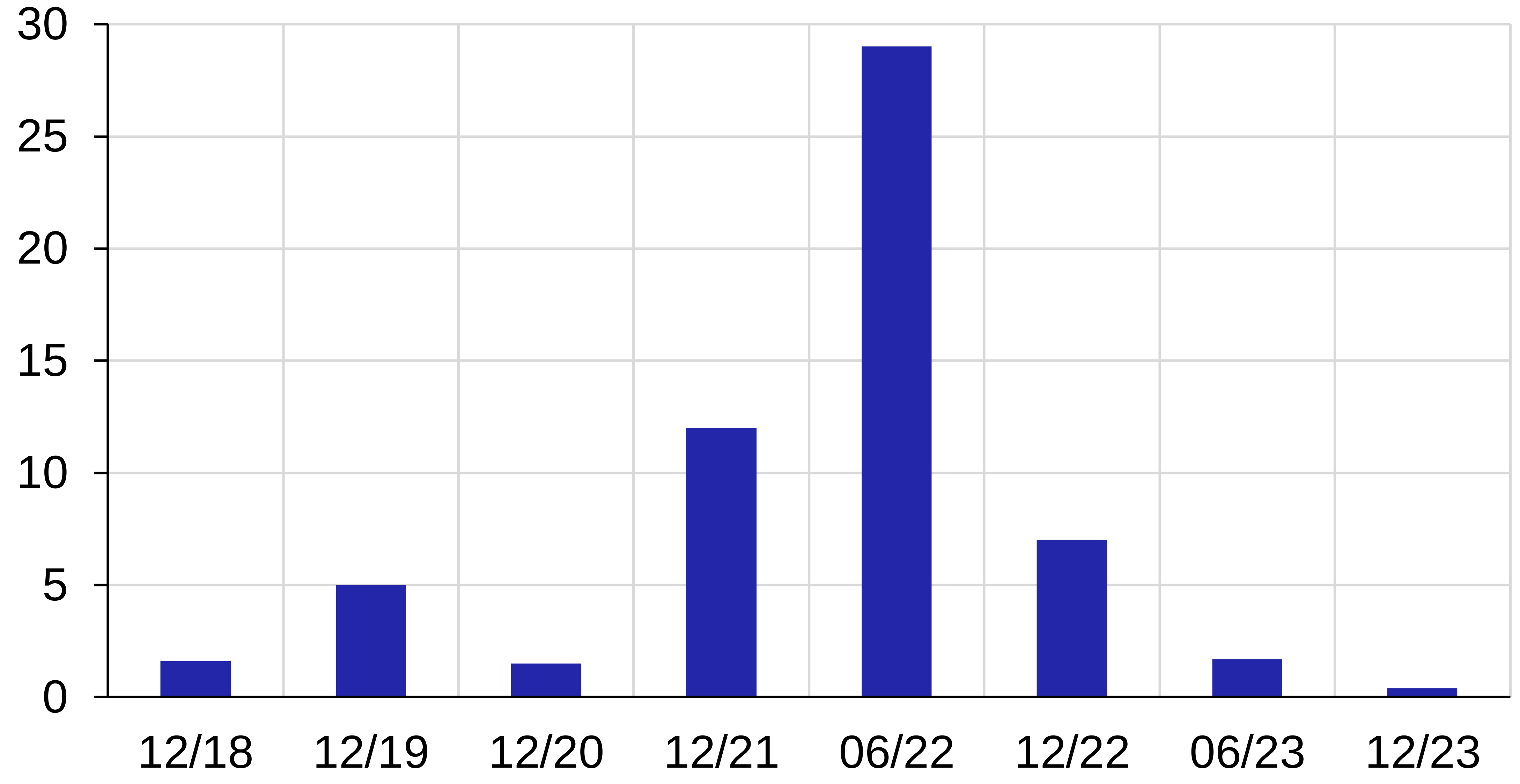


Residential property price scenarios

Alternative scenarios: property prices
(year-on-year change of House Price Index in %)

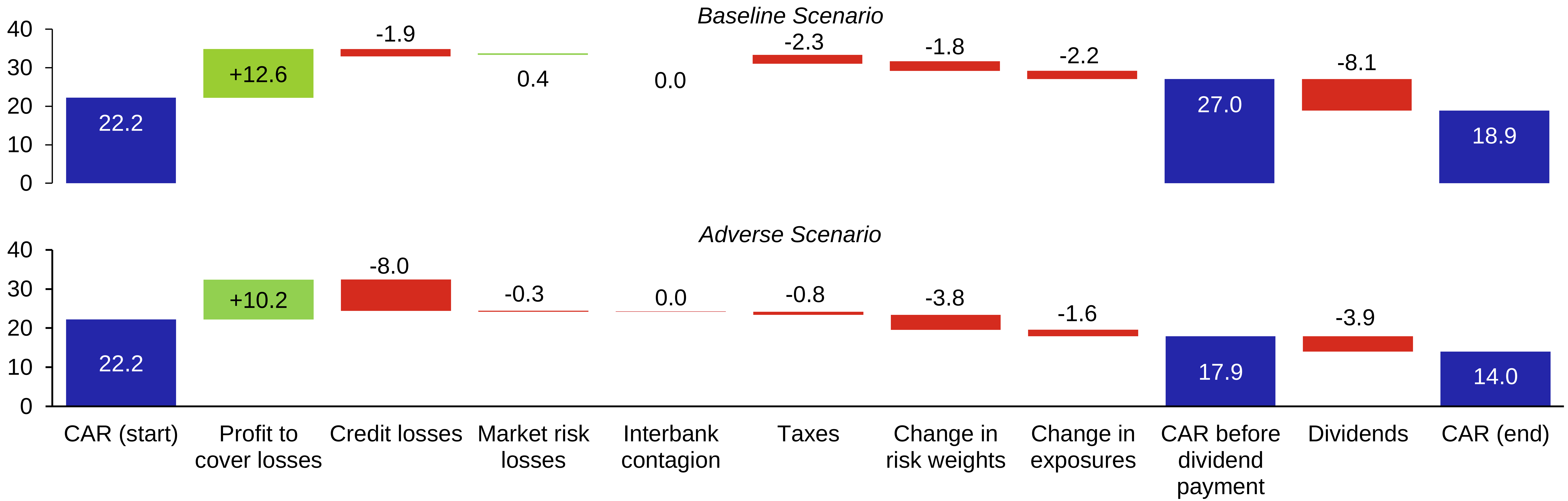


Probability of average apartment prices in the Czech Republic falling by more than 10% over the next two years
(%)



Bank stress test results (1)

Decomposition of the change in the banking sector's overall capital ratio in the alternative scenarios
(pp)



Source: CNB

Note: CAR = overall capital ratio. Items increasing the capital ratio are shown in green and items reducing it are shown in red.

Bank stress test results (2)

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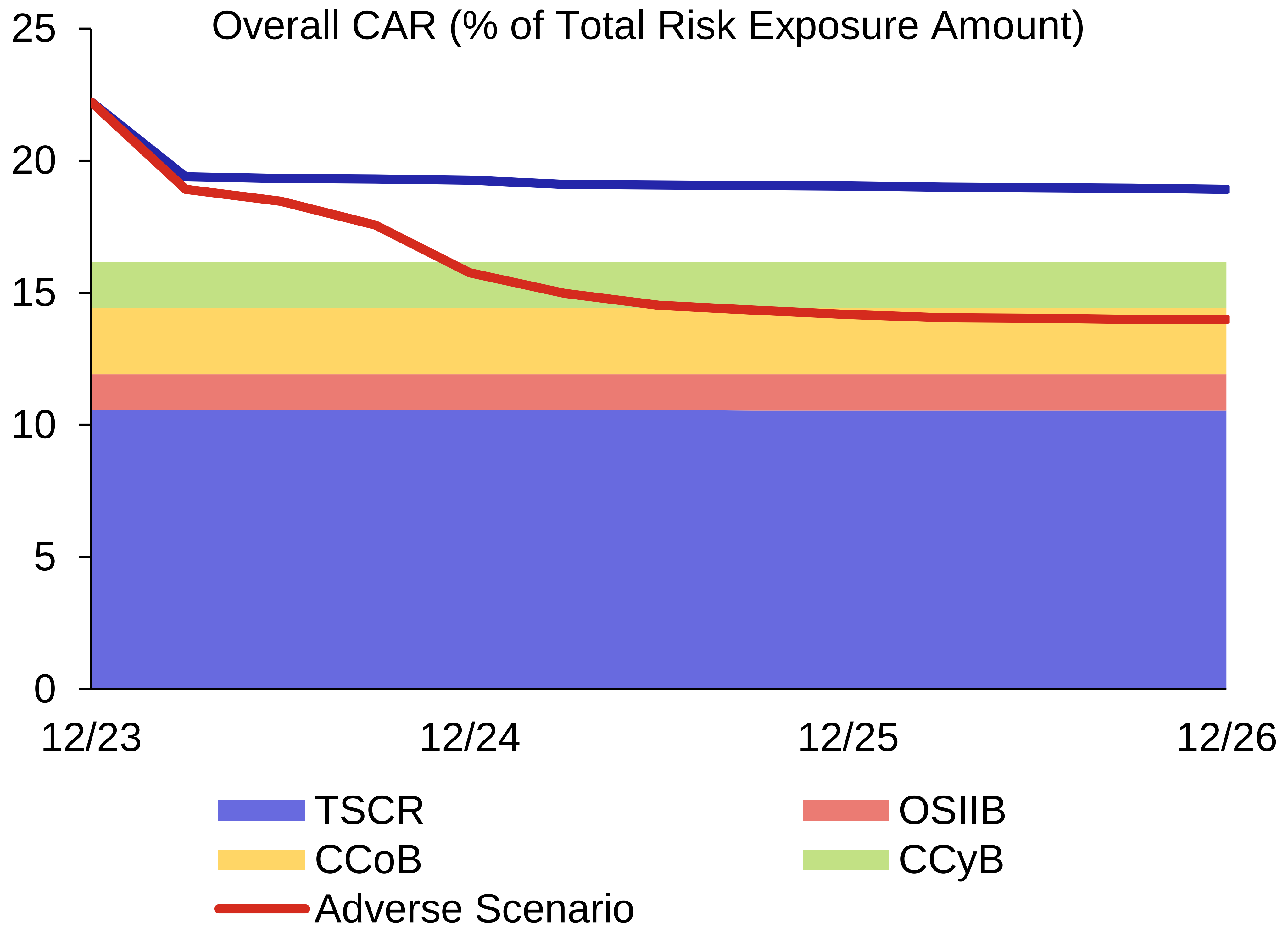
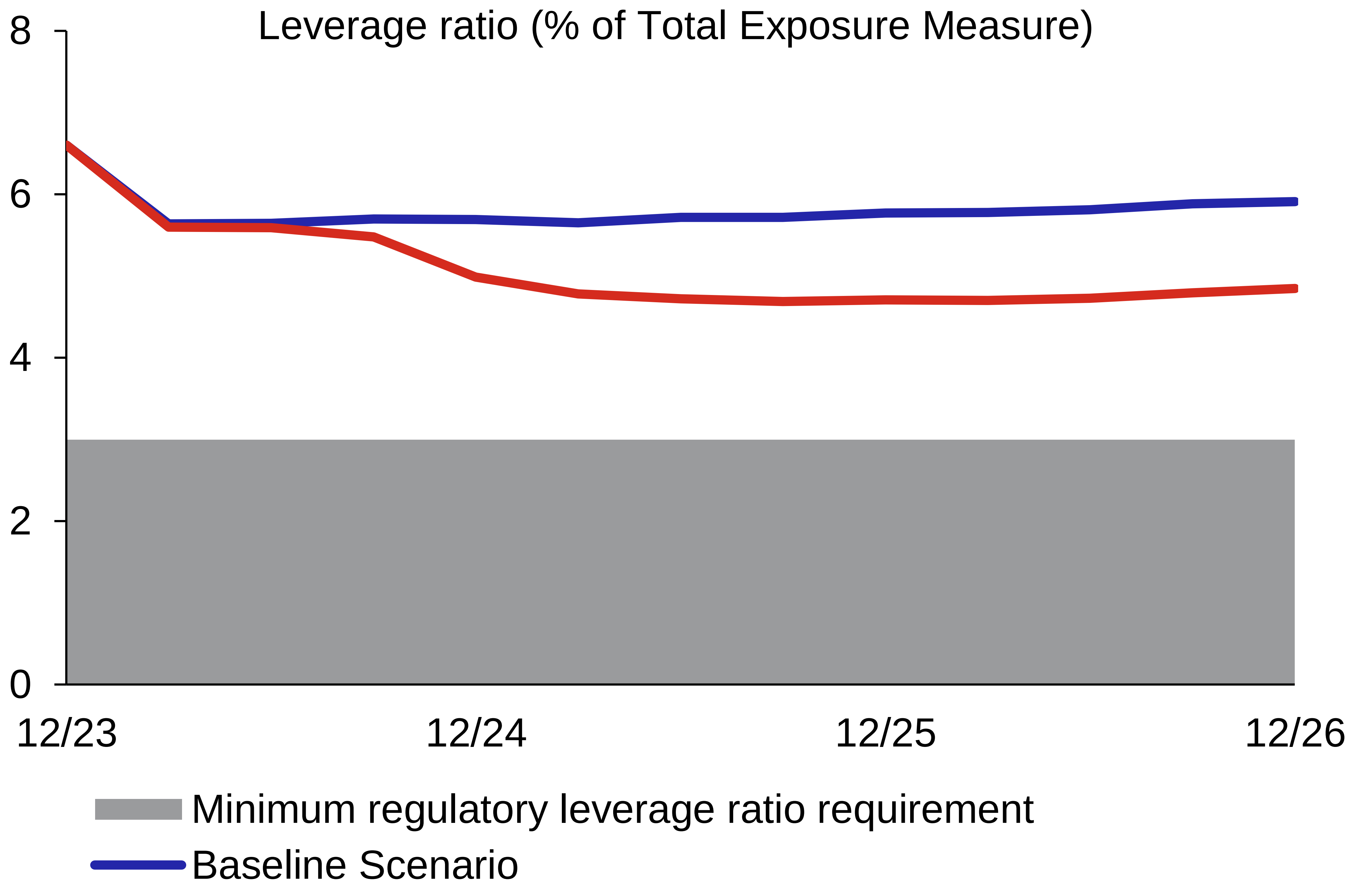
Compliance with selected regulatory requirements by the banking sector in the alternative scenarios



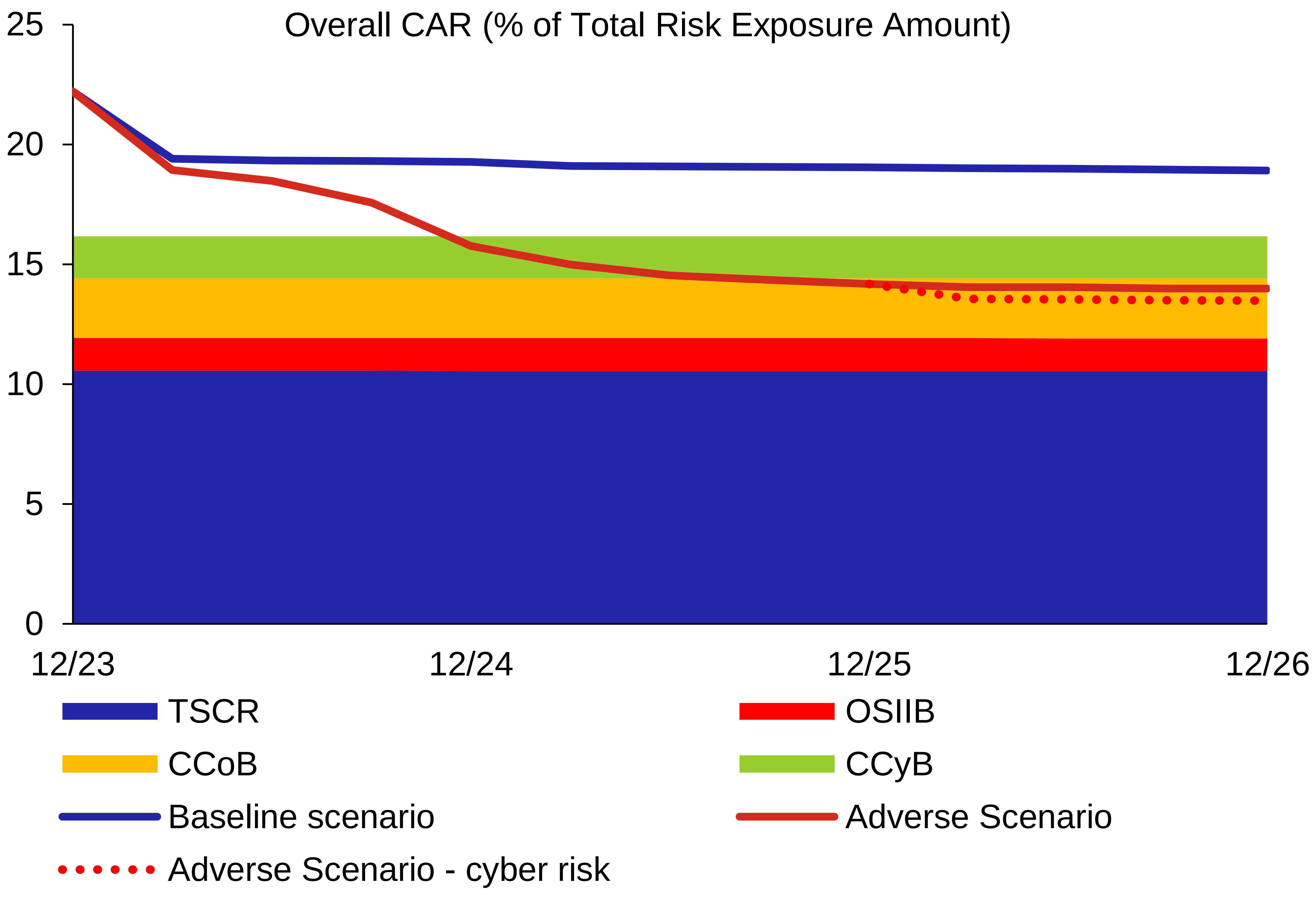


Bank stress test results – additional analyses

A sensitivity analysis of cyber risk was performed:

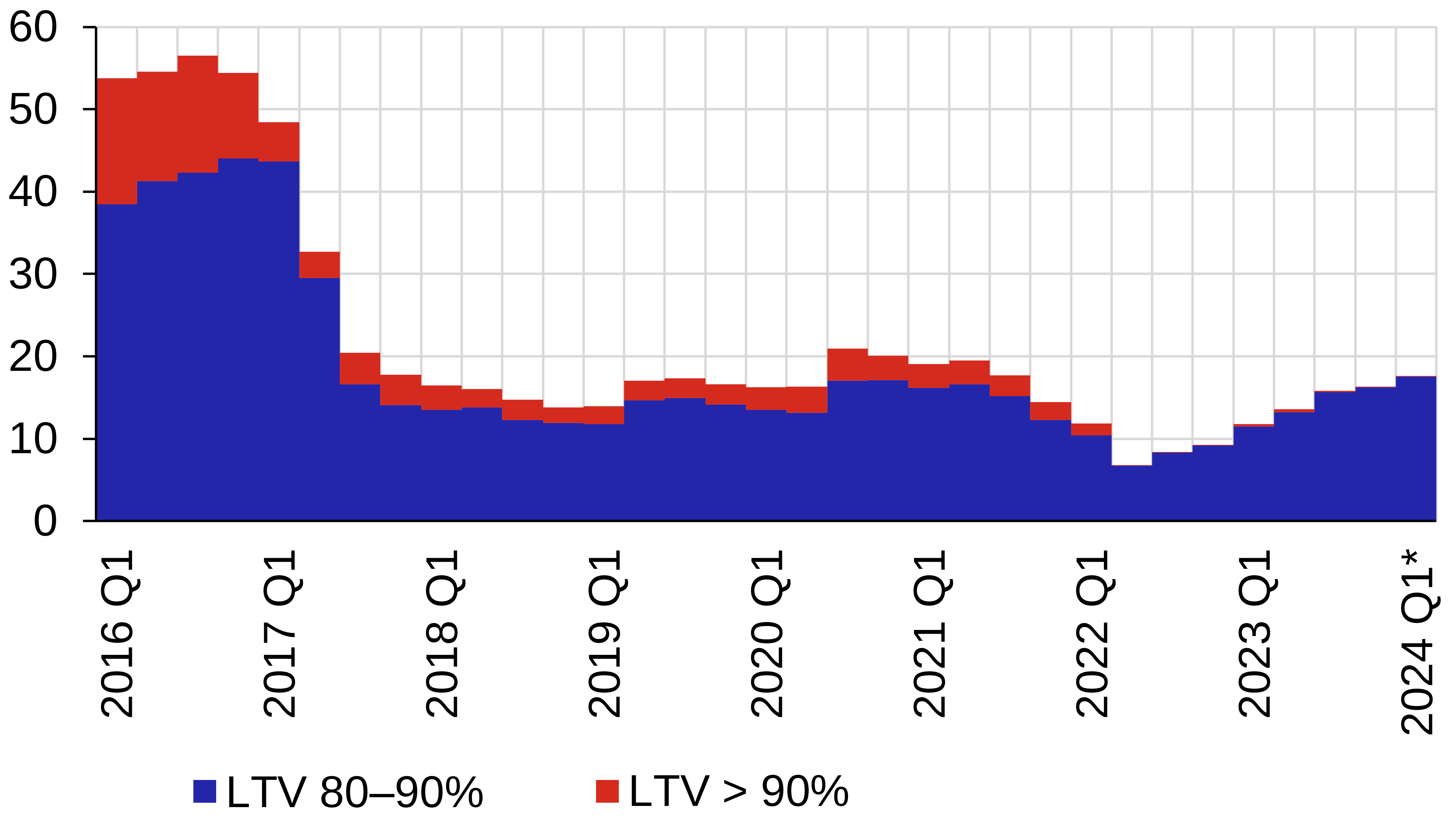
- The maximum direct impact of the materialisation of cyber risks in the banking sector is estimated at roughly CZK 20 billion, with a probability of occurrence of less than 1%.
- Should these risks materialise, the overall capital ratio would fall by an additional 0.5 pp to 13.5%.

Compliance with selected regulatory requirements by banking sector in alternative scenarios with cyber risk



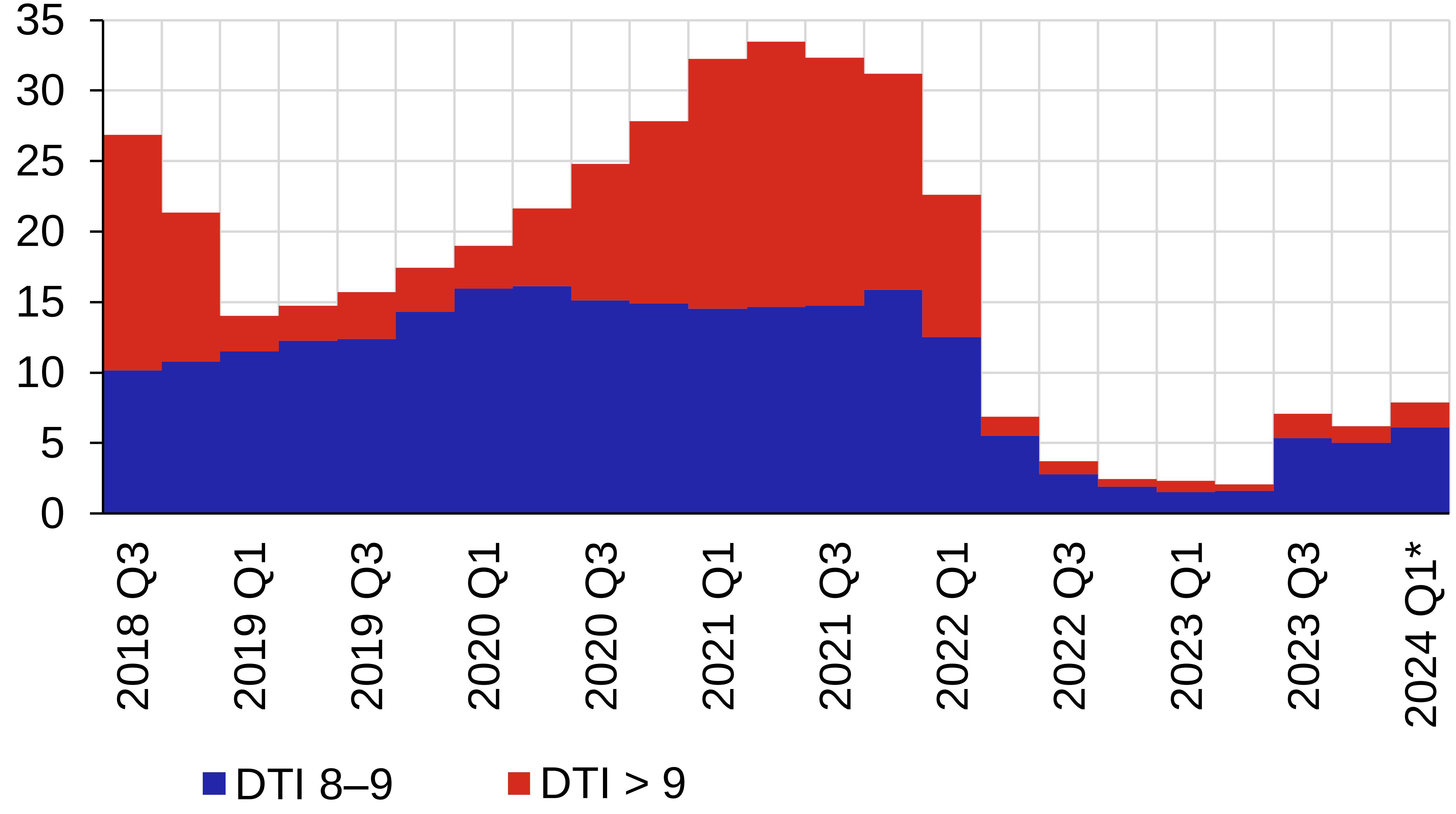
Share of loans by **LTV**, DTI and DSTI

Pure new mortgage loans with LTV of over 80%
(share of loans in volume provided in given quarter in %)



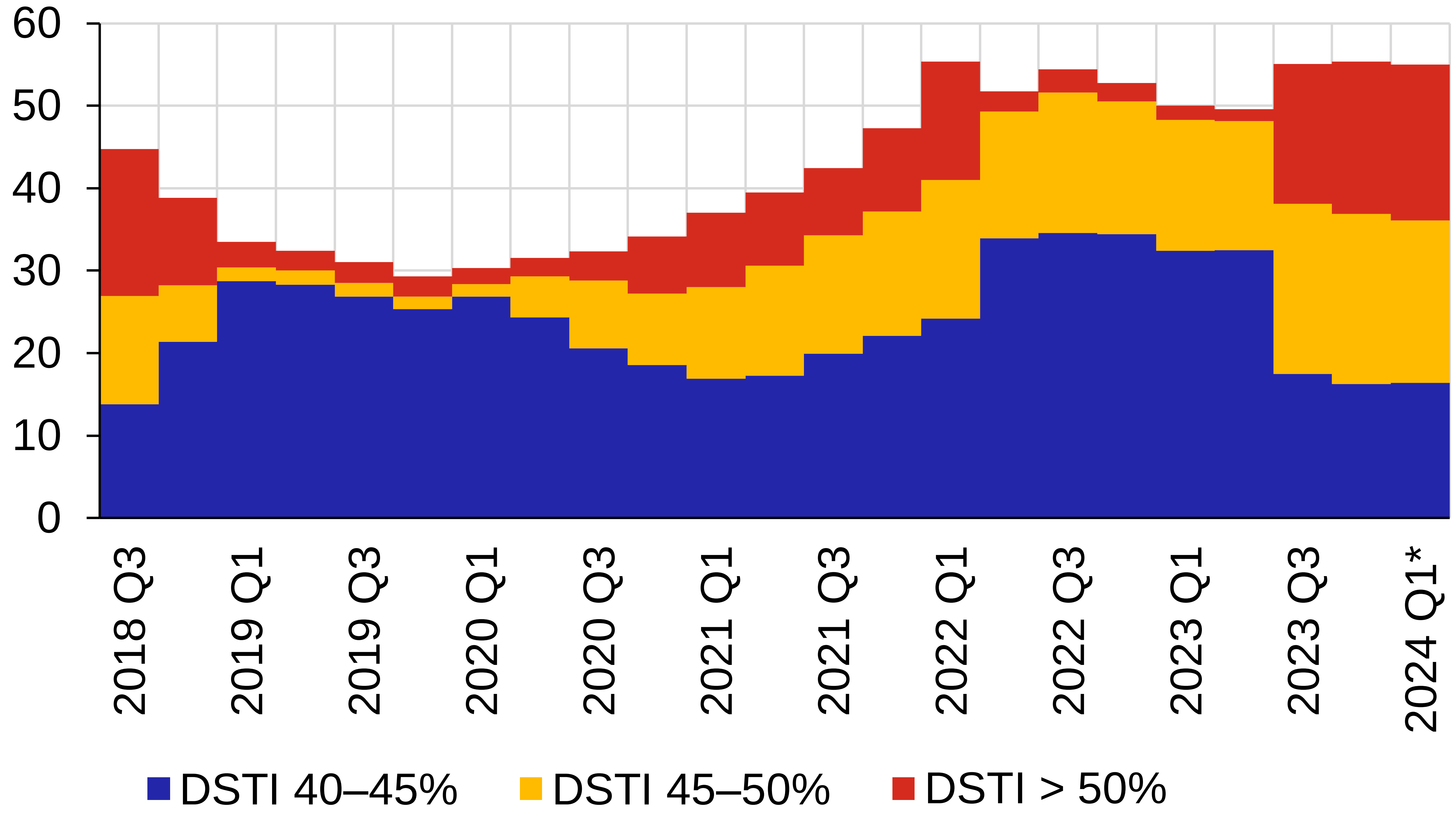
Share of loans by LTV, **DTI** and DSTI

Pure new mortgage loans with DTI of over 8
(share of loans in volume provided in given quarter in %)

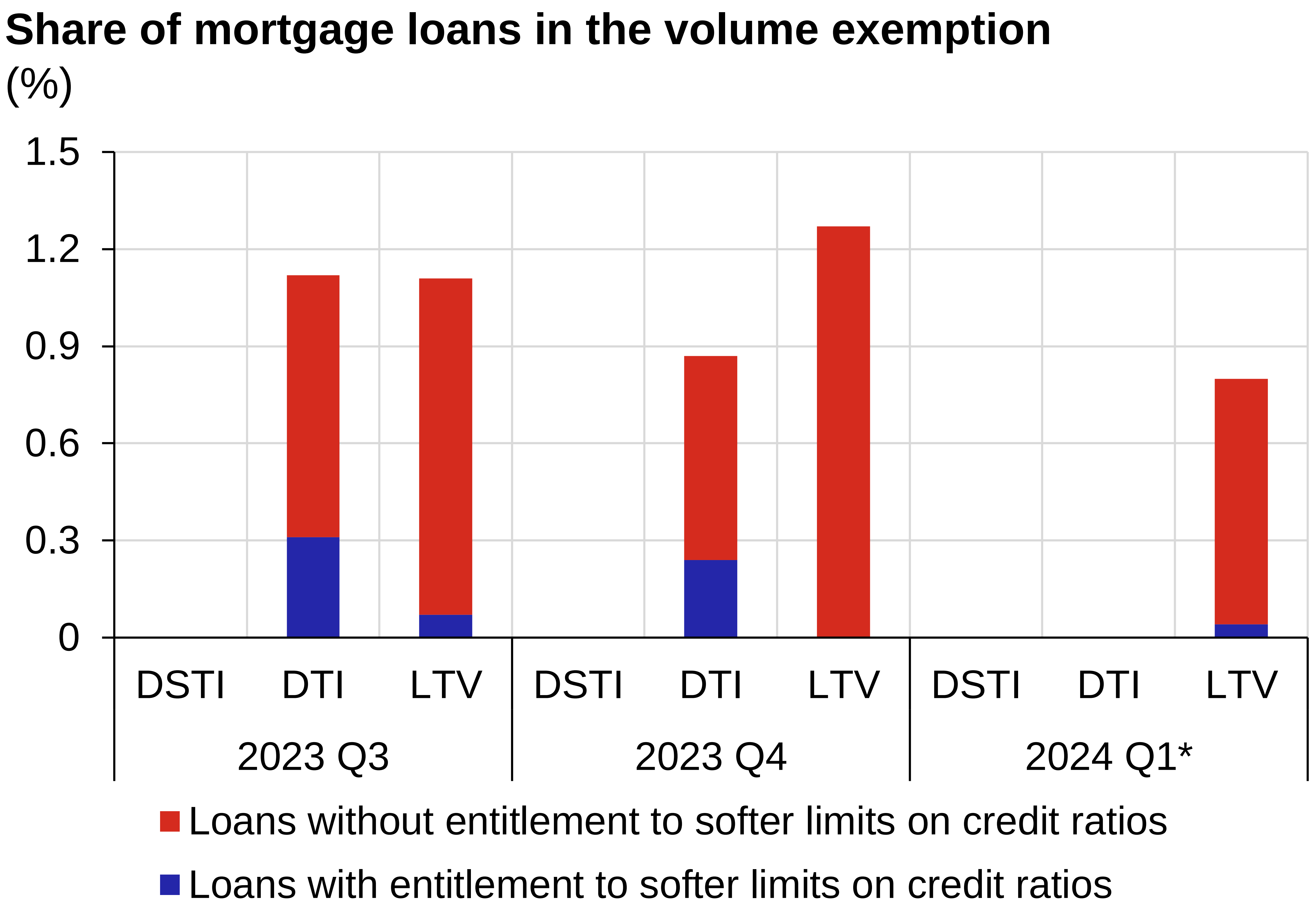


Share of loans by LTV, DTI and **DSTI**

Pure new mortgage loans with DSTI of over 40%
(share of loans in volume provided in given quarter in %)

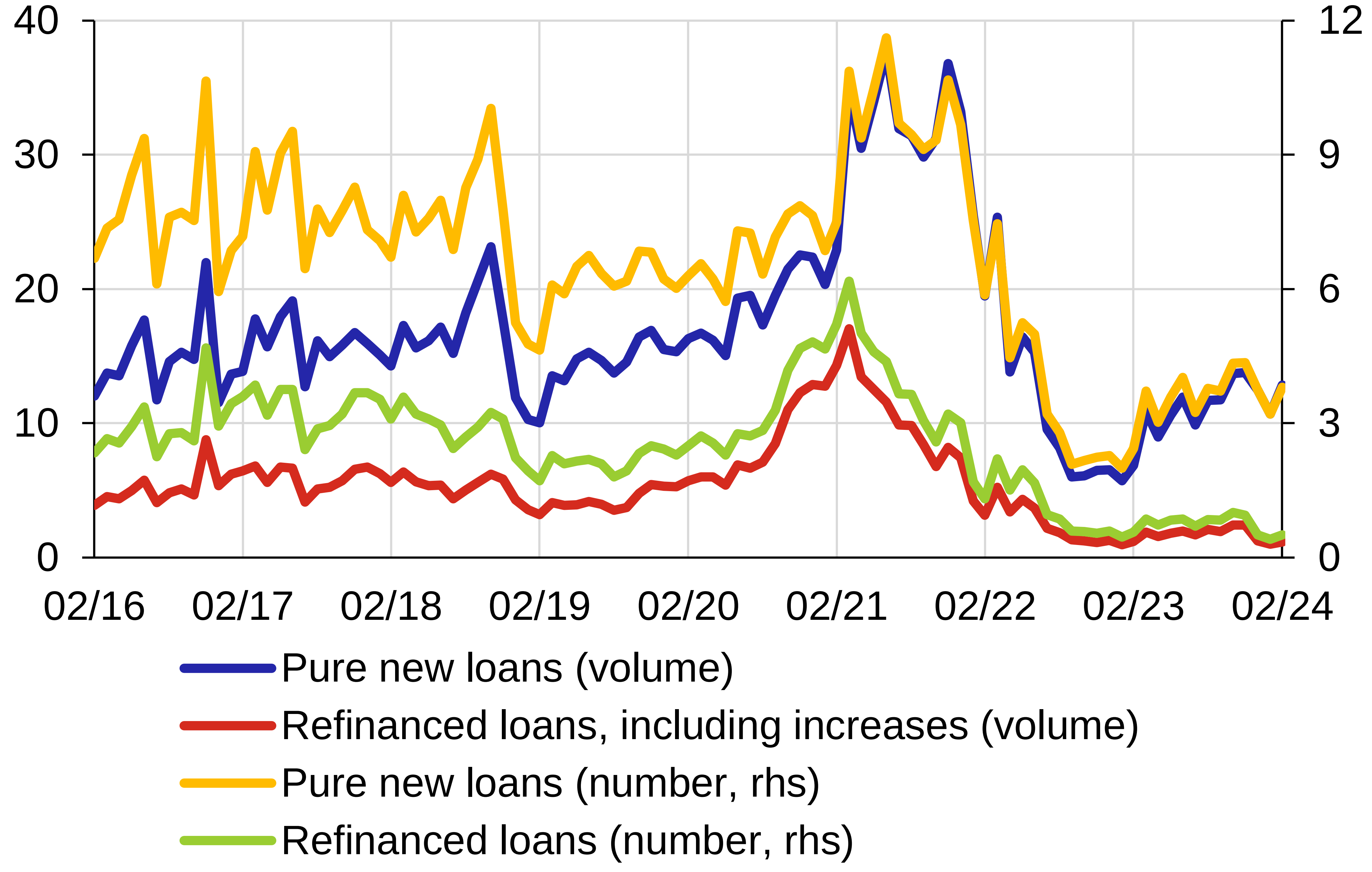


Compliance with LTV and DTI limits

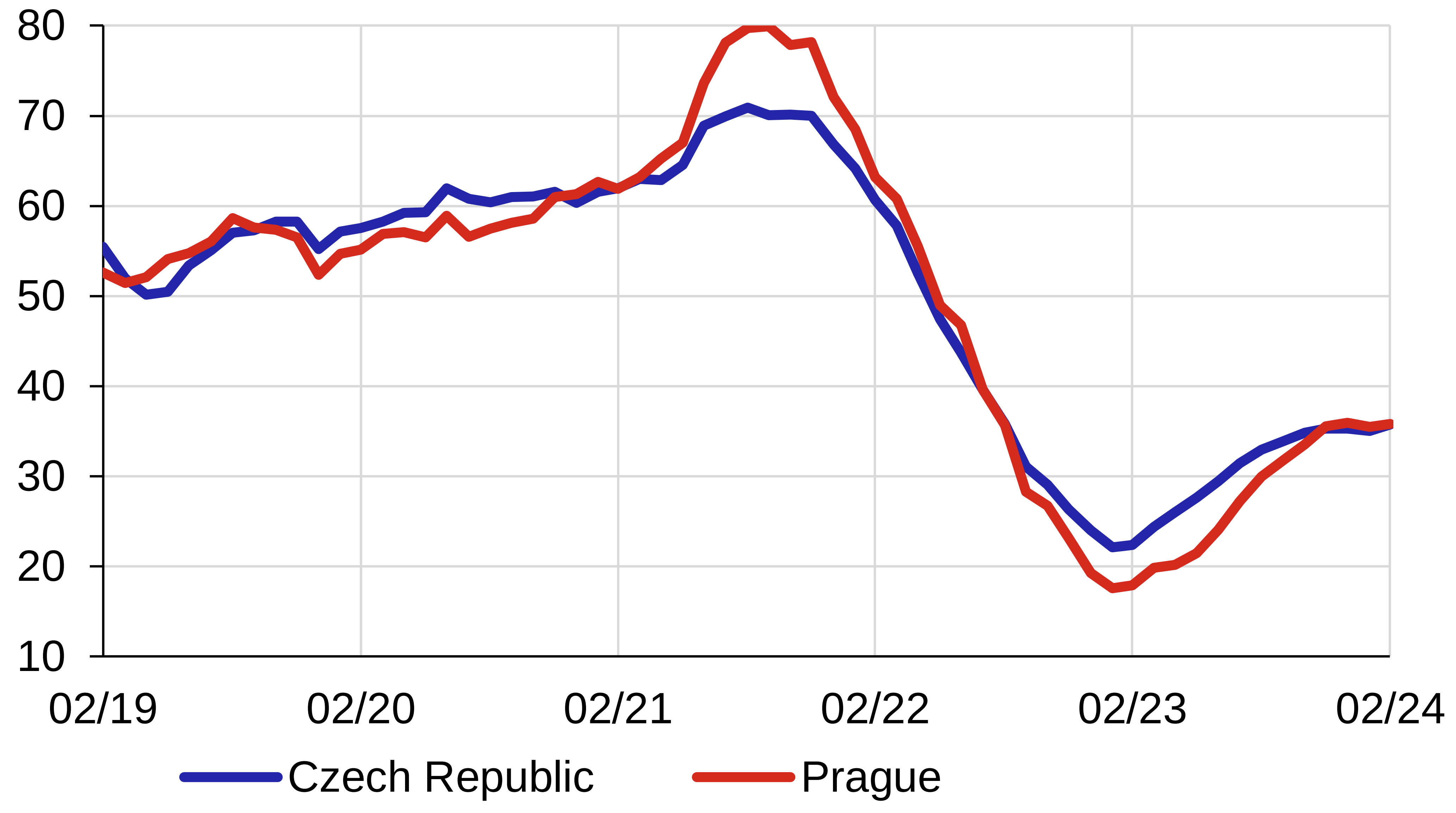


Share of mortgages when buying residential property

Number and volume of new and refinanced mortgage loans
(CZK billions; right-hand scale: thousands)



Share of apartment and family house transfers financed using mortgage loans
(% of total number; half-yearly moving averages)



Observed and model-based overvaluation

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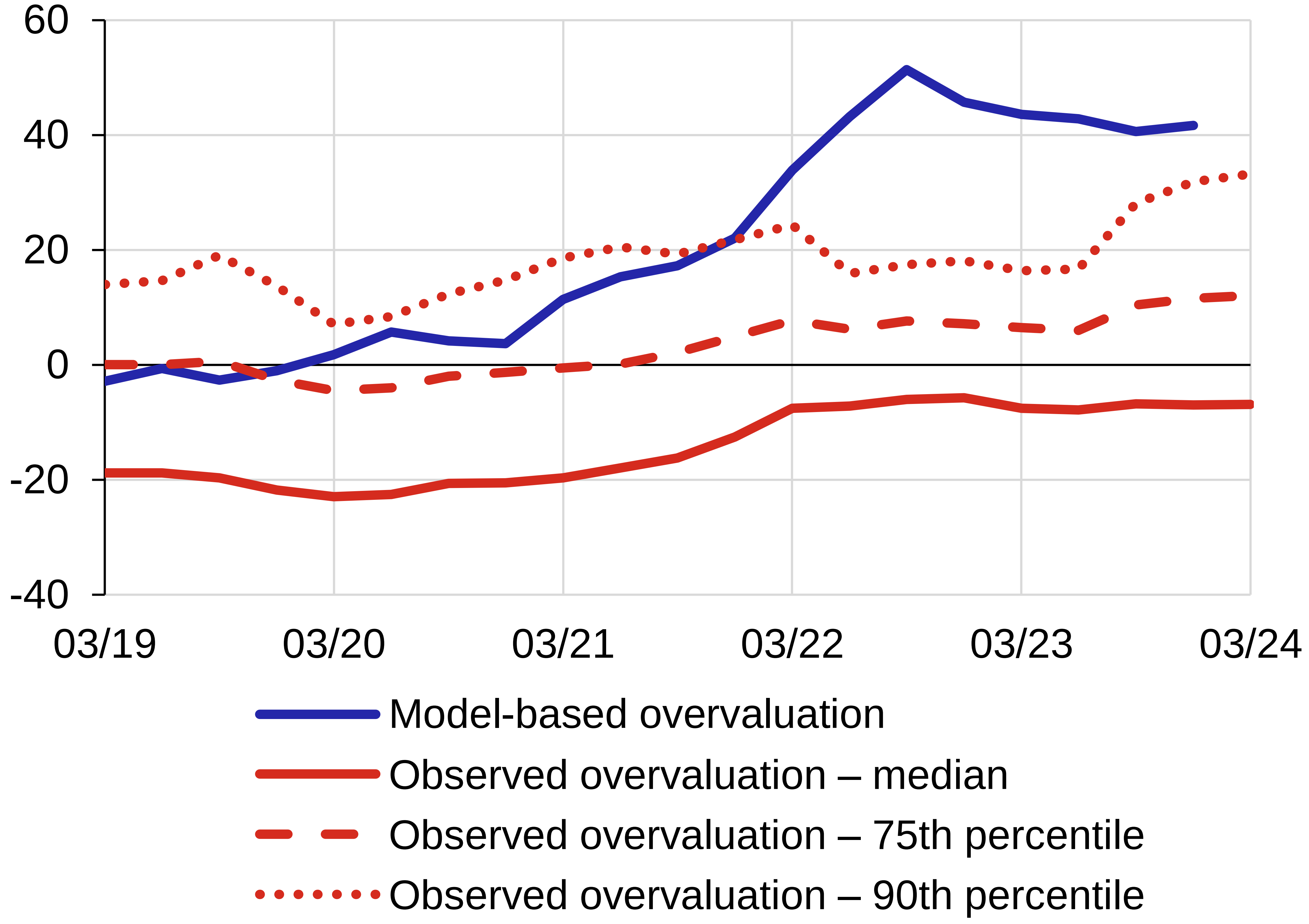
Observed and model-based property price overvaluation for safe DSTI of 40%
(%)



Selected mortgage loan characteristics

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Characteristics of new mortgage loans and loan applicants

	2018	2019	2020	2021	2022	2023	2024 Jan–Feb
Total loans (CZK billions)	202.4	169.0	221.6	374.4	158.6	128.2	23.5
Loan size (CZK millions)	2.2	2.3	2.7	3.3	3.2	3.1	3.4
Interest rate (%)	2.6	2.8	2.3	2.3	4.7	5.8	5.5
Instalment (CZK thousands)	11.7	11.3	11.2	15.5	17.5	19.3	20.3
Maturity (years)	26	26	26	26	26	26	26
Fixed-interest rate period (years)	5.9	6.5	6.7	6.1	6.0	4.2	3.3
Collateral value (CZK millions)	3.7	4.0	4.5	5.5	6.2	5.7	5.9
Number of properties securing loan			1.2	1.1	1.1	1.1	1.1
LTV (%)	67.5	66.6	66.3	64.6	61.7	63.2	65.8
DTI (net annual incomes)	5.4	5.1	5.5	5.9	5.3	4.7	4.9
DSTI (%)	34.2	32.1	32.1	34.2	36.7	36.8	37.7
Net monthly income (CZK thousands)	50.8	54.4	71.5	64.4	77.7	84.2	86.7
Net monthly income adjusted for instalments (CZK thousands)	34.4	37.2	49.0	43.0	50.0	53.9	54.7
Number of loan applicants	1.47	1.49	1.50	1.50	1.51	1.59	1.57
Share of borrowers under 36 years (%)	52.6	51.9	53.1	51.1	48.7	48.9	51.4

Note: The values in the table indicate the simple average for the given period. The exception is total loans on the first line and the share of borrowers under 36 years, which shows the ratio of the volume of loans provided to a principal loan applicant under 36 years to the total volume of loans provided in the given period. The DTI and DSTI ratios for 2018 are calculated from data for the second half of 2018, and the number of properties for 2020 is calculated from data for the second half of 2020.

Thank you for your attention

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The following will be published on the CNB website on **7 June 2024**:

- Provision of a general nature on the countercyclical capital buffer rate

The following will be published on the CNB website on **24 June 2024**:

- Financial Stability Report – Spring 2024
- The minutes of the Bank Board meeting on financial stability issues, complete with attributed arguments of individual CNB Bank Board members
- Official information – Recommendation on the management of risks associated with the provision of consumer loans secured by residential property

The following will be published on the CNB website on **1 August 2024**:

- Provision of a general nature on the systemic risk capital buffer rate