

## FINANCIAL STABILITY REPORT



2025 MAY

## *`...a nation is strong where property and independence are guarded by free hands.'*

Ferenc Deák



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Published by the Magyar Nemzeti Bank Publisher in charge: Eszter Hergár H-1054 Budapest, Szabadság tér 8–9. www.mnb.hu ISSN 2064-9452 (on-line) Financial stability is a state in which the financial system, including key financial markets and financial institutions, is capable of withstanding economic shocks and can smoothly fulfil its key functions of intermediating financial resources, managing financial risks and processing payment transactions.

The fundamental interest and joint responsibility of the Magyar Nemzeti Bank (MNB) together with other government institutions is to maintain and promote the stability of the domestic financial system. The MNB's role in maintaining financial stability is defined by Act CXXXIX of 2013 on the Magyar Nemzeti Bank.

Without prejudice to its primary objective of achieving and maintaining price stability, the MNB supports the maintenance of the stability of the financial intermediary system, the enhancement of its resilience and its sustainable contribution to economic growth, as well as the economic policy of the government using the instruments at its disposal.

The MNB formulates the macro-prudential policy for the stability of the entire system of financial intermediation, with the objective of enhancing the resilience of the system of financial intermediation and ensuring its sustainable contribution to economic growth. To that end and within the limits specified in the Act, the MNB explores the business and economic risks threatening the financial intermediation system as a whole, and promotes the prevention of the development of systemic risks and the reduction or elimination of systemic risks which have evolved; furthermore, in the event of disturbances to the credit market, the MNB contributes to the balanced operation of the intermediation system in financing the economy by stimulating lending, or restraining lending in the case of excessive credit outflow.

The primary objective of the Financial Stability Report is to inform stakeholders about issues related to financial stability and to thus raise the risk awareness of those concerned, as well as to maintain and strengthen confidence in the financial system. Accordingly, it is the Magyar Nemzeti Bank's intention to ensure the availability of the information needed for financial decisions and thus contribute to enhancing the stability of the financial system as a whole.

The analyses in this Report were prepared by the Directorate Financial Stability and Monetary Policy Instruments, with the contribution of the Directorate Economic Forecast and Analysis, the Directorate Central Bank Programmes, the Directorate Financial Infrastructures and Payments and the Directorate Consumer Protection, under the general direction of Ádám Banai, Executive Director for Monetary Policy and Financial Stability.

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The Report incorporates valuable feedback from the Financial Stability Council after its meetings on 30 April and 28 May 2025, and from the Monetary Council, which discussed the Report on 13 May 2025.

This Report is based on information in the period to 30 April 2025. As data frequency varies, the analysis horizons may also differ in some cases.

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### **Executive summary**

The Hungarian banking system continues to be characterised by high profitability, abundant liquidity and a strong capital position, and consequently, the sector's shock resilience remains outstanding. Credit risks did not rise in the past period, despite the prolonged dynamization of the real economy, and the non-performing loan ratio is historically low. Banks' lending capacity is abundant, and no general credit supply constraints can be identified. The credit market remains characterised by two trends: lending to households continued to pick up in early 2025, while no turnaround has been seen in the corporate sector. The domestic credit institution sector's shock resilience would remain strong even in a less favourable-than-expected economic environment, and the incurred capital needs would be manageable, while the sector's lending capacity would not be constrained.

Even with the moderate economic growth and mounting geopolitical risks, the European banking system featured strong profitability and an abundant liquidity buffer in 2024 H2. Boosting shock resistance by building up capital buffers was justified by the uncertain environment, and the strong profitability provided a favourable opportunity to do so. Since April 2025, however, the operating environment of European banks has been impacted by increased uncertainty caused by trade tensions. The tariff measures announced and implemented by the United States have caused intense, hard-to-predict movements in the financial and capital markets, which continues to generate significant uncertainty.

The shock resilience of the Hungarian banking system is robust even in view of the current uncertain global environment. In 2024, the credit institution sector's consolidated capital adequacy ratio (CAR) rose slightly to 20.5 per cent, and the free capital of the banks was at a high level of HUF 2,256 billion, over and above the increasing capital requirements. Solvency stress tests show that the bank sector's shock resilience would remain strong even in the event of a much less favourable-than-expected economic scenario, and the incurred capital needs would remain manageable. Even in the event of a low-probability, severe shock as examined in the stress scenario, the sector's lending capacity would not be constrained. The banking sector would also remain resilient in the event of alternative stress scenarios with less intense macroeconomic effects (escalation of the tariff war, a significant decline in Germany's industrial production), but with a higher probability of occurrence.

Capital accumulation is supported by the fact that Hungarian banks recorded a profit of HUF 1,595 billion in 2024, which was even higher than the previous year, and about half of this may be reinvested based on preliminary dividend payment plans. The continued high level of net interest income strongly supported this outstanding profitability, but specific, one-off items (dividend income, reduction of the windfall tax, a one-off accounting effect) also played a significant role. Eliminating these items, the sector's profit has already decreased versus the previous year. The 12-month rolling profitability indicators have decreased from their peak in May 2024, but remain outstanding in an international comparison, as the sector's return on equity (RoE) fell from 27.5 per cent to 22.6 per cent, and its return on assets (RoA) dropped from 2.4 per cent to 2.0 per cent at the end of 2024. Bank credit risks did not rise significantly in 2024, which helped to maintain strong profitability. The ratio of non-performing loans in the credit institution sector is historically low, at 2 per cent in the household segment and 3.7 per cent in the corporate sector. In the corporate sector, the foot-and-mouth epidemic and the slack performance of the German car industry pose minor risks to the quality of credit portfolios, while in the household segment, the phasing out of the interest rate cap and the failure to meet the child-bearing conditions of subsidised loans are minor risks.

Banks' liquidity remains abundant. The Hungarian banking system's Liquidity Coverage Ratio (LCR) amounted to 170 per cent in March 2025, while the operational liquidity reserve amounted to HUF 21,000 billion. Based on the Liquidity Stress Test, the domestic credit institution sector's liquidity surplus would provide adequate coverage to meet regulatory requirements even in the event of a severe shock. Central bank long-term collateralised loans as well as the transfer of part of the municipal deposits to the Hungarian State Treasury will have a dampening effect on the liquidity of banks in 2025; at the same time, however, there is abundant systemic liquidity available to manage it.

House prices rose dynamically at the end of 2024 and the beginning of 2025: the annual growth rate reached 15 per cent nationwide, while it was 19 per cent in Budapest at the end of 2025 Q1. The faster house price growth primarily

reflects the upwards effect on the price level of additional demand appearing on the housing market in 2025, as well as growing demand by investors who have already expected this additional demand at the end of 2024. Housing market developments at the beginning of 2025 point to a further rise in overvaluation. Financial stability risks are dampened by the fact that the dynamic increase in prices was not accompanied by a significant increase in credit market risks. Valuation on the commercial real estate market did not deteriorate further in 2024 H2, thanks to the stagnation of the expected prime yields; however, the market's low, concentrated investment volume prevents an improvement in valuation. The uncertain perception of the market's cyclical position, as well as the vacancy rate-increasing effect of ongoing developments continues to pose a risk in this segment. The higher risk perception is reflected by the further increase in the ratio of loans with an increased risk (Stage 2), as well as the decreasing collateral values registered by the banks.

Lending developments in Hungary are still characterised by dual trends. The annual growth rate for household loans outstanding reached 10.5 per cent in February 2025, while the corporate loan portfolio grew by only 1.8 per cent. The improving household income situation, increasing competition between banks, and the subsidised loans all contributed to the growth in the household loan portfolio. The spreads of market-based housing loans did not move away from their near-zero level, even though the period of the APR-ceiling voluntarily undertaken by the banks expired; in the long term, this poses a profitability risk to the sector. The banks did not perceive a significant rise in loan demand on the corporate credit market in 2024, as corporations typically waited to launch new investments due to the uncertain macroeconomic environment and existing capacities meeting the current level of loan demand. For this reason, the MNB initiated discussions with credit institutions on the possibilities of increasing corporate lending in a way that supports the economy. The share of foreign currency loans in the corporate loan portfolio rose to 50 per cent, exceeding pre-Covid levels, but the stock of foreign currency lending remains concentrated in corporations with foreign currency income. Household loans outstanding are forecast to grow by 12 per cent, and growth in the corporate loan portfolio may reach 4.5 per cent.

The Hungarian banking system has significant lending capacity thanks to its outstanding profitability, abundant liquidity and its high level of free capital, despite the increasing and changing capital requirements. According to our estimate, the free capital of HUF 2,256 billion would make it possible to disburse approximately HUF 30,000 billion, with which the private sector's lending portfolio would more than double. This is confirmed by the Financial Conditions Index, which shows that the lending capacity of the sector is historically high and its willingness to lend is at around the equilibrium level.

## Main financial stability indicators

FINANCIAL STABILITY INDICATORS - SUMMARY TABLE										
	2008	2019	2023	2024	Most recent data					
Lending										
Annual growth rate of loans outstanding - corporate sector (%)	6.5	14.5	5.9	1.6	2.0 (Mar 2025)					
Annual growth rate of loans outstanding - SME sector (%)	11.7	14.7	3.2	1.9	1.3 (Mar 2025)*					
Annual growth rate of loans outstanding - household sector (%)	19.1	16.7	2.7	9.7	10.9 (Mar 2025)					
Real estate markets										
Annual change in the number of housing transactions (%)	-13.4	-4.5	-24.1	28.9	7.3 (Q1 2025)					
Ratio of housing loan contracts and housing market transactions (%)	48.1	42.0	34.2	40.0	41.0 (Q1 2025)					
Share of housing market transactions financed with housing loans (%)	-	35.6	27.3	34.4	35.1 (Q1 2025)					
Annual change in house prices (%)	0.2	18.1	10.0	15.1	15.0 (Q1 2025)*					
Housing market overvaluation (%)	8.1	-1.4	14.5	14.3	-					
Vacancy rate - Budapest office market (%)	16.8	5.6	13.3	14.1	14.1 (Mar 2025)					
Vacancy rate - industrial-logistics market of Budapest and its environs (%)	17.3	1.9	8.6	7.9	10.5 (Mar 2025)					
Project loans/regulatory capital (%)	73.3	26.6	35.4	38.7	-					
Portfolio quality										
Corporate NPL-ratio (%)	5.4	3.9	3.8	3.7	3.7 (Febr 2025)					
Household NPL-ratio (%)	3.8	4.2	2.8	2.0	2.0 (Febr 2025)					
Profitability										
Return on Equity (%)	11.3	11.5	24.3	22.6	-					
Return on Assets (%)	0.87	1.20	1.98	2.03	-					
Capital position										
Capital Adequacy Ratio (%)	12.9	18.0	20.1	20.5	-					
Leverage ratio (%)	-	9.0	8.9	9.3	-					
Liquidity										
Loan-to-deposit ratio (%)	152.0	75.5	74.5	74.0	73.4 (Mar 2025)					
Liquidity Coverage Ratio (%)	-	148.4	182.6	180.6	170.4 (Mar 2025)					

#### \* Preliminary data.

#### Notes:

Credit institution sector's data (excluding real estate market indicators).

Annual growth rate of loans outstanding: Annual growth rate based on annual transactions (balance of disbursements and repayments).

Project loans/regulatory capital: Based on the institutions' project loan portfolio secured by commercial real estate and Bond Funding for Growth Scheme portfolio related to commercial real estate developments and investments.

NPL-ratio: The definition of non-performing loans changed in 2015. From then on, in addition to the loans over 90 days past due, loans less than 90 days past due where non-payment is likely are also classified as non-performing. Calculated by clients until 2010 and by contracts from 2010.

# 1. Geopolitical and trade tensions shape operating environment of European banking system

The uncertain global economic growth outlook and rising geopolitical risks are having an adverse impact on the operating environment for European banks. The resulting tension hotspots are increasing frictions in the global supply chains, reducing risk appetite and worsening the growth prospects of the world economy. Protectionist trade measures that are becoming more widespread could lead to lower economic growth and may pose a two-way risk for inflation. Globally leading central banks seek to achieve their goals with different interest-rate trajectories causing uncertainty in the decisions of economic actors and the valuation of assets.

The European banking system continued to operate with high profitability and ample liquidity reserves in 2024 H2, in an environment of moderate economic growth and increasing geopolitical risks. The nearly two-year decline in the market value of commercial properties has now stopped, which reduced the risk of deterioration in the portfolio quality of banks exposed to the sector. High profitability provides a good opportunity for the European banking system to increase shock resilience by building capital buffers, therefore regulators now apply a countercyclical capital buffer in almost all Member States. Buffer-building is also important because, in the current uncertain business environment, there are increasing risks to the sustainability of the European banking system's profitability.

In 2024, the Hungarian economy expanded slightly. In 2025 rising household consumption expenses are facilitating growth, but trade tensions pose a downside risk to the growth outlook. The growth in household consumption is made possible by rising real wages and a rebound in household lending. However, due to the geopolitical uncertainties, moderate confidence indicators, low-capacity utilisation and the restrained external economic situation, the development activities of companies may stagnate this year. The unemployment rate was low in 2024, even by international comparison.



#### Chart 1: Real GDP growth projections of IMF for 2025 and 2026

Source: IMF

#### 1.1. Business expectations in Europe driven by uncertainty about global trade policy and fiscal easing in Germany

The 2025 growth outlook for the world economy has deteriorated substantially since our previous report. According to the IMF's April forecast, the world economy will exhibit moderate 2.8 per cent growth in 2025 (Chart 1). At the same time, there is a high degree of uncertainty about the current macroeconomic outlook, due to the mounting geopolitical risks and the unpredictable protectionist trade measures. The protective tariffs announced by the US and the trade policy responses to them may result in slower economic growth and higher consumer prices in the medium term worldwide. However, the worsening growth outlook has led to lower energy prices, which will reduce inflation in the short term. The German economy, which is critical for the euro area and Hungary, has stagnated for two years, reducing the willingness of companies to invest. Furthermore, the US tariffs impact Germany substantially, as it has the highest exports to the US among the Member States, and motor vehicles, which are subject to higher tariffs, account for a significant portion of its exports. The growth of the world economy is also negatively affected



#### Chart 2: Economic growth and fiscal balance in the euro area and the United States

Source: FRED, Eurostat

Chart 3: Changes in industrial production of EU Member States compared to 2021



Note: Data for February 2025. Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply, based on output of economic sectors. Source: Eurostat



Chart 4: Inflation trends in various countries and

Note: V4 average is unweighted arithmetic average of Hungary, Slovakia, Czechia and Poland. Source: OECD, ONS

by the fact that – due to weak consumer and investor confidence – the growth of the Chinese economy is lagging behind that of the emerging Asian countries, while the US customs measures pose a downside risk to future Chinese net exports, and thus growth.

The recently announced development plans may help the EU become more competitive. The growth rate of the euro area economy has been 1 percentage point below the US on average over the last ten years, and more than 2 percentage points below the US in the last two years, reflecting competitiveness problems in the euro area and increased sensitivity to the rising energy prices caused by the Russian-Ukrainian war. The US, on the other hand, achieved more dynamic growth via a stronger increase in indebtedness (Chart 2). Several measures recently announced indicate a greater expected government involvement in the EU in the near future to improve competitiveness and reduce security policy risks. The European Commission announced EU-wide development plans in early 2025 to promote investments in infrastructure, defence capabilities, as well as support innovation and the green transition. In March 2025, the German Bundestag voted to abolish the law capping the budget deficit at 0.35 per cent of GDP, and the new German government is about to announce a significant incentive package targeting investment, which will improve growth prospects not only in Germany but also in Europe.

The higher energy prices and declining investments have also contributed to a decrease in industrial production in Europe. The higher energy prices coupled with uncertain economic and policy prospects prompted a significant number of companies to postpone their investment decisions, which has contributed to the decrease in EU industrial production in recent years, compared to 2021. At the beginning of 2025, among the EU's leading economies (Germany, France, Italy), industrial production exceeded the 2021 level only in France (Chart 3). In Germany, in February 2025, industrial production was 8 percentage points below the average level measured in 2021, while for the energy-intensive sectors (whose output decreased more significantly from April 2022), the difference amounted to 17 percentage points. The weak performance of industry continues to hold the EU economy back, but future indicators (economic sentiment indices, purchasing managers' indices) have already shown some improvement in early 2025.



*Chart 5: Expected interest rate paths for central banks of the USA and the euro area, based on market pricing* 

Note: Expected interest rate paths are based on the interest rate swaps for the Fed, and EONIA forward yields for the ECB. Source: Bloomberg



Chart 6: Return-on-equity and expansion of the loan

Inflation stopped decreasing in several countries and regions in 2024. The increase in the prices of market services, food and energy commodities halted the easing of inflation in many countries (Chart 4). The higher-than-expected inflation rates are affecting the central banks' interest-rate decisions, and the Fed's decisions must target both reducing inflation and promoting employment. The euro area inflation rate reached 2.4 per cent in February 2025, with significant heterogeneity across the Member States. Due to the risks associated with tariffs, geopolitical tensions and the increase in fiscal expenditures, the uncertainties about the inflation outlook have risen significantly. The moderate global and insufficient domestic demand led to China's economy once again facing deflation.

The current market expectations for reducing interest rates suggest a faster paced decrease in the rate trajectory than six months earlier (Chart 5). The ECB lowered its policy interest rate by 25 basis points in February, March and April this year reaching 2.25 per cent, while the Fed did not change its benchmark interest rate target range (4.25–4.5 per cent) in 2025 Q1. The Fed is closely monitoring the impact of US government measures on consumer prices, and whether protectionist trade measures are causing more sustained price pressure or a significant economic slowdown. In its March forecast, the Fed revised this year's economic growth expectations downwards, and inflation expectations upwards. Decreasing euro area interest rates may exert a positive impact not only on the economic outlook, but also give room for manoeuvre with fiscal measures. The Fed and the ECB will decide on continuing with monetary easing with a data-driven approach.

## 1.2. High profitability in EU banking system, decreasing risks related to commercial real estate market

The EU banking system continues to have high profitability and ample liquidity reserves. In 2024 Q4, the annual return-on-equity (RoE) of the EU banking system reached 10.5 per cent, showing no significant changes compared to the same period of the previous year (Chart 6). Net interest income, which is the largest contributor to profitability, reached 21 per cent compared to equity in 2024 Q4, remaining high by historical comparison, with only a modest decrease compared to the 22 per cent peak at the end of 2023. However, at the level of Member States, net interest income decreased to varying degrees (in some cases by

Note: Transaction-based annual growth rate of credit institution loans to households and non-financial corporations. The profitability data is based on the EBA Risk Dashboard sample of 162 banks, covering more than 80 per cent of the EU/EEA banking sector in terms of total assets. Source: ECB, EBA



Note: In the case of CEE countries, estimated capital value indices, in the case of the United States, all types of commercial real estate, in the case of Germany, an index estimated based on completed transactions including office and retail real estate. Source: BIS, CBRE, Cushman & Wakefield

Chart 8: Capital requirements in the banking systems of EU Member States



Note: Data for 2024 Q2, based on consolidated data of the banks classified as large banks by the EBA. CCoB: capital conservation buffer, SII buffer: systemically important institution buffer, SyRB: systemic risk buffer, CCyB: countercyclical capital buffer. In Hungary, the countercyclical capital buffer increased to 0.5 per cent in July 2024 and will increase to 1 per cent from mid-2025. The Polish data is under review and is therefore not included in the chart. Source: EBA

up to 3-4 percentage points relative to equity), which correlates (moderately) with the volume of the variablerate loan portfolio. Between 2021 and 2023, EU banks had to replenish the deposit guarantee and resolution funds, which reduced the banking system's return-onequity ratio by an annual average of 1.5 percentage points. There was no such effect in 2024, which was beneficial for profitability. The banking system's profitability may also be positively affected by the growth of the private sector's loan portfolio, increasing by 1.1 per cent in 2024, with the corporate and household sector loan dynamics showing similar trends. The EU banking system has ample liquidity reserves, supported by the private sector's deposits growing faster than its loan portfolio. The ratio of government bonds increased among the high-quality liquid assets of the banking sector, however, the ratio is not high by long-term comparison. The liquidity risks arising from sovereign exposure are moderate, but it is recommended to monitor their development closely.

The depreciation of commercial real estate has ended. The total investment turnover of the European commercial real estate market amounted to EUR 206 billion in 2024, which is still only about two-thirds of the turnover in the period between 2014 to 2022 but shows a 26 per cent increase compared to 2023. With demand expanding and interest rates decreasing, the rise in the expected yields has come to a halt, thus ending the nearly two years of falling commercial real estate prices: between 2024 Q1 and Q4, a modest, 1-3 per cent value increase was observed in Germany, the US and in the average for the Visegrad countries (Chart 7). The turnaround is reducing the risk of deterioration in the portfolio quality of the banks exposed to the commercial real estate market sector. In the EU banking system, the NPL rate for commercial-property-backed loans stood at 4.3 per cent in 2024 Q4, stagnating on an annual basis.

Banks in the EU Member States are in the process of building a capital buffer, which is facilitated by the sector's high profitability. By early March 2025, regulatory authorities in 25 EU Member States had already announced the introduction of a positive countercyclical capital buffer (CCyB) rate. 15 of these countries are applying a positive neutral countercyclical capital buffer (PNCCyB), while a few are managing the risks accumulated in the various segments (e.g. real estate market) with a sectoral systemic risk buffer (SyRB), in addition to the CCyB (Chart 8). The European banking system is facing the expected challenges with a strong Table 1: Summary table of the most important macroeconomic indicators

	2023	2024
Inflation (annual average)		
Core inflation	18.2	4.6
Core inflation excluding indirect tax effects	18.1	4.6
Inflation	17.6	3.7
Economic growth		
Household final consumption expenditure	-1.4	5.1
Government final consumption expenditure <sup>1</sup>	3.8	-3.6
Gross fixed capital formation	-7.7	-11.1
Domestic absorption	-5.4	-0.1
Exports	1.7	-3.0
Imports	-3.4	-4.0
GDP	-0.8	0.5
Labour productivity <sup>2</sup>	-1.1	0.2
External balance <sup>3</sup>		
Current account balance	0.3	2.2
Net lending	1.2	2.6
Government balance <sup>3</sup>		
ESA balance	-6.7	-4.9
Labour market		
Whole-economy gross average earnings <sup>4</sup>	14.3	13.2
Whole-economy employment	0.6	0.0
Private sector gross average earnings <sup>4</sup>	16.3	12.1
Private sector employment	1.0	-0.2
Unemployment rate	4.1	4.5
Private sector nominal unit labour cost	0.3	7.9
Household real income <sup>5</sup>	1.3	3.5

Note: On 1 April 2025, the Central Statistical Office (HCSO) carried out a GDP data revision. 1. Includes final consumption expenditure of general government and nonprofit institutions. 2. Whole economy, based on national accounts data. 3. As a percentage of GDP. 4. For fulltime employees. 5. MNB estimate. Source: HCSO, MNB

Chart 9: Sectoral investment volume indices, and ratios within the total corporate loan portfolio



Note: Annual domestic investment volume indices at the end of 2024. Ratios within the corporate loan portfolio at the end of 2024. Source: HCSO capital position and stable fundamentals, while the increasing capital buffers provide additional leeway for risk management.

#### 1.3. Hungarian GDP growth may resume in 2025, but uncertain global economic environment poses downside risk to economic growth

The Hungarian economy may continue to expand in 2025, and inflation has decreased after peaking in February. Hungarian GDP increased by 0.5 per cent in 2024 (Table 1). The growth was primarily driven by the expansion of household consumption expenditures, in line with positive wage dynamics, historically high employment, and targeted government measures. However, the uncertainty surrounding the global economic outlook and the high price levels have continued to keep investments down. The low external demand resulted in a decrease in Hungarian exports, showing a 3.0 per cent reduction last year. In 2025, growth is likely to be driven by household consumption again, yet global trade tensions pose a downside risk to Hungarian growth prospects. There is significant uncertainty surrounding the macroeconomic impacts, as they may be substantially affected by the possible measures, increasing unpredictability response worldwide, and by how economic actors will adapt. Consumer prices rose by an average of 3.7 per cent in 2024. Between September 2024 and February 2025, inflation grew from 3.0 to 5.6 per cent, before slowing to 4.7 per cent in March. For some food items, the impact of the statutory cap on margins introduced in mid-March started to show in the March prices and will further reduce consumer prices in April. The effect of trade tensions on raw material prices and on the financial markets poses a significant risk for the direction of future inflation.

The volume of investments continued to decrease in **2024.** After a decrease of 7.7 per cent in 2023, gross fixed asset formation decreased by 11.1 per cent in 2024. Sectors producing for the domestic and export markets have both shown a decrease on an annual basis. The largest declines in investments (56 to 90 per cent) were in the fields of mining, healthcare and water supply, but from a financial stability aspect it is good that these sectors have low levels of bank loans (Chart 9). In the three sectors with the largest bank loan exposures (real estate activities, manufacturing, trade), investments decreased by a smaller rate, around 15 per cent, in 2024. Due to the moderate confidence indicators, low-capacity

#### Chart 10: Annual changes in the working age population and number of persons employed in the private sector



Note: The number of employees refers to the 15-74 age group, the working-age population refers to the 15-64 age group. Source: Eurostat, HCSO, MNB

utilisation, subdued external economic activity, and the unpredictable business environment stemming from the protectionist trade measures, the development activities of companies may remain restrained in 2025.

The level of employment remains high by historical comparison. The number of employees aged 15 to 74 was 4,689,000 on average in the period between December 2024 and February 2025, which is 3,000 people more than one year before. At the same time, demographic trends constitute an increasingly effective barrier to further significant employment growth (Chart 10). The unemployment rate was 4.5 per cent in 2024, remaining low by international comparison (EU: 5.9 per cent, euro area: 6.4 per cent). The tightness of the labour market has eased in the past few quarters, and the 2025 minimum wage increase was lower than last year. This means nominal wage dynamics in the private sector will be lower in 2025 compared to the previous year. However, real wages continue to rise. The benign labour market conditions will keep supporting households' ability to repay loans.

# 2. House price dynamics accelerate, low investor demand for commercial properties

By 2024 Q4, the annual average growth rate of nominal house prices reached 15.1 per cent nationwide, and 14.3 per cent in Budapest. Based on the preliminary data, in 2025 Q1 Budapest house prices showed an extremely rapid increase of 8.7 per cent on a quarterly basis. The decrease in the number of newly delivered dwellings and the substantial increase in demand also contributed to the increasing housing price dynamics. Extremely high and largely investment-oriented demand was observed in the Budapest housing market in 2025 Q4, which expanded even further in the first quarter of 2025 in the new housing segment. On the other hand, the Budapest housing market is unaffordable for the majority of households buying with housing loans, which may pose a risk to the sustainability of the current valuation levels. The risks attached to the income-based overstretch of the housing loan market remain moderate nationwide, but have increased significantly in the capital and in Pest county. The estimated overvaluation of dwellings compared to fundamentals reached 14.3 per cent for the whole country at the end of 2024, and we expect a further increase if house price dynamics do not adjust downwards to the growth level seen in rents, incomes and construction costs.

In 2024 H2, the commercial property market valuations did not deteriorate further since the expected prime yields stagnated, but the low level and concentrated market investment prevents higher valuations being achieved. The moderate investment demand is also due to the extremely low level of foreign investor interest, and the increasing quantity of vacant office spaces. The office market vacancy rate increased by 0.8 percentage points year on year to 14.1 per cent by 2024 year-end, while in the industrial & logistics segment it decreased by 0.7 percentage points to 7.9 per cent. In 2025, based on the planned new completion volumes and the current level of demand, the vacancy rate is expected to increase for both Budapest office space and industrial & logistics properties. In 2024, the estimated registered value of collaterals linked to project loans has been modified by the banks in line with market trends, therefore the risks of overvaluations experienced in 2023 decreased.



### Chart 11: Annual and quarterly growth rates in nominal

## 2.1. Opposing trends in supply and demand result in faster house price dynamics

The dynamic increase in house prices continued in early 2025, and at an outstanding rate in Budapest. Based on the Housing Price Index of the MNB, nominal house prices increased significantly in 2024 Q4, by 4.5 per cent in Budapest and on average by 3.4 per cent nationwide, compared to Q3, and as such, the annual growth rate accelerated to 14.3 per cent in Budapest and 15.1 per cent nationwide (Chart 11). Some 13,300 new homes were built in 2024, which is 29 per cent less year on year, and according to our forecast, only 14,300 new homes are expected to be completed in 2025. The renewal rate of the domestic housing stock did not even reach 0.3 per cent in 2024, which is considered very low even by regional comparison. The shrinking supply was met with a significant increase in demand: according to figures from ingatlan.com, a property market advertising website, in 2024 Q4 the housing market demand increased by 22 per cent nationwide, year on year (based on the total number of requests to disclose the seller's phone number, and the number of phone calls made from the mobile app). The demand continued to increase in early 2025, and based on

Note: Based on data from housing market intermediaries for 2025 Q1. Source: MNB



Source: MNB

Chart 13: Transactions and demand indicators on Budapest housing market



Note: Demand refers to the number of phone number reveals on the ingatlan.com advertising platform and the number of phone calls initiated from the mobile application. A transaction is considered to have bidding where the transaction price is higher than the last listing price. Source: MNB, ELTINGA – Budapest Housing Market Report, housing intermediaries' data, ingatlan.com

housing market intermediary data, this led to annual nominal housing price dynamics remaining at 15.0 per cent nationwide in 2025 Q1, and rising to 19.2 per cent in Budapest. On a quarterly basis, housing prices increased by 5.9 and 8.7 per cent, respectively, which represents a near-record increase in prices in the capital. (Box 1 describes MNB's new model developed to measure the risks revealed by housing price dynamics outlook.)

The growth seen in housing market transactions at 2024 year-end was partly fuelled by demand pulled forward and by a motivation to invest. For both 2024 as a whole and in 2024 Q4, the total number of housing market transactions increased by 27-28 per cent year on year (Chart 12). In 2024 Q4, the number of transactions increased by 10 per cent even on a quarterly basis, compared to an average seasonal decrease of 8 per cent for this period over the last 20 years. The ratio of housing market transactions completed with housing loans increased from 27 per cent to 35 per cent year on year in 2024, but the year-end increase seen in sales was not driven by buyers with housing loans. The year-end growth was primarily driven by demand brought forward, and an increased motivation to invest, as the significant resources (from the government bond market and voluntary pension funds) potentially arriving in the housing market from 2025 projected a further increase in housing prices. According to data from housing market intermediary Duna House, 41 per cent of the home purchases in Budapest and 28 per cent in rural areas in 2024 Q4 were made for investment purposes, which constitutes a 7 per cent and 4 per cent increase year on year, respectively.

The sudden increase in demand at the end of 2024 put significant pressure on housing prices in Budapest. According to figures from the property market advertising platform ingatlan.com, there was an overall increase of 30 per cent year on year in the demand for Budapest dwellings in 2024 Q4, including a 64 per cent increase in the demand for newly built apartments. Due to the significant growth in demand, 2024 Q4 was the busiest fourth quarter in the Budapest housing market in the last 15 years, with 11,100 transactions completed (Chart 13). In 2025 Q1, the market for used homes in the capital showed year-on-year stagnation in both demand and transaction volume, whereas demand for new homes continued to expand. Property developers sold 2,500 and 2,800 new homes in 2024 Q4 and 2025 Q1 respectively, which are outstanding figures even in a long-term comparison. The average square-metre price of new apartments in Budapest reached HUF 1.68 million in 2025



#### Chart 14: Deviation of house prices from estimated level suggested by fundamentals

Note: Sub-indicators of the composite indicator: house price/income, house price/rent, new house price/construction cost, house price/affordable loan amount, housing investments/GDP. The composite is calculated as a weighted average of the deviations from the long-term average of each sub-indicator. For the detailed methodology of the individual models, see the MNB's May 2025 Housing Market Report. Source: MNB



Chart 15: Housing Affordability Index

Note: The Housing Affordability Index (HAI) shows the number of times the income of a household with two average earners (in the countryside and Budapest) covers the income required for the financed purchase of an average home. If the HAI value is above 2.0 (green background), purchasing a home with a loan can be achieved with an average salary without excessive financial strain, while if the value is below 1.0 (red background), even two average salaries are not enough. Calculations are based on the average price of a 45-square-metre home without children, or a 65-square-metre home with 2 children. The subsidised HAI applies for married couples committed to having a second child, who are also entitled to the HPS Plus and the prenatal baby support loan. The parameters of the loan product, except for the interest rate, are constant. LTV = 70%, DSTI = 30%, maturity = 20 years. Source: HCSO, MNB

Q1, an increase of 14 per cent on an annual basis. As a result of the sudden surge in demand, the ratio of transactions with bidding rose to an unprecedentedly high level in Budapest, approaching 18 per cent. The ratio of transactions in Budapest where price bargaining took place was 54 per cent, compared to 76 per cent in the same period of the previous year. The significant house price increase was also fuelled by the scarcity of supply: in 2024, only 4,600 new apartments were built in Budapest (28 per cent lower than in 2023), and the number of dwellings under construction decreased by 7 per cent year on year.

The house price dynamics seen at the beginning of the year predict an increase in overvaluation in 2025. Based on our composite indicator, the overvaluation of houses compared to the level suggested by economic fundamentals was 14.3 per cent nationwide in 2024 Q4 (Chart 14). Year on year the indicator did not change significantly, but it increased by 1.8 per cent on a quarterly basis. The overvaluation risk was mitigated by the fact that the level of housing investments compared to GDP fell significantly in 2024, and the resulting decrease in supply was partly responsible for the dynamic house price increase. However, most of the sub-indicators of the composite indicator already point towards increasing overheating in the housing market: house prices rose faster than rents, incomes and construction costs in 2024. All of this suggests that the current level of demand is not sustainable over the long run, so if the high housing price dynamics experienced at 2024 year-end and early 2025 persist, it will increase the housing market overvaluation.

Housing affordability did not improve in 2024, and it reveals negative long-term tendencies in Budapest as well. The early months of 2024 were characterised by a decrease in market-based housing loan rates, but for most of the year, the average APR of market-based housing loans fluctuated in a relatively narrow range of 6.6 per cent to 6.8 per cent. The accelerating housing price dynamics – exceeding the growth rate of incomes - offset the positive effect of the interest rate decrease seen at the beginning of the year, so the affordability of home purchases with loans did not change substantially throughout the year (Chart 15). However, when examined over a long period of 10 years, without subsidies the affordability has significantly deteriorated. On the Budapest housing market in January 2025, both single people looking for a small apartment and families with multiple children who do not commit to having more children (and assuming one or two local average incomes) were only able to buy an



Chart 16: Proportion of housing loans disbursed with

Note: High income strain refers to mortgage loans with a DSTI above 40 per cent. In brackets, the proportion of mortgage loans financing housing transactions in the given area within all mortgage loans in 2024. Source: MNB

apartment using a loan with financial overstretch. If large segments of households buying dwellings for housing purposes are excluded from the market in Budapest, this may pose a risk to the sustainability of the current valuations. The family subsidies help households committed to having more children with buying a home. However, even in this segment, a lasting and meaningful improvement in housing affordability is only seen for used dwellings in rural areas, as compared to the situation 10 years ago. As a result of the dynamic house price increase seen in recent years, the minimum own funds required for housing loans has also increased rapidly. To ensure that young first-time home buyers with typically low savings are not overly constrained by the debt cap rules, and considering the potentially lower credit risk of these customers, from 1 January 2024 the MNB introduced a higher, 90 per cent LTV limit for first-time home buyers under the age of 41.

The risks to housing lending arising from income-based overstretch were moderate nationwide, but increased in the central regions. In the first two months of 2025, 26.6 per cent of the newly concluded housing loan contracts nationwide, and 33.9 per cent in Budapest, were granted at nearly the LTV limit, with a debt service-to-income ratio (DSTI) of over 40 per cent (Chart 16). This shows a 5.2 per cent and 6.6 per cent increase, respectively, compared to 2024 Q1. Within Budapest - with an increase of approximately 9 percentage points during the period under review - the highest proportion of new borrowers with a high income-based overstretch was seen in the districts on the Buda side, with a figure of 37.1 per cent. A significant increase of 8 percentage points was also observed in Pest county, where in the first two months of 2025 the proportion of contracts concluded with a high DSTI was even higher than in Budapest, at 34.6 per cent. Overall, the risks of new housing loans arising from income-based overstretch continued to be moderate nationwide, and the recovery of the housing market was accompanied by an increase in these risks primarily in and around Budapest.



Chart 17: Investment volume and prime yields in the Hungarian commercial real estate market

Note: The 10-year eurobond yield is the Q4 average of the yields on 10year government bonds issued by AAA-rated euro area countries. Source: CBRE, Cushman & Wakefield, MNB





Note: The net take-up shows the change in the leased stock in the period reviewed. The Budapest industrial-logistics market covers Budapest and nearby agglomeration settlements. Based on data from end-2024. Source: Budapest Research Forum

#### 2.2. Volume of commercial property investments decreases further

The low commercial property investment volume can pose a risk to banking collateral values. In 2024, the investment volume of the domestic commercial property market was approximately EUR 400 million, meaning a 28 per cent decrease compared to 2023, which already exhibited low investment activity (Chart 17), while overall investment turnover in the CEE region has already increased. The expected prime yield has not changed in any of the sub-segments since the end of 2024 Q1, so the decline in the valuations seen for almost two years has come to an end. Based on the opinions expressed at the meeting of the Housing and Property Market Advisory Board in March 2025, market players believe the decrease in the domestic property investment volume was due to the modest interest of foreign investors in Hungarian property investments, coupled with a high office-market vacancy rate. The low domestic investment turnover, which remains concentrated and 73 per cent of which is linked to domestic investors, may pose a risk to the perception of the Hungarian market, and thus also hinders the growth in value of CRE collaterals.

The vacancy rate is also expected to increase in the Budapest office and industrial-logistics markets. In 2024, 104,000 m<sup>2</sup> of new office space was delivered in the Budapest office market, but the net market take-up measuring the change in leased office spaces was only 48,000 m<sup>2</sup>, so it was not able to compensate for the vacant areas of the new completions and the terminated lease contracts (Chart 18). Thus, the vacancy rate increased by 0.8 percentage points to 14.1 per cent by the end of 2024, year on year. Nearly  $^{2}/_{3}$  of the approximately 460,000 m<sup>2</sup> of office space being constructed in Budapest at 2024 yearend, which represents 10 per cent of the total market, is for owner occupancy. For this reason, the average prelease level of the developments is high (76 per cent), but with the relocations following the completion of the properties, the vacant areas left behind will increase the vacancy rate. In 2024, new completions in the Budapest and surrounding industrial-logistics market totalled 237,000 m<sup>2</sup>, and the net take-up of the segment was almost the same. The vacancy rate in the industrial & logistics segment decreased by 0.7 percentage points year on year, reaching 7.9 per cent at 2024 year-end. The high net take-up was due to the nearly full pre-lease rate of the annual completions, while at end-2024 the average prelease level of the ongoing developments was only 26 per





Note: In proportion to market value as at end-2024. Based on the real estate collateral in the portfolio at the end of 2022, 2023 and 2024 for office, retail, industrial-logistics and hotel project loans with completed status. In certain cases, the evolution of the collateral value may have been affected by technical factors, including data errors on the completion status of the collateral property and changes in the collateral register. Source: MNB

cent, so looking ahead, the vacancy rate is expected to increase in the industrial-logistics market as well.

In 2024, the banks' valuation of commercial property collaterals for project loans painted a more prudent **picture.** We examined the market value of the property collaterals estimated by the banks related to the project loan portfolio of domestic credit institutions in respect of the commercial properties included in the institutions' collateral portfolios at end-2023 and end-2024 as well. Accordingly, in 2023, the value of the collaterals, as registered by the lending bank, increased for 87 per cent of the collaterals, a tendency that bucked market trends.<sup>1</sup> However, in 2024, the overvaluation risks stemming from the rise in the value of the collaterals registered by the banks in 2023 decreased, and for 52 per cent of the collateral property portfolio, the figures have already turned down, in line with the market trend (Chart 19). In 2024, the registered market value increased for 48 per cent of the collaterals, but the majority of the increase in value (31 per cent) fell into the moderate category of 0-5 per cent.

#### BOX 1: MEASURING DOWNWARDS AND UPWARDS RISKS OF HOUSE PRICE CHANGES WITH NEW HOUSE PRICE-AT-RISK (HAR) MODEL

**From a financial stability perspective, special focus should be placed on risks related to house-price dynamics.** Sudden, significant drops in house prices and housing market overheating with price booms can both pose a major risk to the stability of the financial intermediary system. Large fluctuations in the housing market may have a serious impact on the banking system's asset quality, the valuation of collateralised assets, the financial situation of households, and economic growth. For this reason, it is important to investigate the probability of extreme house price changes within a given period, and the factors increasing the related risks. Traditional forecasting models, however, typically only estimate the average expected house price changes, and so do not give information about the risks of extreme price changes.

House Price-at-Risk (HaR) models are suitable for mapping the risks of extreme price changes in the housing market. The HaR model enables to calculate the maximum expected slowdown (left tail of distribution, 1<sup>st</sup> decile) or acceleration (right tail of distribution, 9<sup>th</sup> decile) in house price growth expected to occur with a certain low probability (e.g. 10 per cent) over a given time horizon. The model<sup>2</sup> we developed for monitoring risks related to house price dynamics can provide forecasts for different quantiles of the distribution of Hungarian house prices in the short and medium term (1 to 8 quarters).

The model reveals major differences in the impact of explanatory variables affecting house price dynamics depending on the forecasting horizon and the examined quantile. The HaR model uses quantile regression, which has several major advantages over traditional regression techniques estimating central tendency measures, particularly by

<sup>&</sup>lt;sup>1</sup> Our previous analysis of commercial real estate in credit institutions' collateral portfolios at the end of 2022 and 2023 can be read in the <u>May 2024</u> <u>Financial Stability Report</u> of the MNB (Box 1).

<sup>&</sup>lt;sup>2</sup> For the detailed methodology see MNB <u>Housing Market Report, May 2025</u>, Box 1.

capturing the non-linear nature of economic relationships. The quantile regression method gives robust estimates even for episodes with an extreme variance in the explanatory variables, such as the months of the global financial crisis, the coronavirus pandemic, or the outbreak of the Russian-Ukrainian war. The method allows us to estimate each quantile (in this case: decile) of the house price changes separately, so asymmetric effects<sup>3,4</sup> can also be shown. Certain variables predominantly impact the left tail of the distribution (decreasing house prices, or a very slow but still plausible price increase), while others affect the right tail (house price booms). Moreover, the regression coefficients can vary not only along quantiles, but can also differ by forecast horizon.

2 guartars barizan	Declies								
z quarters nonzon	1	2	3	4	5	6	7	8	9
Constant	-0.014	-0.008	-0.003	0.000	0.007	0.010	0.014	0.020	0.029
Real aggregated MNB house price index (2 lags)	0.000	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.001
Number of building permits*	0.000	0.000	0.000	0.000	0.004	0.003	0.002	0.000	0.000
House price / income gap	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Real core income*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long term unemployment rate*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Housing loans and subsidies (new disbursement)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Factor Based Index of Systemic Stress (FISS)	-0.023	-0.022	-0.020	-0.019	-0.019	-0.017	-0.017	-0.017	-0.016
A supertons havings					Deciles				
4 quarters nonzon	1	2	3	4	5	6	7	8	9
Constant	-0.010	-0.007	-0.005	0.001	0.007	0.012	0.014	0.020	0.025

#### The coefficients of the HaR model at 2, 4 and 8 quarters horizon, estimated as of 2024 Q4

Constant	-0.010	-0.007	-0.005	0.001	0.007	0.012	0.014	0.020	0.025
Real aggregated MNB house price index (4 lags)	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Number of building permits*	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.000	0.000
House price / income gap	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007	-0.007
Real core income*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Long term unemployment rate*	-0.004	-0.003	-0.003	-0.002	-0.002	0.000	0.000	0.000	0.000
Housing loans and subsidies (new disbursement)	-0.001	0.000	0.000	0.000	0.006	0.006	0.006	0.006	0.006
Factor Based Index of Systemic Stress (FISS)	-0.016	-0.016	-0.016	-0.013	-0.013	-0.013	-0.013	-0.012	-0.008
8 quarters horizon					Deciles				

8 quarters horizon					Deciles				
	1 2	3	4	5	6	7	8	9	
Constant	-0.012	-0.006	-0.002	0.003	0.007	0.010	0.013	0.019	0.024
Real aggregated MNB house price index (8 lags)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-0.001	-0.004
Number of building permits*	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
House price / income gap	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009	-0.009
Real core income*	0.008	0.008	0.008	0.007	0.007	0.007	0.007	0.007	0.007
Long term unemployment rate*	-0.013	-0.013	-0.012	-0.011	-0.011	-0.011	-0.011	-0.011	-0.011
Housing loans and subsidies (new disbursement)	0.000	0.000	0.000	0.002	0.004	0.004	0.004	0.007	0.008
Factor Based Index of Systemic Stress (FISS)	-0.004	0.000	0.000	0.000	0.000	0.002	0.005	0.006	0.006

Note: The regressors are standardised, so the size of the coefficients are comparable along variables. The variable "Housing loans and subsidies (new disbursement)" includes the Prenatal Baby Support loans, and the loans and subsidies related to the Home Purchase Subsidy Scheme for Families (HPS) and the rural HPS. The core income is the sum of the income from employment and transfers. \*The model includes annual growth for non-stationary variables. Source: MNB estimate

The results of the HaR model highlight the importance of the interactions between the housing market and the financial intermediary system. The Factor-Based Index of Systemic Stress (FISS) measuring financial stress has a major negative influence at shorter time horizons (1 to 4 quarters), portraying the effect that increasing financial stress reduces the likelihood of rising house prices, moreover its impact is stronger at the lower quantiles, i.e. it captures the risk of falling house prices well. The significance of this variable shows a notable decrease beyond a 1-year period, in line with international experience. The volume of new housing loans and subsidies is also an important variable in forecasting house price changes, especially for the upper quantiles, showing a positive effect. This indicates that increasing funding sources in the housing market are typically accompanied by house prices rising at a faster pace, especially in the expansion phases of the housing market cycle.

<sup>&</sup>lt;sup>3</sup> Szendrei T. and Varga K. (2023): <u>Revisiting vulnerable growth in the Euro Area: Identifying the role of financial conditions in the distribution.</u> *Economics Letters*, 223, 110990.

<sup>&</sup>lt;sup>4</sup> It is well-known from literature that the effect of some variables differs by forecast horizons and quantiles. See, for example, Adrian, T., Boyarchenko, N., and Giannone, D. (2019): <u>Vulnerable growth</u>. *American Economic Review*, 109(4), pp. 1263-1289.

The effects of housing market and macroeconomic variables on house prices are as expected. The deviation of the house prices-to-income ratio from its long-term average have a negative impact on house price changes, in line with the fact that downside risks are enhanced by deteriorating affordability. Over a 1-year period, an increase in unemployment displays a negative relationship with house prices and affects the left tail of the distribution of house price changes. Changes in real income have no significant effect in the 1-year horizon, only over the longer term. The growth in the number of building permits has a positive effect on house prices over a 1-year period – this time horizon is too short for the increase in issued building permits to be reflected in an expansion of housing supply, so this variable mainly indicates increasing demand, which is followed by greater appetite for construction.

The HaR model enables us to capture the asymmetric nature of downwards and upwards risks to house price dynamics, and to track changes over time. The so-called "median-to-tail distance"<sup>5</sup> is a statistical indicator that shows the distance between the median value and the extreme quantiles of the house price change forecasts. The greater the distance, the higher the probability of downwards or upwards risks. The forecasted median portrays dynamic quarterly growth of 2.5 per cent (in real terms) for 2025 Q1 and Q2. Based on the estimate, there is a 10-10 per cent probability that in 2025 Q2, the quarterly real house price growth will be less than 1.3 per cent (1<sup>st</sup> decile) or more than 3.4 per cent (9<sup>th</sup> decile). The estimate for the lower tail of the distribution is further from the median than the forecast for the upper tail of the distribution, with distances of 1.2 and 0.9 percentage points each, meaning there is a higher likelihood of a slowdown than of a major increase in housing price dynamics. Contrary to this, in 2025 Q1, the distance between the lower and upper decile and the median was similar (2.7 and 2.8 percentage points), so the downwards and upwards

risks related to changes in house prices were nearly symmetrical. Moreover, in 2025 Q1, the estimated distribution range of house price dynamics was much wider, so in this period, there was still greater uncertainty about the growth rate of the house prices. This is mainly attributable to the fact that the uncertainty of the forecast looking ahead one quarter is more responsive to recent events, and while the change in house prices in the fourth quarter typically lags significantly behind that in the third quarter, in 2024 the price dynamics in the fourth quarter were nearly three times higher than in the previous quarter. In 2025 Q2, there is a much smaller probability of a major difference between the actual growth rate and the forecasted median.



Note: The model estimates are calculated using data as of 2024 Q4. The house price growth figures are based on the aggregated real MNB house price index. The median-to-tail values are in absolute terms. Source: MNB estimate

HaR models can be used to identify house price risks and support macroprudential decisions. Overall, it can be concluded that HaR models can capture the non-linear, asymmetric nature of house price dynamics and quantify the probability of extreme house price changes, thus acting as an early warning indicator for macroprudential policy. Short- and medium-term forecasts provided by the HaR model help assess risks in real time, allowing regulators to react on time to the increased likelihood of extreme house price changes (e.g. by fine-tuning borrower-based-measures), and thereby helping to mitigate financial stability risks.

<sup>&</sup>lt;sup>5</sup> For the metric, see the European Systemic Risk Board (2021): <u>Report of the Expert Group on Macroprudential Stance – Phase II (implementation)</u>.

## 3. Low demand for investment loans holding growth in corporate lending back

The total corporate loan portfolio of credit institutions increased by 1.6 per cent and the SME loan portfolio increased by 1.9 per cent in 2024. This shows a continued slowdown in the portfolio growth rate, in contrast to other countries in the region, where corporate loan dynamics turned up in 2024 H2. The total value of new corporate loan disbursements decreased by annual comparison. With subsidised loan schemes being phased out and becoming more targeted, the share of subsidised loans declined substantially within new disbursements and the total loan portfolio.

Although the total loans outstanding remained nearly unchanged, the portfolio of foreign currency loans continued to grow in 2024. The expansion of FX lending was largely linked to companies with natural foreign currency coverage. The average interest rate (payable by the customer) on newly disbursed loans is higher than the average interest rate on loans outstanding, which may pose a refinancing risk, especially for subsidised loans maturing in the near future. However, the portfolio of these loans is not significant.

The lending activity of the banking system corresponds to the cyclical position of the economy. Corporate lending is currently subdued, primarily due to insufficient demand factors. Banks noted declining demand for investment loans in 2025 Q1, and they do not expect a significant recovery in 2025 Q2-Q3 either. The MNB initiated discussions with credit institutions on the possibilities of increasing corporate lending to support the economy. With the improvement of real economic processes and the expansion of the Demján Sándor Programme, we predict that the corporate loan portfolio will increase by 6 per cent in 2025.



Chart 20: Annual growth rate of corporate loan portfolio by company size

#### 3.1. Corporate loan portfolio grows slowly in 2024

The pace of growth in corporate sector loans was slow in 2024. The corporate loan portfolio of credit institutions (not granted to financial companies) increased by 5.9 per cent in 2023 and only 1.6 per cent in 2024 (Chart 20). The slowdown in lending dynamics was also observed on average in other countries in the region (Czechia, Poland, Romania, Slovakia). However, corporate lending started to increase gradually in those countries in the second half of the year, while in Hungary the pace decreased further. The annual dynamics of SME lending, which better reflect the basic processes, lagged behind the large company sector in the first three guarters of the year, and then following the latter's significant slowdown, both segments closed 2024 with annual growth of less than 2 per cent. Corporate lending dynamics were also influenced by special processes: calculated by eliminating the financial and insurance sector,<sup>6</sup> which mostly includes large transactions, corporate lending dynamics amounted to 4.2 per cent at the end of 2024.

The share of subsidised loans in the total loan portfolio decreased in 2024. At the end of 2019 the share of subsidised loans in the total corporate loan portfolio

Note: Credit institution sector, transaction-based growth rates. Between March 2022 and August 2022, taking into account the repayments received by Sberbank. Source: MNB

<sup>&</sup>lt;sup>6</sup> The financial-insurance sector also includes holding companies.



#### Chart 21: Breakdown of corporate loans by subsidized and market loans and development of guarantee

Note: Institutional scope for the guarantee portfolio: Garantiqa Credit Guarantee Ltd., Agricultural Business Credit Guarantee Foundation, MFB Ltd., Start Guarantee Ltd. The 2017 guarantee stock data are based on AECM's estimate. Source: MNB, AECM





Note: Data not adjusted for exchange rate effects and exclude money market transactions. In calculating the share of subsidised loans, we examine the share of non-overdraft loans classified as 'Non-normal market' loans within the overall new contract volume of credit institutions, excluding loans issued directly by the Hungarian Development Bank (MFB) and Eximbank. Source: MNB

amounted to 13 per cent, before gradually starting to increase due to the coronavirus pandemic and the favourable subsidised financing schemes introduced in the subsequently challenging environment, reaching 39 per cent at the end of the first quarter of 2024 (Chart 21). With the end of the subsidised loan schemes, the share of subsidised loans decreased to 35 per cent by the end of 2024. Similar processes were observed in the SME sector: in 2019, the share of subsidised loans in the total portfolio was 20 per cent, before peaking at about 55 per cent at the end of the first quarter of 2024 and then decreasing to 51 per cent by the end of the year. The decline in the weight of the subsidised loans is in line with the international trends, with the recovery of the economy and market lending. However, European processes differ in terms of the guarantee programmes: while the phasing out of subsidised schemes led to a significant decrease in the guarantee portfolio backing corporate loans in most countries, the domestic guarantee portfolio as a proportion of GDP remains high.<sup>7</sup>

The value of new contracts has decreased by annual comparison. In 2024, new contracts amounted to HUF 3,500 billion in the credit institution sector, which was 11 per cent less than the 2023 disbursements.<sup>8</sup> The decline primarily affected current asset and other loans, while the new contracting of investment loans exceeded the 2023 disbursement level – a low base figure – by 8 per cent, but still lags behind the 2021-22 disbursements. In the micro, small and medium-sized enterprise segment, the volume of new loan contracting decreased by 6 per cent in 2024, while in the large company segment it decreased by 16 per cent (Chart 22). With the phasing out and narrowing of the subsidised loan schemes in mid-2024,9 the share of loans contracted on a non-market basis within new disbursements decreased substantially, from 35 per cent in 2023 to 19 per cent in 2024. These products played an even greater role in the SME loan market, where their share fell from 47 per cent to 28 per cent.

<sup>&</sup>lt;sup>7</sup> For more details about the guarantee portfolio by international comparison, see: European Association of Guarantee Institutions <u>Statistical</u> <u>Yearbook 2023</u>.

<sup>&</sup>lt;sup>8</sup> The impact of new contracting needs to be assessed carefully, as an increase in the average maturity of loans may (via lower principal instalments and refinancing needs) lead to an increase in corporate credit growth, despite a contraction in new loan issuance.

<sup>&</sup>lt;sup>9</sup> The HUF 200 billion investment loan budget under the Baross Gábor Reindustrialisation Loan Programme announced for 2024 was already used up already in the first quarter. The "crisis support" sub-category of the Széchenyi Card Scheme was closed on 30 June 2024 in most sectors, and it is now only available under the "de minimis" sub-category, which substantially limits the volume of loans available to companies.



#### Chart 23: Corporate loan portfolio, breakdown by foreign **3.2. Share of foreign currency loans rises above pre**currencies

Source: MNB





Note: Categories considered as not having natural coverage: "Net importer, no export revenue" and "No export activity, and not engaged in real estate transactions or in the financial & insurance sector". Source: MNB

### coronavirus level

The ratio of foreign currency loans within the total loan portfolio has increased. There have been significant changes in the foreign currency composition of the corporate loan portfolio over the last 15 years. The Funding for Growth Scheme encouraged forint lending from 2013, after which the market-based forint lending also intensified under the increasingly favourable interest rates, and between 2019 and 2021, the new subsidised loan schemes encouraged forint lending. As a result, the share of foreign currency loans in the corporate loan portfolio decreased from 58 per cent to 37 per cent between 2013 and 2021. Following the start of the interest rate hike cycle in June 2021, this trend reversed in conjunction with the greater interest rate advantage of foreign currency loans and the gradual decline in subsidised loans, and the share of foreign currency loans began to converge on its long-term average. This process was not broken even by the decline in corporate forintloan interest rates, and at the end of 2024, about 50 per cent of the corporate loan portfolio was already denominated in foreign currency (Chart 23), which exceeds the level before the coronavirus pandemic.

The foreign currency loan portfolio is typically tied to companies with natural coverage. The corporate foreign currency loan portfolio increased substantially in the three years after 2021, but this in itself does not necessarily pose a financial stability risk for companies engaged in the export trade and having contracts typically settled in foreign currency. It would only be relevant for financial stability if companies with no foreign currency revenue became indebted in foreign currency. For this reason, it is positive that at the end of 2024, only a low proportion of the foreign currency loan portfolio, 17 per cent, was related to this type of company (Chart 24). The majority, i.e. 79 per cent, of the 70 per cent growth in the foreign currency loan portfolio seen between 2022 and 2024 was linked to companies with export and foreign currency revenues, and thus having natural foreign currency coverage.<sup>10</sup> Among these companies, the share of companies with no foreign trade activities but engaged in

<sup>&</sup>lt;sup>10</sup> Companies with natural foreign currency coverage include net exporters, net importers with export revenue, and companies that do not have foreign trade activities but are operating in the real estate or financial-insurance sectors (since contracts settled in foreign currency are typical in these sectors, where the exchange rate risk is not borne by the borrowing company but by its customers). Companies without natural foreign currency coverage include net importers without export revenue, companies not engaged in foreign trade activities, and companies not operating in the real estate or financial-insurance sectors. It is important to add that the borrowers are still able to hedge their exchange rate risk through financial instruments (such as derivatives).



#### Chart 25: Corporate sector interest rates for current portfolio and new disbursements

Note: Volume weighted interest rates. Loans with variable interest rate or with up to 1-year initial rate fixation are included in the categories of HUF and EUR interest rates. Client interest rate is the interest rate actually paid by corporations, reduced by the state interest subsidy. HUF interest rate of total portfolio and client interest rate does not include overdrafts. Source: MNB

#### Chart 26: Median value of sectoral interest rate



Note: Interest coverage = (Profit before tax + Interest paid and interest-like payments) / Interest paid and interest-like payments. The chart shows the median value of the given sector, for the given year. The chart shows the top 10 sectors with the largest loan portfolio, which together accounted for 92% of the total corporate loan portfolio at the end of 2024. Source: NTCA, MNB

real estate transactions typically accounted for in foreign currency, and those operating in the financial-insurance sector, was estimated at about 30 per cent in the period under review.

#### 3.3. Interest rate on new market-based forint loans significantly higher than client interest rates of total loan portfolio

The interest rate on new forint loans is substantially higher than the interest rates currently payable by companies. The average transaction interest rate (including interest rate subsidies, from the bank's perspective) on corporate forint loans has decreased by 1.3 percentage points since May 2023, i.e. the start of the interest rate cut cycle, and amounted to 7.3 per cent at the end of February (Chart 25). However, due to the nature of the subsidised loan schemes, the average client forint interest rate actually paid by the companies was lower, amounting to an average of 5.2 per cent at the end of 2024. Looking ahead, it will thus be decisive at what interest rate companies will be able to receive refinancing after their subsidised loans mature. The average interest rate on new forint loans decreased significantly in 2024 in parallel with the interest rate cut cycle, and converged on the transaction interest rate of the portfolio, deviating by only 1.4 percentage points from it. Interbank interest rates did not change significantly in the second half of the year, so the spread on the 3-month BUBOR<sup>11</sup> for forint loans decreased to 1.9 percentage points by the end of the year, after its high level at the beginning of 2024, which is not substantially different from the average level seen in the years before the coronavirus pandemic.

The interest coverage rate deteriorated in sectors with the largest loan portfolio in 2023. In 2023, companies had to refinance their maturing loans, typically granted at low interest rates, in a higher interest rate environment. As a result, the median value of sectoral interest rate coverage decreased significantly, indicating a deterioration in the ability of companies to pay interest (Chart 26). From 2022 to 2023, the largest decrease in the sectoral median indicator was observed in agriculture (-67 per cent) and in the transport and storage sectors (-48 per cent), while the smallest decrease occurred in real-estate activities (-14 per cent) and in the professional, technical and scientific activity (-15 per cent) sectors.

<sup>&</sup>lt;sup>11</sup> It is important to note that the funding costs of the banks are influenced by a number of other factors in addition to the BUBOR (such as the level of deposit interest rates), so the spread on top of the actual funding costs may differ from the above estimate.



#### Chart 27: Maturity structure of corporate loan portfolio at end of 2024

Source: MNB





Note: The FCI (Financial Conditions Index) reflects the impact of the banking system and the MFCI (Monetary Financial Conditions Index) captures the cyclical effect of monetary policy on annual GDP growth. Source: MNB

The renewal of loans outstanding may pose a risk under permanently higher real interest rates. Between 2025 and 2027, 48 per cent of the corporate forint loan portfolio, and 40 per cent of the foreign currency loan portfolio will expire (Chart 27). It is favourable that a significant proportion, 81 per cent, of the loans maturing within a year is related to market-based loans, the refinancing of which poses a lower risk thanks to the lower interest rate differential on average compared to the subsidised schemes. That said, the ratio of subsidised loans is 47 per cent among loans maturing within 1 to 3 years. However, only 19 per cent of these loans, or approximately HUF 260 billion, are loans where repayment is concentrated at the end of the term, so renewal poses a higher risk. If changes in the inflation rate require the sustained maintenance of higher real interest rates than in previous years, there may be a renewal risk for maturing corporate loans. However, the renewal risk is mitigated by the fact that in a higher inflationary environment, the opportunities of companies to increase prices generally increase, and Hungarian companies have a high level of liquid assets compared to companies in the region.

### 3.4. Demand-related causes underlie low corporate credit dynamics

Lending activity in the banking system is adequate, and the supply conditions are in place for a recovery of lending. The Financial Conditions Index (FCI) deteriorated modestly in 2024 H2, adopting a slightly negative value, but still does not deviate significantly from the equilibrium level. Of the two FCI factors, the lending capacity level remains historically high. The willingness to lend factor has deteriorated slightly and shows a marginally negative value, which does not deviate significantly from the equilibrium level (Chart 48 of the Annex). Based on the Monetary Financial Conditions Index (MFCI), which shows the effect of loans outstanding, lending interest rates and exchange rates, the current monetary conditions stimulate economic growth (Chart 28).<sup>12</sup> Based on the credit gap, the ratio of the corporate loan portfolio to the overall size of the economy is slightly below the long-term trend.<sup>13</sup> All of this suggests that the current restraint in lending is not due to insufficient supply, but may be due to demand-side factors.

<sup>&</sup>lt;sup>12</sup> A more detailed description of the methodology can be found in the <u>November 2015 Financial Stability Report</u> or in the following MNB Working Paper: Zsuzsanna Hosszú (2016): <u>The impact of credit supply shocks and a new FCI based on a FAVAR approach</u>. The MFCI was constructed based on macroeconomic factor No. 2 in this study, the variables of which summarise monetary conditions.

<sup>&</sup>lt;sup>13</sup> See the MNB's <u>Macroprudential Report of 2024</u>.



Note: Net percentage balance of respondent banks indicating stronger/weaker demands, weighted by market share. Source: MNB, based on banks' responses



Chart 30: Forecast for growth rate of corporate lending

Note: Transaction-based annual growth rate based on data from the financial intermediary system. Source: MNB

Demand for investment loans remained low in 2024. Banks have been seeing a decline in demand for long-term investment loans since 2022 (Chart 29), while the loan conditions have not changed.<sup>14</sup> According to a survey by the European Commission, the main constraint for the production activities of Hungarian companies is still primarily the low demand for their products and services, while financial constraints were reported by a smaller group of companies. According to a 2024 survey on access to finance for European businesses,<sup>15</sup> Hungary had the lowest percentage of borrowers in the EU (5 per cent). Nearly 80 per cent of the companies surveyed do not even consider the possibility of taking out a loan, which is a high figure by European comparison, and highlights some structural limits to the expansion of lending. According to the MNB's Lending Survey, the demand for long-term loans by larger companies may decrease further in the second and third quarters of 2025, and in the case of smaller companies, banks expect only a small rate of increase, so there is no sign of any meaningful turnaround in the field of investment loans yet. At the same time, the MNB initiated discussions with credit institutions on the possibilities of increasing corporate lending to support the economy.

The growth rate of the corporate loan portfolio may start to increase from 2025 H2. The liquid assets of companies remain high, both by historical and European comparison, which has a counterproductive effect on borrowing. Corporate indebtedness as a proportion of GDP remained unchanged at 16 per cent in 2024, and is expected to remain mostly unchanged in 2025 due to moderate growth in loans outstanding compared to the period between 2019 and 2022 (Chart 22 of the Annex). Compared to our previous forecast, the acceleration of corporate lending dynamics is expected to be seen over the longer run due to the moderate economic growth (Chart 30). However, parallel to the more favourable real economy from the second half of the year, and the ramp up of the Sándor Demján Programme (see Box 2 for details), corporate lending dynamics may gradually increase. Thus according to our forecast, loans outstanding are projected to grow by 4.5 per cent in 2025, and by 9-9 per cent in both 2026 and 2027.

<sup>&</sup>lt;sup>14</sup> The results of the MNB's Lending Survey are available on the MNB's website, and the related press release is available at the following link.

<sup>&</sup>lt;sup>15</sup> Survey on the access to finance of enterprises (SAFE), Analytical report 2024.

## BOX 2: DESCRIPTION OF THE VARIOUS ELEMENTS OF THE SÁNDOR DEMJÁN PROGRAMME AND THEIR UTILISATION TO DATE

The government launched the Sándor Demján Programme in October 2024, to contribute to the development of the SME sector and stimulate demand for investments. Most elements of the Sándor Demján Programme aim to promote the competitiveness of the Hungarian SME sector and foster the development of larger companies through the provision of funding. The characteristics of the various elements, their possible uses and utilisation levels to date are described below.

Description of the main elements of the Sándor Demján Programme										
Elements of the Sándor Demján Programme	Budget	Launched	Amount	Utilisation						
EXIM – Export Promotion Investment Loan programme(s)	HUF 350 bn	6 January 2025	max. HUF 6 bn or EUR 15 mn	HUF 108 bn applications submitted						
EXIM - SDP Future Exporters Working Capital Loan	HUE 250 bp	5 May 2025	max. HUF 1 bn or EUR 2.5 mn	HUE 250 bn applications submitted						
EXIM - SDP Future Exporters Working Capital Loan Plus	1101 250 511	5 Way 2025	max. HUF 6 bn or EUR 15 mn	The 250 bit applications submitted						
Outward Investment Loan (EXIM) and (NTH) Capital Funding Programme	-	6 January 2025	min. HUF 2 bn loan	HUF 329 bn loan applications received HUF 67 bn capital applications received						
1+1 SME Investment Promotion Programme	HUF 48 bn	23 January 2025 (closed)	HUF 5-200 mn	HUF 137 bn (1,885 pcs) applications submitted						
Reducing the interest rates of Széchenyi Card Programme (SCP) investment loans	-	interest rate cut in two steps: on 1 November 2024 on 17 February 2025	max. HUF 100-500 mn (depending on facilities)	n/a						
Accelerating EU programmes for business development	HUF ~650 bn	continuously	-	n/a						
SME Capital Funding Programme	HUF 100 bn	3 March 2025	HUF 100-200 mn	HUF 100 bn (1,094 registrations)						
'Every Business Should Have Its Own Website' programme	HUF 9 bn	3 February 2025	HUF 0.4-1.5 mn	HUF 11 bn (9,245 pcs) applications						
SME administrative burden reduction programme	-	As of 1 January 2025, the threshold of mandatory audit has been increased	_	Affects 16,025 companies (4.4 per cent of companies)						

With a budget of HUF 350 billion, one of the largest elements of the programme is the investment loan and leasing programmes offered by Eximbank, which were relaunched in early 2025. The new leasing facility is available to not only active exporters and suppliers, but also to companies currently planning export activities, thus enabling them to finance the purchase of modern equipment on favourable terms. The investment loans and leasing contracts have fixed interest rates, ranging from 3.75 per cent to 5.75 per cent for EUR facilities and from 5.2 per cent to 7.2 per cent for HUF contracts. Investment loans have a maturity of up to 10 years, while leasing contracts have a maturity of up to five years. The maximum contract size is HUF 6 billion. An interest rate reduction is available for green investments: 1 percentage point for EUR contracts and 2 percentage points for HUF contracts. By the end of April 2025, HUF 108 billion worth of loan applications had already been received by Exim Bank. In early May 2025, new working capital loan facilities were also launched with a total budget of HUF 250 billion; within days of announcement, applications reached the total budget volume. On 6 January 2025, the Outward Investment Loan Programme was also launched, designed to support large-scale foreign investments, with no overall budget established. The minimum contract size is HUF 2 billion, and it can be used to finance foreign investments by domestic SMEs and large companies. The loan is available at a fixed market-based interest rate, with a maximum maturity of 10 years, and it is directly financed by Eximbank.

In the 1+1 SME Investment Promotion Programme, the total volume of loan applications was well above the budget. The total budget set for this facility is HUF 48 billion, and funding is available for up to 50 per cent of investment projects, for companies that have been operating for several years. In addition to the non-refundable grant of a minimum of HUF 5 million and a maximum of HUF 200 million, the company must use the same amount of its own resources or a – non-subsidised – loan for the investment project. In addition to the mandatory purchase of new equipment resulting in technological development, the grant can be used for developments utilising info-communication technologies and renewable energy sources, as well as for the purchase of commercial vehicles, in sectors other than agriculture and the food industry. The deadline for the submission of the project plans was 23 January 2025, and 1,885 companies submitted investment plans requesting a total of HUF 137 billion of non-refundable grants. The main purpose indicated by the applicants was the purchase of new IT equipment and digital developments.

The 'Széchenyi Card Programme' (SCP) is available at a lower interest rate than previously. After the interest rate of the SCP investment loans was reduced in November 2024 (cutting the annual interest rate from 5 to 3.5 per cent), a

further reduction of 0.5 percentage point was made on 17 February 2025 for all facilities (except for the Agricultural Széchenyi Card and the 'GREEN' investment loan). Accordingly, the interest rate on investment loans is now 3 per cent. The institutional guarantee fee will also be waived at the beginning of the maturity period for SMEs investing in Budapest,<sup>16</sup> provided that the guarantee applications are submitted to Garantiqa Hitelgarancia Ltd. by 30 June 2025. Under the 'GREEN' facility, an even more favourable interest rate (1.5 per cent) is available for additional energy efficiency loan purposes, and investments in renewable energy use and water savings.

Acceleration of the EU programmes for the Hungarian SME sector is also part of the Sándor Demján Programme. The '0 per cent' loan from EU funds, available to companies in rural areas since April 2024 with a total budget of HUF 156 billion has been extended to Budapest-based companies from the end of October 2024, with a total budget of HUF 73 billion. The maximum contract size for non-Budapest-based companies is HUF 150 million, and HUF 75 million for Budapest-based companies; the funds can be used for the purposes of technological modernisation, property development, the purchase of electric vehicles and energy efficiency investments using renewable energy. The overall EU programme budget of HUF 650 billion also includes loans with more targeted or combined funding, and nonrefundable grants. By the end of February 2025, the utilisation of this programme did not exceed HUF 100 billion.

The Sándor Demján Capital Funding Programme with a total budget of HUF 100 billion aims to improve the supply of capital to a wider range of SMEs, thus improving their creditworthiness. This facility is available for companies that have at least two employees and have been operating for at least 2 years, with an average sales revenue of over HUF 300 million in the previous two years, which are eligible to receive capital investment of between HUF 100 million and HUF 200 million. The potential investment purposes include capacity increase, technological or digitalisation developments and energy efficiency investments. Funding is provided in the form of a 1-per cent capital increase with premium, and a 99-per cent owner's loan (granted by MFB Hungarian Development Bank) at a favourable interest rate of 5 per cent, meaning it is effectively also a subsidised loan. A total of 1,094 companies registered for the programme. It was closed in the first half of April 2025 after the budget was exhausted; applications are now being processed.

The Sándor Demján Programme also aims to improve digitalisation and reduce administrative burdens. The programme titled 'Every business should have its own website' supports website development in the SME sector with a budget of HUF 9 billion, strengthening their online presence and e-commerce activities. Applications for this facility may be submitted from 3 February 2025 to 31 December 2025, and the size of the grant is between HUF 400,000 and HUF 1.5 million per company. By the end of April 2025, more than 9,000 companies had already registered, submitting grant applications totalling approximately HUF 11 billion, which amount exceeds the budget of HUF 9 billion. To simplify the administrative and operational environment, from 2025 a mandatory audit will only be required for companies with a sales revenue of over HUF 600 million, instead of the previously applied HUF 300 million threshold. This affects 16,025 companies, 4.4 per cent of the total number of companies.

Based on the responses to various surveys,<sup>17</sup> the reason for the lack of investment by companies is not a lack of favourable funding sources, but rather the uncertain economic environment, weak demand and low capacity utilisation levels. The majority of the companies looking to invest are waiting for future prospects to improve and for non-refundable grants to become available. Thus, in the short term, facilities including non-refundable grants may prove to be the most popular, as confirmed by the data so far. In the medium term, a more predictable economic environment and a gradual recovery in demand could drive increased demand for investment loans.

<sup>&</sup>lt;sup>16</sup> In the case of investments outside Budapest, there is no fee for the institutional guarantee starting from 11 November 2024. The promotional fee applies to the Széchenyi Restart Investment Loan MAX+ and the Széchenyi Microloan MAX+ loans, for the first fractional year of the maturity and for the following full year, if the purpose of the investment is neither the purchase of a business share nor real estate development (see Garantiqa Hitelgarancia Ltd. Announcement).

<sup>&</sup>lt;sup>17</sup>A company survey by the National Association of Entrepreneurs and Employers (VOSZ) conducted in January and April.

# 4. Household lending has increased dynamically without significant increase in risks

In 2024, improving household income situation, falling inflation, rising real wages, growth in subsidised loans and increasing banking competition all contributed to a significant increase of nearly 10 per cent in the household loan portfolio. Our forecast suggests that the growth, which is already high by European comparison, may continue, reaching 12 per cent in 2025, driven by the gradually recovering real economy and the launch of the Subsidised Loans for Workers at the beginning of the year. Housing loans account for half of the volume of new contracts, but there is also increasing demand for personal loans. In addition to the increase in average contract sizes for market-based housing loans, higher contract sizes became available for subsidised housing loans, which decreased the ratio of households supplementing their housing loans with other housing or other loans. Since March 2024, the average APR for market-based housing loans has remained at around 6.7 per cent, which is a significant decrease compared to the peak of 9 per cent in 2023.

Despite the substantial expansion in lending, neither new housing loans nor new personal loans indicate an increase in systemic risks, as measured by risk indicators. Spreads on market-based housing lending were low in 2024, but the related profitability risks can be offset by the fact that 45 per cent of the banks plan to increase the spread on housing loans in the next six months. The loan amounts taken out by new housing loan borrowers have not changed significantly since mid-2024 as a proportion of income. The typical loan-to-value ratio of new housing loan contracts was around 54 per cent, after a significant increase seen in 2024 Q2, mostly due to the increasing contract sizes, and to a lesser extent to the higher maximum LTV introduced for first-time home buyers. In early 2025, the interest rate and spread on personal loans both decreased, while the risk level of new personal loan borrowers is moderate, with no extreme tightness even among those with lower incomes. The ratio of debtors accumulating multiple loans has decreased in connection with the HPS Plus, which is available with larger contract sizes compared to the previous HPS, but monitoring the level of their financial strain is still justified.



#### Chart 31: Annual growth rate of household loan portfolio by international comparison

Note: Credit institution sector, transaction-based growth rate. The yellow band shows the range of credit dynamics of the countries in the region (Czechia, Poland, Romania, Slovakia). Mediterranean countries: Spain, Greece, Italy, Portugal. Source: ECB, MNB

## 4.1. Lending in household sector grows at rate above regional average

In 2024, the household loan portfolio increased by almost 10 per cent. After a moderate increase of 3 per cent in 2023, the household loan portfolio of credit institutions increased by 9.7 per cent in 2024 (Chart 31). The growth was mostly driven by housing loans, but personal loans and prenatal baby support loan transactions also contributed to the increase. The annual growth in credit continued to rise in early 2025, reaching 10.5 per cent in February. In Hungary, lending growth has been high since 2024 Q2, both in a regional and European comparison. The above-average growth in the region may have been supported by the fact that the domestic real wage increase was the highest in the region, and in addition to falling inflation, the real per capita income of new borrowers also increased. Rising banking competition and the growing role of subsidised loans supported the expansion of the loan portfolio too.



Note: Interest rate subsidised and refinanced housing loans include the following schemes: HPS, rural HPS, HPS Plus, FGS Green Home Programme. Personal disposable income – as a proportion of which we showed the total new household loans quarterly – is the sum of earnings, cash transfers and other income. Source: HCSO, MNB



Chart 33: Number and amount of new subsidised loans

Note: Credit institution sector. Source: MNB

loan disbursements in 2024. The total value of new contracts concluded by credit institutions exceeded HUF 2,700 billion in 2024. This is 71 per cent higher than the figure for 2023, a year characterised by double-digit inflation and high interest rates, and represents a peak in nominal value in a historical comparison. In real terms, however, the annual new disbursements were not exceptional: the quarterly values of around 6 per cent of disposable income are below the ratios of the period between 2019 Q2 and 2022 Q2 (Chart 32). The volume of new housing loans more than doubled, meaning that by 2024, half of all the new loan contracts were for housing purposes, compared to 35 per cent in 2023. In addition to the improving financial situation of households, the increasing banking competition, and the voluntary APR cap in effect between 9 October 2023 and 30 June 2024, this was also facilitated by the fact that the HPS Plus scheme enabled higher maximum contract sizes compared to the previous HPS loans. In 2024, new personal loan disbursements by credit institutions were over HUF 800 billion, a 55 per cent annual increase despite the relatively high interest rate levels. The significant expansion was also supported by quick, automated, digital borrowing processes: the proportion of personal loan contracts provided entirely online increased by 20 percentage points to 42 per cent.<sup>18</sup> In addition, the volume of early repayments of personal loans during 2024 amounted to HUF 315 billion, which is more than double the average volume of HUF 138 billion in the period between 2020 and 2023. All of this indicates that a significant part of the surge in new personal loan disbursements is being used to refinance loans taken out earlier, presumably at less favourable interest rates.

Significant growth was experienced in new household

The total number of subsidised loan contracts has decreased, but the average contract sizes have increased. At the beginning of 2024, the previous HPS and the related interest rate subsidised loans were replaced by the HPS Plus.<sup>19</sup> After the restructuring of the scheme, the total number of contracts in 2024 was lower than the number of HPS loan contracts concluded in 2023 (Chart 33). However, the total volume of new HPS Plus contracts was one and a half times the volume of the HPS subsidies and the related loans, amounting to

<sup>&</sup>lt;sup>18</sup> The increasing use of online lending is also addressed in the MNB's 2024 <u>Macroprudential Report</u>.

<sup>&</sup>lt;sup>19</sup> Under the HPS Plus scheme, the maximum loan amount can be up to HUF 50 million, depending on the number of children committed to. A more detailed analysis of the first period of the HPS Plus programme and its clientele is discussed in Box 3 of the <u>November 2024 Financial Stability Report</u>.



Chart 34: Forecast for growth rate of household lending

Note: Transaction-based annual growth rate, based on data from the financial intermediary system. Source: MNB



Note: Subsidised housing loans include the FGS Green Home Programme loans, the interest-rate subsidised HPS loans, and the subsidised bridging and other housing loans. Averages weighted by contract sizes. The spreads were calculated on the basis of the relevant BIRS data observed 4 months prior to the relevant interest rate periods, except for the new HPS schemes available from January 2024, for which the 5-year IRS yield observed 4 months prior to the period were used as a reference. Source: MNB

approximately HUF 300 billion in 2024. The average contract size for HPS Plus loans was HUF 26 million, which exceeds the maximum amount previously available under the HPS scheme (HUF 10 million subsidy and HUF 15 million interest rate subsidised loan). The total volume of new prenatal baby support loans did not change substantially in 2024, while the total number of contracts decreased by 13 per cent. So for both products, the increase in the maximum contract size set out in the regulation supported new disbursements in 2024, while the total number of contracts decreased, presumably because the pool of potential borrowers narrowed.<sup>20</sup>

In 2025, household loans outstanding may increase by 12 per cent. In 2024, the household loans outstanding of the total financial intermediary system - i.e. credit institutions and financial enterprises - increased by 8.6 per cent. The dynamic increase was achieved alongside an improvement in consumer confidence, which lasted until 2024 H1, but then stagnated in 2024 H2. Based on the responses to the Lending Survey, banks experienced a pick-up in demand for household loans in 2024, which continued in the first quarter of 2025, and looking ahead to 2025 H1, they expect this to continue.<sup>21</sup> This is also strongly supported by the Subsidised Loans for Workers launched at the beginning of the year (see Box 3 for the initial experiences of the Subsidised Loans for Workers), which has led to an increase in our household lending forecast for this year, compared to our November 2024 report. According to our forecast, household loans outstanding may grow by 12 per cent in 2025 (Chart 34). Thereafter we expect an 11 per cent increase in 2026 and a 9 per cent increase in 2027.

#### 4.2. No significant stability risks can currently be identified in household lending

**Spreads on market-based housing lending continue to be low.** The APR for new housing loans – including subsidised loans – was around 7 per cent for most of 2024, following a more pronounced decrease at the beginning of the year. Since March 2024, the average APR for market-based housing loans has remained at around 6.7 per cent, which is a more significant decrease compared to the peak of 9 per cent in 2023. This did not change notably in 2024 H2, even though the period of the

<sup>&</sup>lt;sup>20</sup> For prenatal baby support loans, the maximum available contract size increased from HUF 10 million to HUF 11 million in 2024. The upper limit for the age of the wife was reduced to 30 years, however, in the case of a 12-week pregnancy, applications were also accepted where the wife had not yet reached the age of 41. From 1 January 2025, the age limit was changed to 18–35 years.

<sup>&</sup>lt;sup>21</sup> The results of the MNB's Lending Survey can be found at this link, and the related press release at this link.
#### Chart 36: Financing costs of new personal loans



Note: Averages weighted by contract volume. Spreads were calculated on the basis of relevant BIRS data observed four months prior according to interest rate periods. Source: MNB

APR cap voluntarily undertaken by the banks expired on 30 June 2024. The ceiling barely exceeded the long-term yields, resulting in near-zero spreads on market-based housing loans in 2024 H1, and the spreads revealed no major increase even after the end of the APR cap (Chart 35). Another voluntary interest rate ceiling of 5 per cent was introduced for market-based housing loans in 2025, which may only affect a small section of the market.<sup>22</sup> The profitability on housing loans is reduced by the fact that the maximum interest rate on the HPS Plus loans is lower compared to the previous HPS loans, which pushed the spreads on the subsidised housing loans to a lower level. In the longer run, interest revenue failing to cover the credit risk and operating expenses may pose a stability risk to the financial intermediary system.<sup>23</sup> However, according to responses to the Lending Survey, looking ahead to 2025 Q2 and Q3, a net 45 per cent of banks is considering increasing the spread on housing loans.

Both interest rates and spreads on personal loans have decreased. In 2024, the APR for personal loans fell by 2 percentage points compared to the 19 per cent level at end-2023 and dropped further to 16 per cent in the first months of 2025, which is still considered high compared to the previous years (Chart 36). According to the responses of banks to the Lending Survey, achieving market-share goals contributed to easing credit conditions in 2024. More and more banks are offering personal loans at rates below 10 per cent for customers with higher incomes and thus less risk. After two years, the spread on personal loans fell below 10 percentage points again in February 2025, which does not differ significantly from the average of 10.4 percentage points for the 2021-2024 period. Personal loans still provide high profitability for banks, but the continued decrease in the interest rates for personal loans may also reduce spreads.

<sup>&</sup>lt;sup>22</sup> At the request of the Ministry of National Economy, banks may introduce another voluntary interest rate cap of 5 per cent for market-based housing loans in the period between 1 April and 31 October 2025, but according to our estimates this will not have a significant impact on domestic housing and loan market processes. Based on the proposal of the Banking Association, the 5 per cent cap would be applicable under the following conditions: purchase of a green apartment by first-time buyers under 35 years old, where the property is a maximum of 60 square metres, and its gross price is less than HUF 1.2 million per square metre. There are no disbursement and credit assessment fees, and the annual interest rate for the first 5 years is capped at 5 per cent.

<sup>&</sup>lt;sup>23</sup> In the long term (the average maturity of housing loans is 20 years), the sustainability of around-zero spreads also depends on the pricing processes of the deposit market. The high ratio of low-interest deposits may temporarily give credit institutions the opportunity to divert the pricing of loans from the level that would be justifiable by long-term yields. At the same time, the sustainability of this practice is questionable, as the pricing of deposits can change even in a short time. (Deposit transmission is discussed in more detail in Box 6.)



Chart 37: Main risk indicators of new housing loan contracts and borrowers

Note: DSTI: debt service-to-income ratio. LTV: loan-to-value ratio. Loan-accumulating debtors: who take out either more than one housing loan at a given point in time or supplement their housing loan(s) with a prenatal baby support loan/personal loan as an 'own contribution' (we consider these loans as an 'own contribution' if taking out the prenatal baby support loan or personal loan precedes taking out the housing loan by a maximum of 180 days). LTI: loan-toincome ratio; this is the total sum of the housing loan(s) or in the case of loan-accumulating debtors, the total sum of housing loan(s) and/or personal loans and/or prenatal baby support loans as a share of the yearly reported total income of debtor and co-debtor(s). Source: MNB

### Chart 38: Distribution of new personal loan contract volumes by the riskiness of the debtor



Note: Based on new personal loan contracts of the total financial intermediary system. DSTI: debt service-to-income ratio. Source: MNB

The risk indicators for new housing loans do not indicate a build-up of systemic risks. The typical (median) loanto-value ratio (LTV) for housing loan contracts was around 54 per cent after a significant increase in 2024 Q2. The higher level is mainly explained by the increasing average contract size of housing loans, and to a lesser extent, by the higher maximum LTV introduced for firsttime home buyers on 1 January 2024 (Chart 37).<sup>24</sup> The median debt-service-to-income ratio (DSTI) remained unchanged at around 30 per cent. The loan-to-income ratio (LTI; taking into account personal loans and prenatal baby support loans of borrowers as well, if any, in addition to their housing loans) of new housing loan borrowers has not changed significantly either since mid-2024. Monitoring the indebtedness of the creditaccumulating debtor segment (those clients who took out more than one housing loan in the given quarter and/or supplemented their housing loan with a personal/prenatal baby support loan) remains justified, as the debt level taken out by the most strained 10 per cent is six times their annual income. At the same time, the ratio of loan-accumulating transactions is gradually decreasing due to the higher contract size of subsidised loans: while their ratio was 29 per cent at end-2023, it was only 18 per cent at end-2024.

The characteristics of personal loan debtors do not indicate increased risk. Within the entire financial intermediary system (credit institutions and financial enterprises collectively) a total of approximately 525,000 personal loan contracts were concluded last year. This represents an increase of 17 per cent year-on-year. During 2024, the average contract size for credit institutions gradually increased from HUF 2.4 million to HUF 3 million.<sup>25</sup> The volume and average contract size (nearly HUF 400,000) of personal loans issued by financial enterprises are significantly lower than those issued by credit institutions, but in terms of the number of contracts, they account for 44 per cent of new disbursements. The riskiness of new personal loan debtors is moderate, and their indebtedness is not excessive even among those with lower incomes: the median DSTI was 26 per cent in 2024 Q4, and only 30 per cent even in the lowest income group. The share of

<sup>&</sup>lt;sup>24</sup> B. Csernik, A. Palicz, K. Szász, Zs. Thaqi (2025): <u>The lower down-payment expectation of the MNB supports young first-time buyer debtors without</u> <u>increasing credit risks</u> (only available in Hungarian).

<sup>&</sup>lt;sup>25</sup> The stability risks stemming from the more intense personal loan disbursement is mitigated by the fact that the personal loans outstanding of credit institutions only reached 1.9 per cent of GDP at end-2024, which does not differ significantly from the pre-covid level.

#### Chart 39: Distribution of loan contracts by the debtor's



Note: Contracts concluded in 2024. In the case of co-debtors, per capita income. Source: MNB, Eurostat

strained personal loans in the new disbursements of the financial intermediary system (over 40 per cent DSTI) remained unchanged at one-third during 2024. The characteristics of personal loan debtors in terms of DSTI and loan accumulation (taking out more than one loan in a given quarter) do not indicate increased risks. The combined share of strained and loan-accumulating customers, which are considered the riskiest, increased slightly in the quarterly new disbursements during 2024, but amounted to only 7 per cent on average. About 60 per cent of new personal loan debtors can be considered low-risk customers, who are neither loan accumulators nor strained (Chart 38).

Bank debtors are still representing the higher income segments. Regarding the key products based on their number and volume, credit institutions primarily lend to those with higher incomes. In 2024, more than half of the market-based housing loans debtors came from the highest income quintile (Chart 39). The distribution of personal loans did not differ significantly from this, indicating that the borrowers applying for this product have also shifted towards the higher income segments in recent years. For the interest rate subsidised HPS Plus loans, the income distribution is slightly more balanced, although due to the larger contract sizes, this product is presumably more accessible to higher income earners, too. Prenatal baby support loans reveal the most even distribution, with income quintiles representing nearly equal proportions. Financial enterprises continue to serve the lowest income earners with personal loans. Standing at only HUF 86 billion in 2024, this volume is significantly lower compared to credit institutions' annual new disbursements of HUF 800 billion. The overrepresentation of higher income earners reduces credit risks, but at the same time shows that credit-type public subsidy schemes are only suitable for supporting lowerincome earners to a limited extent.

#### BOX 3: FIRST EXPERIENCES OF SUBSIDISED LOANS FOR WORKERS

The Subsidised Loan for Workers, a new, state-subsidised unsecured product offered by banks, has been available since January 2025. The maturity is up to 10 years, the maximum contract size is HUF 4 million, it can be used for arbitrary purposes, and it is interest-free for clients. For eligibility, the applicant must be between 17 and 26 years of age, i.e. the product is specifically aimed at young people. In terms of education level, applicants are not eligible if they are still in or have already completed their tertiary education studies. Social security status of at least 3 months and compliance with the borrower-based measure are also required.<sup>26</sup> One further condition for the interest subsidy is that the debtor has had a registered Hungarian address for at least 5 years from the borrowing date. Childbearing support is also attached to the loan: half of female debtors' outstanding debt is forgiven upon the arrival of their second child, and upon the birth of their third child, the entire debt is forgiven.

In the first 4 months of the year, a total of 20,000 contracts were concluded, worth HUF **77 billion.** This means that since its launch, the Subsidised Loans for Workers gained a 7 per cent share of the total household loan disbursement – similar to the prenatal baby support loans – by the end of April 2025. The average contract size is HUF 3.9 million, because the majority of borrowers (88 per cent) take out the maximum amount. Based on our estimate, contracts worth around HUF 300 billion (i.e. around 77,000 contracts) may be concluded in 2025 as a whole, taking into account the usual seasonality in the credit market and the additional seasonality resulting from the end of high school studies at the beginning of the summer.



The eligibility conditions and the broad banking availability of the Subsidised Loans for Workers encourage the involvement of a new debtor segment.<sup>27</sup> In 2024, 12 per cent of household loans from credit institutions, 102,000 contracts, were concluded with debtors under the age of 27. This segment accounts for 13 per cent of all loans issued in the past 10 years, based on the age of the younger debtor in the case of co-debtors. The favourable conditions of the Subsidised Loans for Workers, especially the interest exemption and the childbearing support, may help a greater proportion of young people enter the credit market. 16 per cent of household loan contracts in the first quarter<sup>28</sup> were concluded by those under the age of 27, which suggests that this effect is indeed present. The compositional change of debtors is also worth examining in terms of another characteristic: level of education. Those with a primary education were underrepresented among borrowers (11 per cent in 2024, 8 per cent of all contracts outstanding at the end of 2024) compared to their proportion in the total population (18 per cent in 2023, according to HCSO). Based on the contracts concluded in the first three months, the share of those with a primary education among Subsidised Loans for

<sup>&</sup>lt;sup>26</sup> Due to its unsecured nature, when taking out a Subsidised Loan for Workers it is necessary to check compliance with the DSTI limits; however, based on the MNB's executive circular (<u>here</u>, only in Hungarian) – similarly to the prenatal baby support loans – 75 per cent of the contract size can be included as a down-payment regarding LTV compliance in case of a housing loan application (if the Subsidised Loan for Workers is taken out within 90 days prior to the assessment of the housing loan or within 20 days thereafter).

<sup>&</sup>lt;sup>27</sup> Access to the product is facilitated by the fact that it is offered by 8 banks, including 7 large banks.

<sup>&</sup>lt;sup>28</sup> The information on debtors in this and the following paragraph comes from the MNB Credit Register, which is only available until March 2025 at the cut-off date of this report.

Workers debtors at 15 per cent is higher than among the total household borrowers. However, taking the potential market share of the product and the distribution of debtors by educational level into consideration, a significant increase in this education group's share is still not expected. Among Subsidised Loans for Workers debtors (compared to other borrowers), residents of Jász-Nagykun-Szolnok, Pest, Komárom-Esztergom and Szabolcs-Szatmár-Bereg counties were overrepresented, as well as residents of villages, which also indicates that customer groups less served by banks before may come into their focus.

**Based on the first three months of client data, the credit risk of Subsidised Loans for Workers is low.** Similar to the prenatal baby support loan, the Subsidised Loans for Workers is also linked to a state guarantee, meaning the loss resulting from non-payment is primarily borne by the state, not the banking system. This facilitates the inclusion of a new debtor segment in lending without jeopardising the stability of the financial system. 35 per cent of debtors are women, which – taking into account the relatively low contract size – indicates that the childbearing support (debt forgiveness) related to the Subsidised Loans for Workers may pose a much smaller burden for the budget than in the case of the prenatal baby support loans. The indebtedness of borrowers relative to their income is low: the repayment instalment is on average 19 per cent (median: 15 per cent) in proportion to the income included in the credit assessment. Added to this, 46 per cent of Subsidised Loans for Workers debtors have no other loans, and only 5 per cent have a housing loan.

Since the Subsidised Loans for Workers can be used for arbitrary purposes, we do not have direct information on loan purposes, so we conducted a survey to investigate further. The online data collection was carried out with the assistance of commercial banks, who sent the MNB questionnaire to their customers. The survey took place in April 2025, and customers of 5 institutions from the 7 largest disbursing banks participated in the research (thus the questionnaire reached 75 per cent of debtors). 631 complete and valid responses were received, the sample was weighted afterwards and is therefore representative by gender and settlement type.

Half of the borrowers live with their birth family, which is not surprising given their age. The average household size is 2.8 people, 13 per cent are married, and 9 per cent already have children. Since the condition for maintaining the interest-free period is to remain in the country for the next 5 years, we also asked respondents about their previous plans to migrate abroad. The majority of borrowers (83 per cent) had not planned to move abroad anyway, and only 11 per cent gave up their previous plans due to the availability of the Subsidised Loans for Workers (another 6 per cent left the option of moving abroad open, presumably counting on an early repayment of the loan).

Half of the Subsidised Loans for Workers are used in the housing market. In the survey, the respondents indicated the

purposes for which they plan to use their loan. The purposes were also assigned a weight (in tiers), which enabled the estimation of the credit volume's utilisation. Based on these weights, 47 per cent of the disbursements are used for housing purposes (purchase, construction, renovation, equipment). Consumption purposes account for a smaller proportion (24 per cent), in accordance with these expenses being smaller in size compared to housing, with car purchases standing out. 21 per cent of the volume is deposited as savings, i.e. it does not appear in the circular flow of the economy for the time being, and the remaining 8 per cent is used directly in enterprises.



**83 per cent of Subsidised Loans for Workers are taken out due to additional loan demand.** Half of the loan volume is related to a purpose that the debtor would otherwise have realised using own funds, and a third is related to a purpose that, in the debtor's opinion, would not have been realised at all without the Subsidised Loans for Workers. The

responses also revealed that in 7 per cent of the indicated purposes the utilisation does not reflect the debtor's own needs. Due to the loan being interest-free, taking out was also worthwhile to help the debtor's partner or family members, if the relatives were not eligible to take out the loan due to the targeted nature of the programme.

The introduction of the Subsidised Loans for Workers may reshape the structure of the retail credit market slightly in 2025, opening up space for younger and less educated people to enter the credit market. Although the product is an unsecured loan, based on our survey half of the disbursement may appear on the housing market. A third of the loan volume may contribute to current economic activity through consumption or entrepreneurial activity, and one-fifth increases the debtors' savings. The loan demand for Subsidised Loans for Workers is largely additional, but according to the DSTI, this new product is currently attracting low-risk clients to the credit market.

# 5. The ratio of non-performing loans is low, beside the active portfolio cleaning

After a slight decline, the ratio of non-performing corporate loans held by credit institutions stood at 3.7 per cent at the end of 2024. The banks' active portfolio cleaning activities helped keep the level of non-performing loans nearly unchanged. The loan loss coverage of corporate loans stagnated at a high level. In 2024, among the sectors with an above-average Stage 3 ratio, banks have perceived increasing credit risks in the construction, trade and manufacturing sectors. The NPL-ratio of project loans secured by commercial real estate has decreased to 3.7 per cent, but the share of Stage 2 loans, i.e. loans with an increased risk, is still higher than in the total corporate loan portfolio, reflecting the higher risk perception of this sector. The NPL-rate in the household sector decreased by 0.8 percentage points to 2.0 per cent in 2024, in which active portfolio cleaning played a significant role. Portfolio sales mostly affected personal loans and overdrafts. Recent defaults were mainly related to unsecured consumer loans. Total impairment on the household loan portfolio decreased slightly, but the loan loss coverage for Stage 3 loans increased.

In agriculture, the outbreak of the foot-and-mouth disease epidemic in early 2025 may cause financial difficulties, therefore the Government announced a payment moratorium until the end of April 2026 for the loans to farms affected by the slaughtering of their cattle. The share of loans in the affected sectors is low, at 1.4 per cent of the entire corporate sector and 2.2 per cent when including supply chains. The loan portfolio that became vulnerable with the phasing out of the mortgage interest rate cap in July 2025 is not systemically significant. The childbearing deadline set for borrowers who took a prenatal baby support loan from mid-2019 to mid-2021 expires in mid-2026, and we estimate that 32,000 borrowers have not yet had their child. But the higher instalments and the repayment of the interest subsidy may cause problems for only 4,000 contracts. Among the HPS subsidies in case not all children were born by June 2024 for roughly 20,000 contracts where the childbearing deadline will expire in mid-2026; these contracts are linked to a subsidised-interest loan portfolio of nearly HUF 60 billion. Overall, the phasing out of the interest rate cap and the failure to meet the childbearing conditions pose a small risk to the quality of the household loan portfolio, but for a narrow group of borrowers, the lump-sum repayment of the family subsidy could become a significant burden.



#### Chart 40: Non-performing corporate loans of credit institutions sector

#### 5.1. High quality of corporate loan portfolio subject to sector-specific risks

The ratio of non-performing corporate loans was 3.7 per cent at the end of 2024. In the corporate sector, non-performing loans increased by HUF 5 billion year on year, thus amounting to HUF 484 billion at the end of 2024. The banks' active portfolio cleaning activities helped keep the level of non-performing loans nearly unchanged. Portfolio sales amounted to HUF 60 billion in 2024. Thus, the NPL ratio fell by 0.1 percentage points to 3.7 per cent (Chart 40). The loan loss coverage of the total corporate loan portfolio stagnated at 3.7 per cent in 2024, which is considered as high level compared to the early 2020's. The share of Stage 2 loans (i.e. loans with increased credit risk)<sup>29</sup> rose by 1 percentage point to 25 per cent. The NPL

<sup>&</sup>lt;sup>29</sup> Stage 1: financial instruments whose credit risk has not increased significantly since initial recognition. Stage 2: financial instruments whose credit risk has increased significantly since initial recognition, but no event has objectively caused a credit loss. Stage 3: non-performing financial instruments.

Note: The definition of non-performing loans changed in 2015. From then on, in addition to loans over 90 days past due, loans less than 90 days past due where non-payment is likely are also classified as non-performing. Calculated by client until 2010 and by contract from 2010. Source: MNB

Chart 41: Changes in loan loss coverage of corporate loans and share of Stage 3 loans



Note: Credit institution sector, only loans outstanding both at end-2023 and end-2024. The size of the bubble indicates the weight of the given sector in the loan portfolio. The red line indicates the sector-level Stage 3 ratio (4.5 per cent). Source: MNB

### Chart 42: Share of sectors affected by foot-and-mouth disease epidemic in loan portfolio



Note: The disease can be contracted by even-toed ungulates, so the sectors directly affected are: raising of dairy cattle; raising of other cattle and buffaloes; raising of swine and pigs; raising of sheep and goats – the latter, as well as the raising of horses and other animals, are not shown because their share in the loan portfolio within animal

ratio of large corporations did not change significantly (3.6 per cent), while the share of non-performing loans in the SME sector decreased from 4.1 per cent to 3.8 per cent. The corporate NPL ratio remained unchanged at the beginning of 2025, standing at 3.7 per cent in February as well.

Risk costs have increased in certain sectors. The Stage rating of 9 per cent of the loan portfolio outstanding both at the end of 2023 and 2024 improved, while 16 per cent deteriorated,<sup>30</sup> which increased impairment recognition overall. By the end of 2024, banks increased their loan loss coverage in higher extent for loans to businesses in the construction, information and communication, trade, manufacturing and real estate sectors (Chart 41), showing that banks perceived an increase in repayment risks in these segments. Among these sectors, the construction, trade and manufacturing sectors have a significant loan portfolio and an above-average Stage 3 ratio, so these portfolios should be closely monitored. An additional challenge for the manufacturing industry may be that it is very exposed to the slowing performance of German vehicle production (see Box 4).

Credit risks also increased in the agricultural sector. At the beginning of 2025, foot-and-mouth disease appeared in Hungary again after nearly 50 years. The share of loans in the affected sectors accounts for 1.4 per cent of the total corporate sector portfolio (Chart 42), and including the supply chains, 2.2 per cent of the portfolio may become vulnerable (nearly HUF 300 billion).<sup>31</sup> In April, the Government announced a payment moratorium on the loans to farms affected by the slaughter of their cattle, which will last until the end of April 2026. According to the MNB's executive circular,<sup>32</sup> participation in the moratorium does not in itself mean that the credit risk of the exposure has increased significantly (to be classified as Stage 2), and the central bank does not set any impairment requirements. Instead, client classification and the applicable credit rating depend on an individual assessment of the client, with stricter monitoring by the

<sup>&</sup>lt;sup>30</sup> Transitions between the Stage categories can be interpreted for loans that were in the banks' portfolios at both dates examined. Typically, portfolio sales reduce the volume of Stage 3 loans, and new loans increase Stage 1 loans, thus leading to an overall improvement in the portfolio. Thus, it is possible that the Stage distribution of the entire portfolio has not changed, despite the fact that the quality of loans outstanding at the end of 2023 and 2024 has deteriorated slightly overall.

<sup>&</sup>lt;sup>31</sup> The calculation is for non-financial companies only. Based on our estimate, individual entrepreneurs and primary producers operating in the affected sectors have an additional credit exposure of HUF 63 billion.

<sup>&</sup>lt;sup>32</sup> Executive circular on the management of exposures of farmers affected by foot-and-mouth disease under the payment moratorium (only in Hungarian)

production is less than 1 per cent. Based on data from December 2024. Source: MNB



Note: Institutional scope: Garantiqa Credit Guarantee Ltd., Agricultural Business Credit Guarantee Foundation, MFB Ltd., Start Guarantee Ltd. Start Guarantee Ltd. is a financial enterprise and as such, it is subject to the Hungarian Accounting Act and does not have Stage classifications under the IFRS accounting standards. Performing exposures are indicated in Stage 1 and non-performing portfolios in Stage 3. Source: MNB

Chart 44: Quality of project loan portfolio secured by commercial real estate properties



Note: Credit institution sector. The data include loans to financial intermediaries (including, among others, investment funds) in addition to non-financial corporations. Source: MNB

lender. The credit risk of the agricultural sector is reduced by the fact that while the loan loss coverage (2.7 per cent) is below the corporate average (3.7 per cent), guaranteebacked loan contracts are more typical in this sector. In addition the portfolio quality is favourable as well, the NPL ratio was 1.7 per cent at end-2024.

The portfolio quality of guarantee institutions is adequate, but credit risks have increased. The institutions with the four largest guarantee portfolios (Garantiga Credit Guarantee Ltd., Agricultural Business Credit Guarantee Foundation, Start Guarantee Ltd. and MFB Ltd.) had 1.3 per cent of their HUF 4.3 trillion guarantee portfolio in Stage 3 at the end of 2024, and 22 per cent in Stage 2 (Chart 43). This shows that the portfolio quality of guaranteed, subsidised corporate loans is better than the average of the total corporate loan portfolio, where these two ratios are nearly 4 per cent and 25 per cent, respectively. At the same time, the perceived rise in credit risks is indicated by the fact that - parallel to a slight decrease of 0.1 percentage points in the share of Stage 3 loans - the ratio of Stage 2 loans increased by 1.6 percentage points during 2024, alongside a decrease in the share of performing loans.

The credit risk of office and retail project loans has increased. The NPL ratio of project loans secured by commercial real estate decreased from 3.9 per cent at the end of 2023 to 3.7 per cent by the end of 2024. The ratio of non-performing loans decreased in all segments in 2024 except for the office market (Chart 44). The share of Stage 2 loans, which represent a heightened credit risk, was 33 per cent at end-December 2024, which is well above the 25 per cent share of Stage 2 loans in the total corporate loan portfolio. Banks perceive an increasing risk in the office and retail sub-segments, as shown by the further increase in the ratio of Stage 2 loans: from 22 per cent to 36 per cent in one year for the former, and from 30 per cent to 35 per cent for the latter segment. This has not yet been followed by an increase in loan loss coverage: the coverage ratio of the whole portfolio decreased by 1 percentage point to 4.3 per cent during 2024, and by segments, it increased only for offices and housing complexes. However, from a bank stability and shock resilience point of view, it is positive that for banks with high project loans in proportion to their total assets, the NPL rate of these loans is low, while banks with a relatively high NPL rate have low exposure.



#### Chart 45: Non-performing household loans of credit institutions sector

Note: The definition of non-performing loans changed in 2015. From then on, in addition to the loans over 90 days past due, loans less than 90 days past due where non-payment is likely are also classified as non-performing. Calculated by client until 2010 and by contract from 2010. Source: MNB.



Chart 46: Portfolio cleaning rates by product type

Note: The gross (not reduced by impairment) amount of the loan portfolio sold in a given year in proportion to the non-performing loan portfolio at the end of the previous year. Source: MNB.

#### 5.2. Portfolio sales improve quality of banks' household loan portfolio

The ratio of non-performing household loans decreased to 2 per cent by the end of 2024. The volume of nonperforming household loans in the credit institution sector decreased by HUF 61 billion to HUF 222 billion in 2024, and the NPL rate decreased from 2.8 per cent to 2 per cent (Chart 45). This was supported throughout the year by intensive portfolio cleaning and by growth in loans outstanding. The volume of loans over 90 days past due decreased by HUF 16 billion to HUF 130 billion, and its ratio declined to a historical low of 1.2 per cent by the end of 2024. The ratio of non-performing loans decreased during the year for all product types. At the end of 2024, the NPL rate was the lowest for housing loans, for marketbased and subsidised loans it was 1 and 1.2 per cent, respectively. In the first two months of 2025, the NPL rate, and the ratio of loans over 90 days past due remained unchanged, but the ratio of non-performing loans increased to over 5 per cent for personal loans and overdrafts.

Portfolio sales mostly affected overdrafts and personal loans. The banks' portfolio-cleaning activities amounted to an average of HUF 180 billion each year in the period 2010 to 2018, which adds up to 11-34 per cent relative to the preceding year-ends' non-performing volume. Although the annual portfolio sales, approximately HUF 70 billion in 2023 and 2024, lagged behind this in nominal terms, since it adds up to half the volume of the nonperforming loans observed at the end of the preceding year, it can be considered significant (Chart 46). Portfolio cleaning was particularly intensive for unsecured loans, of which more than 20 per cent was sold in a year in proportion to the non-performing volume. The framework agreements between the banks and debt management companies, accelerating the transactions, facilitated this process, while the purchase price especially for personal loans - exceeded the net value (lessened by impairment). If the sold portfolio remained in the non-performing portfolio (i.e. adding the annual portfolio sales to the year-end non-performing portfolio volume), the NPL rate would be 0.7 percentage points higher both in 2023 and in 2024.

Most of the contracts that became non-performing in 2024 were unsecured consumer loans. In 2024 – similar to 2023 – 48,000 household loan contracts (not sold during the year, and already outstanding in 2023) became non-performing loans. More than 90 per cent of those were

- 1- 3						
	Person	al loans	Overdraft, credit card		Hire purchase	
	Became non- perfoming	Performing	Became non- perfoming	Performing	Became non- perfoming	Performing
Number of contracts (thousands)	18	598	22	1096	3	78
Year of contracting (median)	2022	2021	2022	2017	2023	2023
Age of debtor (median)	37	43	42	44	33	42
Contract size (median)	HUF 1.8 mn	HUF 1.7 mn	-	-	HUF 270 000	HUF 250 000
Outstanding principal debt (median)	HUF 1.3 mn	HUF 0.9 mn	HUF 96 000	HUF 123 000	HUF 121 000	HUF 86 000
Distribution of debtors by education level (per cent)						
Primary	17.5	11.1	17.7	8.9	24.7	12.7
Secondary	73.0	70.3	71.5	52.8	71.1	71.8
Tertiary	9.5	18.6	10.8	38.4	4.2	15.4
Distribution of debtors by settlement type (per cent)						
Capital	10.5	12.1	12.2	19.3	9.2	13.9
City	47.8	50.6	49.1	53.2	49.4	53.1
Municipality	41.7	37.3	38.7	27.5	41.5	33.0

#### Table 2: Characteristics of consumer loans becoming non-performing in 2024

Note: Credit institution sector. We considered a contract nonperforming if it was classified as Stage 1 or Stage 2 at the end of 2023, but was in Stage 3 at the end of 2024 (only contracts that existed at both dates were taken into account). Source: MNB.





Note: Data for credit institutions in December 2023 and 2024. Loans valued at amortised cost, therefore excluding prenatal baby support loans and HPS loans recorded at fair value. Source: MNB.





Source: MNB.

consumer loans, and within those, mostly personal loans, hire-purchase loans, overdrafts or credit card debt. Compared to the performing contracts, borrowers with lower education levels and from villages (especially in Northern Hungary) were overrepresented among the nonperforming borrowers. These loans were typically contracted in 2022–2023, meaning that they are relatively new loans and – especially in the case of hire-purchase loans – younger debtors are affected by the repayment difficulties. The outstanding loan amount was typically low (HUF 100,000–120,000) for credit cards, overdrafts and hire-purchase loans, while it was much higher for personal loans, typically HUF 1.3 million, among those that became non-performing at the end of 2024 (Table 2).

Within the non-performing loan portfolio, the weight of loans disbursed during the FX lending period decreased. In 2024, the reduction in the non-performing volume was almost equally divided among loans disbursed before and after the introduction of the borrower-based measures (2015) (Chart 47). This suggests that (in addition to some recovery) the portfolio cleaning activity is affecting both recently delinquent loans and delinquent loans disbursed a longer time ago. As a result, the ratio of the nonperforming loans contracted before 2015 decreased from 35 per cent to 29 per cent in one year within the nonperforming loans that became non-performing within 3 years after their disbursement was small (1.4 per cent), indicating that borrower risks remain low.

The loan loss coverage ratio shows an overall decrease. The loan loss provisions and the loan loss coverage of the household loan portfolio both decreased in 2024. The coverage decreased on Stage 1 and Stage 2 loans, while on Stage 3 loans it increased from 56 per cent to 60 per cent on average. This is presumably the result of the portfolio cleaning activity as well (sale of lower-coverage Stage 3 loans). According to the length of the delinquency, the loan loss coverage decreased for delinguent loans overdue for less than a year, and increased for delinguent loans overdue for 1-2 years and 2-5 years (Chart 48). This indicates that loans that have become overdue recently are considered less risky by the banks, compared to a year ago. At the same time, banks currently consider overdue loans to be equally risky based on the risk costs, regardless of when they became overdue.

*Chart 49: Estimated proportion of childless prenatal baby support loan debtors by date of contracting* 



Note: In proportion to number of contracts still existing. Source: MNB estimate.





Note: Prenatal baby support loan contracts concluded between July 2019 and June 2021, where a child was not born until December 2024. The 5-year ÁKK yield at the end of December 2024 was used to estimate the increase in instalments. Source: MNB estimation.

Failure to meet the childbearing conditions for family subsidies poses a small-scale risk. For prenatal baby support loans concluded between July 2019 and June 2021, the deadline for having a child to keep the interest rate subsidy was extended until mid-2026. Within this portfolio, we estimate there were almost 32,000 prenatal baby support loan contracts (23 per cent of the contracts affected by the deadline that are still active at the end of 2024) where a child was not yet born at the end of 2024 (Chart 49). In 2026 H2, for those who fail to meet the deadline, the monthly instalment will increase to approximately HUF 90,000, i.e. it will double, based on the current interest rate environment, and the interest rate subsidy paid by the state to the banks until then (typically HUF 2.4 million) becomes repayable by the borrowers in one lump sum (Chart 50). The latter will need to be paid by the debtors from their own savings or, failing that, via borrowing. We estimate there are approximately 3,000 (HUF 26 billion) prenatal baby support loan contracts where additional borrowing would not be possible based on the income position of the debtor given the debtservice-to-income ratio (DSTI) rule, and for a further 1,000 contracts (HUF 8 billion), the repayment would lead to financial overstretch (with a DSTI over 40 per cent). Of the HPS subsidies, the deadline for having a child will expire in June 2026 for about 20,000 contracts, and not all the children planned in advance were born by the end of June 2024. The portfolio of loans with an interest rate subsidy linked to these contracts is approximately HUF 60 billion. The mortgage loan interest rate cap is still relevant when examining the household loan portfolio, and it will be phased out on 1 July 2025, according to the current legislation. This measure currently applies to 286,000 contracts (HUF 1,200 billion). Within this, we estimate that the number of vulnerable<sup>33</sup> debtors is 16,000, with a loan portfolio of HUF 137 billion under the cap (2 per cent of the total mortgage portfolio); taking into account these debtors' other loans, the repayment of 24,000 contracts (HUF 185 billion) may become problematic. Overall, the phasing out of the interest rate cap and the failure to meet the conditions for having a child pose a small risk to the quality of the household loan portfolio, but the lump-sum repayment of the family subsidies may become a significant burden for a narrow group of the affected borrowers.

<sup>&</sup>lt;sup>33</sup> Based on the definition of vulnerability also used in the Financial Stability Report of May 2024: the phasing out of the measure increases the monthly repayment instalment by at least HUF 5,000, and in addition, the DSTI will be at least 50 per cent, or the debtor will have retired since the introduction of the measure.

## BOX 4: IMPACT OF THE SLOWDOWN IN GERMAN AUTOMOTIVE INDUSTRY ON THE BANKING SYSTEM THROUGH VALUE CHAIN

The performance of the German automotive industry fell by 1 per cent at an accelerating pace in 2024,<sup>34</sup> after increasing in the previous 3 years, and sales were also lower in 2025 Q1, year on year.<sup>35</sup> Since Hungarian manufacturing has a significant exposure to the performance of German vehicle production, we examine the indirect effects of the German automotive industry slowdown on the domestic banking system via the Hungarian companies involved in the value chain. Our analysis examines the supply chain of vehicle production at a micro level, based on enterprise-level financial indicators, thus providing an opportunity to analyse the spill-over of the shock through supplier and employment relations.

We analysed the potential contagion spill-over effects between companies through their supplier relationships. For this purpose — based on the member list of the German-Hungarian Chamber of Industry and Commerce (DUIHK), and press reports — we identified the presumably top 13 German-owned companies that are producing in Hungary, which may be impacted directly by the German automotive industry slowdown. Of these 13 companies, only 7 had domestic bank loans. These 7 companies generated total sales revenue of HUF 1,700 billion in 2023. Our assumption was that the slowdown in the German industry would reduce the sales revenue of these companies by 20 per cent. We identified approximately 4,500 partners of the aforementioned top 13 companies based on their supplier relationships, of which approximately 2,500 had loans. Although these 2,500 companies had total sales revenue of HUF 6,800 billion in 2023, on average only 3.4 per cent came from these 13 companies, was 17 per cent). We anticipated a 30 per cent drop in sales volumes for these suppliers. We have no information on whether the suppliers have been exposed to the German automotive industry slowdown through other channels as well, such as direct exports. The underlying assumption of our analysis is that these companies are only affected through their supplier relationships with the 13 directly affected companies.

The change in the credit risk of the companies reviewed was assessed using a probability of default (PD) estimation model,<sup>36</sup> which was instructed using the database of all domestic non-financial companies with corporate tax liabilities between 2007 and 2019.<sup>37</sup> The model calculates the probability that the company is likely to become more than 90 days past due within 12 months following a given date, based on their annual financial statements. For the companies with German automotive exposure, the sales revenue decrease was reconciled against the income statement with unchanged costs, thereby showing the influence on the relevant explanatory variables



<sup>&</sup>lt;sup>34</sup> The decline intensified in 2024 H2, with the December production level down 10 per cent from a year earlier, according to the press release of the <u>VDA German Association of the Automotive Industry</u>.

<sup>&</sup>lt;sup>35</sup> In 2025 Q1, the number of newly registered passenger cars was <u>4 per cent lower</u> than in the same period of 2024.

<sup>&</sup>lt;sup>36</sup> The loan delinquency forecast model follows a similar process as the model used to assess the impact of the energy price shocks in Chapter 9.1 of the <u>November 2022 Financial Stability Report</u>.

<sup>&</sup>lt;sup>37</sup> Banai Á., Körmendi Gy., Lang P., Vágó N. (2016): <u>Modelling the credit risk of the Hungarian SME sector</u>. *MNB Studies* 123., Burger Cs. (2022): <u>Defaulting Alone: The Geography of SME Owner Numbers and Credit Risk in Hungary</u>. *MNB Occasional Paper* Nr. 144.

(operating profit, financial and extraordinary profit ratio, export sales revenue ratio, return on assets, changes in profit, changes in sales revenue).

The effect of the 20 and 30 per cent sales revenue shock calculated as above leads to a slight increase in the PD: the probability of default of the related companies would increase from an average of 2.9 per cent to 3.2 per cent (unweighted averages). The increase is higher for the 7 directly affected companies (from 1.5 per cent to 2.4 per cent), and smaller for their domestic suppliers (from 3.0 per cent to 3.2 per cent). We only included first-run suppliers in our analysis because the multi-round potential effects on the would probably only slightly increase the result of the estimate. Furthermore, we did not take into account potential employee layoffs, investments put on hold, a possible relocation of production and other spill-over effects in the real economy.

At the 2024 year-end, the companies concerned (those directly affected and their suppliers) had a total loan portfolio of HUF 1,300 billion, which is about 10 per cent of the total outstanding corporate loan portfolio. This loan portfolio is highly concentrated: the top 10 suppliers with the largest loan amounts account for 48 per cent of the total loan portfolio, and in terms of sectoral breakdown, the sectors with the largest weight are the information and communication sector (33 per cent) and the manufacturing industry (20 per cent). The suppliers' foreign currency loan portfolio was larger than what could be expected based on their share in the population, which can be explained by their stronger export activity. HUF 226 billion of the affected loan portfolio – if the German economic problems persist – may pose a challenge for the companies with the highest exposure. However, based on the estimated increase in the probability of default, the NPL volume is estimated to increase only slightly, by HUF 4 billion, over 1 year based on these assumptions.

The household sector is affected through companies adjusting their labour demand. If companies react to their sales revenue decline by downsizing or reducing working hours, their employees' loan repayment ability will deteriorate. At the 2024 year-end, the employees of the companies concerned had a loan portfolio of nearly HUF 1,700 billion, half of which was a housing loan and a fifth was a prenatal baby support loan (in line with their ratios in the total loan portfolio).

To make a plausible assumption about the labour market adaptation of the companies, we examined the employment of the highlighted companies in the first year of the coronavirus pandemic. In 2020, in an uncertain and unpredictable environment, the examined companies laid off 7 per cent of their employees, and reduced the number of working hours for 2 per cent of them. As this example from recent years shows, the companies reacted to the worsening economic situation extensively, with layoffs. Based on this, assuming a 10 per cent layoff (slightly more than the reaction to the first year of the coronavirus pandemic), a loan portfolio of nearly HUF 170 billion would be affected. The increase in the probability of default if becoming unemployed (based on the MNB's agent-based model,<sup>38</sup> 11–13 percentage points) would increase the non-performing household loan volume by HUF 18–22 billion.

Overall, we estimate that the impact of the German automotive industry slowdown – through companies in the sector, their suppliers and employees – may be limited in terms of the growth of non-performing loans in both the corporate and household lending segments.

<sup>&</sup>lt;sup>38</sup> Mérő B., Borsos A., Hosszú Zs., Oláh Zs., Vágó N. (2023): <u>A high-resolution, data-driven agent-based model of the housing market</u>, *Journal of Economic Dynamics and Control*, Volume 155.

# 6. High profitability leads to strong capital position and ample free capital buffer

The credit institution sector achieved an outstanding after-tax profit in 2024 again of HUF 1,595 billion, based on the banks' individual, non-consolidated data, which exceeds the 2023 profit by HUF 127 billion. The increase in the aftertax profit was largely explained by volatile and one-off items (dividend income, windfall tax, non-recurring accounting effects). Eliminating these items, the profitability decreased compared to the previous year, but remains outstanding by international comparison. Under regular income, fee and commission revenues increased significantly in an annual comparison. However, part of this resulted from the rising transaction fee being partially passed on, which was offset by the banks' increasing duty-payment liability, shown in another line in the income statement. Net interest income is still high, but decreased compared to 2023, because although the banks' net interest income from sectors other than the MNB increased, the net interest income from the MNB produced a larger decrease. In addition to this, the higher impairment and the rising operating expenses also reduced the profit in 2024. The 12-month rolling profit indicators fell from their peak in May 2024: the sector's return on equity (RoE) decreased from 27.5 per cent to 22.6 per cent, and the return on assets (RoA) from 2.4 per cent to 2.0 per cent by the end of 2024.

At the end of December 2024, the banking system's consolidated capital adequacy ratio stood at 20.5 per cent, an increase of 0.4 percentage point year-on-year. Even with the increasing capital buffer requirements, the sector's free capital over and above the capital requirements is high, at HUF 2,256 billion, which corresponds to 5.2 per cent of the total risk exposure amount (TREA) and allows for a lending capacity of nearly HUF 30,000 billion. Taking into account the minimum requirement for own funds and eligible liabilities (MREL) effective from the beginning of 2024, the capital requirement regulation planned to be amended in 2025 and the countercyclical capital buffer (CCyB), which increased in mid-2024, the banking sector has a high level of free capital and substantial lending capacity.



Chart 51: Credit institution sector's profit after-tax (annual, and filtered from volatile and one-off items)

Note: Based on non-consolidated data. Volatile and one-off items: dividend income, bank levy (special tax on financial organisations and windfall tax); and in 2024, an accounting effect related to revaluation revenue, stemming from a merger of foreign subsidiaries. Source: MNB

#### 6.1. Specific items improved, while decrease in net interest income and rising impairment reduced profit

The profitability of banks was outstanding, but without the volatile and one-off items, it declined in 2024. In 2024, 1800 the credit institution sector achieved another historical peak of HUF 1,595 billion in after-tax profit, based on the banks' individual, non-consolidated data, which exceeded the 2023 profit by HUF 127 billion (Chart 51). The increase in the after-tax profit was mostly caused by volatile and one-off items, while the net interest income and net impairment reduced the profit. After the elimination of the volatile and special items, the profit was HUF 214 billion lower than in 2023, amounting to HUF 1,242 billion. The consolidated profit, also including the result of domestic and foreign affiliates, was HUF 1,957 billion, HUF 144 billion higher than the 2023 profit.

**Return on equity started to decrease in 2024 H2.** The decrease was due to a continuous decrease in the 12-month rolling net interest income, and the higher net impairment in the second part of the year. The annual return on equity





Note: Distribution weighted by total assets, based on nonconsolidated data. The sector-level RoE excludes the following one-off items: early repayment, exchange rate cap, impact of settlement of consumer loan contracts in 2015, bank levy, dividend income and in 2024 an accounting effect stemming from a one-off acquisition. Bank levy includes the special tax on financial organisations and the windfall tax. Source: MNB

Chart 53: Distribution of domestic banks by cost of equity



Note: The unweighted distribution of institutions in the domestic credit institution sector (11-13 banks per quarter), excluding branch offices and Eximbank, MFB and Keler, which have individual banking activities. Source: MNB Bank Sentiment Survey

(RoE) of the banking system<sup>39</sup> thus amounted to 22.6 per cent at 2024 year-end (Chart 52). This figure remains high by international comparison,<sup>40</sup> but shows a significant decrease compared to the historical peak of 27.5 per cent in May 2024. The balance sheet ratio of banks with a high profitability of more than 20 per cent was 63 per cent, while those with a return on equity of 10-20 per cent and 0-10 per cent produced figures of 18 per cent each. The adjusted RoE, after eliminating the impact of volatile and one-off items, peaked at the end of 2023, before decreasing to 17.6 per cent by the end of 2024.

For the vast majority of banks, the return on equity exceeds the cost of equity. In parallel with the domestic interest rate hike cycle and the increase in risk-free rate of return, the share of banks operating with a high cost of equity increased from 2021 H2. Based on the MNB Bank Sentiment Survey, in 2021 Q2, 15 per cent of credit institutions indicated an expected cost of equity of over 12 per cent, which increased to 62 per cent by the end of 2023 Q2 (Chart 53). Subsequently, in parallel with the central bank's interest rate cuts and the decline in government bond yields, the share of banks with a cost of equity exceeding 12 per cent also decreased, reaching 38 per cent at the end of 2024. Based on the results of the survey, another 38 per cent of banks expect a cost of equity of 10-12 per cent, and 23 per cent expect a cost of equity below 10 per cent. For 85 per cent of the institutions surveyed, the 2024 RoE exceeded the bank's cost of equity. The vast majority of institutions expect at least the same, and more than 50 per cent of them significantly higher profitability in the long term than their currently estimated cost of equity. Looking ahead, the sustainable profitability level is also influenced by the expected development of the cost of equity.

The increase in the net interest income in sectors other than the MNB also contributed to the 2024 profit. Three volatile and special factors played a major role in the increase in the after-tax profit of the banking system. Dividend income amounted to HUF 470 billion in 2024, which was HUF 138 billion higher than in 2023 (Chart 54). This came predominantly from foreign subsidiaries, which also produced outstanding profits in the past year. In addition, the decrease in the bank levies accounted for by the credit institutions in 2024 boosted profits by HUF 89

<sup>&</sup>lt;sup>39</sup> Return on Equity is calculated based on profit after tax, with 12-month average equity calculated without the current-year profit.

<sup>&</sup>lt;sup>40</sup> The 20.9 per cent value of the consolidated RoE of Hungarian banks in 2024 Q3 was 6.5 percentage points above the EU average, and 7.9 percentage points above the V3 average.



#### Chart 54: Annual change in after-tax profit components of credit institution sector

Note: On the right side, the 2024 year-end nominal level of income items are shown. "Interest income - MNB" does not include futures (swap) transactions between the MNB and credit institutions and the amortized exchange rate gain/loss of forint securities (mortgage bonds). The bank levy line includes the combined change in the special tax on financial organizations ('normal' bank levy) and the windfall tax. The revaluation-related effects (acquisition-related accounting effects) are shown in other income. Source: MNB

Chart 55: Net interest income of banking system as a ratio of total assets in a sectoral breakdown



Note: Based on non-consolidated data. Quarterly data. Other sectors: money market funds, investment funds, insurance companies, local authorities and other financial intermediaries. The interest income as a ratio of total assets is a 12-month rolling indicator. Source: MNB

billion, due to the reduction in the windfall tax.41 Furthermore, the positive accounting effect related to the revaluation result of a subsidiary bank merger increased the profit significantly, by approximately HUF 110 billion. The increase in fee and commission income raised the banks' profit by HUF 146 billion. However, some of this came from passing on part of the increased interim transaction fee, offset by the banks' increasing duty payment obligation shown in another income line, which rose by HUF 94 billion. Compared to 2023, the net interest income from the MNB decreased significantly, by HUF 803 billion. In comparison, the net interest income from sectors other than the MNB increased by HUF 664 billion, in which the increase in the net interest income of the private sector played a major role. In 2024, there was significant net impairment of HUF 90 billion compared to the previous year, which is HUF 82 billion more than in 2023. The increase in operating expenses amounted to HUF 122 billion due to depreciation (of tangible and intangible assets) and a similar increase in staff-related expenses.

In addition to the high weight of interest revenue, interest income from the private sector may remain a major factor driving profits. In 2022 and 2023, the banks' net interest income from the MNB and central government<sup>42</sup> increased significantly compared to previous years (due to the high interest rates paid on central bank liquidity and government securities), which made a marked contribution to the increase in the banks' profits (Chart 55). However, in 2024, as interest rates fell, the contribution of this factor to the profits has decreased, but in nominal terms, interest income from these sectors still remained significant, amounting to approximately HUF 1,370 billion annually. In 2022 and 2023, net interest income from the private sector also increased dynamically, and continued to increase in 2024, despite the moderating interest rates. The latter was simultaneously supported by an increase in interest revenue from private sector loans outstanding, and a decrease in the interest expense on deposits. As a result, the net interest income from the corporate and household sectors increased by almost HUF 270 billion in 2024, thus amounting to HUF

<sup>&</sup>lt;sup>41</sup> Pursuant to the new legislation, Government Decree No. 356/2024 (XI. 21.) published on 21 November 2024, if the daily average portfolio of a bank's Hungarian government securities maturing after 1 January 2027 and held in the period between 1 January and 30 November 2024 increases, compared to the daily average portfolio held between 1 January and 30 April 2023, and provided that the bank's total government securities portfolio also increases at least to the same extent, then 10 per cent of the increase, but no more than half of the 2024 windfall tax can be deducted from the tax liability.

<sup>&</sup>lt;sup>42</sup> At the same time, the interest subsidies paid by the state (on loans in the household and corporate sectors) are shown in the net interest income of the household sector, through the difference between the interest rate paid by clients and loan interest rates.



#### Chart 56: Decomposition of change in interest income and interest expenditure against corporate sector between end-2023 and end-2024

Note: Evolution of interest income on loans and interest expenditure on deposits in 2024 compared to 2023. Volume effect: values estimated with 2023 interest rates on 2024 volume outstanding, minus values estimated with 2023 interest rates on 2023 volume outstanding. Interest-rate effect was calculated on a residual basis: the total change was reduced with the estimated volume effect. Source: MNB.

#### Chart 57: Decomposition of change in interest income and interest expenditure against household sector between end-2023 and end-2024



Note: Evolution of interest income on loans and interest expenditure on deposits in 2024 compared to 2023. Volume effect: values estimated with 2023 interest rates on 2024 volume outstanding, minus values estimated with 2023 interest rates on 2023 volume outstanding. Interest-rate effect is calculated as a remainder: the total change was decreased with the estimated volume effect. Source: MNB

1,270 billion.<sup>43</sup> With the recovery in lending, the interest income from the private sector may continue to rise, so it could play a major role in the development of banking profits this year.

The decrease in interest expenses on corporate deposits, and the increase in interest revenue from household sector loans contributed to the 2024 net interest income simultaneously. Interest expenses on household and corporate deposits decreased by HUF 287 billion annually, in line with the falling interest rates. Interest expenses of corporate HUF term deposits decreased significantly due to the strong transmission, despite the increase in outstanding volumes (Chart 56). Interest income on household and corporate loans increased by an estimated HUF 63 billion on an annual basis in 2024. In the household sector, the increase in outstanding loans also had a positive effect on interest income (Chart 57), and the impact of the interest rate was positive too. The average interest rate of outstanding loans increased in 2024, despite that 18 per cent of the mortgage loan portfolio was under interest rate cap, and the average interest rate on newly disbursed household loans started decreasing, compared to the previous year. On one hand, this was due to the continuous amortisation of loans previously contracted at lower interest rates, which resulted in the increasing share of contracts issued at higher rates. On the other hand, subsidized loans with a 5-year interest-rate period contracted in 2019 were also repriced at higher interest rates in 2024 (with client rates remaining unchanged).44 In the corporate sector, the average annual interest rate on HUF loans decreased, reducing interest income. This was due to the lower interest rates on for market-based loans, while the interest rate effect of subsidised loans was positive according to our estimations. The effect of FX loans on interest income was also positive, but it could not offset the decrease seen in the HUF loans.

The negative effect of impairment on income has increased, but the level of risk costs remains historically low. HUF 90 billion in net impairment was recognised in 2024, two-thirds of which were accounted for in the last quarter. The net impairment realised in 2024, which was higher than in 2023, was not primarily due to the general increase in credit risks, but was related to other risk factors. Such factors predominantly included higher impairment

<sup>&</sup>lt;sup>43</sup> This statistical estimate includes the total net interest income earned from the household sector, including loans, deposits and securities.

<sup>&</sup>lt;sup>44</sup> The interest subsidy paid by the central budget for various corporate and household loan schemes increased by 13 per cent in 2024 compared to 2023.



Note: Based on non-consolidated data. Components reducing profit have a negative sign. Return on assets (RoA) and impairment as a ratio of total assets on a 12-month rolling basis. Source: MNB



Chart 59: Result of revaluations and its components

Note: FVTPL: instruments evaluated at fair value through profit and loss. FVOCI: instruments evaluated at fair value through other comprehensive income. Non-consolidated data, based on portfolio revaluation under IFRS. Source: MNB

realised on exposures of certain, individually assessed large corporations, and on portfolios subject to the Russian-Ukrainian war risks. The level of impairment relative to total assets amounted to 0.12 per cent in 2024, a slight worsening from its near-zero value at the end of 2023 (Chart 58). When a compared to the 2008 global financial crisis, the period of the coronavirus pandemic or the outbreak of the Russian-Ukrainian war, no significant impairment was realised in 2024, and its negative effect on income was negligible.

The result of revaluations had a major positive impact on profits. Net revaluations amounted to HUF 307 billion in 2024, thus increasing profits by HUF 199 billion annually. The positive net revaluation of instruments measured at fair value through profit and loss (FVTPL) - the majority of which were prenatal baby support loans and HPS loans - had an annual positive effect of HUF 130 billion on income (Chart 59). Revaluations due to other effects contributed HUF 88 billion to the bottom-line, mostly due to a one-time accounting effect of an acquisition amounting to HUF 110 billion. Transactions held for trading increased income by HUF 155 billion in 2024, this effect may have partially compensated for the negative revaluation arising from the exchange rate difference (HUF -86 billion annually). The effect of transactions for trading purposes includes the revaluation of hedges (used to cover interest rate and exchange rate risks), therefore, these should be evaluated together with the other lines of the income statement.

Banking profitability continues to be affected by multiple government measures. The negative effect of governmentimposed burdens on the banking sector decreased overall in 2024 overall, compared to the previous year. At the same time, in 2024, several government measures affecting banking profitability were amended or extended. The mortgage loan interest rate cap was prolonged until the end of June 2025, which we estimate may result in an interest income loss of HUF 28 billion (Chart 60).<sup>45</sup> For 2025, the legislation on the windfall tax rate has been amended. As a result, the windfall tax liability of banks will increase substantially to nearly HUF 290 billion compared to 2024, without discounts, but this amount can be reduced to HUF 144 billion through tax optimisation.<sup>46</sup> The banking sector

<sup>&</sup>lt;sup>45</sup> The related accounting and loss effect is divided between December 2024 and 2025 H1 (the extension was announced at the end of November 2024, and banks could partially have accounted for the effects already at the end of 2024).

<sup>&</sup>lt;sup>46</sup> Pursuant to the new legislation published on 21 November 2024 (Government Decree No. 356/2024 (XI. 21.)), banks will be obliged to continue paying the windfall tax in 2025 as well. At the same time, the tax base was replaced with the pre-tax profits of 2023, and tax rates were lowered (on the part of the tax base below HUF 20 billion, the tax rate will decrease from 13 per cent to 7 per cent, while the tax rate on the amount above this

Chart 60: Gross revenue-reducing/expenditure-increasing effect of individual government measures in the banking



Note: The financial transaction fee's net income effect is diminished by the fact that banks usually pass it onto clients. Nevertheless, the pass-on was limited by regulation in 2024, and in 2025, banks have decreased their fees on a voluntary basis. For the interest rate cap, the loss impact of the interest rate cap for the given year is shown, which does not necessarily correspond to the exact date at which banks recognised the loss, as numerous banks account for the estimated impact on profit or loss at the time of the announcement or extension of the programmes. The interest rate cap is in place until 30 June 2025. For the windfall tax, the figure is estimated value based on total tax optimisation. Source: MNB

#### Chart 61: Composition of the consolidated capital adequacy ratio of the banking system



Note: The combined capital buffer includes the capital conservation buffer (CCoB), the other systemically important institution buffer (O-SII), the systemic risk buffer (SyRB) and the institution-specific countercyclical capital buffer (CCyB) together. Source: MNB

will face windfall taxes in 2026 too, expected to surpass this year's liabilities when exploiting all tax discounts, reaching HUF 180 billion. In 2024 H2, the Government increased the transaction fee rates, but until the end of 2024 the banks were prevented from passing the increasing burdens onto households due to the fee stop regulation.<sup>47</sup> Until mid-2026, fee income increases may be limited as a result of an agreement signed by the Ministry for National Economy and the banking sector in early 2025. In this agreement, institutions agreed to avoid inflationary fee adjustments of retail transaction-related fees (see more on this in Box 5). In addition, the acceptance of and compliance with the ATM Deployment Act also imposes additional burdens on the banking sector by boosting operating expenses.

#### 6.2. High profitability strengthens banks' capital position

High banking system profitability continues to strengthen the capital position. In 2024, the consolidated capital adequacy ratio (CAR) of the banking sector increased by 0.4 percentage point to 20.5 per cent, which is slightly below the historical peak of 21 per cent at the end of 2024 Q3 (Chart 61). The strengthening capital position was supported by the banks' outstanding profitability in 2024 as well, and the CAR may increase slightly further with capitalisation of part of the unaudited interim profits (subject to dividend payments). Following an annual increase of 0.8 percentage point, the Common Equity Tier 1 ratio (CET1 rate) stood at 18.4 per cent at the end of December 2024. The regulatory capital increased by 9.3 per cent, and the total risk exposure amount (TREA) by 7.3 per cent in 2024. The increase in the TREA was largely explained by the credit risk exposure, and the regulatory capital expansion was mostly due to the increase in retained earnings. In 2024, the leverage ratio of the credit institution sector increased by 0.4 percentage point to 9.3 per cent at the end of December 2024, thus significantly exceeding the minimum regulatory requirement of 3 per cent (Chart 47 of the Annex).

will decrease from 30 per cent to 18 per cent). In case the daily average volume of a bank's Hungarian government securities maturing after 1 January 2029 and held in the period between 1 January and 30 November 2025 increases, compared to the average portfolio held in the period 1 January 2023 to 30 April 2023, or 30 September 2024 to 30 November 2024 (whichever is higher) (and provided that the bank's total government securities portfolio increases at least to the same extent), 10 per cent of the increase in the long-term government securities portfolio, but no more than half of the 2025 windfall tax, may be deducted from the tax liability.

<sup>&</sup>lt;sup>47</sup> The so-called fee stop decree (Government Decree No. 187/2024) entered into force on 1 August 2024, which prohibits the possibility of a unilateral, unfavourable modification of the terms of retail bank accounts until 31st December 2024.



Chart 62: Distribution of banks by the level of free capital above the overall capital requirement

Note: Weighted by the total risk exposure amount. Free capital does not include the unaudited part of the interim profit. 2024 Q4\* free capital calculated with the level of the combined capital buffer requirement applicable from July 2025 and the TREA at the end of December 2024. Source: MNB



Chart 63: Evolution of the dividend payment ratio

Note: Dividend payment ratio: the dividend paid in the following year against the current year's result divided by the current year's result. In 2020 and 2021, dividend payment restrictions were in place due to the coronavirus epidemic in relation to the profit for 2019 and 2020. However, if certain strict conditions were met, credit institutions could be exempted from the restriction in these years as well. The dividends to be paid in 2025 in relation to the profit for 2024 are based on the dividend payment plans currently available for nine institutions. Source: MNB

Even with the rising capital requirements, the banking sector has free capital of HUF 2,256 billion. The other systemically important institution buffer (O-SII) — as the last step in rebuilding the capital buffer requirements that were suspended due to the coronavirus pandemic - was fully imposed again at the start of 2024, resulting in an additional capital need of HUF 347 billion for the seven banks concerned. In July 2024, the countercyclical capital buffer (CCyB) was activated at 0.5 per cent for domestic exposures, implying an additional capital requirement of HUF 119 billion at the sector level. In mid-2024, given the increasing risks in the commercial real estate market, the central bank also activated the systemic risk buffer (SyRB) on a preventive basis, but did not impose any additional capital requirement on any banks on 1 July 2024. The banking sector's free capital (excluding the unaudited part of the interim profit) was high even with the increasing capital requirements: at the end of 2024 it amounted to HUF 2,256 billion, or 5.2 per cent of the TREA (Chart 62). At the end of December 2024, 92 per cent of the sector had a free capital buffer of over 4 per cent. At the end of 2024, even after meeting the minimum requirement for own funds and eligible liabilities (MREL), the sector had free capital nearly HUF 1,970 billion, corresponding 4.6 per cent of the TREA. The amendment of the Capital Requirements Regulation (CRR3) entered into force in January 2025, which, according to our estimation, requires additional capital of approximately HUF 150 billion from the banking system.<sup>48</sup> In view of the geopolitical and macroeconomic uncertainty, which is still high, the outstanding profitability, the adequate capital position and the recommendations of international institutions, the MNB decided to apply a socalled positive neutral CCyB framework, setting the rate at 1 per cent. The CCyB will increase by 0.5 percentage point in July 2025, which will require HUF 119 billion additional capital.<sup>49</sup> Even with capital requirements that are changing and increasing in 2025 (not taking into account the MREL requirement), the sector would have high free capital of nearly HUF 1,990 billion based on end-2024 data. The current high level of free capital indicates that there is significant lending capacity at the sector level, and thus the capital requirements do not hinder the banks' lending activities. According to our estimation, the available free capital of HUF 2,256 billion would allow for a lending capacity of nearly HUF 30,000 billion.

**Banks plan to pay half of their 2024 profits as dividends.** At the end of 2024, the part of the interim profit that cannot be taken into account in capital amounted to HUF 858 billion, or 2.0 per cent of the TREA. Based on the plans of

the banks, the dividends to be paid in 2025 may account for half of the 2024 profits (approximately HUF 780 billion), which is higher than in 2023, but lower than the dividend payment ratios that increased following the elimination of the dividend payment restriction in force from March 2020 to December 2021 (Chart 63). Western European banking groups present in Hungary plan similar dividend payout rates as in other countries of the CEE region (average 47 per cent), and thus the Hungarian figure does not represent an outlier. The outstanding profitability of recent years and the strong capital position give banks more room to build additional free capital buffers to support their future lending activity. The extent of this depends primarily on dividend payment decisions, which are only slightly limited by the expectations set out in the MNB's management circular, due to the high lending capacity.<sup>50</sup>

#### BOX 5: ANALYSIS OF BANK FEE HIKES AND POTENTIAL RISKS

The payment transaction fees in the banking sector have increased significantly in recent years, which is unfavourable for the household sector, highlighting structural problems in pricing as well as low competition. In August 2024, the Government increased the transaction fee levied on payment transactions by 50 per cent, and an additional duty was

levied on conversion transactions, which tripled the tax burden on the latter.<sup>51</sup> The practice in recent years shows that the transaction fee is typically passed on by banks to their customers; however, in the household segment, increasing fees was prohibited until the end of 2024. In 2025, the already high banking expenses of the household sector would have been further increased by the annual inflation adjustment, in addition to the increased fees being passed on. However, in April 2025, the Ministry of National Economy and the banks



<sup>&</sup>lt;sup>48</sup> For more information on the impact of the Capital Requirement Regulation on bank capital adequacy, see Box 5 of the <u>November 2024 Financial</u> Stability Report.

<sup>&</sup>lt;sup>49</sup> See: <u>The effective rate of the countercyclical capital buffer rate for Hungarian exposures and its justification</u>

<sup>&</sup>lt;sup>50</sup> The MNB's expectations regarding dividend payments can be found in the <u>Financial Stability Report, May 2024</u> (Box 7).

<sup>&</sup>lt;sup>51</sup> In August 2024, the Government increased the fee payable on payment, securities, and conversion transactions by 50 per cent (to 0.45 per cent, capped at HUF 20,000). For conversion transactions, an additional levy was also introduced in October 2024 (a further 0.45 per cent fee, capped at HUF 20,000). Government Decree No. 197/2022 (VI. 4.) on Windfall Taxes.

agreed that the household payment transaction fees would not be increased until mid-2026, and that the banks will waive the inflation adjustments announced earlier for this year. Furthermore, the MNB and the Hungarian Banking Association also announced an agreement to reduce account management fees, focusing on 5 key aspects.

**Payment service providers may only modify account management fees in compliance with the applicable legislation.** A unilateral, unfavourable modification of the fees is only possible if the conditions set out in the list of possible reasons – published in the banks' General Terms and Conditions or Business Rules – are met, and this requires disclosure 2 months before the fee increase. Although the lists of possible reasons for modification differ, but in addition to inflation adjustments the possibility of recharging additional payment obligations arising due to changes in the law is typically listed by the banks. This offers the possibility of passing on the rising transaction fee to customers. For business policy reasons, the banks may nonetheless waive the fee increase or postpone it. The lawful implementation of fee increases (their rate, compliance with the publication rules) is monitored by the MNB as part of its continuous supervisory activities. If suspected non-compliance is detected, the supervisory authority issues a warning to the given bank to prevent violations of the law and consumers being harmed.



Since 2010, by regional comparison, financial service fees have increased the fastest in Hungary. Between 2010 and 2024, financial service fees increased by 144 per cent in Hungary, which is a significant disadvantage for the Hungarian household sector, and for other actors using payment transactions, i.e. retailers and businesses. The large fee increase was mainly attributed to the transaction fee levied in 2013, the rise in the maximum fee in 2022, and the higher inflation adjustments seen in recent years (2023-2024). A similar increase was observed in Poland in the period under review, where the banks responded to the persistently low bank interest rates and the uncertainty caused by the coronavirus

Source: Eurostat, MNB

pandemic with a higher fee increase in 2020. Fees have increased by 60 per cent in the region and by 50 per cent in the EU since 2010.

In 2024, the payment service fee revenues of banks amounted to HUF 969 billion, 27 per cent of which was derived from the household sector. The payment service fees increased by 15 per cent year-on-year last year, which was mainly caused by the retrospective fee increase, the transaction fee increase being partially passed on to customers, and increased overall turnover. The banking sector generated total payment service fee revenue of HUF 261 billion from the household sector, resulting an annual cost of HUF 18,000 to 55,000 per customer, depending on the account package chosen. 51 per cent of the household payment service fees was directly from transactions, and due to the more frequent use and higher transaction amounts, the customers' costs automatically increased, even without separate banking fee increases, which is unfavourable for the further spread of electronic payments. In recent years, in addition to the factors listed above, the low competition between banks in the payment services market hindered a reduction in the cost of payment services for households.

However, the continued penetration of digital banks and FinTech companies (e.g. Revolut,<sup>52</sup> Wise) in Hungary may intensify competition for the banks. The rapid technological development seen in recent years has led to the rise of digitalisation developments in the field of banking services, and the emergence of new competitors to traditional

<sup>&</sup>lt;sup>52</sup> Revolut's customer base is growing rapidly, reaching 1.5 million customers in mid-2024.

banks.<sup>53</sup> According to the MNB's Banking Business Survey, in the second half of 2024 one-third of the responding banks perceived an increase in competition driven by non-bank players, while in the past only one-fifth had indicated this.<sup>54</sup> One of the most important reasons for the rise of competitors is the fact that the services provided by traditional banks are often less customer-friendly and inefficient, resulting in higher costs (OECD, 2020), which may be due to the following factors:<sup>55</sup>

- Infrastructure: Traditional banks often rely on outdated IT systems and infrastructure that require significant resources and ongoing maintenance, while making it difficult to provide a wide range of online services. However, digital banks and FinTech companies rely on modern, typically fully online and in many cases cloud-based, technologies, resulting in lower IT and infrastructure costs.
- Regulation: Traditional banks often face stricter and more complex requirements due to the risk-taking arising
  from banking operations (e.g. maturity, liquidity transformation, etc.), their size, and interconnectedness, i.e.
  their importance for financial stability, than new entrants to the market, who usually have much lower risks
  and a more focused product range. Fulfilling these requirements needs more human resources and the
  development of more complex processes. In addition, the supervisory powers over digital banks and FinTech
  companies that provide cross-border services are often more limited.
- **Customer acquisition:** Traditional banks use traditional marketing channels to attract customers, while digital banks and FinTech companies rely primarily on more cost-effective digital channels.
- **Product range:** Traditional banks offer a wide range of complex financial products and services that require specialised expertise and systems, with higher operating expenses. By contrast, digital banks and FinTech companies often focus on a narrower range of products, simplifying their operations and reducing their costs.



Comparison of account products of traditional banking players and FinTech companies

Note: Average account cost: Based on monthly 1 transfer of 100 thousand forints, 1 transfer of 20 thousand forints, 1 direct debit of 20 thousand forints and 1 free cash withdrawal of 50 thousand forints above the limit. Source: MNB collection

Digital banks and FinTech companies use modern technologies, simplified operations and a digital approach, which results in significantly lower overhead costs and can be particularly appealing to the younger generations. The rise in the role of FinTech companies in payment services is remarkable; they offer free-of-charge transfers and favourable

<sup>&</sup>lt;sup>53</sup> Lending and payment systems in upheaval: the fintech challenge

<sup>&</sup>lt;sup>54</sup> For details, see the January 2025 Bank Sentiment Survey.

<sup>&</sup>lt;sup>55</sup> OECD (2020): Digital Disruption in Banking and its Impact on Competition.

currency exchange options, often with free account management. In Hungary, the payment transaction costs, which are high by international comparison, also contribute to the rapid rise of FinTech companies (Kajdi et al. 2018).<sup>56</sup> To increase the competitiveness of the domestic banking sector and to encourage the use of electronic payment solutions, it is necessary to reduce the payment transaction costs in the household sector and decrease cost differences between customers.

To reduce payment transaction costs in the household sector, the agreements reached by the Banking Association with the MNB and the Ministry of National Economy results in lower fees and more detailed information for customers, even in the short term. The agreement with the MNB, which covers 5 main points, addresses important issues: improves customer awareness, simplifies the process of switching to another account package, and reduces the payment transaction costs for customers switching to a basic account. Furthermore, the agreement between the Ministry of National Economy and the banks on the inflation adjustment of fees will help reduce inflation in the short term; however, the structural problems of pricing must be addressed comprehensively by mid-2026 (when the commitment period for banks will end). Looking ahead, to maintain the competitiveness of domestic banks and improve their customer service, it may be justified to review the banks' pricing practice, to make pricing more transparent, to increase the intensity of customer information and education significantly, and to further simplify the process of switching between account packages and between banks.

<sup>&</sup>lt;sup>56</sup> Kajdi L., Sin G., Varga L. (2018): Pricing of payment services in the household sector in Hungary, in international comparison (only available in Hungarian).

# 7. Liquidity in the banking system variable in structure, but still ample

The liquidity and financing position of the banking system is robust; the LCR rate is consistently met with buffers above 70 per cent. The operational liquidity reserve of the banking system is close to HUF 21 trillion, which is 67 per cent of private-sector deposits. In line with our expectations, there is a gradual structural change happening in the operational liquidity reserve of the banking system, during which some of the banks' liquid reserves are shifting from liquidity deposited with the MNB to government securities. There is ample system-level liquidity available to manage the transfers of municipal deposits to the Hungarian State Treasury and the liquidity effect of MNB long-term secured loans maturing. While all banks comply with the regulatory requirements, liquidity in the banking system is not evenly distributed among the credit institutions, which may require active liquidity management at an individual level.



Note: Based on yields of HUF government securities. Source: Bloomberg

#### 7.1. Ample banking system liquidity, manageable risks

Domestic short-term yields were unchanged, while longterm yields tracked international investor sentiment, with 12 the 10-year yield rising overall. The MNB has kept the central bank base rate unchanged since October 2024, as a result of which the 3-month BUBOR stagnated at 6.5 per cent between the end of October 2024 and the end of April 2025. Long-term government bond yields rose from the end of February 2025 driven by a deterioration in global risk appetite, and then declined parallel to the improvement in investor sentiment at the end of the period. By mid-April, increasing geopolitical tensions and US tariff measures had worsened global investor sentiment, as a result of which domestic long-term yields increased by about 50 basis points. Following the significant stock market declines, the US administration temporarily backed down on its new tariff policy and eased regulations, which improved international investor sentiment and also moderated domestic yields. Among domestic factors, S&P's decision in April to downgrade Hungary's credit rating outlook to negative is worthy of note, which may also have increased long-term yields. Since the end of February 2025, the yield on 5-year Hungarian government bonds has returned to around 6.4 per cent following the initial global shock, while the 10-year yield rose by 16 basis points to 6.8 per cent by the end of April 2025 (Chart 64).

**Banking system liquidity remains ample, but with a varied structure.** The average level of operational liquidity reserves (OLR) in April 2025 was HUF 20,847 billion, which is 67 per cent of private sector deposits<sup>57</sup> (Chart 65). Therefore, the OLR level remains abundant, and its moderate fluctuation mainly reflects the effects of

<sup>&</sup>lt;sup>57</sup> In this chapter, private sector deposits are the deposits of the retail sector and non-financial businesses.



Note: The portfolio gap indicates the contractual net inflows of treasury operations within 30 days of the reporting date, with the following content: interbank loans and deposits, MNB deposits, repos, securities (excluding own-issues, e.g. MNB discount bonds), deposits over HUF 5 billion, derivatives contracts. Classified into the "Other" category: ECB-eligible collaterals, cash flows from own securities. Mandatory reserves are taken into account by the MNB as liquid assets. Source: MNB





Source: MNB

budgetary processes (Treasury Single Account balance) on banks' liquidity. Since mid-2024, there has been a transformation in the structure of the operational liquidity reserve, during which some of the banks' liquidity has shifted from liquidity deposited with the MNB to government securities. The average portfolio of bankowned MNB discount bonds decreased to HUF 1050 billion in April 2025, which is down by nearly HUF 1,400 billion compared to the average portfolio in October 2024. The decrease in banking liquidity held in MNB discount bonds reduces the value of the banking system portfolio gap through a reduction in contractual inflows of treasury operations. Parallel to this, the portfolio of MNB-eligible collateral has increased due to the rise in the portfolio of government securities, which was primarily motivated by the possibility of reducing the banking windfall tax. The maturity of the MNB's roughly 2600 billion long-term collateralised loans from March 2025 also adds to the change in the composition of liquid assets, while the regulatory compliance measuring the liquidity and financing situation of banks shows no major change as a result.58 Owing to the structural changes, at the end of April most of the liquidity in the banking system was provided by the MNB-eligible collateral portfolio, which exceeded HUF 12 trillion. The average portfolio of bank deposits on reserve accounts in April 2025 amounted to around HUF 9,000 billion, which is still much higher than the reserve requirement of HUF 4,100 billion.

The transfer of municipal deposits to the Hungarian State Treasury does not significantly affect the short-term liquidity situation of the banking system. In 2024, the average monthly amount of municipal deposits held by credit institutions was HUF 1,120 billion (Chart 66). The seasonality of the deposit portfolio is due to retail real estate tax payments in March and September, as well as local business tax payments in May. Municipal deposits will be transferred to the Treasury Single Account on a scheduled basis, according to the draft act submitted by the Ministry of Economic Policy in March 2025. Initially, until 1 October 2025, cities with county rights, the municipality of Budapest and the Budapest districts will be obliged to transfer their funds exceeding 5 per cent of their budget expenditures, or funds not required for their daily operations, to their account held with the Hungarian State

<sup>&</sup>lt;sup>58</sup> The LCR-eligible liquid assets used as collateral for long-term collateralised MNB loans can be released upon the maturity of the MNB loans, and the securities thus released replace the decreasing volume of central bank liquidity in terms of bank liquidity buffers. The mechanism of action of the NSFR rate, which requires a healthy financing structure, is similar to the above, and as loans mature, there is less and less stable funding in the banking system, but the demand for stable funding resulting from asset encumbrance also decreases at the same time.

Indicator	31 December 2024 (LCR 31 March 2025; FECR 28 February 2025)			
LCR	100 150 200 250 300 350 400 100 150 200 250 300 350 400			
NSFR	100         115         130         145         160         175         190           100         115         130         145         160         175         190			
FFAR	100 150 200 250 300 350 400 100 150 200 250 300 350 400			
FECR	-30 -25 -20 -15 -10 -5 0 5 10 15 -30 -25 -20 -15 -10 -5 0 5 10 15			
IFR	0 5 10 15 20 25 30 0 5 10 15 20 25 30 %			
MFAR	25 27 29 31 33 35 37 25 27 29 31 33 35 37 % 25 27 29 31 33 35 37			
- Regulatory limit(s)       • Actual         - 3 months earlier       - 12 months earlier				

Chart	67: Banking	sector o	complian	ice with	the stand	ards
	applicable	to liquid	dity and	financin	g risks	

Note: The edges of the blue rectangle represent the lower and upper quartiles of the distribution, and the ends of the dark blue line represent the 1<sup>st</sup> and 9<sup>th</sup> deciles of the distribution. The LCR is without mortgage banks and home savings banks, the NSFR is with mortgage banks and home savings banks, in both cases based on individual compliance data. Source: MNB

Treasury (MÁK), which amounts to deposits of about HUF 350 billion. From 1 January 2027 all other cities, and finally from 1 January 2028 the local authorities of all settlements, must deposit these funds in their account kept with the MÁK. Pursuant to the draft act, taking into account the expected outflows in the period between 2026 and 2028, even the total outflow of municipal deposits would only worsen compliance with the regulatory short-term liquidity coverage ratio (LCR) by a few percentage points, so it does not pose a significant risk to the liquidity of the banking system.

### 7.2. The financing structure is stable, with significant heterogeneity

The banking system complies with the regulatory requirements with substantial surpluses and a favourable structure. At the end of March 2025, the LCR requirement is met by the banking system with a significant surplus of approximately HUF 8,300 billion in liquid assets, thus the systemic LCR ratio stands at 170 per cent, exceeding the regulatory 100 per cent requirement by a high margin (Chart 67). The short-term and institutional liquidity risks are further mitigated by the additional deposit concentration (Pillar 2) requirement introduced in 2023 by the MNB as the supervisory authority, and upheld since then, as well as the additional liquidity management requirements.<sup>59</sup> Banks at a system level continuously comply with another EU-wide Basel indicator that requires the long-term stable financing of banks, the 100 per cent Net Stable Funding Ratio (NSFR), with an average rate of around 135 per cent, in addition to a funding structure characterised by a persistently high proportion of capital resources and private sector bank deposits. There was essentially no significant change in compliance with the instruments aimed at mitigating the external vulnerability of the banking sector (Foreign exchange Funding Adequacy Ratio – DMM, Foreign Exchange Coverage Ratio – DEM, Interbank Funding Ratio – BFM). Although the open foreign currency position of banks with an FX liability surplus relative to total assets, widened again in the first months of 2025, the vast majority of banks still have significant room for manoeuvre in terms of these requirements. The Mortgage Funding Adequacy Ratio (JMM) requirement, which strengthens the mortgage bond financing and maturity match, is also met by the banks with appropriate buffers, although the sector-wide average of the index

<sup>&</sup>lt;sup>59</sup> The MNB informed banks in its <u>August 2023 management circular</u> about the additional supervisory requirements expected in relation to the LCR, which had to be fulfilled by the credit institutions from the end of 2023.

*Chart 68: Distribution of credit institutions' excess liquidity according to LCR weighted by total assets* 



Note: Based on individual LCR liquidity surplus of major credit institutions. Source: MNB

Chart 69: Average annualised interest rate and maturity structure of entire private sector forint deposit portfolio, and monthly average level of 3-month BUBOR



Source: MNB

Chart 70: Changes in banking sector's FX swap position and in other components of total FX position



Note: Banking system data without Eximbank, MFB Ltd. and KELER Ltd. Net FX Swap position = (Balance sheet open FX position – Total open FX position) + Net forward FX position + Other off-balance sheet FX position. Source: MNB decreased temporarily at the end of 2024, mainly due to deferred mortgage bond issues caused by less favourable market conditions.

The ample systemic liquidity surplus according to the LCR is not evenly distributed among the banks. At the end of 2024, the excess liquidity of the banking system according to the LCR amounted to 14.5 per cent of total assets, the second highest figure since 2019, and almost half of the banks have a surplus of 15-20 per cent. All banks comply with the regulatory requirements, but the liquidity surplus relative to total assets is in a wide range at the individual bank level (Chart 68). Due to the nature of the heterogeneous distribution of banking liquidity, active liquidity management may be necessary at the level of individual banks, even with ample system-level liquidity.

Deposits provide a stable source of financing for the banking system. In 2024 H2, forint deposits of the corporate and household sectors increased by HUF 1,655 billion, and amounted to HUF 22.3 trillion at 2024 year-end (Chart 69). The loan-to-deposit ratio, which indicates financing risks, was 74 per cent at 2024 year-end after decreasing 0.5 percentage points over a year. This is deemed a safe level. With short-term interest rates remaining unchanged, the structural changes in the deposit portfolio have slowed down. The proportion of sight forint deposits amounted to 84 per cent in the household sector, and 56 per cent in the corporate sector at the end of February 2025, with no significant change compared to the end of 2023. The persistent mismatch in the maturity structure of the two sectors' deposits is due to the higher interest paid on business-sector term deposits, which was 2.9 percentage points higher than the average annualised rate of the household sector, and amounted to 5.3 per cent at the end of February 2025, demonstrating significant heterogeneity (more details on deposit interest rate transmission can be found in the Box 6).

The increase in foreign currency deposits again supports the growth of the banking system's net forint FX swap position. During the first quarter of 2025, the dynamics of the growth in foreign currency assets lagged behind the growth in foreign currency deposits, so after the decline seen in 2024, the banking system's balance sheet foreign currency position opened again, which has shown a foreign currency surplus since 2020 (Chart 70). The on-balance sheet open foreign currency position is covered by the banking system off the balance sheet, by selling foreign currency (acquiring HUF) on the FX swap market. Given the MNB's unlimited forint liquidity, the increase in forint FX

#### Table 3: Main parameters of Liquidity Stress Test

Assets				
Item	Degree	Currencies affected		
Exchange rate shock on derivatives	15 per cent	FX		
Interest rate shock on interest rate sensitive items	300 basis points	HUF		
Calls in household lines of credit	20 per cent	HUF/FX		
Calls in corporate lines of credit	30 per cent	HUF/FX		

Liabilities				
Item	Degree	Currencies affected		
Withdrawals of household deposits	10 per cent	HUF/FX		
Withdrawals of corporate deposits	15 per cent	HUF/FX		
Withdrawals of debt from owners	30 per cent	HUF/FX		

Source: MNB.

Chart 71: Aggregate impact of stress components at the system level



Note: The columns show the change in the LCR's liquid assets at the banking sector level as a result of a given shock, adjusted for the change in net outflows. To calculate the impact of each shock, we assumed that the given shock occurs individually. Therefore, the sum of the impacts of the shocks does not necessarily reflect the combined impact of the shocks. Source: MNB

swaps poses less of a renewal risk to the banking system compared to acquiring foreign currency. The change in the net swap market exposure of the banking system was also caused by the decrease in foreign currency acquisitions related to futures contracts, and the shift in the foreign currency position towards foreign currency sales in 2025 Q1. The risk of an excessive open foreign currency position on the balance sheet is reduced by rules applicable to DEM, maximising its ratio to total assets at a level of 30 per cent, in the case of a foreign currency resource surplus. The DEM at banking system level was 8.2 per cent on average at the end of February, therefore significantly less than the regulatory maximum.

## 7.3. Sectoral liquidity surplus would provide sufficient coverage even with severe stress

In 2024 H2, the sensitivity of banks to the hypothetical shocks covered by the Liquidity Stress Test showed no significant change. In the Liquidity Stress Test,<sup>60</sup> we examine the simultaneous occurrence of an exchange rate shock, an interest rate shock, deposit withdrawals, credit line drawdowns, and the withdrawal of owners' funds, together with possible interbank contagion effects (Table 3). Of all the shock events, the impact of deposit withdrawals would remain the most significant: the assumed withdrawals would cause a total outflow of more than HUF 3,500 billion on corporate and household deposits at a sectoral level in both 2024 Q3 and 2024 Q4. Furthermore, credit line drawdowns from corporations and households would also cause a significant liquidity shock of roughly HUF 1,500 billion in both quarters.<sup>61</sup> Compared to other events, the liquidity effect of an interest rate shock and a shock arising from the withdrawal of owners' funds would continue to be moderate, while the exchange rate depreciation impacting banks' foreign currency derivatives would continue to improve the sectoral liquidity (Chart 71).

Based on the Liquidity Stress Test, the sector would meet the regulatory requirements even in the event of a severe shock. We applied the liquidity effect of the hypothetical stress components in the LCR's numerator, and within that directly in the central bank reserve account. If all hypothetical shocks occur simultaneously, the vast majority

<sup>&</sup>lt;sup>60</sup> The detailed description of the methodology can be found in Box 9 of the MNB's <u>May 2016 Financial Stability Report</u>. In our calculations, we continue to take into account the measures relevant to our Liquidity Stress Test that are still in force among the spring 2020 changes made to the Monetary Policy Toolkit, including the convertibility of the free part of large company loans and bonds (after being reduced with an appropriate haircut) into liquid assets as collaterals.

<sup>&</sup>lt;sup>61</sup> Deposit withdrawals and credit line drawdowns would reduce not only the volume of liquid assets (numerator) but also the expected outflows calculated in the LCR (denominator), so the overall impact of these shocks appearing in the LCR is lower than the aforementioned amounts.



Chart 72: Distribution of banks according to LCR ratio,

Note: Distribution by number of banks. Vertical lines show 10<sup>th</sup> percentile at the bottom and the 90<sup>th</sup> percentile at the top. The bottom of the box indicates the 25<sup>th</sup> percentile, the top the 75<sup>th</sup> percentile; institutions above the median shown in blue, those below the median in red. Source: MNB



Note: The indicator is the sum of the liquidity shortfalls in percentage points (but a maximum of 100 percentage points) compared to the 100per cent regulatory limit of the LCR, weighted by the balance sheet total in the stress scenario. The higher the value of the indicator, the greater the liquidity risk. Based on data for the nine largest institutions up to 2018 Q1 and for the whole credit institution sector thereafter. Source: MNB

of banks would still be able to meet the 100 per cent LCR requirement without any adjustment. Two-thirds of banks in proportion to total assets would even meet the 140 per cent LCR requirement.<sup>62</sup> After adjustment – assuming widespread use of the central bank's liquidity-providing instruments - less than 1 per cent of the sector in proportion to total assets would fail to meet the LCR requirement (Chart 72). Nonetheless, the shocks would lead to a situation where 30 per cent of the sector in proportion to total assets would not be able to meet the minimum reserves requirements, so these institutions would be forced to adjust their balance sheet. However, owing to the significant level of liquid assets, banks would be able to raise a sufficient amount of central bank liquidity through various adjustment channels, such as repurchase agreements. Less than 1 per cent of the sector in proportion to total assets would fail to meet the reserve requirements even after adjustment. Overall, when the stress components occur together, meeting the 10 per cent reserve requirement would cause more adjustment as compared to compliance with the LCR requirement.

The ratio of sectoral liquidity surplus and shortfall continues to indicate low risk levels. At the end of 2024, the banks' initial liquidity surplus above the LCR requirement was nearly HUF 9 trillion. In the stress scenario (after the shocks and adjustment), banks with a liquidity surplus would still have a buffer of almost HUF 5 trillion, and banks facing a liquidity shortfall would have a liquidity need of less than HUF 6 billion in both quarters. Thus, the Liquidity Stress Index<sup>63</sup> remains close to its theoretical minimum and shows low risk levels (Chart 73).

<sup>&</sup>lt;sup>62</sup> See: <u>Management circular on the liquidity buffer requirement for credit institutions</u>.

<sup>&</sup>lt;sup>63</sup> The Liquidity Stress Index, designed to capture the heterogeneity of institutions, aggregates the liquidity shortfall calculated for each bank in a stressed situation against the regulatory limit, weighted by the size of the banks, in percentage points. It indicates of the extent of a possible stress situation within the overall banking system.

## BOX 6: EXAMINING HETEROGENEITY OF DEPOSIT INTEREST RATE TRANSMISSION USING CENTRAL BANK'S DEPOSIT REGISTER

The effect of changes in the central bank base rate on deposit interest rates is most often examined using aggregate interest-rate statistics, but these may have statistical distortions. The extent and speed of the spillover effect of the base rate hike cycle launched in some countries in 2021-2022 on bank interest rates was below the rates observed in previous interest rate hike cycles in many countries, especially for household deposits (Beyer et al. 2024, Hajnal et al. 2024).<sup>64</sup> A common feature of the interest rate transmission studies is that in most cases they examine the matter using monthly aggregate central bank interest rate statistics, which include the average deposit interest rates weighted by the deposited amount. However, this may involve statistical biases. On the one hand, if a positive correlation is identified between the deposit amount, the deposit interest statistics primarily reflect the conditions of large deposits, not the entire market.<sup>65</sup> On the other hand, when new amounts are deposited, given the monthly nature of the statistics, any new deposits made during the month (for example daily or weekly) are included in the statistics with a multiplied weight, and each act of depositing (even when repeated daily) is taken into account as a new contract.<sup>66</sup> Due to these biases, the interest rates shown in the interest-rate statistics are not necessarily representative of the overall deposit market.



The heterogeneity of deposit interest rates in Hungary can be examined more thoroughly with the help of the central bank's deposit register launched in 2024. From mid-2024, the so-called deposit register is available for the Magyar Nemzeti Bank based on the data disclosures from individual banks,<sup>67</sup> which contains information on the deposit contracts at the micro level, i.e. at the level of each contract. This enables us to look beyond the average interest rate level for the whole portfolio, and also examine the heterogeneity of the interest rates.

For smaller term forint deposits, banks pay a lower interest rate, both in the household and

**corporate segments.** The average interest rate on household term deposits was 2.3 per cent in December 2024, <sup>68</sup> and within that, the interest rate on retail term deposits was only 1.4 per cent, while the central bank base rate and the short-term interbank interest rates were 6.5 per cent. At the same time, the average interest rate on household term

<sup>&</sup>lt;sup>64</sup> Beyer, R., Chen, R., Li, C., Misch, F., Ozturk, E.O., Ratnovski, L. (2024): <u>Monetary Policy Pass-Through to Interest Rates: Stylized Facts from 30</u> <u>European Countries</u>. IMF Working Paper 24/9.; Hajnal, G., Hosszú, Zs., Ozoróczy, Á. A., Dancsik, B. (2024): <u>Deposit Interest Rate Pass-Through in</u> <u>Central and Eastern European Countries Before and After 2021</u>. OP 151. Magyar Nemzeti Bank.

<sup>&</sup>lt;sup>65</sup> According to the aggregate data, the impact of these distortions in Hungary - especially in the household segment - may be significant, as the average interest rate on new household deposits increased after the 2021 interest rate hike cycle, while the vast majority of credit institutions offered their customers a near-zero interest rate, based on their list of conditions for households. Higher interest rates were typically only available for private banking customers with large savings.

<sup>&</sup>lt;sup>66</sup> The significant distorting effect of multiple deposits made during a month is also indicated by the fact that, on the one hand, the level of average deposit interest rates for new deposits was markedly different from the average interest rate of the existing deposit portfolio, and on the other hand, in several months, the volume of the new deposits exceeded the size of the deposit portfolio at the end of the month.

<sup>&</sup>lt;sup>67</sup> The MNB first requested data provision with a reference period of the end of June 2024, but credit institutions operating as branches are not yet required to complete it until the end of June 2025.

<sup>&</sup>lt;sup>68</sup> Household data series includes retail sector customer, sole proprietors, and non-profit institutions serving households.

forint deposits was relatively higher for larger deposits: 2.5 per cent for deposits between HUF 10-50 million, 4.1 per cent for contracts of HUF 50-500 million, and 5.5 per cent for deposits above HUF 500 million. By contrast, the average interest rate on term forint deposits below HUF 5 million – representing 99.4 per cent of the total number of term deposit contracts – was much lower almost 0.8 per cent. When examining the banks' conditions for term deposits, we can conclude that although all major banks offer interest rates above 5 per cent for household term deposits, they almost always make this conditional (for example, buying a new investment product, opening a new current account,

reinvesting maturing investments), which narrows down the scope of those who are actually eligible for the higher interest rates. Heterogeneity by deposit size can also be observed for non-financial corporate deposits. For deposits above HUF 10 million, an average interest rate of 5.5 per cent was observed, while for smaller amounts (which represent 85 per cent of the term deposit contracts on a total number basis), the average interest rate was between 0 and 1 per cent. This suggests that the deposit conditions available to smaller companies are more similar to the conditions offered for the household sector, and that the average deposit interest rate typical for the entire corporate sector is not available for these companies.



The heterogeneity of interest rates by deposit size also applies for demand deposits, but on a much narrower scale. The average interest rate on demand deposits is much lower than on term deposits (0.1 per cent for households and 0.7 per cent for the corporate sector in December 2024), but heterogeneity by deposit size can be observed in this segment as well. For household sector demand deposits of below HUF 500 million, the average interest rate was 0.1 per cent, while the average interest rate for the categories above this was 1 per cent. In the corporate sector, there is a slightly higher standard deviation of the average interest rate on demand deposits by size: deposits below HUF 100 million had an average interest rate of only 0.1 per cent, and deposits above HUF 1 billion had an average interest rate of 2.2 per cent at the end of 2024.

Despite the low interest rate on household demand deposits and the availability of alternative investment options, the proportion of larger deposits in the total portfolio is significant. Most of the household sector demand deposits are small amounts (53 per cent of the deposit contracts are for less than HUF 100,000, and 72 per cent are for less than HUF 500,000 on a total contract number basis), however, most of the deposits expressed in billion HUF are concentrated at customers with higher deposit amounts. 54 per cent of the household demand deposits are deposits of over HUF 5 million, despite the low interest rate on the demand deposits as well as the more favourable and easily accessible alternative investment opportunities (for example, retail government securities). These deposits also show relatively high term stability, suggesting that they are not only for short-term transactional purposes. From the total outstanding household demand deposits of over HUF 5 million at the end of June 2024, the proportion of deposits with an outstanding amount of over HUF 5 million at December 2024 was 73 per cent.

Overall, the average interest rate on the Hungarian deposit portfolio depends substantially on the size of the deposits, so the average rates shown in the aggregate interest-rate statistics only reveal information about a small slice of the total deposit market, and are not representative of the entire market. The deposit portfolio (both term deposits and demand deposits) is rather concentrated based on the micro-level data of the deposit register.

## 8. Stress test indicates resilient banking sector even in event of various economic shocks

The current macroeconomic outlook is hampered by significant uncertainty, and if this materialises it will adversely affect the overall banking sector. We examine banks' shock resilience in a negative economic scenario assuming the following macroeconomic factors: growing geopolitical tensions, a weak global economy, risk aversion in the emerging markets and persistently high inflation expectations. In such a stress scenario, supply chain disruptions and volatility in financial and commodity markets drive Hungarian inflation and interest rates higher, which results in a significant deterioration of the Hungarian labour market and economic outlook as well. In our current exercise, we have also prepared two alternative stress scenarios (of a different nature), to cover the widest range of possible risks.

In our baseline scenario, we assume slightly increasing credit risks, but with a lower impairment need than in the baseline scenario used in our 2024 autumn stress test. In the stress scenario, however, due to the low real economic activity and rising interest payment burdens, the ratio of non-performing loans almost doubles to above 10 per cent compared to the baseline scenario, leading to a major rise in risk costs. Furthermore, in the baseline scenario, the overall sector-level profitability is gradually deteriorating, mainly as a result of falling net interest income. Contrary to this, in the stress scenario a positive interest rate shock slightly increases net interest income, but trading income remains similar to the baseline scenario, as a result of the effective hedging of assets carried at fair value. In the stress scenario, recession leads to a significant reduction in fee and commission income. The sector-level capital adequacy ratio of the institutions involved in the stress test (including interim, unaudited profit) was 23.4 per cent at the end of 2024, which changed to 22 per cent in the baseline scenario, and 21 per cent in the stress scenario, by the end of the 2-year period covered by the stress test. Thus banks' ability to accumulate capital falls sharply in the stress scenario compared to the baseline scenario, but if the banks' dividend payments are adjusted to this, the capital deficiency in the stress scenario remains manageable, affecting both large and small institutions.



Note: The baseline scenario used in the stress test is based on the MNB's March 2025 Inflation Report that displays forecasts in a band, and our calculation uses the mid-point of the band. Source: MNB

## 8.1. Global risks remain significant, meaning substantial credit losses a possibility

The risk narrative of the stress test continues to be driven mainly by weakness in the global economy and the uncertain market outlook. The increasing geopolitical tensions strongly affecting international macroeconomic fundamentals is a key factor in the stress scenario, and cause rising uncertainty in the financial and commodity markets, thus increasing their market volatility compared to the baseline scenario. The prolonged war environment is causing serious global supply problems. Accordingly, in the stress scenario, the increasing raw material and energy prices lead to a persistently higher inflationary environment, which is reflected in the domestic consumer prices too. Due to the global economic problems, foreign markets that are key for the Hungarian economy are also subdued, resulting in a significant decline in domestic exports. The prolonged recovery of the industrial sector manifests in much lower investment levels in the corporate sector. In line with the reducing market opportunities, companies scale back their production levels, which decreases their labour needs and leads to a significant rise in unemployment, with much slower wage dynamics.



Chart 75: Aggregate ratio of non-performing exposures

Note: Combined projected NPL of the household and corporate exposures, according to the assumptions used in the various scenarios of the stress test. Source: MNB

Consequently, the disposable income of households develops much less favourably. As a result of higher inflation and the weaker income situation, households are becoming more cautious with their decisions, leading to increased savings rates and a significant reduction in consumption. Overall, in the 2-year stress scenario, GDP shows a 14 per cent decrease (Chart 74), while the total number of people employed is 170,000 lower, and exports nearly 20 per cent lower, than in the baseline scenario. Furthermore, in the main stress scenario, we expect a significant weakening of the HUF exchange rate and higher interest in line with the financial and real economy shocks (see Box 8 on the role of macroeconomic variables on credit risk, and the impact on individual sectors). To ensure the widest possible range of risks covered, we prepared two additional stress scenarios that are built on a different narrative compared to the main stress scenario (see Box 7).

The stress scenario shows substantial losses on the corporate and household portfolios, with a gradual rise in the volume of non-performing loans. The risk assumptions in the main stress scenario are similar to those used in the 2024 autumn stress test. However, given the current uncertain economic environment, for the recently unchanged volume of the Stage 2 portfolio segment we applied the approach in the first year of the baseline scenario of keeping those contracts in Stage 2 that were classified as such at 2024 year-end. Given that no such fixing is applied along the stress scenario, vulnerability on this portfolio realise faster, thus they are more likely to reach Stage 3 than in the baseline scenario. Moreover, in addition to the considerations related to the general macroeconomic outlook, two additional factors drive the losses in the household segment. First, the risk factor (which is decreasing both on an aggregate and individual level) linked to the phase-out of the interest rate cap, and second, the risk arising from borrowers' failure to meet the childbearing conditions of the prenatal baby support loans.<sup>69</sup> In the stress test, regarding the interest rate cap, we calculated higher impairment for a specific group of customers - due to the vulnerability arising from their rising debt service - which will be realised after 2025 Q2. For prenatal baby support loans, we apply the same approach in 2026 H2, with the additional assumption that customers within the DSTI limit will use personal loans to meet their interest rate subsidy repayment obligation. While for the corporate sector, due to the possible overvaluation of collaterals for commercial

<sup>&</sup>lt;sup>69</sup> For the extent and details of the related vulnerabilities, see the relevant sections of Chapter 5.

Chart 76: Developments in earnings items before loan



Note: Earnings before loan losses do not include loan loss provisioning and the impact of bank levy and windfall tax. Source: MNB





Note: 2-year cumulative value. The effect of other items on income includes the following elements: fees of NDIF, IPF and Resolution Fund, bank levy, windfall tax, capital increase requirements of foreign subsidiary banks, and group-level tax liability. Dividend payment level is also affected by income and capital adequacy requirements. Source: MNB

property loans, we use higher LGD parameters for the relevant portfolio, in line with the approach applied for the previous stress test period. In the stress scenario, on an aggregate level in the corporate and household loan portfolio, impairment is 3.4 per cent higher compared to the initial value, while the overall NPL rate will rise above 10 per cent by the end of 2026 (Chart 75).

## 8.2. Banking sector's shock resilience would remain strong even in stress scenario

The main stress reduces the cumulative 2-year sectorwide profit calculated without credit losses only slightly, by HUF 160 billion. In the baseline scenario, we expect a general decrease in the various earnings items, which will reduce the annual sector-wide profit significantly overall, by about HUF 260 billion in 2025 and a further HUF 450 billion in 2026 (Chart 76). The main stress moderately reduces profitability, which is mainly due to significantly higher interest rates under the stress scenario than under baseline scenario, which makes a substantial the contribution to the HUF 300 billion rise in the 2-year cumulative interest income. Namely, interest revenue from household and corporate loans, and interest income from the central bank rise sharply, exceeding the major increase in interest expenses on client deposits. The stress reduces the cumulative fee and commission income by over HUF 200 billion, mainly as a result of the unfolding recession and inflation. Dividend income also decreases by over HUF 200 billion, due to the negative factors in the stress scenario. The stress does not materially affect the sector-wide trading income, as the losses incurred on securities carried at fair value due to the positive interest rate shock are offset by the gains accrued on the large revalued swap portfolios.

In the stress scenario, capital accumulation is possible only to a marginal extent. In the stress scenario, the sectorlevel income in the 2-year period is reduced by a total of HUF 1,800 billion by the credit losses and other items including corporate tax, the regular special tax levied on financial institutions and the windfall tax. Thus the cumulative 2-year profit after tax would be HUF 1,100 billion, so the profit after tax in the overall banking system would be roughly 46 per cent lower than in the baseline scenario. The shock effects appear mostly at the beginning of the scenario, and the initial losses are only partially compensated by the gradually improving profits. During the 2-year period of the stress scenario, given the adjustments needed in dividend payments, banks are able to accumulate only about one fifth of the amount of capital


Note: Sub-consolidated capital adequacy ratio (excluding foreign subsidiaries), including the interim, unaudited profit. Vertical line: 10-90 per cent range, rectangle: 25-75 per cent range. Sector-level average, weighted by total risk exposure. Source: MNB

Table 4: Outcome of the stress test, with varying level of capital requirements

capital requirements							
		Overall CET1 capital requirement*		Overall capital requirement*			
		Baseline scenario 2026 Q4	Stress scenario 2026 Q4	Baseline scenario 2026 Q4	Stress scenario 2026 Q4		
	Capital need of banks (HUF bn)	0.0	0.1	3.0	67.9		
	Average capital need of banks** (percentage points)	0.0	0.1	2.9	1.1		
	Capital buffer of banks above requirement (HUF bn)	2 796	2 451	1 887	1 659		
	Average capital buffer of banks** (percentage points)	8.5	7.7	5.7	6.5		

Note: \*The requirement projected for the given quarter. \*\*TREA-weighted averages. Source: MNB

they could accumulate in the baseline scenario (Chart 77); moreover one large institution should reduce its dividend payments even in the baseline scenario in order to meet its capital requirements.

The capital need of the banking sector in the stress scenario remains manageable. The aggregate capital adequacy ratio of the institutions under review (including interim, unaudited profit) of 23.4 per cent as at December 2024, falls to 21.8 per cent in the baseline scenario and to 21.1 per cent in the main stress scenario, by the end of the 2-year period (Chart 78). This is partly attributable to the slower lending growth, in accordance with the dynamic balance sheet assumption, with a lower total risk exposure amount (TREA) as a result. However, due to adjustments needed to comply capital adequacy requirements, dividend payments must be reduced by over 30 per cent at sector level. Thus, over the period covered by the stress test, with one exception, all banks meet the CET1 capital requirement, while as for the overall capital requirement (OCR), a capital need arises for one other institution in the stress scenario, which can be solved by raising Tier 2 capital. The capital need of the corresponding banks remains manageable, at an average of 1.1 percentage points in terms of the TREA (Table 4). So overall, we can conclude that the banking sector's shock resilience remains strong despite the stress factors examined, and the banks' lending capacity would not be impaired either.

## BOX 7: ALTERNATIVE STRESS SCENARIOS

The banking system's operational environment has been surrounded by multiple risks in the recent period again, so it is important to examine shock resistance thoroughly by analysing the banking system's loss absorption capacity in several relevant stress scenarios. Macroeconomic shocks of different natures can affect the banking system as a whole and each institution separately in different ways. Our main stress test remains the most important, which models a shock impacting the economy as a whole, even if this has an extremely low probability over the examined period. At the same time, we also have developed alternative, more focused stress scenarios, which have milder macroeconomic impacts but are more likely to occur. With these scenarios we strive to present as complete picture of banking system-related risks as possible. In our current analysis, we prepared two alternative stress scenarios, one of which is the scenario already presented in Box 7 of the November 2024 Financial Stability Report. This scenario focuses on the weak industrial performance of the euro area, and specifically Germany, which continues to pose a relevant risk for the vulnerability of the Hungarian economy.

Our new alternative stress scenario captures another current risk factor of global macroeconomic processes, the possibility of trade wars. Following its inauguration in January 2025, the new US administration announced a number of protectionist tariff measures towards its major foreign trade partners, threatening the already ailing world economy with a trade war. The changes in US direction regarding the level and implementation of new tariffs create major uncertainty, which in itself has a negative impact on the real economy and the financial markets. Declining international trade would affect the typically open countries of the CEE region, including Hungary, particularly badly: the CEE countries are deeply integrated into the global value chains, so the impacts of tariffs may be stronger than the euro area average. As an indirect effect, since China's manufacturing industry is overproducing compared to its weak domestic demand, Chinese products may find their way increasingly into the EU market in order to avoid the US tariffs. European companies are already facing fierce competition, so if the trade war between the US and China escalates, and Chinese companies look for new markets for their products, this may hit the European manufacturing industry, especially in the CEE region, to a larger extent.



differential is the difference between the domestic and external interest rates. Source: MNB

In the new alternative stress scenario, the effects of an escalating tariff war would result in a significant GDP decline compared to the baseline scenario. The assumption is that the US will permanently increase tariffs towards its most important trading partners (Mexico, Canada, EU and China) by 20-40 percentage points, and these countries will respond with similar counter-tariffs. Export market opportunities will worsen as a result, reducing foreign demand. Consequently, exporting companies are likely to postpone their investments (the uncertainty around new tariffs might worsen this), and respond to the situation by reducing their employment demand, resulting in increased unemployment. A worsening labour market

situation would lead to a decline in household income, lowering consumption. As Hungary is a small open economy and strongly exposed to world trade disturbances, this would have a negative effect on the macrofinancing environment, leading to increasing risk premiums. As a result, interest rate conditions would tighten and the gap between domestic and foreign interest rates would widen considerably, similar to the risk narrative in the main stress scenario (contrary to this, the interest rate gap narrows slightly in the weak German industry stress scenario).

The main stress scenario, the declining German industry and the trade war would reduce the HUF 2,100 billion aftertax profit of the banking system, generated in the 2-year period of the baseline scenario, by 46 per cent, 39 per cent and 27 per cent, respectively. The contracting real economy would decrease interest income in all three stress scenarios compared to the baseline scenario, primarily through the slowdown in loan portfolio growth (volume effect). However, in the main stress scenario, and to a lesser extent in the trade war scenario, due to a positive interest shock in Hungary the interest revenue on loans (price effect) and thus total interest income is higher than in the baseline scenario. In the stress scenario assuming a slowdown in German industry, both Hungarian and European interest rates show a decrease, which reduces the interest income on HUF loans and on foreign currency denominated corporate loans alike. Fee and commission income falls most in the main stress scenario, in line with the differences in the rate of decline in the real economy across the various stress scenarios. Net impairment recognition reduces profitability the most in the main stress scenario, as not only the debt service is the highest here due to increasing HUF interest rates, but also the recession is the worst in this scenario, which impairs credit repayment ability. Other income and taxes show significant, but nearly identical decreases in all stress scenarios compared to the baseline scenario, mostly due to sharp falls in dividend revenue. The effects of the three examined stresses, through curbing after-tax profit, would reduce the banking system's consolidated capital adequacy ratio by 3.4, 2.9 and 2.0 percentage points, respectively, at the end of the two-year stress test period.<sup>70</sup>



Note: The decomposition contains values cumulated for 2 years in the left panel and absolute deviations from these in the other panels. S1: main stress scenario, S2: German industry scenario, S3: trade war scenario. Both CAR and dividend payments take into account the unaudited part of interim profit. Other income, levies and taxes: Dividends received, other income, exchange rate impact, fees to NDIF, IPF and Resolution Fund, bank levy, windfall tax, capital needs of foreign subsidiaries and tax liabilities of banking groups. TREA: total risk exposure amount. Source: MNB

The sector-level capital position of banks would be most weakened by the stress of a declining German industry, but the aggregate capital adequacy ratio would still have a significant free buffer. The highest loss of profit is seen in the main stress scenario, but as a result of the distribution of profit losses and free capital buffers across banks in the scenario of a declining German industry, dividend payments may increase by such a degree that the banking system's sector-level capital adequacy ratio would decrease the most in this stress scenario. Finally, a smaller TREA increase is revealed in the stress scenarios due to slower loan dynamics compared to the baseline scenario, which is less detrimental to the sector-level capital adequacy ratio. By the end of the stress test period, the 21.8 per cent sector-level capital adequacy ratio shown in the baseline scenario would fall to 21.1, 20.2 and 21.3 per cent in the main stress scenario, the German industry stress scenario and in the trade war stress scenario, respectively, which indicates a stable sector-level capital position overall.

Of the three stresses analysed, a trade war would change the banks' capital position in the most varied way. Banks would react differently to the shock events at the beginning of the shock scenarios, due to their different characteristics (mainly loan portfolio risks and the repricing of interest-bearing assets and liabilities), so they would need to adapt differently as well to keep complying with the capital adequacy requirements. In the main stress scenario, many banks suffer large initial capital buffer reductions, but the earnings items that start improving later on often compensate for the initial losses by the end of the stress test period. In the stress scenario assuming a slowdown in German industry,

<sup>&</sup>lt;sup>70</sup> The aggregate effect is the sum of the values stated in rows 2 to 7 in the chart below, which show the effects on the various profitability items. The sum of the values on the chart may differ, due to rounding.

the initial buffer losses will continue to rise later on for the vast majority of banks. In the trade war stress scenario, however, the buffers of some banks would initially increase compared to the baseline scenario, while those of others would decrease, and they would typically not recover by the end of the second year of the stress test period either.

In conclusion, at sector level the stress scenario comprising weak German industrial activity would worsen the banks' capital position the most, but the aggregate capital adequacy ratio would still retain sufficient buffer levels.

## BOX 8: DEVELOPMENT OF CORPORATE CREDIT RISK MODEL FRAMEWORK

We improved the corporate credit risk models used in the stress test to enable heterogeneity analyses both in terms of macroeconomic variables affecting the stress scenarios and company-specific characteristics. Thanks to the changes, in addition to measuring aggregate effects we can now identify the sectors of the national economy that are impacted the most in the various scenarios, and the most important channels through which various macroeconomic shocks contribute to the Hungarian corporate sector's credit risk. We altered the risk category transition models such that they would be able to express the macroeconomic differences relevant to each stress scenario while controlling for the effect of changing portfolio composition by using company-specific and contract-specific characteristics.<sup>71</sup> The new



Estimated migration probabilities into elevated risk categories compared to the baseline scenario along macroeconomic variables

Note: The charts show the differentials in quarterly migration probabilities from non-elevated risk categories to Stage 2 and Stage 3 categories along the three stress scenarios' different macroeconomic tracks compared to the baseline scenario on the forecast horizon. Results based on the new model developments using a 1 per cent random sample. Source: MNB estimate

models were trained on data of the 2010–2019 period<sup>72</sup> using credit and financial lease contracts of non-financial companies as observations, similarly to previous models. Below we present results based on a smaller sample of the 2024 year-end portfolio: they are not directly comparable to the outcomes of the solvency stress test due to differences in the models and the sample, but still provide valuable information about the mechanisms of the stress scenarios. Besides the main stress scenario, we also examine two alternative ones – featuring German industry's prolonged contraction along with a lasting, more intense trade war – which are detailed in the main text and in Box 7.

<sup>&</sup>lt;sup>71</sup> As in the past, transition probabilities between risk categories are estimated separately using pooled cross-sectional regression models where the change in the portfolio composition is captured by contract and company-specific variables less sensitive to economic cycles, which we augment by macroeconomic variables describing the development of the aggregate economy and playing important roles in the various scenarios.

<sup>&</sup>lt;sup>72</sup> The final model according to plan will also incorporate the 2008–2010 and 2020–2024 periods, but work is still ongoing concerning data cleaning and resolving the issue of managing the payment moratorium period.

One of the main goals for the model development was to enable the measurement of the macroeconomic factors' effect in our scenarios on credit risk in terms of size and direction.<sup>73</sup> In the main stress scenario, credit losses are driven primarily by the decline in the real economy (especially consumption) and the increase in domestic interest rates. In the two alternative stress scenarios, we expect substantially lower credit losses. A prolonged decline in German industry would increase the risk of domestic companies primarily through the decline of Hungary's export activities, but this channel is well offset by the changes in domestic and foreign interest rates, supporting growth. By contrast, higher domestic interest rates are a key driver of elevated risk levels in the trade war scenario, further aggravated by the decline in the real economy.

The new modelling framework also allows for the heterogeneity analysis of the stress scenarios' credit risk effects in terms of economic sectors. Significant heterogeneity is displayed by economic activities: in the main stress scenario, we expect the highest credit risk deterioration in services (especially real estate activities) and construction, while the contracts of industrial and agricultural companies are impacted less. By contrast, in the German industry stress scenario, we expect a slight improvement in transitioning towards elevated credit risk categories,<sup>74</sup> but the situation is the least favourable for industry, reflecting the close relationship between the Hungarian and German industries. The trade war stress scenario shows similarities to the main stress scenario in the sectoral breakdown, but real estate activities are affected less negatively. Overall, based on the new models, the service and construction sectors seem to be more sensitive, while the agricultural and industrial sectors are more resilient to shocks in the analysed stress scenarios.



Note: The charts show the differentials in quarterly migration probabilities from non-elevated risk categories to Stage 2 and Stage 3 categories along the three stress scenarios' different macroeconomic tracks compared to the baseline scenario on the forecast horizon. Results based on the new model developments using a 1 per cent random sample. Source: MNB estimate

The heterogeneity of corporate credit risk is also reflected in the banks' varying sensitivity to the stress scenarios, due to their different portfolio compositions. Examining the seven largest banks anonymously, there can even be a factor of two in the difference between banks within a given scenario in terms of transitioning to elevated credit risk categories, while heterogeneity between scenarios is also substantial, which changes the risk order of banks as well. For instance, while we estimate that Bank 4 will have the highest increase in corporate credit risk in the main and the trade war stress scenarios, the same bank performs the best in the weakening German industry scenario regarding corporate credit risk.

<sup>&</sup>lt;sup>73</sup> To examine the partial associations, we examine thought experiments (not with an equilibrium approach) in which we keep all factors at the baseline scenario values other than the selected variable, and show the differences in risk outcomes compared to the baseline scenario.

<sup>&</sup>lt;sup>74</sup> The small aggregate decrease is primarily due to the more favourable interest rate environment, which affects all transactions (not only exports): if interest rates do not decrease, according to the results presented earlier we expect deteriorating credit risk in this alternative scenario too. Furthermore, it is also important to emphasise that other transition probabilities have a significant impact on the final outcome too. One such major factor is recovery, which is lower in the German industry scenario than in the baseline scenario, and this is unfavourable in terms of credit risk.



along the three stress scenarios' different macroeconomic tracks compared to the baseline scenario on the forecast horizon. Results based on the new model developments using a 1 per cent random sample. Source: MNB estimate

Based on our results in the main stress scenario with substantial banking heterogeneity, credit losses are mainly driven by the decrease in consumption and rising domestic interest rates; in the German industry stress scenario they are driven by the decrease in Hungarian exports, and in the trade war scenario by the domestic interest rate changes. The stress scenarios increase credit risk across different sectors to varying degrees, and understanding these factors facilitates a more focused monitoring of portfolio quality when the various scenarios occur.

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## ABBREVIATIONS

APR	Annual Percentage Rate of Charge	IPF	Investor Protection Fund
AT1	Additional Tier 1 Capital	LCR	Liquidity Coverage Ratio
AVHGA	Agricultural Business Credit Guarantee Foundation	LGD	Loss Given Default
BGRLP	Baross Gábor Reindustrialisation Loan Program	LITT	Housing and Real Estate Market Advisory Board
BGS	Bond Funding for Growth Scheme	LR	Leverage Ratio
BIS	Bank of International Settlements	LTI	Loan-To-Income ratio
Bn	Billion	LTV	Loan-to-Value
CAR	Capital Adequacy Ratio	MÁK	Hungarian State Treasury
ССоВ	Capital Conservation Buffer	MFAR	Mortgage Funding Adequacy Ratio
ССуВ	Countercyclical Capital Buffer	MFB	Hungarian Development Bank
CEE	Central and Eastern Europe	MFCI	Monetary Financial Conditions Index
CET1	Common Equity Tier 1	mn	Million
CRE	Commercial Real Estate	MNB	Central Bank of Hungary
CRR	Capital Requirement Regulation	MNE	Ministry of National Economy
DSTI	Debt service to income	MREL	Minimum Requirement for own funds and Eligible Liabilities
DTI	Debt-to-income	NCH	National Capital Holding
EBA	European Banking Authority	NDIF	National Deposit Insurance Fund
ECB	European Central Bank	NPL	Non-performing loan
EEA	European Economic Area	NSFR	Net Stable Funding Ratio
ESA	European System of Accounts	NTCA	National Tax and Customs Administration
ESRB	European Systemic Risk Board	O/N	Overnight
EU	European Union	OCR	Overall Capital Requirement
FCI	Financial Conditions Index	OECD	Organisation for Economic Co-operation and Development
FDI	Foreign Direct Investment	OLR	Operative Liquidity Reserve
FECR	Foreign Exchange Coverage Ratio	O-SII	Other Systematically Important Institutions' Capital Buffer
Fed	Federal Reserve Bank	PD	Probability of Default
FFAR	Foreign exchange Funding Adequacy Ratio	PNCCyB	Positive Neutral Countercyclical Capital Buffer
FGS	Funding for Growth Scheme	RHS	Right-hand scale
FVOCI	Fair Value through Other Comprehensive Income	RICS	Royal Institution of Chartered Surveyors
FVTPL	Fair Value through Profit and Loss	RoA	Return on Assets
GDP	Gross Domestic Product	RoE	Return on Equity
GHG	Garantiqa Credit Guarantee Ltd.	RRE	Residential Real Estate
GHP	Green Home Programme	SCP	Széchenyi Card Programme
G-SII	Globally Important Institutions' Capital Buffer	SDP	Sándor Demján Programme
HAI	Housing Affordability Index	SME	Small and Medium-Sized Enterprises
HaR	House price-at-risk	STA	Single Treasury Account
HCSO	Hungarian Central Statistical Office	SyRB	Systemic Risk Buffer
HPS	Home Purchase Subsidy Scheme for Families	Т2	Tier 2 Capital
IFR	Interbank Funding Ratio	TREA	Total Risk Exposure Amount
IMF	International Monetary Fund	VOSZ	Conferedation of Hungarian Businesses

## APPENDIX: MACROPRUDENTIAL INDICATORS

#### 1. Risk appetite



Source: Bloomberg

#### 2. External balance and vulnerability





Source: MNB



Chart 3: Net borrowing and its financing as a percentage of



Source: MNB

Chart 5: Open FX position of the main sectors in the balance sheet as percentage of GDP





#### 3. Macroeconomic performance

Chart 6: Annual change in decomposition of expenditure-side





Source: HCSO, MNB

*Chart 8: Annual changes in net total wage, personal disposable income and household consumption expenditure in real terms* 



Source: HCSO, MNB

Chart 10: Distribution of the households' disposable income by



Source: HCSO, MNB

Chart 9: Decomposition of annual changes in the labour force participation







Source: Opten

#### Chart 7: Decomposition of inflation





#### 4. Monetary and financial conditions





Source: Reuters, Bloomberg

Chart 16: HUF/EUR and HUF/USD exchange rates changes compared to 2 January 2019







Chart 15: Three-month EUR, USD, CHF and HUF money market interest rates



Chart 17: Interest rate spreads on new corporate loans







#### 5. Asset prices







### Chart 21: Annual yield of key Hungarian and Central and Eastern European stock market indices





Chart 18: APR-based spreads on new household loans

#### 6. Risks of the financial intermediary system

Chart 22: Indebtedness of non-financial corporations as percentage of GDP per cent per cent 90 90 80 80 70 70 60 60 50 50 40 30



Source: MNB, ECB, Eurostat

- FX loans

20

10

0

Chart 24: Credit transactions to the non-financial corporate sector by denomination

Loans (Eurozone)



Source: MNB

Chart 26: Provisioning on loans of non-financial corporations by industry









Source: MNB

40

30

20

10

0

Chart 25: Loan loss coverage ratio for non-performing corporate loans in the credit institutions sector



Source: MNB

Chart 27: Indebtedness of households



Source: MNB, ECB



Source: MNB

HUF br





Source: MNB

Chart 32: Loan loss coverage ratio of non-performing household loans







Source: MNB

per cen



Source: MNB

Chart 33: Provisioning on household loans of financial institutions



Source: MNB



Chart 34: Non-performing household loans by product type

Source: MNB





Source: MNB

Chart 38: Estimated maximum loss based on interest rate risk stress tests relative to equity







Source: MNB

-(Project loan+BGS stock)/reg. capital



Source: MNB





Source: MNB, KELER, Bloomberg









Source: MNB

Chart 44: Distribution of credit institutions based on total assets according to the quarterly net impairment recognition in proportion to assets







Chart 43: After-tax profit and loss of the credit institutions



Source: MNB

Chart 45: Net interest income as a proportion of the gross and net interest bearing assets in the credit institution sector







Chart 46: Operating efficiency indicators of the banking sector

Chart 47: Distribution of total exposure amount based on institutions' leverage ratio



Source: MNB



Source: MNB

#### Notes to the appendix

The chart date (e.g. 2020) means the end of the year (the 31<sup>st</sup> of December) unless indicated otherwise.

#### Chart 1:

The increased value of the indicator shows declining risk appetite or increasing risk aversion. VIX: implied volatility of S&P 500.

#### Chart 3:

The fundamental development of debt is not influenced by the conversion between unallocated and bullion balances, thus this effect has been excluded.

#### Chart 4:

Excluding intercompany loans.

#### Chart 5:

The open FX position of households has turned because of the FX conversion. The compensation of this is shown at banks temporarily, then is was got to the consolidated state with the MNB.

#### Chart 6:

Government final consumption expenditure includes final consumption expenditure of general government and nonprofit institutions. Changes in inventories includes acquisitions less disposals of valuables.

#### Chart 8:

Based on the March 2025 Inflation Report.

#### Chart 10:

Disposable income is estimated by the MNB using household consumption, investment and financial savings data Based on the March 2025 Inflation Report.

#### Chart 12:

Number of bankruptcy proceedings of legal entities, aggregated as of the date of publication and cumulated for 4 quarters, divided by the number of legal entities operating a year before. It also includes economic organizations subject to liquidation proceedings from bankruptcy, voluntary liquidation and forced deletion proceedings.

#### Chart 13:

Number of bankruptcy proceedings of legal entities, aggregated as of the date of publication and cumulated for 4 quarters, divided by the number of legal entities operating a year before. It also includes economic organizations subject to liquidation proceedings from bankruptcy, voluntary liquidation and forced deletion proceedings.

#### Chart 14:

The 5-year forward forint risk premium as of 5 years from now, compared to the euro forward yield (3-day moving average) and the 5-year Hungarian credit default swap spread.

#### Chart 17:

Spread on the 3-month BUBOR and EURIBOR. Loans with variable interest rate or with up to 1-year initial rate fixation. From 2015, based on data net of money market loans exceeding EUR 1 million.

#### Chart 18:

In the case of variable-rate loans or ones with up to 1-year rate fixation, APR-based smoothed spread over the 3-month BUBOR, while in the case of loans fixed for a period longer than one year, the APR-based smoothed spread over the corresponding IRS.

#### Chart 19:

2002 average = 100 per cent.

#### Chart 22:

Nominal values, on current rates. Based on consolidated data (previously only unconsolidated data were available for the euro area), total financial intermediary system.

#### Chart 26:

In brackets below the names of sectors the weights within corporate credit portfolio are indicated for end-of-observation period.

#### Chart 29:

Seasonally unadjusted net change in outstanding amounts, with rolling exchange rate adjustment. To obtain the growth rate, we also took into consideration the repayments received by Sberbank between March and August 2022. The transactions contain the effect of the foreign currency loan settlement in 2015.

#### Chart 31:

The category 0-30 percent contains also the loans disbursed without mortgage before 2008.

#### Chart 35:

Non-consolidated data for the credit institutions sector excluding affiliates, by balance sheet total. Based on the project loan stock under the CRR definition of project loans until 2019, and based on a broader project loan definition from 2020 onwards; use of the broader definition results approximately one-quarter higher project loan stock in 2023 Q4 compared to the CRR definition. From 2019 onwards, data increased by BGS stocks include BGS bond holdings related to real estate sector in addition to project loans.

#### Chart 37:

From December 2019, the values for the security portfolio, the IRS portfolio, as well as for loans and liabilities were calculated on a cashflow basis instead of a contract basis. In addition, for loans and liabilities, from December 2019 onwards, we could only take into account the remaining maturities, not the time remaining until repricing.

#### Chart 38:

The interest rate risk stress test indicates the two-year projected result of an extreme interest rate event; in this scenario this event is a parallel upward shift of the yield curve by 300 basis points. For calculating the results, from December 2019 onwards, we applied the interest rate risk model detailed in Box 10 of the December 2019 Financial Stability Report. While for earlier calculations we assumed shocks of each currency's yield curve, for these new calculations we only assumed the shock-like upward shift of the HUF curve.

#### Chart 39:

Each aggregate liquidity index of a sub-market is the unweighted average of exponential moving averages normalized by the mean and standard deviation of the values of four sub-indices (number of transactions, average transaction size, bid-ask spread, and return to volume indices) between 2013 and 2017. An increase in the aggregate liquidity index indicates an increase in the liquidity of the given sub-market.

#### Chart 40:

A rise in the indices represents a narrowing bid-ask spread, thus an increase in the tightness and liquidity of the market. The liquidity-index of HUF FX swap market includes the data of USD/HUF and EUR/HUF segments, taking into account tom-next, overnight and spot-next transactions. The earlier version of the liquidity index included only the tom-next USD/HUF transactions.

#### Chart 41:

Client loans include loans and bonds of non-financial institutions, household loans, loans and bonds of financial and investment enterprises, government loans, municipal loans and municipal bonds. Client deposits include the deposits of non-financial institutions, household deposits, deposits of money market funds, deposits of financial and investment enterprises, government deposits and municipal deposits. The loan-to-deposit ratio is exchange-rate-adjusted with respect to the last period.

#### Chart 42:

ROE: pre-tax profit/average (equity - balance sheet profit).

ROA: pre-tax profit/average total assets.

Interim data are annualised.

Pre-tax profit: previous 12 months.

Average total assets: mean of previous 12 months.

Average (equity - balance sheet profit/loss): 12 month moving average.

Deflator: previous year same month=100 CPI (per cent).

#### Chart 43:

Based on non-consolidated data.

#### Chart 44:

Green categories indicate net impairment reversals, and red categories indicate net impairment recognition. For the periods between 2008-2011, 2012-2014, 2015-2019 and 2020-2022, institutions are counted with their average balance sheet total in the category according to their average net impairment formation in proportion to assets.

### Chart 45:

Based on aggregated individual, non-consolidated data. Net interest income: 12-month rolling numbers, the difference of interest revenue and interest expenditure. Gross interest bearing assets: 12-month average numbers, total exposure. Net interest bearing assets: 12-month average numbers, exposure minus the provision.

#### Chart 46:

Cost: previous 12 months. Income: previous 12 months. Average total asset: mean of previous 12 months.

#### Chart 47:

The categories indicate the level of the leverage ratio, i.e. of the ratio of T1 capital to the total exposure amount used for the calculation of the indicator. For 2020 Q3, numerical data and data on an exposure basis are only available for 75 per cent and 84 per cent of banks, respectively.

#### Chart 48:

Positive values represent a larger contribution to economic growth compared to the cyclical position of the economy, while negative values represent a smaller contribution.



Politician, lawyer, judge at a regional high court, member of parliament, minister for justice, often mentioned by his contemporaries as the 'wise man of the homeland' or the 'lawyer of the nation'. Eliminating the ever-recurring public law disputes and clarifying the relationship between the ruling dynasty and the hereditary provinces, he not only reinforced the constitution and the existence of the nation but also paved the way for the development as well as the material and intellectual enrichment of Hungary.

Deák was actively involved in preparing the laws for the parliamentary period between 1839 and 1840, and he became an honorary member of the Hungarian Academy of Sciences in 1839. After the death of his elder brother in 1842, Deák the landowner liberated his serfs and voluntarily undertook to pay taxes proving that he was an advocate of economic reforms not only in words but also in deeds. He refused to fill the position of delegate to the 1843/44 parliament because he disagreed with the idea of having to be bound by the instructions received as delegate, and as a moderate political thinker he had his concerns about the radical group led by Kossuth.

He remained level-headed also with regard to the evaluation of the events of 1848, he was afraid of violence and rejected it as a political tool. All the same, he accepted the post of minister for justice in the government of Lajos Batthyány. In December 1849 he was arrested for revolutionary activities, but later on, after being tortured for information, he was released. From then on he acted as the intellectual leader of the national passive resistance movement, and believed from the very beginning that Austrian centralisation was doomed to fail due to its inherent faults. He became the leader of the Address Party in the parliament of 1861, and even though they failed to bring the monarch to accept their ideas, he increasingly managed to take over the initiative over time.

Based on his earlier proposals, in 1865 Deák published his so-called Easter Article – which radically influenced Hungarian politics of the time – and until 1867 he virtually devoted all his time to reaching a compromise with the Hapsburg dynasty. After the compromise between Austria and Hungary ratified in 1867, Hungary was able to return to the path of social and economic development.

## FINANCIAL STABILITY REPORT May 2025

Print: Prospektus Kft. H-8200 Veszprém, Tartu u. 6.

# mnb.hu

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