

NATIONAL
BANK OF
ROMANIA

Financial Stability Report December 2024

Year IX (XIX), No. 17 (27)
New series

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NOTES

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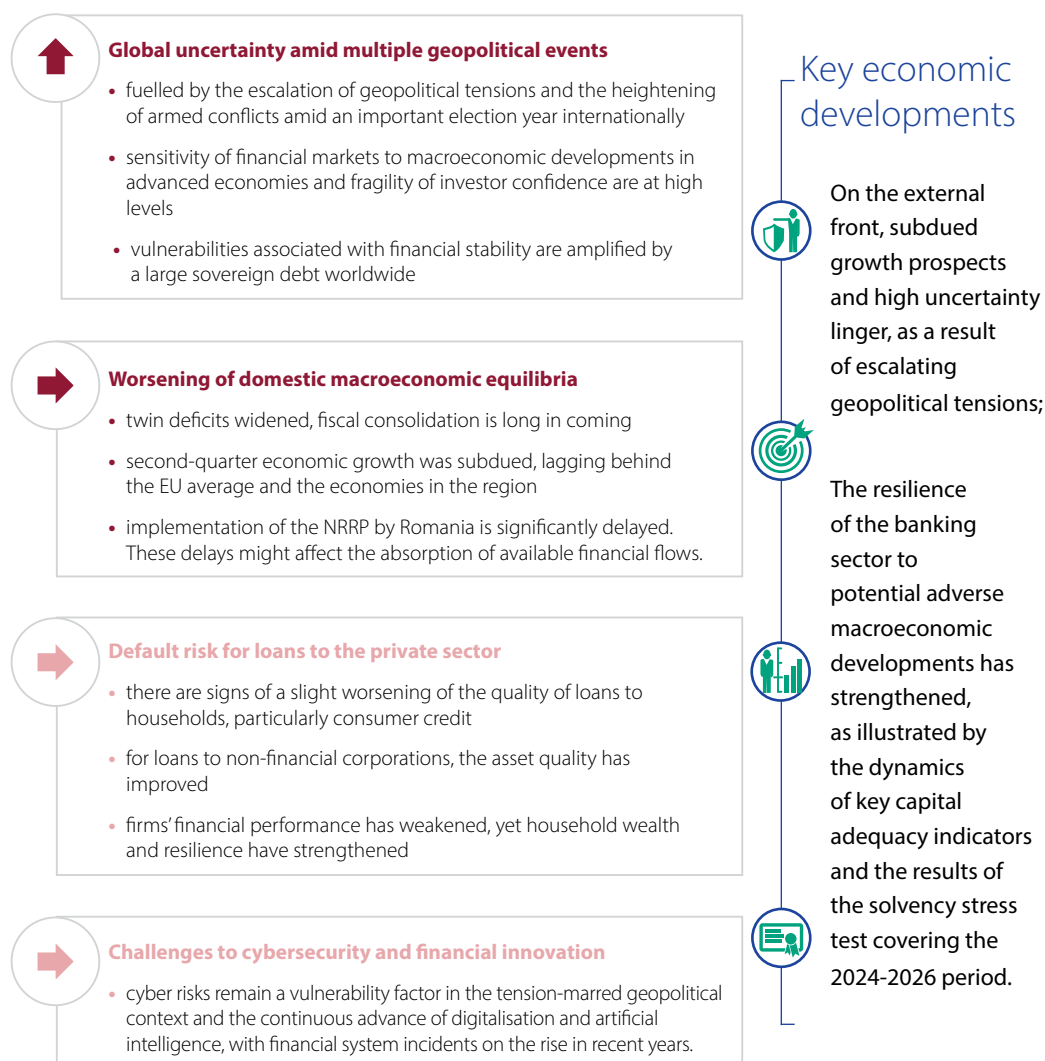
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OVERVIEW

The main risks to financial stability in Romania remained at elevated levels, relatively similar to those signalled in the previous *Report* and to the risk assessments EU-wide, given the persistent multiple uncertainties at global level. The uncertainties owe to the escalation of geopolitical tensions and the heightening of armed conflicts, as well as to the important election year internationally, likely to change the policy mix applied in the world's major economies. On the domestic front, growth in economic activity has continued to be subdued and the widening of twin deficits is still the most important risk factor.

Figure 1. Main risks to financial stability in Romania



■ severe systemic risk, ■ high systemic risk, ■ moderate systemic risk, ■ low systemic risk

Notes: The colour of arrows shows risk intensity. Their direction indicates the outlook for risk in the period ahead.

Against this background, the most important two systemic risks, classified as severe, are as follows: (i) global uncertainty amid the multiple geopolitical events, which is seen to increase in the period ahead, and (ii) the worsening of domestic macroeconomic equilibria. Adding to the two severe systemic risks are two moderate systemic risks, namely (i) default risk for loans to the private sector and (ii) challenges to cybersecurity and financial innovation.

At global level, risks to financial stability have seen mixed developments. On the one hand, disinflation continued in most economies, also without any substantial drop in economic activity (i.e. amid a soft landing), which supported the appetite for risk on international financial markets. On the other hand, the external environment is further marked by subdued economic growth prospects, especially in Europe, and elevated uncertainty. Risks to financial stability worldwide are amplified by a high level of sovereign debt that constrains the fiscal space needed to manage potential new shocks in the current geopolitical context. Moreover, indebtedness remains elevated across the private sector and there are signs of deteriorating credit quality in some segments of the market, especially in commercial real estate, although the impact on the banking system has been contained so far.

Geopolitical events may also have significant implications for financial stability, posing challenges to both households and firms. Such events may disrupt global trade and send commodity prices higher. Furthermore, they may fuel financial market volatility, impacting capital flows, exchange rates and interest rate spreads. Strong, albeit short-lived, capital market swings in August have shown how leverage positions can amplify responses to negative macroeconomic news from the US regarding the labour market and central bank actions¹, unveiling structural vulnerabilities in the global financial system that could affect financial stability in the EU. Specifically, the risk of sudden corrections in global financial markets remains significant given that the prices of more risky financial assets stayed on an upward trend overall since the previous *Report*, temporary corrections and heightened volatility episodes notwithstanding. Although the corrections were short-lived, they highlight the sensitivity of financial markets to macroeconomic developments in major advanced economies and the fragility of investor confidence in the current environment saddled with macroeconomic and geopolitical uncertainties.

The worsening of domestic macroeconomic equilibria continues to be one of the main systemic risks countrywide. Data for the first part of 2024 point to wider twin deficits than in the previous *Report*, and Romania is expected² to report at the end of this year some of the highest (fiscal and current account) deficits at European level, reflecting both structural and conjunctural factors. The risks associated with the twin deficits may be increased by the rising levels of sovereign debt and external debt. However, correcting these imbalances is critical to mitigate risks to financial stability, both in the short term – to prevent investor confidence from eroding, thereby reducing risks to the sovereign risk premium and potential exchange rate

¹ Todorov, K. and Vilkov, G., "Anatomy of the VIX spike in August 2024", *BIS Bulletin*, No. 95, 2024

² According to European Commission estimates (AMECO database), in 2024 Romania is forecasted to post the widest budget deficit in the EU (-8 percent of GDP) and the second-highest current account deficit, after Cyprus.

pressures – and in the longer run – to reinforce the resilience to potential new adverse developments in the current geopolitical environment.

On the domestic front, economic growth was further subdued, driven mainly by consumption and, to a lower extent, by investment. In 2024 Q2, the pace of increase of economic activity slowed down to 0.9 percent in annual terms, the sharp rise in consumption (adding 4.7 percentage points to GDP growth) being almost entirely offset by the performance of net exports (taking 4.5 percentage points off GDP growth). Compared to 2024 Q1, economic growth gathered momentum from 0.1 percent.

The notable contribution of consumption to GDP growth was the result of higher real disposable income, given the rise in nominal wages and pensions, along with ongoing disinflation, but also of expectations of further increases in real income. At the same time, these dynamics were also supported by the improvement in consumer confidence and the easing of bank credit standards, which helped ramp up new consumer credit targeting particularly durable and semi-durable goods. These developments boosted imports of goods and services (up 6.2 percent in 2024 Q2 versus 2023 Q2), thus contributing to the widening of the external imbalance. Risks to financial stability coming from the external position are still strong, as Romania has recorded the highest current account deficit EU-wide. In 2024 Q2, the current account deficit-to-GDP ratio ran at 9.1 percent, up from 7.1 percent in the same year-ago period.

Implementation of structural reforms aimed at assuaging these vulnerabilities is necessary both to maintain investor confidence and to render the economy more resilient to potential new adverse developments. At the same time, reforms should also lead to a shift in the growth pattern towards one with higher added value and focused on strategic areas such as food security, green transition and energy security, or the development of infrastructure and defence. In this context, absorption of non-repayable EU funds becomes even more important, especially those under the National Recovery and Resilience Plan (NRRP) whereby Romania was allocated EUR 13.6 billion in grants and EUR 14.9 billion in loans, equivalent to 8.8 percent of GDP³. According to the European Commission's report on the implementation of the Recovery and Resilience Facility⁴, Romania is a laggard in implementing the NRRP. The delays might affect the raising of still available funds, i.e. about EUR 19 billion, which will be collected if the 448 remaining targets and milestones (out of 518) are complied with. By the end of September 2024, EUR 9.4 billion (pre-financing included) had been disbursed cumulatively since the start of the programme, reflecting the fulfilment of approximately 14 percent of the targets and milestones. Even though a third of the allocated funds was collected, the amounts actually spent are low. According to the budget execution, about EUR 2.8 billion of the amounts collected via the NRRP were spent January through September, while EUR 4.1 billion, i.e. 44 percent of the NRRP funds collected, have actually been spent since the start of the programme. Furthermore, Romania was the only country at risk of having commitments or payments suspended in accordance with Article 10 of the Regulation

³ Recover and Resilience Scoreboard

⁴ *Recovery and Resilience Facility Annual Report*

establishing the Recovery and Resilience Facility⁵, which sets forth this measure in case an EU Member State fails to take effective action to correct its excessive deficit.

Although the materialisation of credit risk has been contained so far, concerns still linger. Overall, the debt servicing capacity of the real sector has seen mixed developments since the previous *Report*, but remains at adequate levels. On the one hand, since the beginning of 2024, the quality of the loans extended to non-financial corporations by credit institutions has improved, with the non-performing loan ratio standing at 3.8 percent in September 2024. On the other hand, looking at loans to households, there are signs of a slight deterioration in the quality of bank assets. Specifically, the non-performing loan ratio reached 3.3 percent in September 2024, from around 3.2 percent in the course of 2023 and a low of 2.96 percent in June 2022. However, for certain loan segments, credit risk is higher, namely for loans to SMEs (an NPL ratio of 4.7 percent versus 2.2 percent for large companies, September 2024), exposures to the commercial real estate market (an NPL ratio of 4.6 percent against 3.8 percent for non-financial corporations at aggregate level) and consumer loans to households (an NPL ratio of 5.7 percent compared with 3.3 percent for households at aggregate level).

The persistence of multiple economic uncertainties brought about mixed developments as regards the outlook for credit risk as well. Estimates over a 12-month horizon (September 2024 – September 2025) point to increases in the probability of default across all main loan segments (+1.4 percentage point to 4.6 percent for loans to non-financial corporations; +0.6 percentage points to 3.5 percent for consumer loans to households; and +0.02 percentage points to 0.25 percent for housing loans).

The balance sheet position of households and firms has a significant influence on their debt servicing capacity, with mixed developments since the previous *Report*. On the one hand, firms' financial health worsened in 2023 in annual terms, as seen in most financial indicators. Against this background, the financial health measure of companies in Romania deteriorated at the end of 2023 compared to a year earlier, yet it remains comfortably above the risk area. Conversely, the household sector strengthened its wealth and resilience to shocks, amid the sustained rise in financial assets (7 percent in June 2024 in annual terms), together with the decline in the debt service-to-income ratio. Households' net wealth accounts for around 39 percent of national net wealth, while their financial assets make up approximately 27 percent of total financial assets in the economy.

Cyber risks remain strong in the tension-ridden geopolitical landscape and the evolution of digitalisation and artificial intelligence, with the banking sector facing a growing number of incidents in recent years. Russia's war against Ukraine triggered large-scale cyberattacks against EU-based entities. The risk assessment questionnaire initiated by the EBA shows that cyber risks and data security continue to be by far the most prominent driver of operational risk for banks, ahead of conduct and legal risks, as well as fraud risk. The European Central Bank concluded its cyber stress test, which gauged how banks would respond to and recover from a severe but plausible

⁵ *Recovery and Resilience Facility Annual Report*

cybersecurity incident. Overall, the stress test showed that banks have response and recovery frameworks in place, but areas for improvement remain. In addition, the entry into force of the Digital Operational Resilience Act (DORA), the EU Regulation that will apply as of 17 January 2025, will provide a robust framework requiring banks to step up their efforts towards promoting a culture of continuous cyber risk management. The new piece of legislation aims to strengthen the IT security of financial entities and ensure that the EU's financial sector can stay resilient should a severe operational business disruption occur.

Developing artificial intelligence EU-wide is another priority of the European Commission⁶. Accordingly, the bloc should strive to become a leader in AI development for its sectors of strength, to regain and retain control over data and sensitive cloud services, and to have a solid financial backing and adequate labour force for supporting innovation in areas such as IT and AI.

Banking sector

The Romanian banking sector's soundness strengthened further, as shown by the persistence of adequate levels of solvency, liquidity and asset quality indicators, on the back of high profitability, Table 1. However, banks need to show caution in the following period, given the uncertainties, also in terms of the envisaged fiscal consolidation measures dictated by persistent budget deficits and higher public debt, with potential negative effects on borrowers' financial standing and creditworthiness. Moreover, the heightening of climate and cyber risks calls for strong bank alertness, amid the increase in digitalisation of financial services and in the connections with third-party service providers.

Although the liquidity risk facing local banks is low, the current environment – characterised by further subdued economic prospects worldwide and escalating geopolitical tensions, along with enhanced digital services and the emergence of new risks related to the implementation of artificial intelligence techniques in the financial sector – calls for maintaining increased prudence and rethinking the methods that are currently used to identify and address traditional banking risks. Additionally, credit institutions need to invest in advanced cybersecurity solutions in order to mitigate the effects of cyberattacks, including indirect ones, which may become systemically important and affect financial stability.

The banking sector has shown stronger resilience to potential adverse macroeconomic developments, as pointed out by the dynamics of key capital adequacy indicators and the results of the solvency stress test for the 2024-2026 period.

In 2024, the Romanian banking sector has fared well in terms of asset quality indicators. Similarly to developments in the EU, the NPL ratio has increased marginally from end-2023, i.e. by 0.2 percentage points to 2.54 percent (September 2024).

⁶ *The Future of European Competitiveness – A Competitiveness Strategy for Europe, 2024*

Table 1. Risk indicators for the banking sector

Risk indicators	EBA-defined prudential range	Romania							EU average	
		2018	2019	2020	2021	2022	2023	June 2024	Sep. 2024	June 2024
Solvency										
Tier 1 capital ratio	>15% [12%-15%] <12%	18.64	20.05	23.22	20.86	20.48	20.66	21.12	22.02	17.5
CET1 capital ratio	>14% [11%-14%] <11%	18.64	19.95	23.11	20.76	19.98	20.21	20.68	21.58	16.1
Total capital ratio		20.71	22.00	25.14	23.32	23.40	23.60	24.05	24.95	20.1
Asset quality										
Non-performing loan ratio	<3% [3%-8%] >8%	4.96	4.09	3.83	3.35	2.65	2.37	2.49	2.54	1.9
Non-performing loan coverage by provisions	>55% [40%-55%] <40%	58.51	60.75	63.31	66.10	65.55	64.61	66.96	66.81	42.0
Ratio of restructured loans and advances	<1.5% [1.5%-4%] >4%	3.26	2.49	2.40	2.60	1.96	1.57	1.51	1.45	1.4
Profitability										
ROE	>10% [6%-10%] <6%	14.59	12.21	8.66	13.28	16.40	20.13	20.15	20.17	10.9
Cost-to-income ratio	<50% [50%-60%] >60%	53.17	54.32	53.84	53.92	52.11	47.64	50.45	49.89	53.2
Balance sheet										
Loan-to-deposit ratio for households and non-financial corporations	<100% [100%-150%] >150%	71.89	69.48	63.61	63.96	65.66	61.00	61.28	64.69	106.5
Liquidity Coverage Ratio – LCR	>140% [110%-140%] <110%	237.84	242.59	292.48	238.77	209.16	280.61	244.51	248.83	163.2

■ best bucket
■ intermediate bucket
■ worst bucket

Source: NBR, EBA

The funding structure of banks, relying on deposits from the real sector, has changed slightly, amid the increase in issues of debt securities, generally in order to cover resolution requirements.

The interlinkage of the banking sector in Romania and the government sector has become stronger, recording the highest level among EU countries. It manifests directly, via the loans granted and holdings of government securities (25 percent of assets, September 2024), indirectly, through the government-backed loans to the real sector (5.3 percent of assets), as well as through the state ownership of banks (14 percent of bank assets). Holdings of government securities help improve solvency ratios (due to low risk weights) and liquidity indicators, but expose the

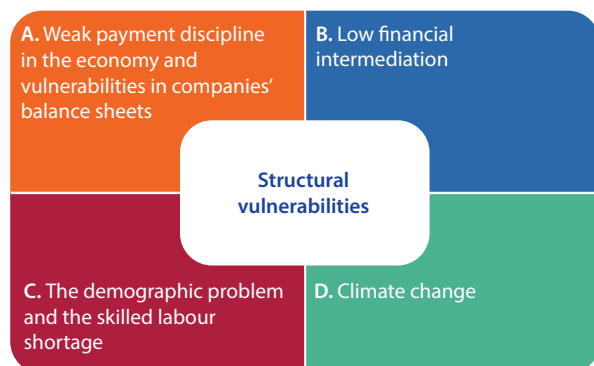
banking sector to the concentration and interest rate risks, being less favourable to financial intermediation (the annual dynamics of government securities holdings were 24 percent, as compared to 8.4 percent for credit to the real sector, September 2024). The funding risk for the Romanian banking sector remains low, given credit institutions' preference for traditional funding sources, such as retail deposits. Over the past years, there has been an increase in security-based funding, especially for meeting the minimum requirement for own funds and eligible liabilities (MREL), which incurs higher costs than those of deposits.

The prospects for banking sector stability are good, but a number of elements can negatively impact the developments in risk indicators: (i) the expected increase in risks that need to be managed in the uncertainty-ridden domestic and international macroeconomic environment, (ii) the unpredictable path of interest rates, owing to the geopolitical context, and (iii) the taxation of turnover over an indefinite time horizon.

Structural vulnerabilities

The Romanian economy-specific structural vulnerabilities have become more pronounced since the previous *Report* and are likely to intensify short-term risks to financial stability, Figure 2.

Figure 2. Map of structural vulnerabilities to financial stability in Romania



A. The low capitalisation of firms is one of the persistent structural vulnerabilities to financial stability in Romania, with direct implications for payment discipline and access to finance.

The number of undercapitalised firms grew by 9 percent in 2023 to 260.5 thousand, holding a significant share (31 percent) in total firms economy-wide. They have recapitalisation needs of approximately lei 147 billion (the equivalent of EUR 29.5 billion, up 5.8 percent versus 2022) and hire 11.7 percent of total employees in the non-financial corporations sector. They contribute

by 5.2 percent to the value added in the economy and by about 10 percent to the turnover, whereas their share in total overdue payments to the general government budget is 82 percent, according to 2023 data. Out of these firms, 97 percent, namely 253.8 thousand, are companies with negative equity. They make up 30.5 percent of the number of active non-financial corporations at end-2023. Companies with negative equity have recapitalisation needs of lei 141.1 billion (the equivalent of EUR 28.4 billion, up 5.5 percent from 2022). The recapitalisation needs of companies with negative equity account for 96 percent of total recapitalisation needs. The weak payment discipline is visible not only in relation to the general government or suppliers, but also to banks, in which case even though their total exposures to undercapitalised firms amount to only 8.6 percent, the share of related non-performing exposures runs at 25 percent.

At national level, the low payment discipline in the economy is one of the main structural vulnerabilities, likely to weaken firms' resilience in times of stress and impair their access to finance. About half of local firms have had problems due to the delayed collections from trading partners in the period from March 2023 to February 2024⁷, with late payments affecting payments to suppliers for a fourth of firms. Romania has the highest rate of use of trade credit among EU countries. In 2023, the trade debt of non-financial corporations rose by 7 percent from the year before to lei 421 billion, with a non-performing ratio (calculated as a share of overdue payments to suppliers in total trade debt) of 11 percent, i.e. three times higher than the non-performing ratio for bank credit.

The receivables collection period remains well above the maximum period of 60 days established by Law No. 72/2013 and above the EU average (55 days), i.e. at 86 days, the same as in the previous periods. Large companies collect their receivables significantly faster than small- and medium-sized enterprises (70 days versus 102 days in 2023). The receivables collection period for micro-enterprises is of 149 days. Real estate and agricultural firms face the highest difficulties in collecting receivables, i.e. 232 days and 142 days respectively, on average. Trade is the only sector where time periods are, on average, law compliant. Companies with foreign private capital have the shortest receivables collection period (77 days), ahead of companies with domestic private capital (90 days), while state-owned enterprises report, on average, the longest receivables collection period (149 days).

B. Low financial intermediation remains one of Romania's structural problems, with an impact on economic development. Romania ranks last among EU Member States in terms of financial intermediation (50.6 percent, calculated as bank assets-to-GDP ratio, 2024 Q2), trailing significantly behind peer countries in the region (Poland 92 percent, Bulgaria 93 percent, Hungary 108.5 percent) and the EU average (215 percent).

The low degree of financial intermediation is closely linked to the way in which firms prefer to finance their activity (i.e. significantly via trade debt, standing highest in Romania among Member States from this perspective, or through loans from shareholders/associates), alongside the structural vulnerabilities of the non-financial corporations' sector.

A broader focus on lending to non-financial corporations, especially those in business sectors that can be considered strategic, such as (i) sectors with high value added; (ii) knowledge intensive services; (iii) food security; (iv) energy security and, amid the geopolitical tensions; (v) the defence industry, will contribute to the sustainable increase in financial intermediation in Romania. However, the sustainable rise in financial intermediation also requires the solving of demand-side problems in the non-financial corporations' sector, such as weak capitalisation (details in Section 2.1). Looking at non-financial corporations, there are 22,455 performing firms⁸ (accounting for 2.7 percent of the total number of companies), of which 11,700 have a level of indebtedness below 1 and over time could have a borrowing potential of

⁷ NBR's *Survey on the access to finance of the non-financial corporations in Romania*, June 2024

⁸ Performing companies have been defined according to the methodology developed by Neagu *et al.* (2017), "Pregătiți pentru viitor? O nouă perspectivă asupra economiei României", *Caiete de studii BNR*, No. 46/2017.

lei 213 billion. Of these, around 19,000 are companies with majority domestic private capital (86 percent), 2,600 are firms with majority foreign private capital (12 percent), and 291 are state-owned enterprises (1 percent).

In addition, there is room for improvement in the level of financial education of both households and non-financial corporations. To this end, the NBR in collaboration with important players in the financial sector and academia launched the “Antreprenariat de TOP” (TOP Entrepreneurship) project. The objectives of this project are to increase the level of financial and economic education of Romanian entrepreneurs and improve financial inclusion, by encouraging a broader use of financial products and services and stepping up the efforts to enhance the digitalisation of financial and business activities.

C. Romania is faced with the contraction and the ageing of resident population. According to data as at 1 July 2024, Romania’s population shrank further, shedding 1 percent versus the same year-earlier period. Moreover, the demographic ageing trend steepened, as the share of the elderly (aged 65 and above) widened 0.4 percent and that of the young (0-14 years) witnessed a decline of almost the same magnitude (0.3 percent).

These demographic developments primarily affect the labour market, given the challenges firms face in recruiting skilled workforce. By the end of 2030, Romania’s working-age population (15-64 years) is estimated to drop by 4 percent⁹, more sharply than the EU average (-2 percent). Apart from the negative natural change of population, emigration is another factor contributing to the labour shortage. Romania is the EU Member State with the largest number of persons living in other EU countries (around 3.2 million, 34 percent of them in Italy alone¹⁰), with 76 percent of emigrants representing active workforce (15-64 years). Against this background, recruiting adequately skilled workers is one of the most pressing problems for local companies, as four in five employers reported difficulty in finding the skilled talent they need¹¹. One solution might be to encourage and pave the way for the people fit for work who have reached retirement age to remain active. At EU level, 3.1 percent of employed persons are aged 65+, as compared to 1.1 percent in Romania (2023 data).

The lack of adequate skills of the workforce also affects companies’ performance and investment capacity. According to a European Investment Bank survey¹², the low availability of skilled staff ranks among the most cited obstacles to long-term investment, being flagged by 79 percent of local firms participating in the survey. Thus, skill improvement in the active population in Romania could set long-term investment in motion and help increase the competitiveness of the economy.

⁹ Eurostat, Population on 1st January by age, sex and type of projection

¹⁰ Eurostat, EU and EFTA citizens who are usual residents in another EU/EFTA country as of 1 January

¹¹ Manpower Group, 2023 *Global Talent Shortage*

¹² *EIB Investment Survey, 2023*

Labour shortage is a more pressing problem when it comes to certain specific skills, starting with digital ones¹³. From this perspective, Romania ranks last in the EU, with the smallest share of population aged 16-74 having at least basic digital skills (28 percent vs. 56 percent at EU level, according to 2023 data¹⁴), trailing behind Bulgaria (36 percent) and Poland (44 percent).

On the domestic front, the National Committee for Macroprudential Oversight (NCMO) highlighted the need to step up the financial services digitalisation process, to improve the financial education of entrepreneurs and the professional training of staff in the financial system, as well as to support the structural shift of the economy to a higher value added economy, by making specific recommendations to the relevant authorities via NCMO Recommendation No. R/3/2022 on the sustainable increase in financial intermediation.

D. Climate change-related risks to financial stability are very diverse, and the magnitude of their effects has yet to be fully grasped. There are several channels whereby climate change might affect financial stability, its future evolution depending on mitigation and adaptation efforts globally.

According to data from the European Environment Agency, economic losses caused by climate-related extremes between 1980 and 2023 in Romania stood at EUR 19.6 billion, the equivalent of EUR 916 per inhabitant, representing 2.7 percent of the amount recorded in the EU at aggregate level. Moreover, only 1 percent of losses were insured.

Domestically, climate-relevant (brown) companies are further important for the real economy. In 2023, these companies generated 40.6 percent of the gross value added at aggregate level, held 48.4 percent of total assets and hired 32.6 percent of total employees of non-financial corporations. Banks' exposure to these companies reached lei 100.9 billion at end-September 2024, accounting for 51.4 percent of total exposure to non-financial corporations. By contrast, even though green lending has stepped up slightly in recent years, there is still ample room for this segment to develop. Merely 4 percent of banks' exposures to firms and households are green loans, worth lei 16.4 billion (September 2024), of which only 39 percent were granted to non-financial corporations, almost half being for green buildings (49 percent).

Against this background, raising awareness about the impact of risks generated by climate change on the economy proves essential. To this end, in 2021, the NCMO issued Recommendation No. R/6/2021 on supporting green finance, aimed at: (i) increasing access to finance for projects on the climate change agenda, (ii) supporting the structural shift of the economy to a higher value added economy, and (iii) enhancing transparency and raising awareness on the impact of climate change in the society and the financial system.

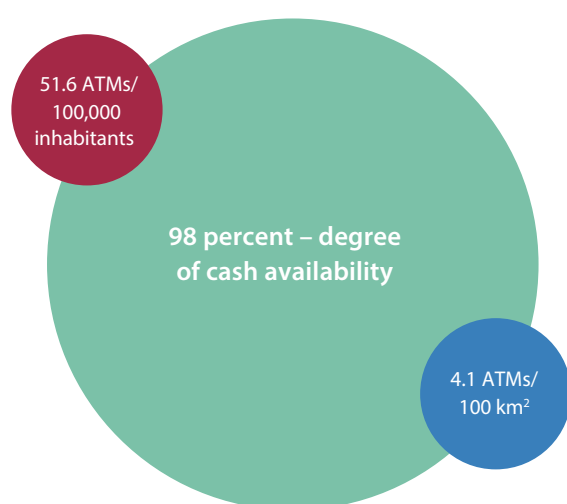
¹³ *The Future of European Competitiveness – A Competitiveness Strategy for Europe, 2024*

¹⁴ *Digitalisation in Europe, 2023 edition*

Special feature

One of the steady concerns of the National Bank of Romania is to ensure economic agents' access to cash, in line with their real needs. For households and companies alike, access to cash plays a major role in ensuring participation in economic activities, both as a means of extinguishing obligations between parties and as an instrument securing financial inclusion, particularly in rural areas and in regions with underdeveloped financial infrastructure. Moreover, access to cash ensures a higher degree of freedom and autonomy. Aside from the important role that cash plays in normal circumstances, it can prove all the more relevant in times of crisis, especially considering the step-up in cyber risk amid geopolitical developments.

Figure 3. Statistics on access to cash



The banking sector in Romania has a network of ATMs and units that generally accommodates properly the characteristics and needs of customers. In spite of a good outreach, there is a higher density of population with more difficult access to the ATM network, particularly in certain areas in Moldavia and part of the South-West Oltenia and South Muntenia regions. The territorial coverage shows that banks have adopted strategies for optimising their physical presence to meet a wide range of customer needs, irrespective of geographical location, thus helping preserve a constant cash flow in the economy. As for bank units, their number has been declining steadily over the past decade, amid the ongoing digitalisation of banking services, yet credit institutions still have good territorial coverage.

Households display a keen appetite for cash, given the large volumes of lei and euro cash drawn from ATMs and bank units, but also the steadily rising values of currency in circulation. Under the circumstances, the high degree of cash availability (98 percent) points to adequate cash accessibility, in terms of both money supply and ATM functionality or a potential cyberattack that would freeze digital payments for a short while.

The use of cash in Romania remains essential, especially given the limited access to financial services in certain geographical areas and the low degree of financial education and digital skills. In rural areas and in less developed regions, access to ATMs is lower, which underlines the importance of financial infrastructure and the need to expand access, also from a digital perspective, in order to ensure financial inclusion, particularly in isolated or deprived communities.

1. INTERNATIONAL AND DOMESTIC ECONOMIC AND FINANCIAL ENVIRONMENT

The external environment is further marked by subdued economic growth prospects, especially in Europe, and elevated uncertainty, as a result of the escalation of geopolitical tensions and the heightening of armed conflicts, as well as given the important election year internationally, likely to change the policy mix applied in the world's major economies, with potential implications for both financial conditions worldwide and the international trade and capital flows. Vulnerabilities associated with financial stability are amplified by a high level of public debt that constrains the fiscal space needed to manage potential new shocks in the current geopolitical context. Moreover, indebtedness remains elevated across the private sector and there are signs of deteriorating credit quality in some segments of the market, especially in commercial real estate, although the impact on the banking system has been contained so far.

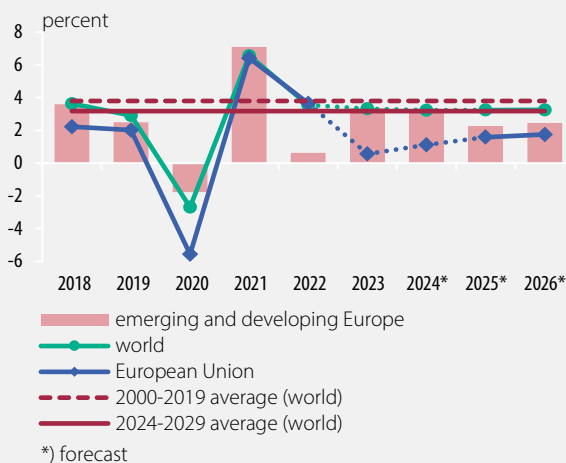
The worsening of domestic macroeconomic equilibria continues to be one of the main systemic risks countrywide. Data for the first part of 2024 point to wider twin deficits than at the time when the previous *Report* was released, and this year Romania is expected to record some of the highest (fiscal and current account) deficits at European level, reflecting both structural and conjunctural factors. Correcting these imbalances is critical to mitigate risks to financial stability, both in the short term – to prevent investor confidence from eroding, thereby reducing risks to the sovereign risk premium and potential exchange rate pressures – and in the longer run – to reinforce the resilience to potential new shocks in the current geopolitical environment, as well as to facilitate the energy transition and tackle the demographic problem, which is likely to fuel pressures on government budget in the long term.

The debt of the non-financial sector further increased in annual terms, but its share in GDP decreased to 44 percent, as a result of the GDP growing faster than corporate and household debt. Romania's low financial intermediation is reflected by its position within the EU, where it further ranks last, significantly behind the EU-wide average. The rise in indebtedness between June 2023 and June 2024 was mainly observed in the debt to external creditors, more specifically the foreign direct investment reported by non-financial corporations.

1.1. International economic and financial development

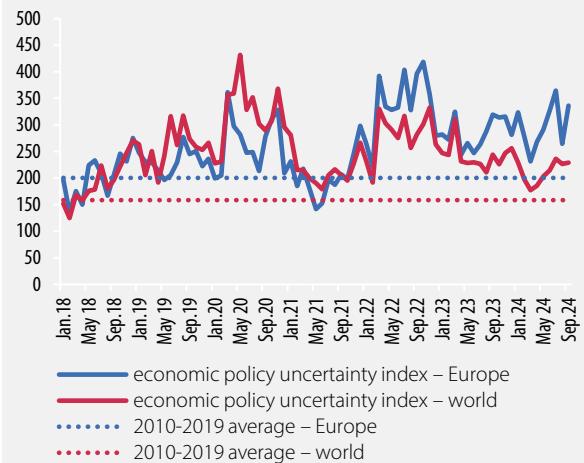
At global level, risks to financial stability have further seen mixed developments since the previous *Report*. On the one hand, disinflation continued in most economies, without any substantial drop in economic activity (i.e. amid a soft landing), which supported the appetite for risk on international financial markets. On the other hand, the external environment is further marked by subdued economic growth prospects (Chart 1.1), especially in Europe, and elevated uncertainty¹⁵, as a result of the escalation of geopolitical tensions and the heightening of armed conflicts, as well as given the important election year internationally, likely to change the policy mix applied in the world's major economies, with potential implications for both global financial conditions and the international trade and capital flows (Chart 1.2). Risks to financial stability are amplified by a high level of public and private indebtedness, as well as by a potential overvaluation of asset prices in certain market segments¹⁶.

Chart 1.1. Economic growth worldwide, in the EU and in European emerging countries



Source: IMF (*World Economic Outlook*, October 2024)

Chart 1.2. Economic policy uncertainty indices for Europe and worldwide



Source: Baker, Bloom & Davis (2016)

The outlook for global economic growth remains modest, both in the near and medium term. The IMF expects a global economic growth rate of 3.2 percent in 2024 and 2025, the forecast remaining similar to that of April¹⁷. However, growth forecasts are heterogeneous internationally, as the US economy continued to surprise on the upside, while projections for the euro area were revised downwards again (by -0.3 percentage points for 2025 against the April forecast, down to 1.2 percent), also as a result of weak economic performance in Germany and France. Moreover, medium- and long-term growth prospects remain subdued at European level, both compared to the US and from a historical perspective. These discrepancies are partly attributable to structural problems in Europe, such as the slowdown in labour force

¹⁵ For an analysis of the implications of high uncertainty for financial stability, see also IMF, *Global Financial Stability Report*, October 2024, Chapter 2, "Macrofinancial Stability amid High Global Economic Uncertainty".

¹⁶ For further details, see IMF, *Global Financial Stability Report*, October 2024, Chapter 1.

¹⁷ IMF, *World Economic Outlook*, October 2024

growth due to population ageing, the low investment rate relative to capital stock, and the relatively low productivity, also amid lower capital market financing for companies and segmented domestic markets¹⁸.

Overall, the disinflationary process continued internationally, although uncertainties linger about its future trajectory, including in major developed economies, due to both the persistence of core inflation¹⁹ and the ongoing geopolitical tensions, which have the potential to exert pressure again on energy prices and global supply chains. Several central banks have started a monetary policy easing cycle, both in emerging and advanced economies. Since the release of the previous *Report*, the ECB has lowered its deposit facility rate by 75 basis points (at its meetings in June, September and October). In addition, the Fed also cut the federal funds rate by 75 basis points (by 0.5 percentage points in its September meeting, followed by 0.25 percentage points in its November meeting). Nevertheless, a relatively high degree of uncertainty persists regarding the pace and extent of monetary policy easing in the near term from both the ECB and the Fed²⁰.

Against this background, long-term government bond yields in major developed economies witnessed a series of temporary swings and relatively high volatility. In the first part of the period under review (June-September), long-term government bond yields issued by the US and Germany recorded declines²¹ and then shifted to an upward, albeit relatively fluctuating, path toward the end of the reference period. As short-term yields decreased under the impact of monetary policy easing by the Fed and the ECB, the yield curve regained – and subsequently steepened – its positive slope in both the US and Germany. These dynamics are particularly significant given the recent stronger correlation between government bond yields across countries, under the stronger impact of global factors, as the uncertainty surrounding fiscal and monetary policies in the US exerts a greater influence on sovereign financing costs globally²².

These developments occur in the context of high public debt and also during an important election year internationally. Worldwide, the government debt-to-GDP ratio increased significantly due to the extensive support measures during the pandemic, recording a slight decline afterwards, partly as a result of nominal GDP growth in the post-pandemic period. Looking ahead, global sovereign debt is expected to rise again over the coming years, approaching nearly 100 percent of GDP by 2030, mainly as a result of the sizeable fiscal deficits in the US and China (Chart 1.3). In the US, high uncertainties surrounding the future developments of

¹⁸ For a more detailed discussion, see IMF, *Regional Economic Outlook for Europe*, October 2024, as well as Draghi, *The Future of European Competitiveness – A Competitiveness Strategy for Europe*, 2024.

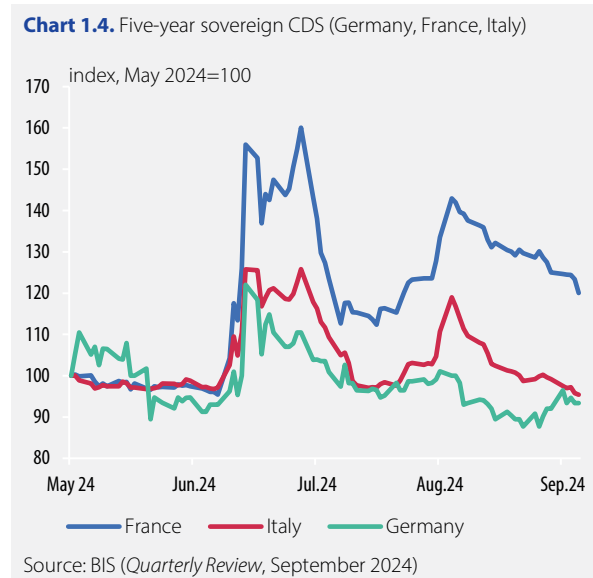
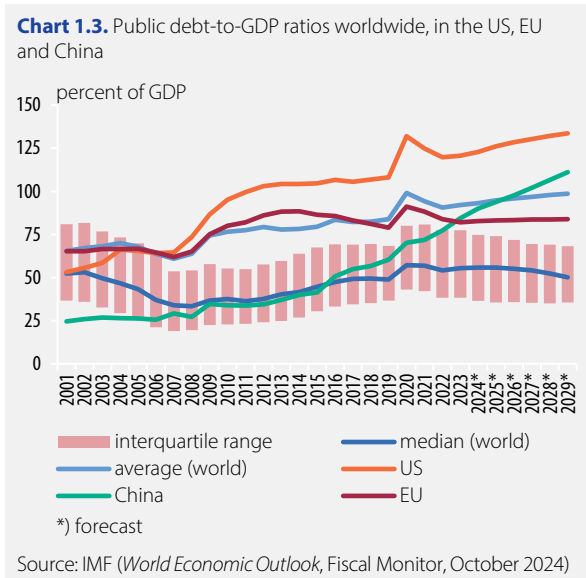
¹⁹ Also in the context of still relatively high inflation in the services sector and of current labour market conditions.

²⁰ Investors attach relatively high probabilities to moderate drops in the monetary policy rates of the Fed and the ECB over the next two years, as well as to larger declines during that same period – for more details, see IMF, *Global Financial Stability Report*, October 2024, Chapter 1.

²¹ Also as a result of the downward revisions in investor expectations regarding the future paths of the Fed and ECB policy rates, amid ongoing disinflation in the euro area and the US. For further details, see *BIS Quarterly Review*, September 2024.

²² For further details, see IMF, *Fiscal Monitor*, October 2024, section “Fluctuations in Sovereign Yields and the Role of Global Factors”. In addition, see IMF, *Global Financial Stability Report*, October 2024, section “Global Monetary Policy Synchronization Leads to More Spillovers to Emerging Markets”.

sovereign debt also arise in the context of the presidential election outcome, with significant implications for the US fiscal²³ and trade policies (and thus for global government bond yields, as well as for international trade and capital flows).



In the EU, sovereign debt is relatively lower and is forecasted by the IMF to stabilise in the vicinity of 83 percent of GDP over the next years. However, considerable uncertainties linger over the medium to long term, given the structural issues at European level, likely to amplify risks to public debt sustainability (such as low productivity and demographic challenges, which contribute to subdued economic growth), while assessments are masking an important heterogeneity among Member States. Eight countries – including Romania – are subject to the excessive deficit procedure under the revised EU economic governance framework, and 17 out of the 27 Member States are currently exceeding the reference values for government debt and fiscal deficit²⁴. Thus, some countries are relatively more exposed to potential new geopolitical shocks, which may generate additional fiscal pressures, as well as to potential deteriorations in investor risk perception, with implications for financing costs.

A surge in geopolitical risk, as well as an increase in uncertainty, leads to a steeper rise in yields on government bonds issued by countries with higher public debt²⁵. Political uncertainties contributed to fluctuations in investor sentiment on international financial markets, which were also reflected by the credit default swap (CDS) spreads – for instance, at the beginning of June, the CDS spreads increased for French bonds, as well as to a lesser extent for Italian and German bonds (Chart 1.4)²⁶. These developments are also relevant for the banking sector, given that euro area

²³ Given the Republicans' victory, a higher budget deficit is expected – according to the *Committee for a Responsible Federal Budget*, with debt-to-GDP ratio reaching 143 percent by 2035 in the baseline scenario, rising by 18 percentage points.

²⁴ IMF, *Regional Economic Outlook for Europe*, October 2024

²⁵ DeNederlandscheBank, *Financial Stability Report*, Autumn 2024

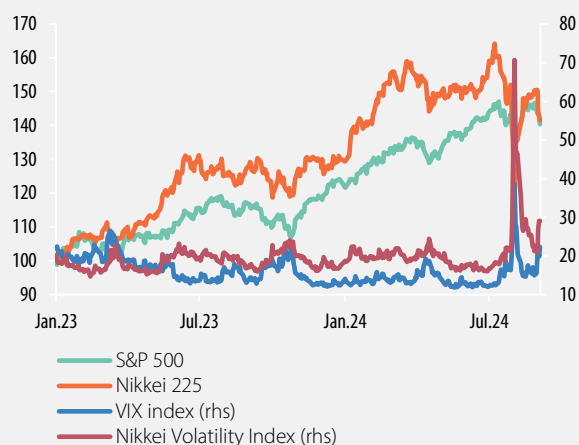
²⁶ Although these dynamics have been partially corrected, the financing cost has remained relatively high for France. For a broader discussion, also see *BIS Quarterly Review*, September 2024.

banks continued to increase their government securities holdings, and sovereign exposures posted a rise of approximately EUR 200 billion (+5.5 percent) in 2024 Q2 compared to the end of the previous year²⁷, also in the context of the ECB reducing its asset portfolios²⁸, conducive to changes in the composition of the government bond buyer base²⁹.

The European banking sector remains resilient, with liquidity and solvency indicators witnessing marginal improvements from adequate levels, in the context of further relatively high profitability³⁰. The non-performing loan ratio remained stable on the aggregate (at 1.9 percent in 2024 Q2), although it rose marginally compared to the previous quarter for the relatively riskier segments that already had higher NPL ratios, such as the small and medium-sized enterprises (SMEs) and the commercial real estate sector (up from 4.5 percent to 4.6 percent and from 4.3 percent to 4.4 percent, respectively).

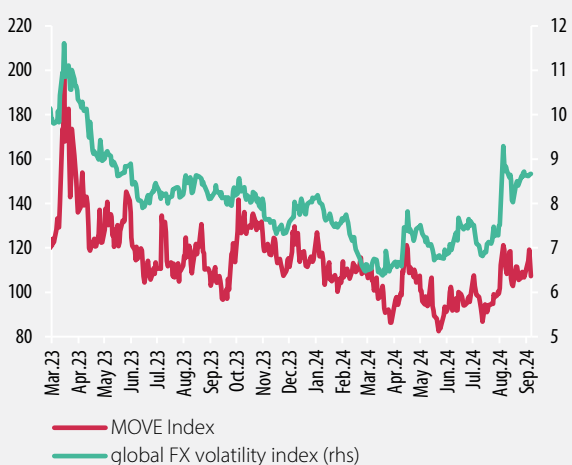
The risk of sudden corrections in global financial markets remains significant given that the prices of more risky financial assets stayed on an upward trend overall since the previous *Report*, temporary corrections and heightened volatility episodes notwithstanding. At the beginning of August, international financial markets witnessed relatively sharp corrections³¹ and heightened volatility, particularly in equity markets (Chart 1.5), as well as in forex and sovereign bond markets (Chart 1.6), also as a result of the substantial unwinding of carry trades³² with the Japanese yen as funding currency.

Chart 1.5. Stock market indices and their implied volatility in the US and Japan



Source: BIS (*Quarterly Review*, September 2024), FRED, NBR calculations

Chart 1.6. Global FX volatility index and US government bond volatility index (MOVE index)



Source: BIS (*Quarterly Review*, September 2024)

²⁷ EBA Risk Dashboard, 2024 Q2

²⁸ Assets purchased via the asset purchase programme (APP) and the pandemic emergency purchase programme (PEPP), <https://www.ecb.europa.eu/press/pr/date/2024/html/ecb.mp241017~aa366eaf20.en.html>

²⁹ For further details, see IMF, *Global Financial Stability Report*, October 2024, or OECD, *Global Debt Report*, March 2024.

³⁰ EBA Risk Dashboard, 2024 Q2

³¹ For a broader discussion, see „The market turbulence and carry trade unwind of August 2024“, *BIS Bulletin*, No 90.

³² Referring to transactions that involve borrowing funds in low-yielding currencies and investing them in assets denominated in higher-yielding currencies in order to take advantage of the interest rate differential.

These developments were driven by several factors, mainly the unexpected increase in the monetary policy rate by the Bank of Japan at end-July, followed by the release of statistical data showing weaker-than-expected performance of the US labour market, which led to bigger investor concerns about a potential recession of the US economy, given that investor expectations were centred on a cautious approach by the Fed regarding monetary policy easing in the near term. These contributed to a surge in risk aversion in international financial markets, as well as to a decline in the profitability of yen-funded carry trade transactions, partly due to the narrowing of the interest rate differential vis-à-vis USD-denominated assets. The initial price corrections triggered deleveraging pressures³³, as well as a number of margin calls from several central counterparties, contributing to heightened volatility³⁴ and to a contagion effect across multiple asset classes, amid relatively low market liquidity over the summer. Although these corrections were short-lived – as most riskier assets recovered most of their losses relatively quickly –, these movements highlight the sensitivity of financial markets to macroeconomic developments in major advanced economies³⁵, and the fragility of investor confidence in the current environment in which the implied volatility in financial markets is relatively low compared to the macroeconomic and geopolitical uncertainties³⁶.

1.2. Domestic macroeconomic developments

On the domestic front, economic growth has been further subdued since the previous *Report*, driven primarily by consumption and, to a relatively lower extent, by gross fixed capital formation, while net exports have exerted a larger contractionary influence. In 2024 Q2, the pace of increase of economic activity slowed down to 0.9 percent³⁷ in annual terms, the sharp rise in consumption (adding 4.7 percentage points to GDP growth) being almost fully offset by the performance of net exports (taking 4.5 percentage points off GDP growth), Chart 1.7. Compared to 2024 Q1, economic growth gathered momentum from 0.1 percent.

The notable contribution of consumption to GDP growth was the result of higher real disposable income, given the rise in nominal wages and pensions, along with ongoing disinflation, but also of expectations of further increases in real income. At the same time, these dynamics were also supported by the improvement in consumer confidence and the easing of bank credit standards, which helped ramp up new consumer credit (see Box 3 in Section 2.2), targeting particularly durable and semi-durable goods (Chart 1.8).

³³ In a context where carry trade transactions generally rely on high leverage.

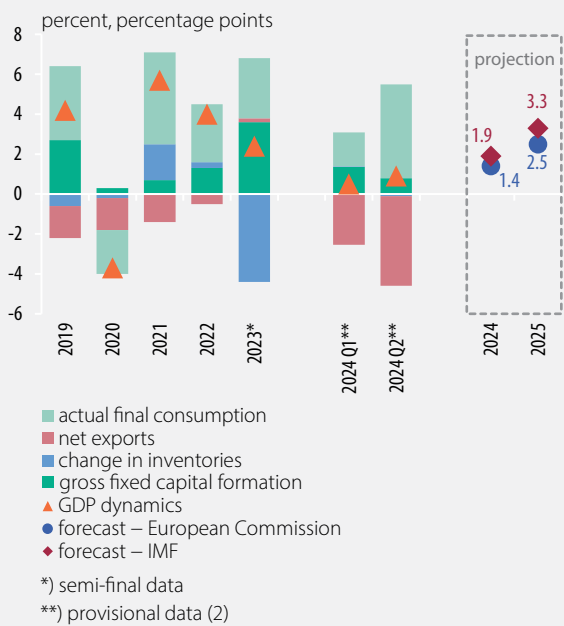
³⁴ It is important to note, however, that investors expected this high level of volatility to be temporary, with VIX futures contracts reflecting a much less pronounced increase in volatility in the near future. Moreover, the spike in implied volatility also occurred as a result of technical factors related to the calculation of the VIX (these developments are partly attributable to the asymmetric widening in the bid-ask spreads for the options on the S&P500 index in an illiquid market environment – for more details, see IMF, Global Financial Stability Report, October 2024, Box 1.3 and “Anatomy of the VIX spike in August 2024”, BIS Bulletin No 95).

³⁵ Given that, *inter alia*, investor expectations regarding the future path of monetary policy rates of major central banks have become more sensitive to macroeconomic developments in the current context – for a more detailed discussion, see also BIS Quarterly Review, September 2024, Box A, “Markets’ increasing response to labour market conditions in the United States”.

³⁶ Also see IMF, Global Financial Stability Report, October 2024, Chapter 1.

³⁷ Press release No. 266/10 October 2024

Chart 1.7. GDP dynamics and the contribution of its components



Source: NIS, European Commission, IMF³⁸

The increase in consumer demand led to a larger import volume of goods and services (+6.2 percent in 2024 Q2 compared to 2023 Q2), thereby contributing to the widening of the external imbalance. Against the backdrop of lower export volume (-1.2 percent in 2024 Q2 versus 2023 Q2), owing *inter alia* to the relatively subdued economic performance of the main trading partners, particularly Germany, net exports made a stronger negative contribution to GDP growth.

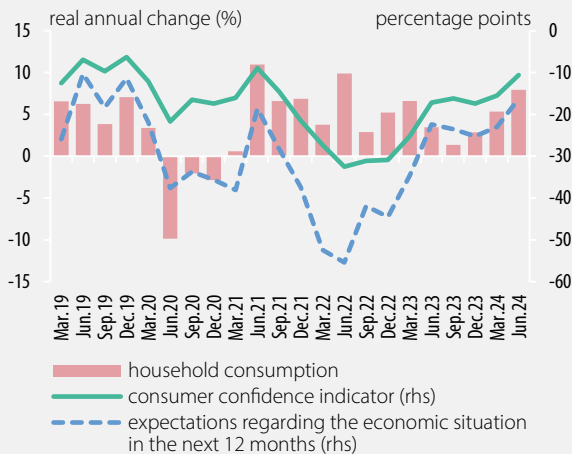
On the supply side, the agricultural sector made the largest contribution to GDP growth (+0.3 percentage points), despite accounting for the smallest share in GDP (1.9 percent). Negative contributions to GDP growth stemmed from real estate transactions, given the narrowing supply of dwellings available for sale (-0.2 percentage points), as well as from industry, and information and communication (-0.1 percentage points each). Estimates for 2024 Q3 point to a 1.1 percent growth compared to the same quarter in 2023³⁹. Economic activity is expected to recover gradually in the years ahead. Thus, forecasts for economic growth in 2024 range between 1.4 percent⁴⁰ and 1.9 percent⁴¹, reaching up to 3.3 percent by the end of 2025.

In a European context, Romania's quarterly economic growth rate was below the EU average (1 percent in 2024 Q2) but higher than that of the euro area (0.7 percent). At a regional level, it was outpaced by Hungary (1.5 percent), Bulgaria (2.3 percent), and Poland (4.4 percent), while Czechia recorded a similar rate (0.9 percent).

In this context, absorption of EU funds becomes even more important, especially those under the National Recovery and Resilience Plan (NRRP)

whereby Romania was allocated EUR 13.6 billion in grants and EUR 14.9 billion in loans, equivalent to 8.8 percent of GDP⁴². According to the European Commission's report on the implementation of the Recovery and Resilience Facility⁴³, Romania is

Chart 1.8. Household consumption, confidence and expectations regarding the general economic situation



Source: NIS, European Commission

³⁸ European Commission Autumn 2024 Forecast; IMF forecast, October 2024

³⁹ https://insse.ro/cms/sites/default/files/com_presa/com_pdf/pib_tr3e2024.pdf

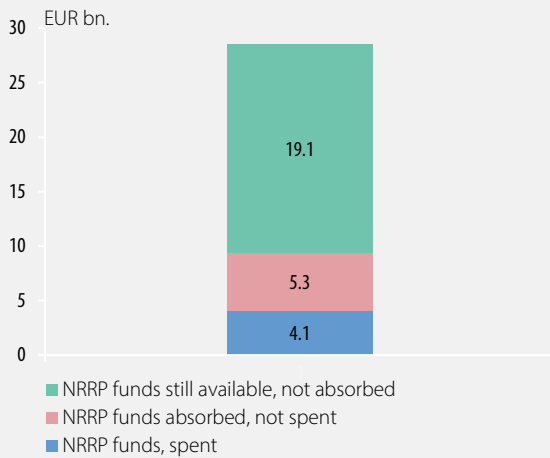
⁴⁰ European Commission Forecast, November 2024

⁴¹ IMF forecast, October 2024

⁴² Recovery and Resilience Scoreboard

⁴³ Recovery and Resilience Facility Annual Report

Chart 1.9. The status of absorption and use of non-repayable EU funds under the NRRP, September 2024



Source: European Commission, Ministry of Finance

a laggard in implementing the NRRP. The delays might affect the raising of still available funds, i.e. about EUR 19 billion, which will be collected if the 448 remaining targets and milestones (out of 518) are complied with. By the end of September 2024, EUR 9.4 billion (pre-financing included) had been disbursed cumulatively since the start of the programme, reflecting the fulfilment of approximately 14 percent of the targets and milestones. Even though a third of the allocated funds was collected, the amounts actually spent are low. According to the budget execution, about EUR 2.8 billion of the amounts collected via the NRRP were spent January through September, while EUR 4.1 billion, i.e. 44 percent of the NRRP funds collected, have been spent since the start of the programme (Chart 1.9). Furthermore, Romania

was the only country at risk of having the commitments or payments suspended in accordance with Article 10 of the Regulation establishing the Recovery and Resilience Facility, which sets forth this measure in case an EU Member State fails to take effective action to correct its excessive deficit⁴⁴.

Other opportunities to boost investment and foster development also arise from the European Structural and Investment Funds (ESIF), the Fund for European Aid to the Most Deprived (FEAD), and the European Agricultural Guarantee Fund (EAGF), through which Romania raised EUR 50.6 billion⁴⁵ according to the end-September 2024 data, with an absorption rate of 95.9 percent for ESIF and FEAD, and 94.5 percent for the EAGF⁴⁶. Improving the implementation flow of EU-funded projects is essential, as highlighted by the *Analysis of the NCMO working group on the sustainable increase in financial intermediation*⁴⁷, which underscores the need to enhance the role of the financial system in co-financing EU-funded projects, including by harmonising the operationalisation of financial instruments under the NRRP and the Operational Programmes.

Labour market

Romania faces significant demographic challenges, which will have strong effects on the labour market over the following years. By end-2030, Romania's working age population (aged 15 to 64) is expected to decline by 4 percent⁴⁸, at a faster pace than that across the EU (-2 percent), Chart 1.10. Apart from the negative natural population change, emigration has also been contributing to labour shortage. Romania is the

⁴⁴ Recovery and Resilience Facility Annual Report

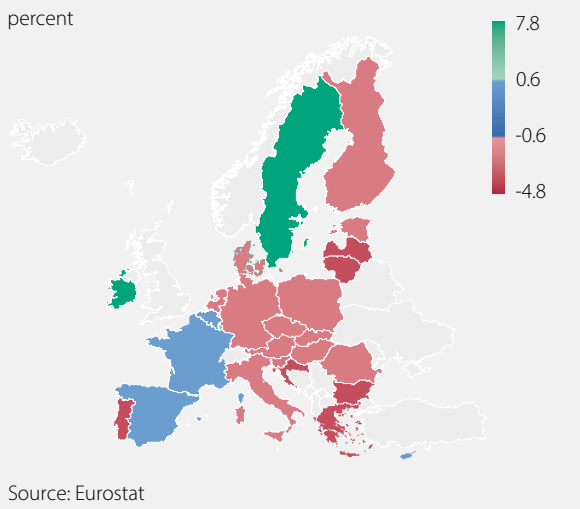
⁴⁵ Ministry of Investment and European Projects, State of absorption of EU funds as at 30 September 2024

⁴⁶ The actual absorption rate under the EAGF was calculated based on reimbursements related to the financial years 2016-2024.

⁴⁷ *Analysis of the NCMO Working Group on sustainable increase in financial intermediation*

⁴⁸ Eurostat, Population on 1st January by age, sex and type of projection

Chart 1.10. Working age population projection⁵⁰ (2030 versus 2024, percentage change)



EU Member State with the largest group of citizens residing in other EU countries as non-nationals (approximately 3.2 million, of which 34 percent in Italy⁴⁹), 76 percent of emigrants being economically active population (15-64 years).

Even though the unemployment rate at aggregate level is below the EU average (5.3 percent versus 6 percent in 2024 Q2, for persons aged 15-74 years), its analysis highlights a major structural issue, namely an almost seven-time higher unemployment rate for the low educated (13.6 percent for people having completed lower secondary education at most against 2 percent for people with tertiary education in 2024 Q2, Chart 1.11). At the same time, the job vacancy rate dropped to 0.7 percent (from 0.8 percent in June 2023 and 0.9 percent in

June 2022). The pace of increase of average net wage earnings was further swift (14 percent in annual terms in September 2024, Chart 1.12), amid the hikes in the minimum gross wage economy-wide⁵¹ and public sector wages.

Chart 1.11. Unemployment rate by educational attainment level⁵²

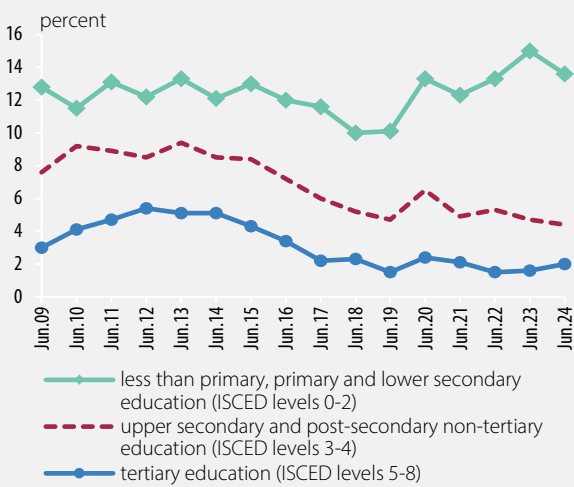
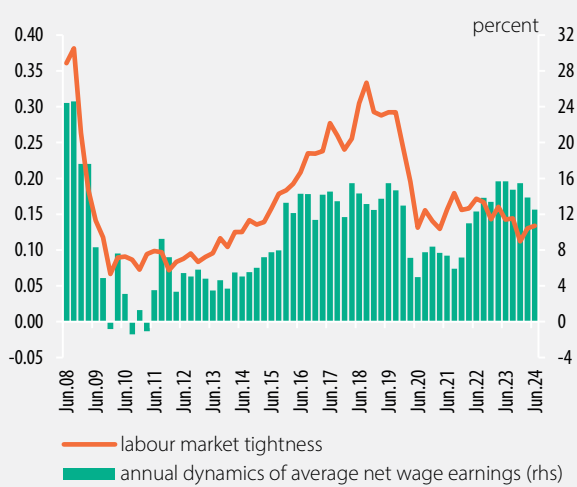


Chart 1.12. Labour market tightness⁵³ and wage growth



⁴⁹ Eurostat, EU and EFTA citizens who are usual residents in another EU/EFTA country as of 1 January

⁵⁰ Population aged 15 to 64

⁵¹ In 2023, the minimum gross wage economy-wide increased in two steps from lei 2,750 in 2022 to lei 3,300 in October 2023. As of 1 July 2024, it went up to lei 3,700.

⁵² According to the International Standard Classification of Education (ISCED), persons aged 15-74 years; seasonally and calendar adjusted data.

⁵³ Calculated as the ratio of the job vacancy rate to the unemployment rate.

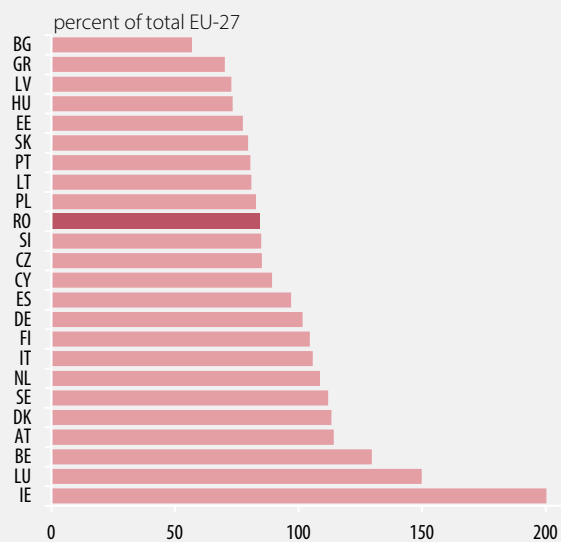
The labour market in Romania is characterised by significant polarisation, the outlook for the period up to 2035 revealing an increasingly large labour shortage, particularly among job openings at the higher and lower end (the high and low qualified)⁵⁴. Despite the ever larger supply of high-skilled labour, i.e. a 13 percent increase in the number of higher educated workers in 2023 as compared with ten years ago, this category is expected to experience labour shortage in the future, while the supply of medium-skilled labour is forecast to meet the related demand sufficiently. Similarly, labour shortage will also be pronounced for jobs that require lower educated workers, this time due to a decrease in the latter's number (-8 percent in 2023 versus 2013 for workers with lower secondary education at most). According to the forecasts for 2035⁵⁵, the highest labour demand will be for professionals⁵⁶, accounting for 25 percent of the number of available job openings. Among lower skilled occupations, elementary occupations⁵⁷ – and, more specifically, workers in mining, construction, manufacturing and transport – are projected to account for 7 percent of total job openings.

The development of artificial intelligence (AI) is another factor impacting labour market, affecting employment via job destruction, growth or creation effects. Some jobs will be replaced, while others will increase

due to AI adoption, particularly in areas such as AI modelling and business intelligence⁵⁸. The benefits linked to this technology include, among others, improved labour productivity, with potential gains between 0.2 percent and 0.6 percent annually worldwide until 2040⁵⁹, depending on the rate of technology adoption and redeployment of worker time into other activities.

As far as labour productivity is concerned, Romania has made progress in reducing the gap versus its regional peers over the past years (Chart 1.13), yet it lags behind more developed countries. Specifically, labour productivity per person employed in Romania accounted for 84.2 percent of that of EU-27 countries (2023), exceeding that in Bulgaria (56.8 percent) and Poland (82.7 percent) and standing marginally lower than that in Czechia (85.2 percent), yet significantly below that in Belgium (129.6 percent), Austria (114.2 percent) or Denmark (113.3 percent).

Chart 1.13. Labour productivity*, international comparisons** (2023)



*) nominal labour productivity per person employed

**) no data are available for FR, HR, MT and IS for 2023

Source: Eurostat

⁵⁴ CEDEFOP, 2023 skills forecast Romania

⁵⁵ CEDEFOP, 2023 skills forecast Romania

⁵⁶ According to the Classification of Occupations in Romania (COR), major group 2

⁵⁷ According to the Classification of Occupations in Romania (COR), major group 9

⁵⁸ World Economic Forum, *Future of Jobs Report 2023*

⁵⁹ McKinsey, *The economic potential of generative AI: The next productivity frontier, 2023*

Public sector

January through September 2024, the government budget recorded a deficit of 5.4 percent of GDP, almost 2 percentage points higher than in the same year-ago period. This widening occurred despite the increase in revenues to the government budget, given that public spending rose at a faster pace (20.7 percent in nominal terms from the same year-ago period), mainly as a result of the considerable upswing in investment expenditure (+37.9 percent), goods and services expenses (+22.5 percent) and staff expenditure (+23.6 percent). Against this background, the fiscal deficit target for 2024 was raised to 6.9 percent of GDP in September (from 5 percent of GDP as originally planned), even though Romania is already subject to the EU's excessive deficit procedure. Both the Fiscal Council and credit rating agencies expect the fiscal deficit to exceed 7 percent of GDP by the end of the year.

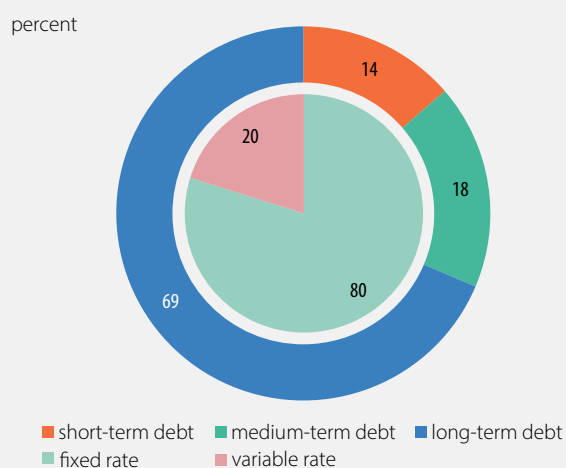
Specifically, high uncertainties still linger over the fiscal and income policy, given both the budget execution in the first months of the year, also in the electoral context, and the longer-term outlook, considering the planned fiscal consolidation to be negotiated with the European Commission for deficit reduction in light of the EU's new economic governance framework. The Fiscal Council underscored the need to increase budget revenues⁶⁰ – *inter alia* via taxation changes, improved VAT collection,

broadening of the taxation base and combating tax evasion and fiscal optimisation – as well as the link between the fiscal deficit and the current account deficit. It also emphasised the importance of gearing public investment towards the production of tradables with a view to containing import dependency and addressing structural competitiveness issues⁶¹.

The risks related to fiscal deficit are partly offset by the relatively favourable profile of sovereign debt, a high share of which consists of long-term fixed-rate loans, which somewhat mitigates the refinancing risk and the hike in interest expenditure (Chart 1.14). However, negotiating a credible medium-term fiscal consolidation plan with the EC is of the essence to ensure ongoing EU funds absorption and prevent the confidence of investors and credit rating agencies

from eroding. A potential rise in the sovereign risk premium would adversely affect the banking sector as well, considering the strong link between the banking sector and the public sector (for further details, see Section 3.1), i.e. sovereign exposures make up about 24 percent of total bank assets.

Chart 1.14. Breakdown of government public debt by maturity and interest rate (August 2024)



Source: Ministry of Finance

⁶⁰ Given that Romania is among the countries with the lowest fiscal revenues in the EU, i.e. below 30 percent of GDP.

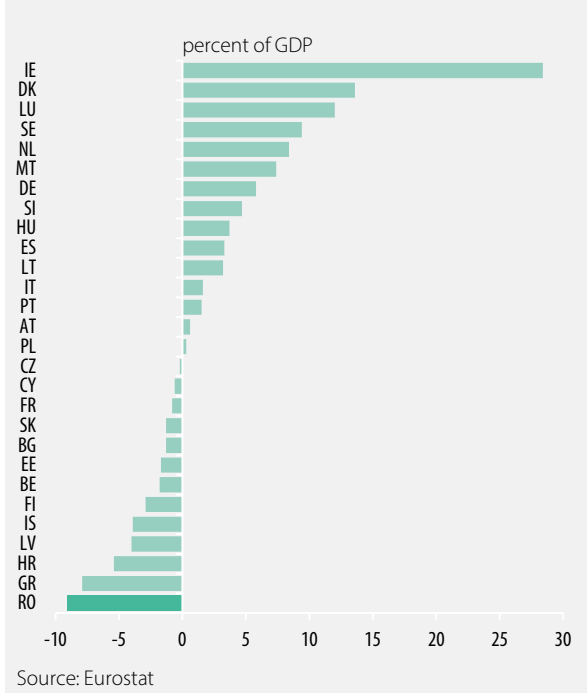
⁶¹ For further details, see Fiscal Council's Opinion on the First Budget Revision for 2024.

External balance

Risks to financial stability from the external position remain significant, with Romania posting the highest current account deficit in the EU (Chart 1.15). In 2024 Q2, the current account deficit stood at 9.1 percent of GDP, widening from the same

year-ago period (7.1 percent of GDP). Moreover, compared to Romania's peers in the region, which recorded much smaller deficits or even surpluses (Hungary +3.7 percent, Poland +0.3 percent, Czechia -0.2 percent, Bulgaria -1.3 percent), the country's current account is further an important vulnerability.

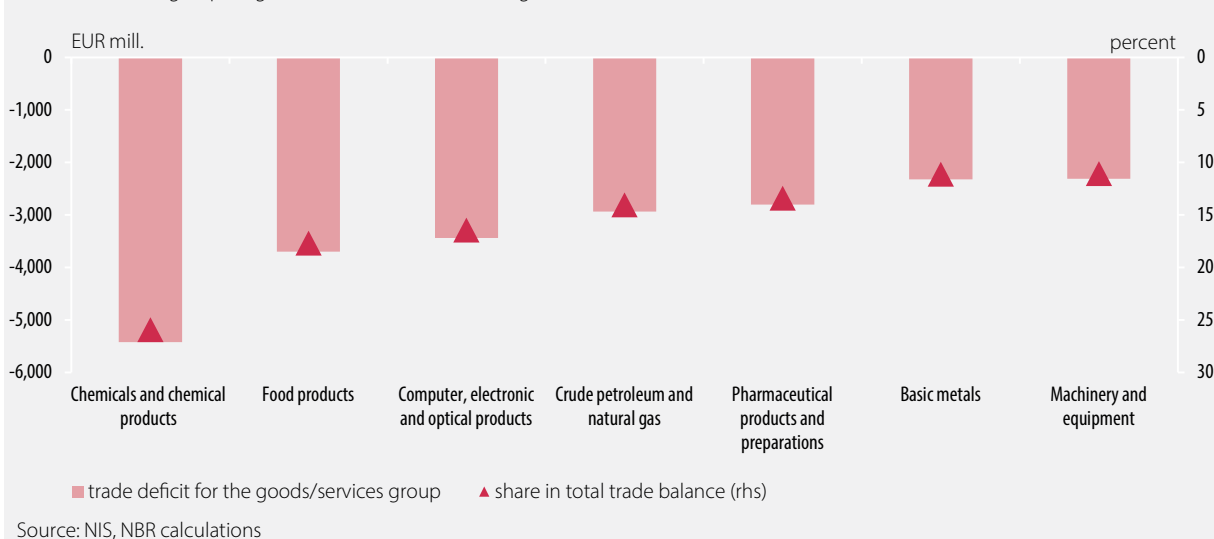
Chart 1.15. Current account deficit in EU Member States (2024 Q2)



Data for January through September 2024 point to a wider current account deficit than in the same year-ago period (EUR 19.8 billion, up 23 percent against January-September 2023). Most current account components, except secondary income and, to a lower extent, primary income, recorded negative developments, with the dynamics being mainly driven by structural factors, and, less so, by seasonal effects. The deficit on trade in goods and services (EUR -14.4 billion), specifically the goods deficit (EUR -23.2 billion, adding 14 percent in the first nine months of 2024 versus the same year-ago period) had the strongest impact on the current account balance. The most significant shortfalls stem from imports of chemicals and chemical products

(trade deficit of EUR 5.4 billion January through August 2024, Chart 1.16), ahead of food items (trade deficit of EUR 3.7 billion), computer, electronic and optical products (trade deficit of EUR 3.4 billion), as well as crude petroleum and natural gas (trade deficit of EUR 2.9 billion).

Chart 1.16. Main groups of goods and services contributing to the trade deficit in the first 8 months of 2024



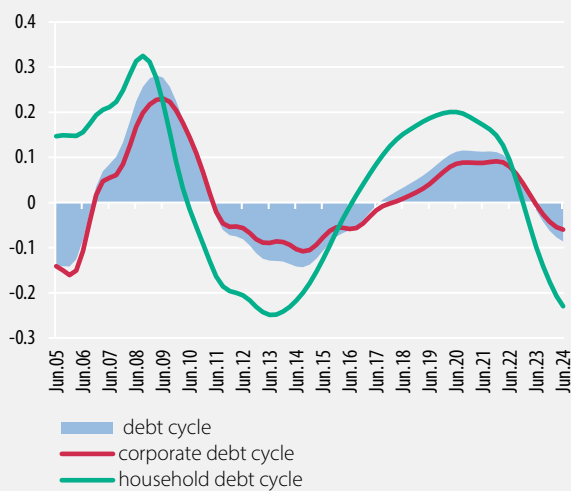
Recent measures in the public sector, namely the recalculation of pensions and wage increases, are likely to send the external imbalance higher, also amid the low capacity of domestic output to meet the demand surplus. In addition, the external deficit correction also hinges on the recovery in economic activity of EU trading partners. Against this backdrop, EU funds absorption becomes even more important, given its potential for narrowing the current account deficit via inflows to the income balance.

Romania’s net international investment position has recently worsened to -40 percent of GDP in September 2024, compared to the European Commission’s -35 percent-of-GDP threshold, pointing to the country’s increased external vulnerability in the potential situation of the risk of a sudden halt in foreign capital inflows materialising. At the same time, external debt grew markedly, by 16 percent in annual terms, reaching EUR 186.2 billion in September 2024. Behind this stood chiefly the swift rise in long-term foreign financing of general government (up 27.3 percent). The breakdown of external debt by maturity highlights the prevalence of long-term debt, accounting for approximately 75 percent of total (September 2024).

1.3. Non-financial sector indebtedness

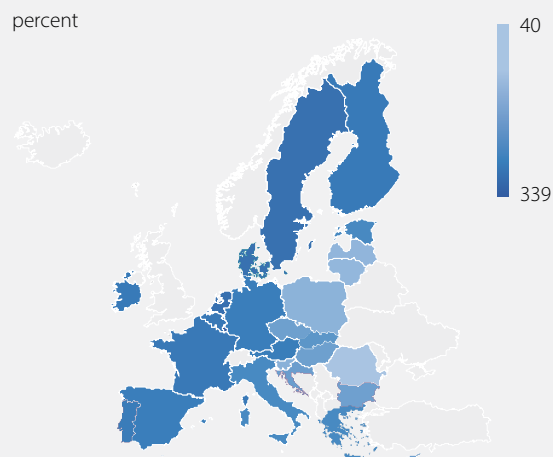
The analysis of the debt cycle shows that both non-financial corporations and households are in the downward phase of the cycle (Chart 1.17).

Chart 1.17. The debt cycle⁶²



Source: NBR

Chart 1.18. Financial debt of non-financial corporations and households as a share of GDP (EU, 2024 Q2)



Source: ECB

Real sector debt⁶³ reached approximately lei 738 billion in June 2024, accounting for 44 percent of GDP, up by 9 percent in annual terms, with banks being the main

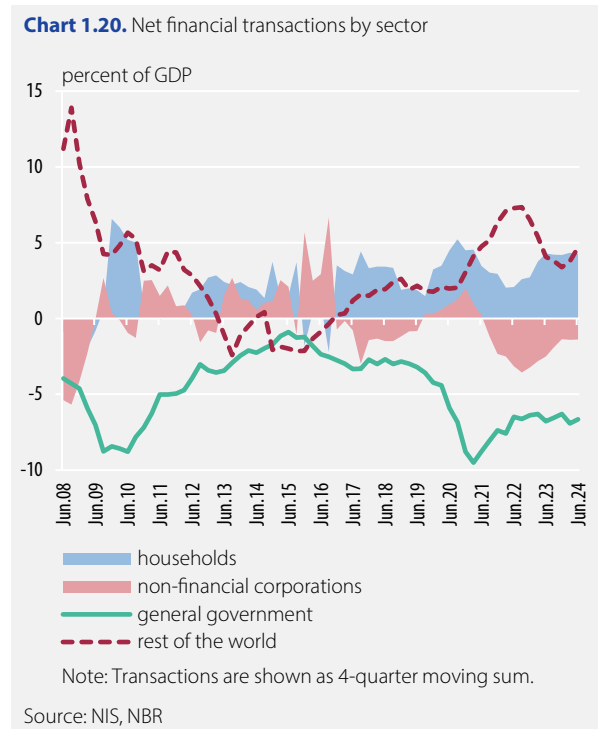
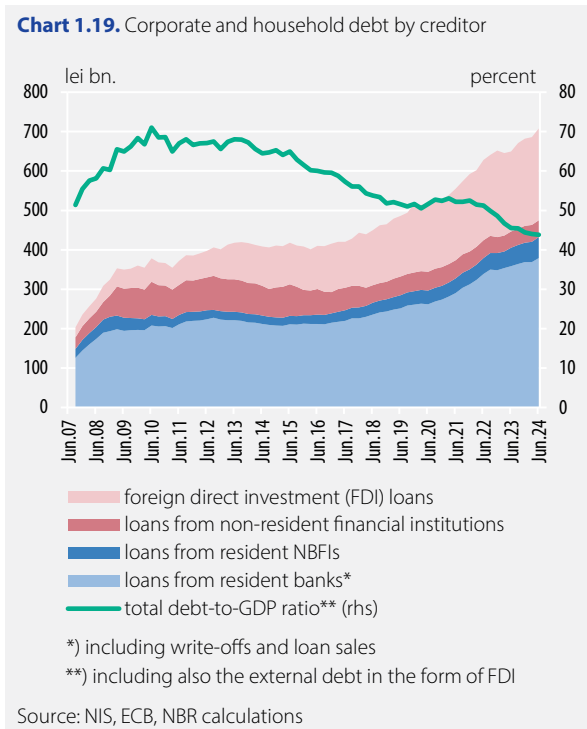
⁶² The cycle is calculated using the Christiano-Fitzgerald filter assuming the length of the cycle is 14 years.

⁶³ Total non-financial corporate and household debt comprises: (i) domestic financial debt (loans from local banks, including write-offs and loan sales, and loans from NBFIs), (ii) external financial debt (loans from foreign banks), and (iii) non-financial external debt (non-financial corporations’ intercompany loans).

creditors (53 percent⁶⁴). Moreover, credit to the private sector as a share of GDP narrowed to 22.5 percent in 2024 H1 (an annual decline of 1.5 percentage points).

Romania’s low financial intermediation is reflected in its position at EU level, where it continues to rank last and remains significantly below the EU average (Chart 1.18). According to ECB data, the financial debt of households and non-financial corporations stood at 12.5 percent and 27.8 percent of GDP, respectively, versus euro area averages of 52.4 percent and 78.5 percent of GDP.

The breakdown of real sector debt shows positive annual dynamics over the period under review across all types of creditors, but in particular for external creditors (Chart 1.19). Foreign direct investment in non-financial corporations posted a 15 percent growth rate in June 2024 compared to June 2023, twice as high as that seen in the same year-ago period. Loans from foreign financial institutions rose by 4 percent year on year, to lei 42.4 billion, recording annual increases over the past four quarters, after two years of decline. Looking at local lenders, loans from local credit institutions (including write-offs) account for more than half of real sector debt, while loans from NBFIs make up 7 percent. From June 2023 to June 2024, loans from banks and NBFIs rose by 6 percent and 13 percent, respectively, with the increase in the latter being driven by lending to non-financial corporations.



The breakdown of net financial transactions by sector shows that households strengthened their net creditor position, while non-financial corporations maintained their net debtor position (Chart 1.20). Net financial assets (stocks) of households grew at a faster pace from 2022 Q2 to 2023 Q3 (4-quarter moving average), before losing

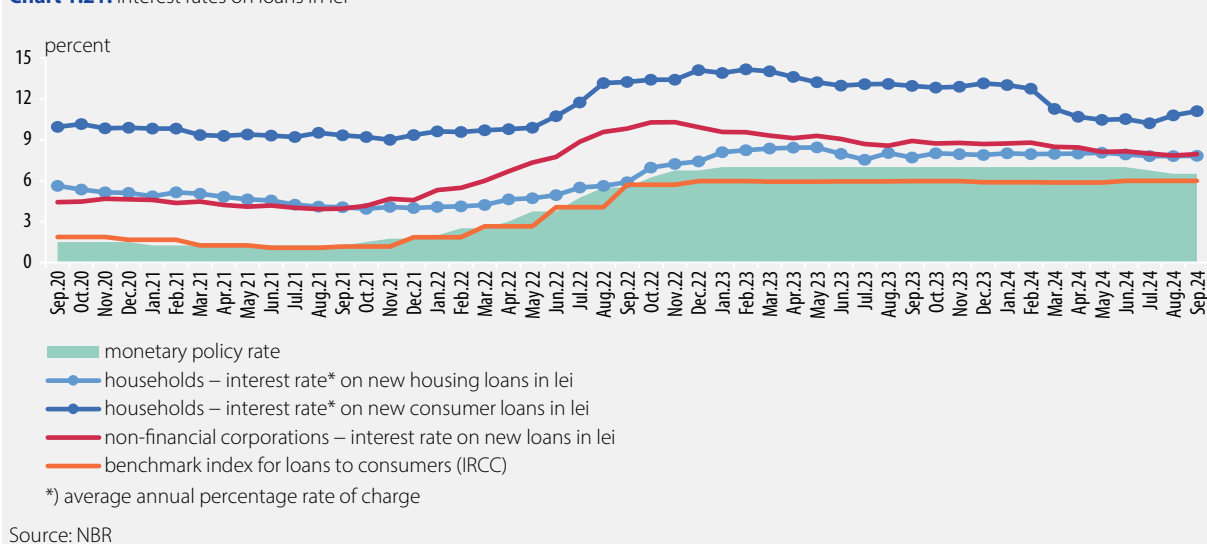
⁶⁴ Including write-offs.

momentum until 2024 Q2. For non-financial corporations, the negative balance of net assets steadily moderated its deepening trend between 2022 Q4 and 2024 Q2, due to a faster increase in financial assets relative to financial liabilities.

Real sector debt by type of borrower reflects a greater contribution from non-financial corporations to both domestic and external loans. Household indebtedness accelerated its growth rate, after having slowed down from 2022 H1 to 2023 H1 as a result of interest rate developments.

Since the previous *Report*, the Board of the National Bank of Romania decided in July and August 2024 to cut the monetary policy rate twice in succession, by 25 basis points respectively, to 6.5 percent per annum, starting 8 August 2024. Subsequently, the NBR decided in October and November to leave the monetary policy rate unchanged at the above-mentioned level. Against this backdrop, interest rates on loans to the real sector dropped (Chart 1.21). As of 2023, the average lending rate on new leu-denominated loans to non-financial corporations has gradually declined, reaching 8 percent in September 2024 (-1 percentage point against September 2023). Households' average financing cost stood at 7.8 percent for housing loans (similar to the same period of 2023), while consumer loans carried a higher cost, coming in at 11.1 percent (-1.9 percentage points from the same year-ago period). The tightening of monetary policy by the European Central Bank since mid-2022 has resulted in higher interest rates on EUR-denominated loans (Chart 1.22), significantly narrowing the cost differential between EUR- and leu-denominated loans. This led to a slowdown in foreign currency lending to non-financial corporations, with its growth rate lagging behind that of domestic currency loans.

Chart 1.21. Interest rates on loans in lei

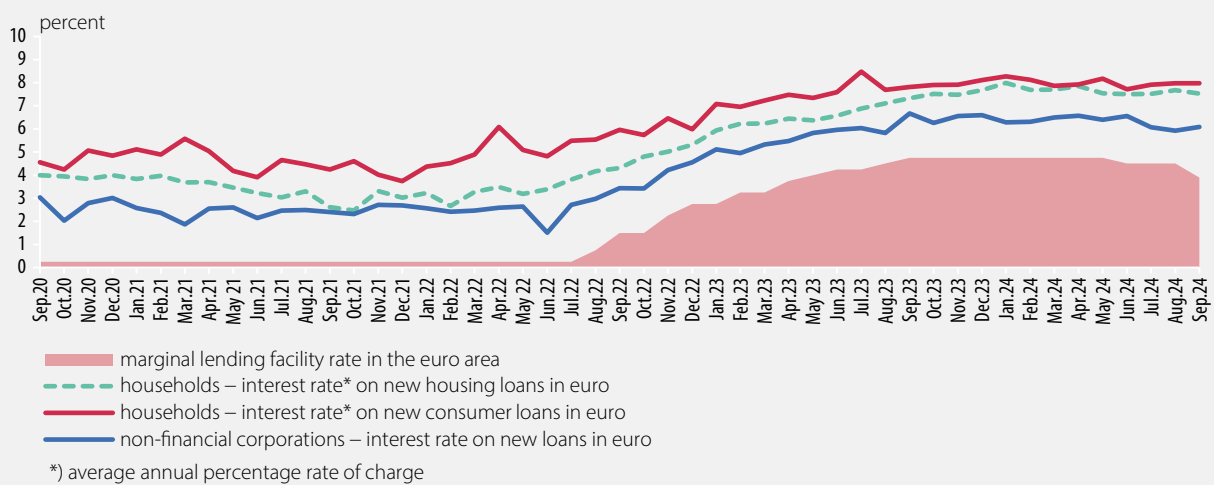


In 2024 Q3, credit institutions pointed to a tightening of credit standards⁶⁵ for loans and credit lines to non-financial corporations, and for loans to households for house and land purchase, alongside an easing of credit standards for consumer credit.

⁶⁵ NBR, *Bank Lending Survey*, 2024 Q3

For 2024 Q4, credit institutions anticipated that credit standards would continue to tighten for loans to non-financial corporations, ease for housing loans and remain unchanged for consumer credit to households. In 2024 Q3, banks reported an increase in demand for loans to non-financial corporations, together with a substantial rise in household demand for housing loans, while that for consumer credit declined due to seasonal factors. For 2024 Q4, banks envisaged an increase in demand for loans from non-financial corporations and a rebound in household demand for consumer credit, while demand for housing loans was expected to remain unchanged.

Chart 1.22. Interest rates on new loans in EUR



Source: NBR, ECB

Looking at non-financial corporations, the 12-month cumulative flow of new loans⁶⁶ followed a downward path as of 2024 Q2 (-9.7 percent in September 2024 compared to the same year-ago period, Chart 1.23), thus halting the upward trend it had embarked on in May 2021. Behind this stood both the sharp decline in new loans from large companies (-46 percent) and the milder contraction in foreign currency-denominated loans (-23.4 percent). Approximately a quarter of the 12-month flow of new loans was granted to trade companies, followed by firms in manufacturing (20 percent) and real estate (19 percent). The 12-month flow of new government-backed loans accounted for 7.6 percent of total credit flow in September 2024, compared to less than 2.5 percent in the pre-pandemic period. Specifically, lending to SMEs rose by 25.1 percent, supported *inter alia* by the continuation of the IMM INVEST PLUS government support scheme, renamed IMM PLUS in 2024, which provided companies in this category with financing under favourable conditions.

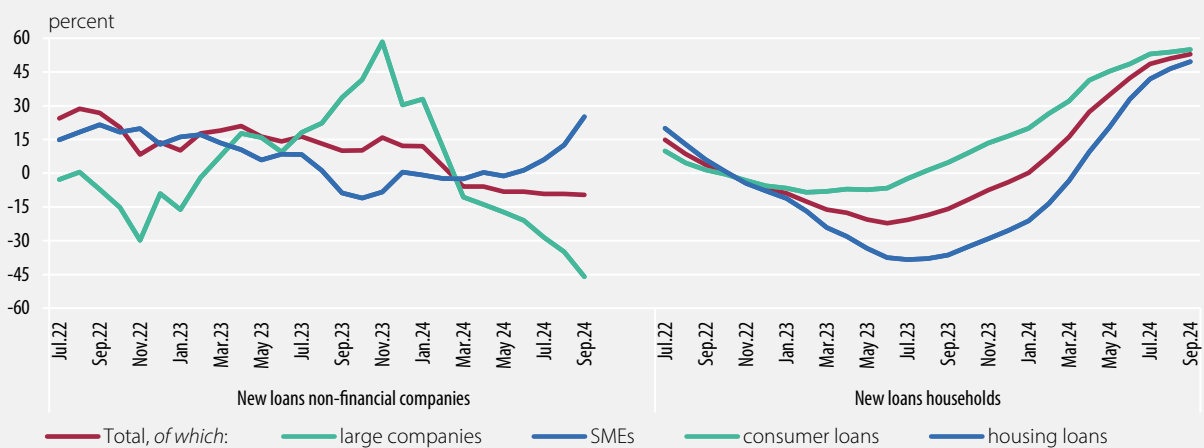
The pick-up in household consumer demand, driven by the ongoing fast-paced growth in households' real income and expectations regarding its future dynamics⁶⁷, is also reflected in the sustained increase in the 12-month flow of new consumer

⁶⁶ 12-month cumulative credit flows. Refinancing and restructuring are excluded from new loans.

⁶⁷ NBR, *Inflation Report*, November 2024

credit to 55 percent in September 2024. The growth rate of housing loans also accelerated, reaching 49.6 percent over the same period. The share of foreign currency-denominated loans to households in total loan stock has been on a downward path (10 percent in September 2024 versus 63 percent 10 years earlier), with the flow of such new loans being negligible (0.3 percent in September 2024 compared to about half of the new loans around 11 years prior).

Chart 1.23. Annual dynamics of 12-month flow of new bank loans by borrower



Note: Net of refinanced and restructured loans, 12-month cumulative flows

Source: NBR (CCR)

A broader focus on lending to non-financial corporations, especially those in business sectors that can be considered strategic, such as (i) sectors with high value added, (ii) knowledge-intensive services, (iii) food security, (iv) energy security, and (v) – amid the geopolitical tensions – the defence industry, will contribute to the sustainable increase in financial intermediation in Romania. Nevertheless, achieving a sustainable increase in financial intermediation also requires addressing demand-side issues in the non-financial corporations sector, such as the low level of capitalisation (for further details, see Section 2.1). Looking at non-financial corporations, there are 22,455 performing firms⁶⁸ (accounting for 2.7 percent of the total number of companies), of which 11,700 have a level of indebtedness below 1 (debt-to-equity ratio) and over time could have a borrowing potential of lei 213 billion. Of these, around 19,000 are companies with majority domestic private capital (86 percent), 2,600 are firms with majority foreign private capital (12 percent), and 291 are state-owned enterprises (1 percent).

⁶⁸ Performing companies are defined according to the methodology developed by Neagu et al. (2017), "Pregătiți pentru viitor? O nouă perspectivă asupra economiei României", NBR, Caiete de studii, No. 46/2017.

2. REAL SECTOR

The financial health of non-financial corporations deteriorated slightly, according to the data as at end-2023, amid multiple challenges in the economic environment. The increase in labour costs, unmatched by a corresponding rise in productivity, along with higher financing costs, has likely eroded firms' growth potential and financial position, which were already weakened, in many cases, by structural vulnerabilities such as low capitalisation. The financial health measure of companies in Romania (Z-score) deteriorated at the end of 2023 compared to a year earlier, yet it remains comfortably above the risk area. The net profit of the non-financial corporations sector went down 12 percent versus the previous year, amid operating expenses rising at a faster pace than revenues, but remained firmly in positive territory (the return on assets came in at 9.4 percent in 2023, compared to 10.7 percent at end-2022).

Low capitalisation is further the most significant vulnerability of non-financial corporations, with direct implications for payment discipline and access to finance. The number of undercapitalised firms rose by 9 percent in 2023 to 260.5 thousand, i.e. a significant share (31 percent) of total firms in the economy. Their recapitalisation needs amount to approximately lei 147 billion (equivalent to EUR 29.5 billion, up 5.8 percent versus 2022). Out of these firms, 97 percent, namely 253.8 thousand, are companies with negative equity.

Another significant structural vulnerability of non-financial corporations in Romania is the loose financial discipline, with consequences particularly for trade debt.

In relation to credit institutions, the quality of the loan portfolio has improved marginally, with the non-performing loan ratio standing at 3.8 percent in September 2024. Nevertheless, the breakdown by type of loan shows mixed developments. Credit risk increased for government-guaranteed loans, as well as for loans taken by mining firms. With regard to payment discipline, the annual growth rate of non-financial corporations' overdue payments to non-banks slowed down to 3.1 percent in 2023, marking an approximately threefold decrease compared to that recorded in 2022, with overdue payments to suppliers accounting for the largest share. The receivables collection period remains well above the threshold set by law, leading firms to face difficulties in meeting their own payment obligations to suppliers. The number of major payment incidents increased over the 12 months to September 2024, with the number of companies responsible for such incidents rising by 11 percent compared to the previous period, while the related amounts were 33 percent higher. The stock of companies undergoing insolvency proceedings remained at levels similar to those of previous periods, these firms generating only a small share of gross value added (GVA) or turnover in the non-financial corporate sector, yet acting as the main driver of loose payment discipline across the economy. Insolvent firms accounted for

approximately half of overdue payments to non-banks in 2023 and about a third of the stock of non-performing bank loans.

Households continued to strengthen their wealth and resilience to shocks, amid the sustained increase in financial assets and the decline in debt service-to-income ratio. Households' net wealth accounted for around 39 percent of national net wealth, while their financial assets made up approximately one third of total financial assets economy-wide. Against the backdrop of the borrower-based macroprudential measures implemented by the NBR, the debt service-to-gross disposable income ratio halved compared to the period after the 2007-2008 financial crisis, which translated into a higher resilience to shocks. In this context, amid multiple shocks over recent years, households' capacity to service debt has deteriorated slightly since the beginning of this year, with the non-performing loan ratio standing at 3.3 percent in September 2024, up from around 3.2 percent during the previous year.

At the European level, the commercial real estate market showed signs of recovery in 2024 Q2, yet the pace and strength of the rebound vary across countries. At national level, the volume of investment in 2024 H1 accounted for 85 percent of investment recorded in 2023 as a whole, more than double the amount posted in the same year-earlier period. Real estate sector developments are of great importance to the banking sector at both national and European levels, given the exposure of credit institutions to construction and real estate firms. Even though the quality of the CRE loan portfolio is further lower than that of the aggregate portfolio of loans to non-financial corporations, it continued to improve.

At the national level, a third of real estate transactions are financed via bank loans, down from approximately 50 percent in the pre-pandemic period. The quality of housing loans portfolio remained adequate, both at the aggregate level, with an NPL ratio of 1.6 percent in September 2024, and for the two types of loans (1.56 percent for "First Home"/"New Home" loans and 1.61 percent for standard housing loans).

2.1. Non-financial corporations

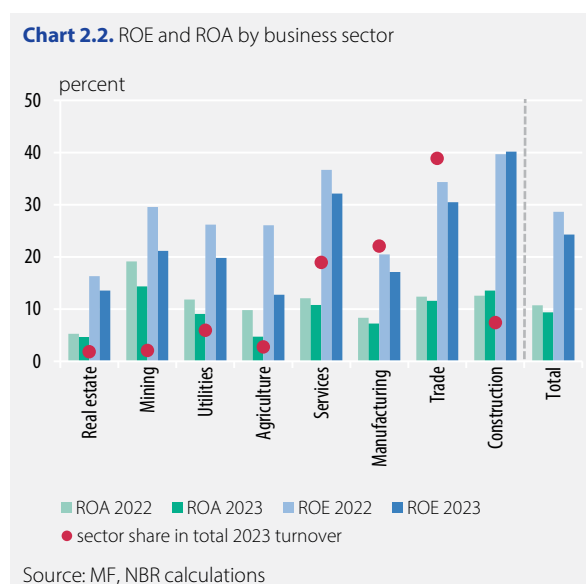
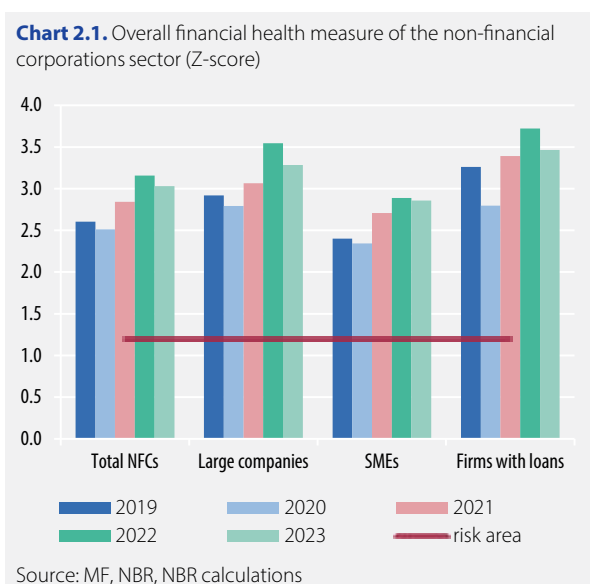
2.1.1. Non-financial corporations' economic and financial performance

The financial health of non-financial corporations deteriorated slightly, according to the data as at end-2023, amid multiple challenges in the economic environment. The year 2023 was marked by further increasing costs at both European and national level, likely to erode firms' growth potential and financial position, which were already affected, in many cases, by structural vulnerabilities such as low capitalisation. The increase in labour costs in 2023 was visible in most sectors, with average gross wage earnings rising by 15 percent; the most notable hikes were reported by information and communication, financial intermediation, energy production and supply, and mining⁶⁹.

⁶⁹ NIS Press Release No. 251 of 25 September 2024

Against this background, firms' financial health deteriorated compared to 2022, as shown by most financial indicators. However, the latter posted an improvement against 2021. The return on assets and the return on equity for the financial year 2023 came in at 9.4 percent and 24.3 percent respectively (down by 1.3 percentage points and 4.4 percentage points respectively versus 2022), while the operating margin stood at 9.3 percent, i.e. 1 percentage point lower than in 2022.

The financial health measure⁷⁰ of companies in Romania saw an adjustment at the end of 2023 compared to the previous year, but remains comfortably above the risk area (Chart 2.1). Looking by component, this unfavourable development is noticeable in the operating profit to total assets ratio and the turnover to total assets ratio (the efficient use of assets). The aggregate net profit reported by the non-financial corporations sector amounted to lei 175.3 billion, down 12 percent versus the previous year, amid a faster rise in operating expenses than in revenues and a decrease in the financial income component. The breakdown of spending shows the pick-up in staff costs (+19 percent) and in expenses on raw materials and consumables (+2.3 percent), while expenses on utilities, goods for resale and other expenses contracted in 2023, after the significant rise in the previous year. Most sectors reported higher personnel expenses, but construction firms recorded the most substantial increase (+30.6 percent), whereas mining companies posted, on the contrary, the lowest advance (+5 percent).



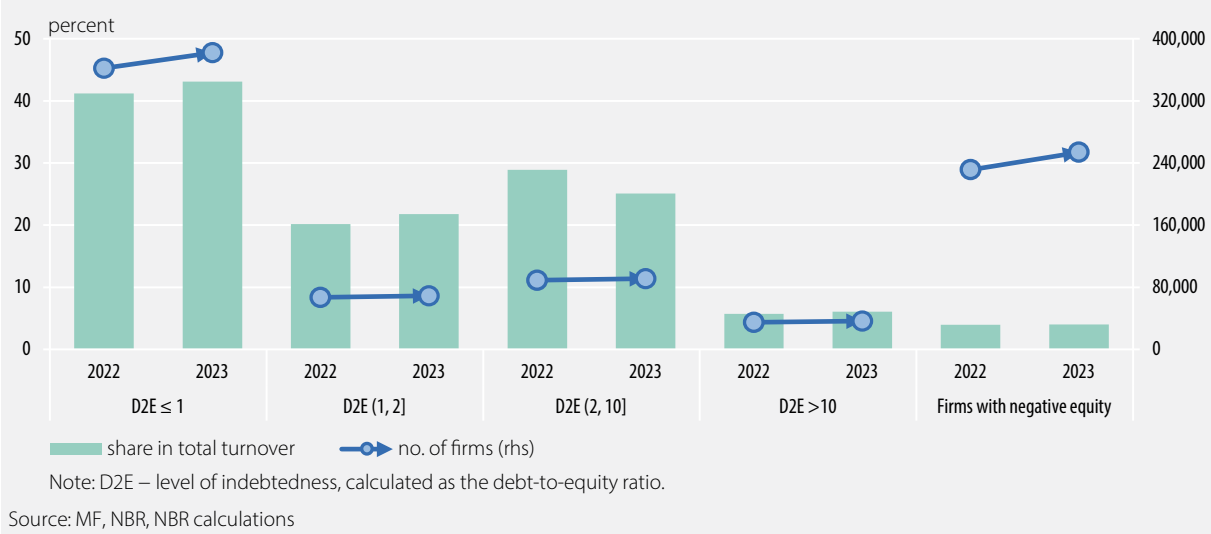
Looking at the financing of companies, the appetite for trade credit remained high in 2023 as well (31 percent of total debt and 17 percent of total owners' equity and liabilities, respectively), marginally up from the previous year. This situation, which is specific to economies with less developed financial systems, poses a systemic risk to the economy, given the interconnections between companies and the exposure

⁷⁰ The overall financial health measure of the non-financial corporations sector was determined based on the methodology developed by Edward Altman in *Predicting Financial Distress of Companies: Revisiting the Z-score and ZETA Models*, 2000. Considering that the non-financial corporations sector in Romania is overwhelmingly made up of unlisted firms, the indicator was calculated based on the method adapted for private firms.

to the risk of default by customers⁷¹. However, at aggregate level, there was no deterioration in the level of indebtedness (non-financial corporations' debt-to-total capital ratio).

By business sector, construction posted a notable increase in total expenditures, offset by an even higher pick-up in revenues. Although the profit margin decreased in every sector, firms in construction recorded the lowest decline (-0.3 percentage points). At the same time, this was the only category of firms to have improved the net profit in 2023 (+26 percent), as well as the ROE and ROA indicators (Chart 2.2).

Chart 2.3. Distribution of firms in terms of share in turnover and number by level of indebtedness



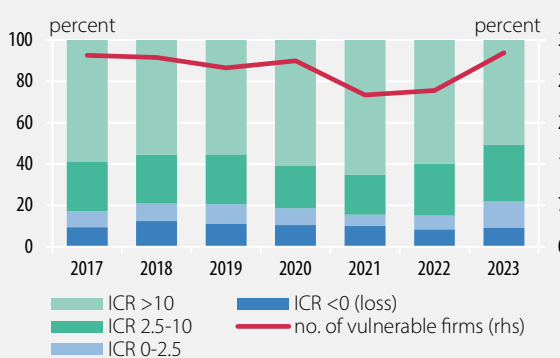
The level of indebtedness (calculated as the debt-to-equity ratio) narrowed in 2023, despite increased financing costs, reaching 158 percent (-9 percentage points compared to 2022). The breakdown shows that most firms are either in the lower-than-100 percent indebtedness bucket (46 percent of total firms) or in the negative equity bucket (31 percent of total), with their number being on the rise compared to the previous year (Chart 2.3). Indebted firms (debt-to-equity ratio above the 200 percent signalling threshold) diminished their economic importance in 2023. They account for 31 percent of the total aggregate turnover across the sector, i.e. 4 percentage points lower than in the previous year, holding 33 percent of total assets and 28 percent of employees. In terms of interconnectedness with the banking system, the bank exposure of indebted firms remains at 47 percent of total, with those with an indebtedness level above 1,000 percent taking a significant share of the non-performing loans reported by banks (4.5 percent NPL ratio versus 3 percent, on aggregate).

Non-financial corporations' capacity to meet their interest expense payments (interest coverage ratio – ICR, calculated as the EBIT-to-interest expenses ratio) eroded in 2023,

71 For further information on the role of trade credit in financing companies, see the Special feature of the June 2024 *Financial Stability Report*.

in the context of recent financing cost increases. The number of vulnerable firms⁷² rose by 35 percent from the previous year, accounting for almost 33 percent of total firms reporting interest expenses (Chart 2.4). Most vulnerable firms are in the services sector, followed by those in trade (39 percent and 24 percent respectively), yet, in terms of economic importance, manufacturing firms account for the largest share of turnover among vulnerable firms. At aggregate level, this is also reflected in the non-performing bank loan ratio, although an improvement was noted versus the previous year. The NPL ratio stood at 7.9 percent in December 2023 (-1 percentage point versus end-2022) for firms with a negative ICR and at 3 percent for firms with a positive ICR, yet below the 2.5 threshold (-2.8 percentage points from 2022).

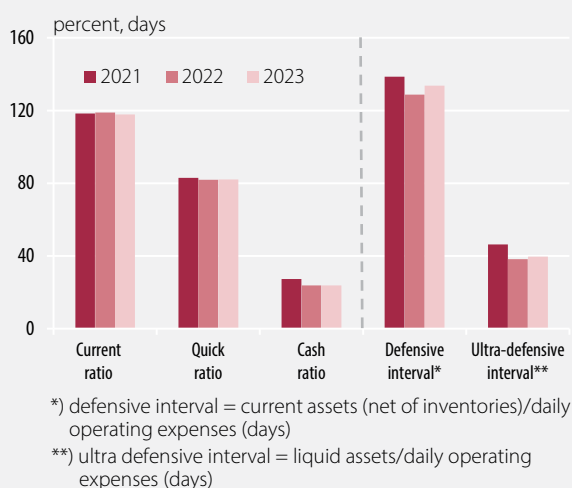
Chart 2.4. Distribution of firms in terms of share in turnover by interest coverage ratio (ICR) and the percentage of vulnerable firms in total firms with interest expenses



Note: ICR is calculated as the EBIT-to-interest expenses ratio. Firms vulnerable to interest rate hikes refer to those firms with an ICR < 2.5.

Source: MF, NBR, NBR calculations

Chart 2.5. Firms' main liquidity indicators



*) defensive interval = current assets (net of inventories)/daily operating expenses (days)

***) ultra defensive interval = liquid assets/daily operating expenses (days)

Source: MF, NBR calculations

Aggregate liquidity indicators followed a slightly downward path compared to 2022 and 2021. The current ratio contracted in 2023 by 1.1 percentage points versus the previous year, down to 117.7 percent (yet above the 100 percent signalling threshold), while the quick ratio, which excludes inventories, appreciated marginally to 82 percent. The coverage of daily operating expenses by current assets improved in 2023, but remains below end-2021 values. The defensive interval ratio (DIR), which measures how long a company can operate using only its current assets, was 133.7 days, whereas the ultra-defensive interval ratio, i.e. the stricter indicator which takes into account only firms' most liquid assets, was 39.6 days (Chart 2.5).

The non-financial corporations sector reports a significant share of atypical firms. Companies with zero employees are the most numerous among the atypical firms (37 percent), being however closely followed by companies with equity below the regulatory threshold⁷³ (31.3 percent). The bulk of the latter (97 percent) are firms with

⁷² Non-financial corporations vulnerable to interest rate hikes refer to firms with an EBIT-to-interest expenses ratio below 2.5, including loss-making firms.

⁷³ Pursuant to Article 153²⁴ of Law No 31/1990, as subsequently amended

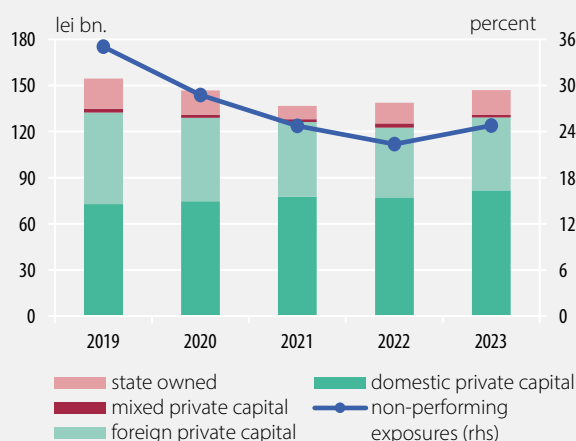
negative equity, i.e. 30.5 percent of total companies, Table 2. At the same time, about 21 percent of companies have zero turnover. In addition, 88 thousand companies display all three atypical features, accounting for 10.6 percent of total.

Table 2.1. Developments in the number of atypical companies

	Number of companies			
	2020	2021	2022	2023
Companies with equity below the regulatory threshold	248,728	236,361	238,329	260,548
Companies with negative equity	241,574	229,701	231,199	253,835
Companies with zero turnover	165,284	160,156	163,797	173,914
Companies with zero employees	310,294	319,152	302,859	310,262
Companies with three atypical features (negative equity, zero turnover, zero employees)	89,233	85,206	82,925	88,000
Total NFC sector	731,930	747,260	784,106	832,582
	Share in total (%)			
	2020	2021	2022	2023
Companies with equity below the regulatory threshold	34.0	31.6	30.4	31.3
Companies with negative equity	33.0	30.7	29.5	30.5
Companies with zero turnover	22.6	21.4	20.9	20.9
Companies with zero employees	42.4	42.7	38.6	37.3
Companies with three atypical features (negative equity, zero turnover, zero employees)	12.2	11.4	10.6	10.6

Source: MF, NBR calculations

Chart 2.6. Recapitalisation needs by firm's ownership and the percentage of non-performing exposures to undercapitalised companies in total non-performing corporate exposures



Source: MF, NTRO, NBR calculations

The weak capitalisation of firms is one of the structural vulnerabilities to financial stability in Romania, with direct implications for payment discipline and access to finance. The number of undercapitalised firms rose by 9 percent in 2023 to 260.5 thousand, i.e. a significant share (31 percent) of total firms in the economy. Their recapitalisation needs amount to approximately lei 147 billion (the equivalent to EUR 29.5 billion, +5.8 percent versus 2022) and they hire 11.7 percent of total non-financial corporations' employees. Their contribution to value added in the economy stands at 5.2 percent and their contribution to turnover is about 10 percent, while their share in total overdue payments to the general government budget comes in at 82 percent, according to the 2023 data.

An overwhelming share of these firms, i.e. 97 percent, have negative equity, namely 253.8 thousand firms, accounting for 30.5 percent of total active non-financial corporations at end-2023. The recapitalisation needs of firms with negative equity amount to lei 141.1 billion, i.e. EUR 28.4 billion, +5.5 percent versus 2022. The recapitalisation needs of firms with negative equity account for 96 percent of total recapitalisation needs. The low payment discipline is reflected not only in the overdue payments to the general government and suppliers, but also in bank loans, with undercapitalised firms taking a 25 percent share of non-performing exposures (Chart 2.6), in spite of total bank exposure to them standing at only

8.6 percent (+1.3 percentage points from the previous year). Firms with domestic private capital hold the largest share of firms with capital needs (56 percent), followed by firms with foreign private capital (32 percent, i.e. on a decline over the past five years).

Improving and maintaining a sound financial position can enable firms to better manage challenges and risks, but also to benefit from investment opportunities and have easy access to finance. In this context and taking into account the multiple challenges, innovation and research are of the essence for the non-financial corporations sector to increase its competitive advantages and contribute to the transition of the economy towards a high value-added growth model (for further details see Box 1). However, Romania continues to rank last among the EU economies in terms of research and development expenses (0.46 percent of GDP compared to the EU average of 2.27 percent of GDP).

Box 1. Developments in the IT sector in Romania

The IT sector is particularly relevant for Romania's economic development, as highlighted in the previous *Reports* as well, given that it is part of knowledge-intensive services (KIS), which may help the economy transition to a high value-added economy (Chart A).

Chart A. Breakdown of gross value added (GVA) and no. of employees (% in total non-financial corporations) by technology intensity



Source: MF, NTRO

In 2024 H1, the IT sector's share in GDP was 7.8 percent. This sector stagnated compared to the same period in 2023, as the pace of growth witnessed in recent years failed to be maintained. The evolution also reflected in the sector's turnover, which increased by 13 percent year on year in 2023 compared to 33 percent in 2022. The IT sector⁷⁴ hires 5 percent of employees of non-financial corporations and generates 4 percent of their turnover. The field has gone through a period

⁷⁴ Firms with the following NACE codes: 5821, 5829, 6201, 6202, 6203, 6209, 6300-6399

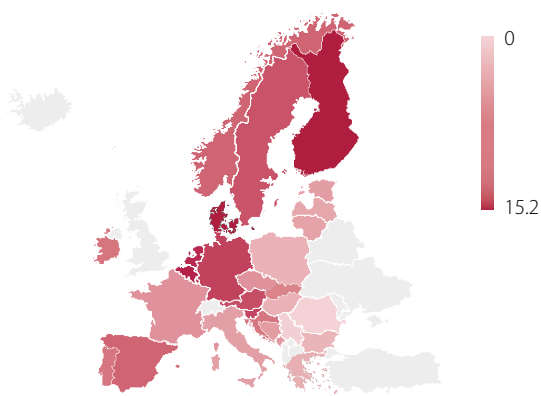
marked by both challenges and opportunities. Several factors influenced these developments in the IT market, from the removal of tax breaks in 2023, leading to the rise in labour costs, and the wave of layoffs at big tech companies worldwide, to the advance of artificial intelligence and the increasing importance of cybersecurity. Contrary to developments at international level, the number of employees in the IT sector rose by 1.5 percent in 2023, amid the hike in the number of firms (+12.6 percent). Operating expenses went up by approximately 14 percent in 2023 versus 2022, amid pay rises, which lowered the competitiveness of companies in Romania compared to other countries in the region.

Under the circumstances, in 2024 Q3, credit risk deteriorated visibly for IT companies, which recorded a build-up of NPLs, i.e. an NPL ratio of 13.2 percent in September 2024 (+7.6 percentage points from June). In terms of capitalisation, there are 7,187 companies with equity below the regulatory threshold operating in this sector of the economy, accounting for approximately 18 percent of the total IT sector (excluding telecommunications) – a relatively unchanged share over the past three years. These firms made up over 51 percent of the overdue payments to the general government budget reported by the IT sector, albeit declining by 13 percentage points compared to 2021.

The implications of artificial intelligence – risks and benefits

Adopting artificial intelligence (AI) has now become a race where the stake is maintaining competitive advantage.

Chart B. AI intensity at company level



Note: Share of firms using at least one AI technology in their activity in total non-financial corporations with more than 10 employees (2023).

Source: Eurostat

Companies focus on the benefits of AI in business operations, such as increasing efficiency, facilitating innovation, minimising operational mistakes or approaching complex issues.

However, all the implications that may arise from the use of AI must be taken into account, given the potential vulnerabilities induced by the unprecedented speed of adoption, the issues related to ethics and accountability, as well as the sustainability costs⁷⁵.

In Romania, the share of companies with more than 10 employees that used at least one AI technology in their activity is significantly below the EU average of 8 percent, i.e. 1.5 percent. This affects the degree of innovation, as AI has increasingly become a tool

for the automation and optimisation of processes in several business sectors of the economy (Chart B).

⁷⁵ <https://oecd.ai/en/wonk/understand-environmental-costs>

The OECD also calls attention to the implications of AI use for government operations, highlighting the risks and benefits in this complex environment of development and innovation⁷⁶. The challenges encountered in adopting AI by governments in their activities are in line with those relevant to the real sector – correctness of decisions, transparency and accountability, data security and confidentiality. These topics are included in the OECD AI Principles as well, which are the first intergovernmental standards on artificial intelligence, to which Romania also adhered.

2.1.2. Financial discipline of non-financial corporations

Lending to non-financial corporations in relation to banks

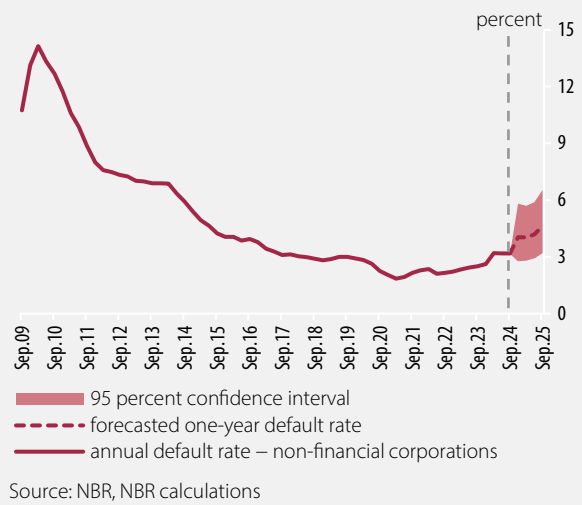
The annual growth rate of exposures to non-financial corporations held steady at 7.1 percent in September 2024. However, the 12-month cumulative flow of new credit to non-financial corporations has followed a downward path since end-2024 Q1, declining by up to 9.7 percent in September 2024, chiefly on account of large companies (-46 percent). The breakdown shows that inventory and equipment loans, which take 54 percent of the flow of new loans, were the main driver of these dynamics, indicating that firms have reduced their reliance on bank financing for investments. The exchange rate risk associated with non-financial corporations has significantly decreased in the recent period. Non-financial corporations' recourse to new foreign currency-denominated loans declined gradually in 2024, by up to 23.4 percent in September 2024, while the stock of foreign currency-denominated loans recorded annual dynamics of only 3 percent in the same month, compared to 18 percent in September 2023. However, the breakdown shows that the share of foreign currency-denominated credit remains significant, making up 45 percent of the stock of bank loans to non-financial corporations, similarly to the previous periods.

Since the beginning of 2024, the quality of the loans extended to non-financial corporations by credit institutions has improved slightly, with the non-performing loan (NPL) ratio⁷⁷ standing at 3.8 percent in September 2024 (-0.2 percentage points against September 2023). However, credit risk on government-guaranteed loans picked up, as the volume of non-performing loans expanded by 80 percent year on year in September 2024, while the stock of government-guaranteed loans saw only a marginal change (+2 percent). Specifically, the NPL ratio deteriorated markedly, climbing to 3.9 percent in September 2024 (up by 1.7 percentage points from a year earlier), and exceeding the average ratio for the non-financial corporations sector. Government-guaranteed loans remain a significant component of the corporate loan portfolio, amid the renewal of the "IMM Invest Plus" programme. In September 2024, the volume of government-guaranteed loans accounted for 19 percent of total bank exposures to non-financial corporations.

⁷⁶ Governing with Artificial Intelligence, OECD, June 2024

⁷⁷ According to the definition set by the European Banking Authority (EBA) in 2015.

Chart 2.7. Annual default rate and one year-forecast, the non-financial corporations sector



Source: NBR, NBR calculations

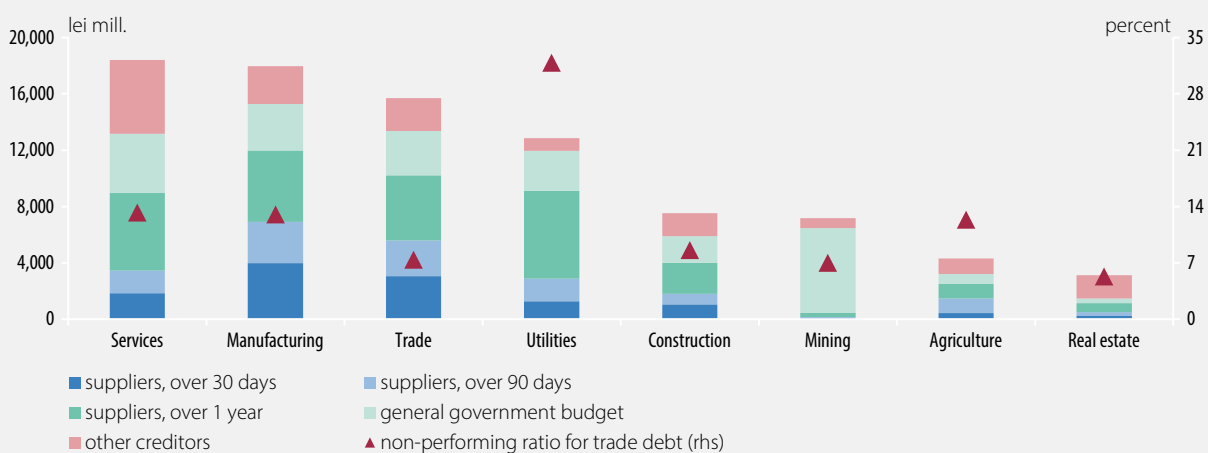
By sector, mining has seen non-performing loans build up since the beginning of 2024, with the NPL ratio coming in at 18 percent in September 2024 (+12 percentage points against September 2023), largely due to borrowers operating in the extraction of crude oil and natural gas. Moreover, this industry is also characterised by the low volume of sectoral exposures and the concentration of loans among a small number of borrowers. At the opposite end of the spectrum, the utilities sector further posted the lowest NPL ratio, i.e. 0.8 percent in September 2024 (+0.2 percentage points from a year earlier).

The persistence of multiple economic uncertainties, particularly those of a geopolitical nature, contributed to the deterioration of the default rate for non-financial corporations, which rose

to 3.2 percent in September 2024, marking an annual increase of 0.7 percentage points. The September 2024 estimates over the 12-month horizon show an increase in the credit risk on the aggregate, as reflected by the average probability of default for non-financial corporations picking up to approximately 4.6 percent, according to the baseline macroeconomic scenario (Chart 2.7).

Payment discipline in the economy

Chart 2.8. Overdue payments* by business sector



*) other than to banks or NBFIs, taking into account only companies that submitted financial statements for 2023

Source: MF, NBR calculations

Loose financial discipline remains a significant structural vulnerability of non-financial corporations in Romania. The annual growth rate of overdue payments to non-banks slowed down to 3.1 percent in 2023 (a threefold decrease compared to that recorded in 2022), with overdue payments to suppliers accounting for more than half of total arrears (56 percent), ahead of overdue payments to the general government budget (26 percent). The services and manufacturing sectors report the largest volume of

overdue payments, primarily trade credit overdue, of which that for more than one year takes the largest share (Chart 2.8).

Romania has the highest rate of use of trade credit among EU countries. In 2023, the trade debt of non-financial corporations rose by 7 percent from the year before to lei 421 billion, with a non-performing ratio (calculated as the share of overdue payments to suppliers in total trade debt) of 11 percent, i.e. three times higher than the non-performing ratio for bank credit. By sector, utilities firms report the weakest payment discipline, with a non-performing ratio for trade debt of 32 percent, followed by services and manufacturing (both standing at 13 percent).

The receivables collection period remains well above the maximum period of 60 days established by Law No. 72/2013⁷⁸ and above the European average (55 days), i.e. at 86 days, the same as in the previous periods. By company size, large companies collect their receivables significantly faster than small- and medium-sized enterprises (70 days versus 102 days in 2023). The receivables collection period for microenterprises is of 149 days. By sector, real estate and agricultural firms face the highest difficulties in collecting receivables, i.e. 232 days and 142 days respectively. Trade is the only sector where time periods are, on average, law compliant. By ownership, companies with foreign private capital have the shortest receivables collection period (77 days), ahead of companies with domestic private capital (90 days), while state-owned enterprises report the longest receivables collection period (149 days). This creates a chain effect, where firms struggling to cash invoices from customers face difficulties in meeting their own payment obligations to suppliers (Table 2.2).

Table 2.2. Receivables collection period by sector

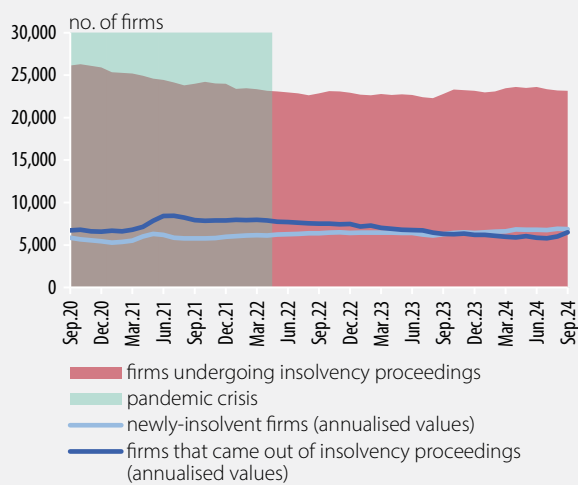
	no. of days	
	2022	2023
Agriculture	128	142
Mining	77	84
Manufacturing	72	74
Utilities	102	124
Construction	123	123
Trade	56	56
Services	118	115
Real estate	228	232

Source: MF, NBR calculations

The value of major payment incidents went up by approximately 33 percent in October 2023 – September 2024 compared to the previous 12-month period. Their volume amounted to lei 1.2 billion, being generated by 6,115 companies (an 11 percent increase). Small- and medium-sized enterprises were the source of most major payment incidents, with microenterprises accounting for 80 percent of total number and 44 percent of total value. Most companies operate in services (36 percent) and trade (27 percent), but in terms of the value of major payment

⁷⁸ Law No. 72/2013 on measures to combat late payment of obligations resulting from contracts concluded between professionals and between the latter and the contracting authorities.

Chart 2.9. Insolvency proceedings



Source: NTRO, MF, NBR, NBR calculations

incidents, construction firms make up the largest share (24 percent). The concentration level remains significant, with the top 100 companies by the value of major incidents accounting for 49 percent of their total amount.

In October 2023 – September 2024, the 12-month flow of newly-insolvent companies decreased marginally by 1 percent compared to the same year-earlier period (Chart 2.9). The stock of companies undergoing insolvency proceedings remained at levels similar to the previous periods, i.e. 23,172 firms⁷⁹. Insolvent firms generate only 1.9 percent of gross value added (GVA), hire 1.6 percent of employees in the economy, and, among these, nearly a third are firms with capitalisation shortfalls (31 percent in 2023). In 2023, firms undergoing insolvency

proceedings made up 49.5 percent of overdue payments to non-banks and 34 percent of overdue payments to suppliers. They play a small role in lending, accounting for only 2 percent of loans to non-financial corporations at the aggregate level, yet taking about a third of the stock of non-performing bank loans.

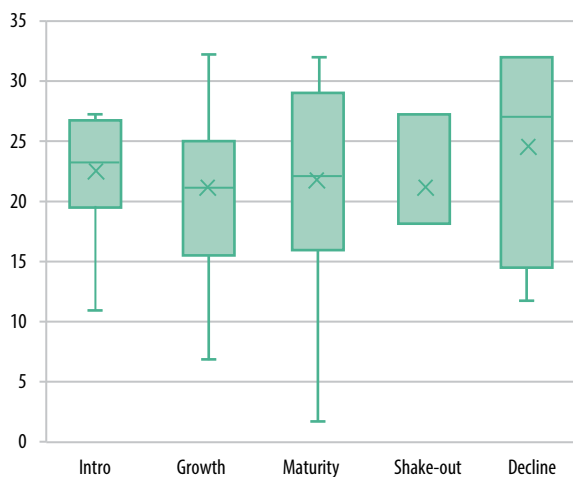
Box 2. Systemically important firms in Romania

The Romanian economy features a high concentration of systemically important firms. The NBR analysis aimed at identifying the top 100 systemically important firms (SIF) is based on a number of indicators related to economic importance, cross-border activity, connection with the banking system and business interconnectivity.

The polarisation of firms’ importance is reflected in the financial data reported by approximately 832 thousand firms for the end of 2023. The top 100 systemically important firms account for 23.3 percent of total non-financial corporations’ turnover and for 22.6 percent of total assets. SIFs employ altogether approximately 392,500 employees, i.e. 9.7 percent of total employees in the non-financial corporations sector.

The analysis on the life cycle of firms⁸⁰ places most SIFs in the maturity stage, with companies

Chart A. Distribution of SIF age (years) by life cycle stages



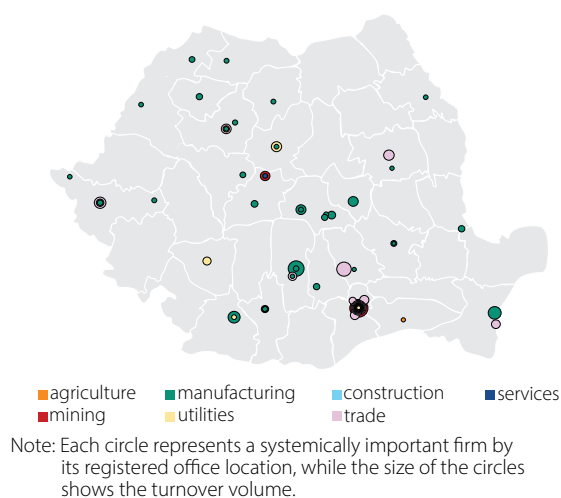
Source: MF, NBR calculations

⁷⁹ Only non-financial corporations that submitted their financial statements to the Ministry of Finance are included. The number of insolvent firms is 1.42 times higher, i.e. 32,801, if companies that have not submitted or are late to submit their financial statements are also taken into account.

⁸⁰ Dickinson V., “Cash flow patterns as a proxy for firm life cycle”, *Accounting Review*, Vol. 86, No. 6, 2011. The cash flow pattern life cycle methodology (operating cash flows, investing cash flows, financing cash flows) distinguishes several life cycle stages for firms: an introductory stage, followed by a growth stage, a maturity stage, a shake-out stage and a decline stage.

having an average age of 24 years, followed by the development stage, in contrast to total economy, where firms are mostly in the shake-out stage (49 percent), Chart A. An industrial and sectoral policy aligned with the EU priorities, including the recommendations of the Draghi Report⁸¹ could contribute to a better development of the areas considered strategic by the authorities. Looking at SIFs, 49 firms are active in sectors of strategic importance, the majority (32) operating in sectors that can contribute to changing the structure of the economy towards one with higher value added (high-tech and knowledge-intensive services).

Chart B. Regional distribution of SIFs



Source: MF, NBR calculations

The regional distribution of the top 100 systemically important firms indicates a high concentration in developed regions, with many counties including no SIFs. Most of the systemically important firms (51) are located in Bucharest-Ilfov and account for 52 percent of the total turnover of SIFs. The ranking by region continues downwards with the centre of the country (11 firms), the North-West region (11 firms) and South Muntenia (8 firms). The most important systemic firms operate especially in manufacturing and trade, followed by utilities, services and, to a small extent, agriculture, mining and construction (Chart B).

The economic performance reported by SIFs in 2023 deteriorated compared to the previous period: the net result posted a 32 percent worsening, with 19 loss-making SIFs, the return on equity (ROE) dropped by 5 percentage points to 16.1 percent in 2023, while the return on assets (ROA) went down to 7.1 percent in 2023 from 9.3 percent in 2022. This decline in profitability reflects, however, developments at aggregate level.

2.2. Households

2.2.1. Households' balance sheet and saving behaviour

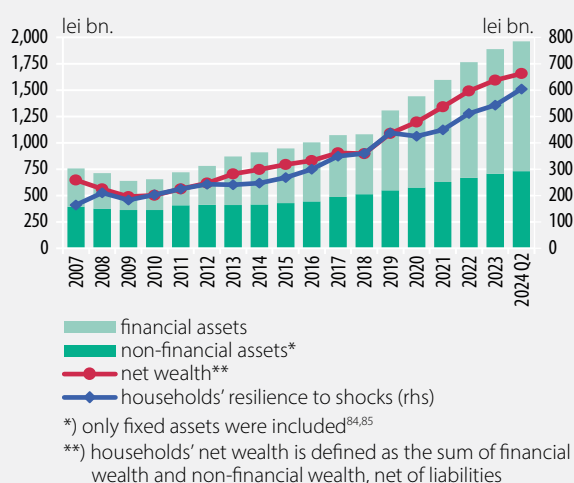
Households continued to strengthen their wealth and resilience⁸² to shocks (Chart 2.10), amid the sustained increase in financial assets (+7 percent in annual terms in June 2024) and the decline in debt service-to-income ratio. Households' net wealth accounted for around 39 percent of national net wealth⁸³, while their financial assets made up approximately 27 percent of total financial assets economy-wide (2024 Q2). However, at international level, households' financial assets were among the lowest, and in terms of their share in GDP, Romania ranked last (Chart 2.11).

⁸¹ https://commission.europa.eu/topics/strengthening-european-competitiveness/eu-competitiveness-looking-ahead_en

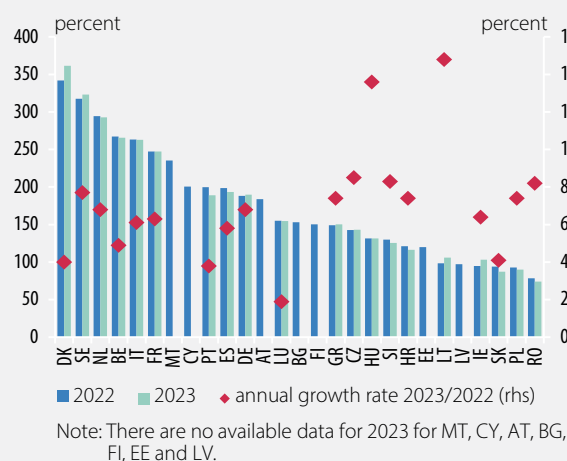
⁸² Resilience is defined as the value of households' disposable income remaining after covering debt service and subsistence expenses. According to the OECD, subsistence expenses are defined as 50 percent of the median income.

⁸³ Data for 2021, based on the latest available data on non-financial assets, published by NIS

Against the backdrop of the borrower-based macroprudential measures implemented by the NBR, the debt service-to-gross disposable income ratio halved compared to the period after the 2007-2008 financial crisis (4.1 percent in June 2024 versus 10.2 percent in June 2010), which translated into a higher resilience to shocks than in the period mentioned (Chart 2.10).

Chart 2.10. Households' wealth and resilience to shocks


Source: NBR, NIS, Eurostat, NBR calculations

Chart 2.11. Share of households' financial assets in GDP, international comparisons


Source: Eurostat

Risk-free instruments, i.e. deposits, further held the largest share of households' investment portfolio (30 percent of financial assets, up 12 percent in annual terms in June 2024). Although still accounting for a small fraction of the financial asset portfolio (2.1 percent in June 2024, from 1.7 percent in March 2023), debt securities garnered stronger interest from households (+29 percent in annual terms in June 2024). Holdings of such instruments were encouraged by the government security issues under the "Fidelis" and "Tezaur" programmes at attractive yields. Since the launch of these issuance programmes for households, debt instruments amounting to an equivalent of lei 89.1 billion were subscribed and, according to August 2024 data, they were financing about 4.4 percent of central government debt⁸⁶.

Private pension funds are another item that has gained importance in households' portfolio of financial assets (12 percent of total financial assets in June 2024, from 10 percent a year earlier), posting annual dynamics of 30 percent. Given the steep ageing of the population, as shown by the above-one ratio of pensioners to employees (1.14 in 2023), and amid the rising pressure on the public pension

⁸⁴ Fixed assets are produced non-financial assets used repeatedly or continuously in production processes for more than one year. These include dwellings, other buildings, machinery and equipment, etc.

⁸⁵ Since 2020, the National Institute of Statistics has published non-financial assets, according to the national accounts methodology, prepared in line with ESA 2010. The annual values were linearly interpolated to obtain quarterly data, whereas for 2022, 2023, and 2024 Q2 the values were extrapolated, considering an annual growth rate of 6 percent (i.e. the average growth rate for 2003-2021) and a quarterly growth rate of 1.5 percent.

⁸⁶ Public debt breakdown as at 31 August 2024

system⁸⁷, households have shown an increasing preference for private pensions as a saving alternative (the total number of participants in the voluntary pension system went up by 14 percent in June 2024 from the same year-ago period⁸⁸). However, in an international context, the participation rate to voluntary pension funds is still among the lowest, i.e. 5 percent of the working-age population compared to 65 percent in Poland, 64 percent in Czechia, 18.5 percent in Hungary, and 15.7 percent in Bulgaria⁸⁹.

Households maintain their net creditor position vis-à-vis the banking sector, the loan-to-deposit ratio decreasing significantly in the post-pandemic period, from 66 percent in September 2019 to approximately 52 percent in September 2024 (Chart 2.12). This was ascribable to the faster increase in deposits than bank loans (12 percent for deposits versus 8 percent for loans in annual terms in September 2024), including due to interest rates stabilising at higher levels. The volume of household deposits with banks amounted to lei 359.4 billion in September 2024, with 54 percent being time deposits, mostly denominated in lei (66 percent). The average value of a deposit⁹⁰ was lei 20.8 thousand (approximately EUR 4.2 thousand, September 2024), up from around lei 19.5 thousand (approximately EUR 3.9 thousand) a year earlier. In a European context, the average level of deposits held by individuals is among the lowest (ranking second to last, after Lithuania) and significantly below that of the European Economic Area of around EUR 19 thousand⁹¹.

Chart 2.12. Composition of households' deposits and the loan-to-deposit ratio

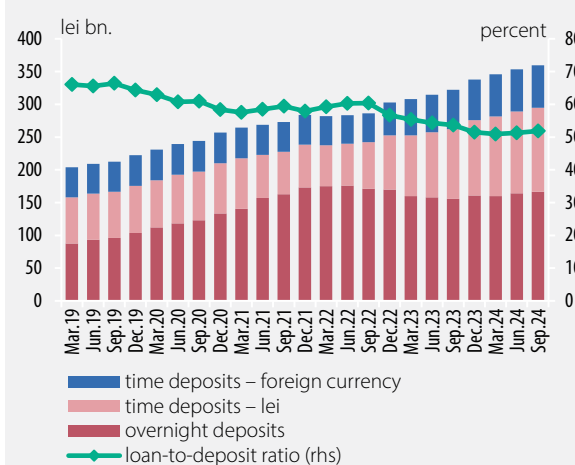
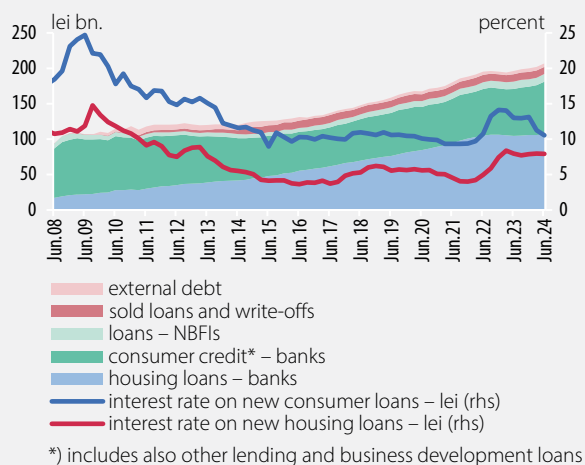


Chart 2.13. Composition of households' debt and interest rate on new loans⁹²



⁸⁷ According to the Fiscal Council, *Annual Report, 2023*, the social security budget deficit stood at 1.53 percent of GDP in 2023, and is projected to widen significantly over the following years, i.e. to 3.05 percent of GDP in 2025.

⁸⁸ *Raportul privind evoluția pensiilor private în primele șase luni ale anului 2024*

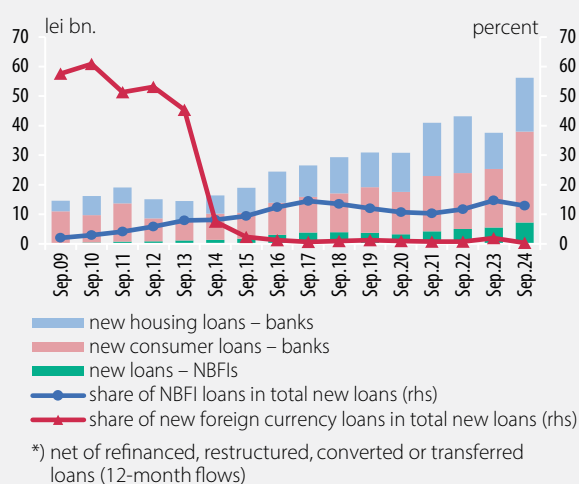
⁸⁹ Data for 2022. OECD Pension markets in focus 2023. Only personal pension funds.

⁹⁰ Calculated as the ratio of the value of eligible deposits to the number of depositors, in accordance with the Bank Deposit Guarantee Fund

⁹¹ EBA's Report on deposit coverage in response to European Commission's call for advice

⁹² External debt is estimated based on national financial accounts data and consists in the stock of financial liabilities – short- and long-term loans of households and non-profit institutions serving households (S14 and S15) – to the rest of the world (S2).

Households' total debt increased by 5.6 percent in annual terms in June 2024, i.e. to lei 207 billion (Chart 2.13). The breakdown by lender shows that most household debt came from banks (88 percent, i.e. lei 181.2 billion, up 6 percent year on year). By type of loan, 58 percent of bank loans to households were granted for real estate investments, while the rest were for consumption purposes (including business development and other loans). Conversely, only 5 percent of household loans were granted by NBFIs (lei 10.7 billion as at June 2024), relatively unchanged from the previous year. Households' exposure to currency risk is on the decline, the share of foreign currency-denominated loans dropping to 11 percent in June 2024 from 14 percent in June 2023, as new foreign currency-denominated loans accounted for less than 1 percent of the credit flow. Although household debt continued to rise, at international level, Romania ranks last in the European Union in terms of household credit-to-GDP ratio (12.4 percent versus the euro area average of 52.6 percent), significantly below the readings posted by regional peers (Hungary: 16.6 percent, Poland: 23.4 percent, Bulgaria: 24.4 percent, and Czechia: 30.7 percent, data as at 2024 Q1).

Chart 2.14. New loans*


Source: NBR

The volume of new loans⁹³ further advanced at a swift pace (50 percent in October 2023 – September 2024 compared to the previous corresponding period, Chart 2.14), for all types of household credit. The flow of bank loans posted annual dynamics of +53 percent in October 2023 – September 2024, while new loans granted by NBFIs went up 32 percent in the same reference period. The breakdown shows that new consumer loans gained further momentum (55 percent in October 2023 – September 2024), and that the dynamics of the 12-month flow of housing loans, after re-entering positive territory in April 2024, increased at a faster pace, i.e. to 50 percent in September 2024. Around 37 percent of new bank loans were taken for real estate investment. Given that credit terms and conditions have eased, the

borrowed funds supported household consumption, the average consumption expenditure per household going up by 13 percent in annual terms in 2024 Q2 (Box 3).

Box 3. Developments in household consumption and consumer credit

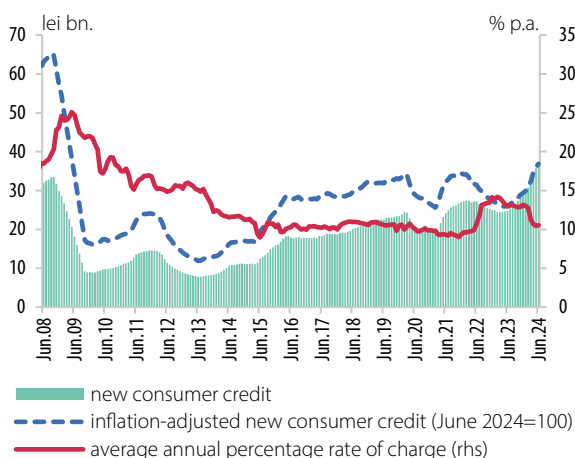
In 2024 Q2, households' actual individual consumption rose 14 percent from the same year-ago period, also underpinned by bank loans, with the 12-month flow of new consumer credit up by 49 percent in June 2024 (in real terms, the dynamics for July 2023 through June 2024 versus the previous 12-month period ran at

⁹³ No refinanced, restructured, converted or transferred loans

42 percent, Chart A). Refinancing accounts for a significant percentage of banks' consumer loans, i.e. about 21 percent in June 2024, a relatively steady share in recent years, with the volume of refinanced loans growing by 43 percent in the July 2023 – June 2024 period. New consumer credit is granted almost entirely, i.e. 99.8 percent, in domestic currency.

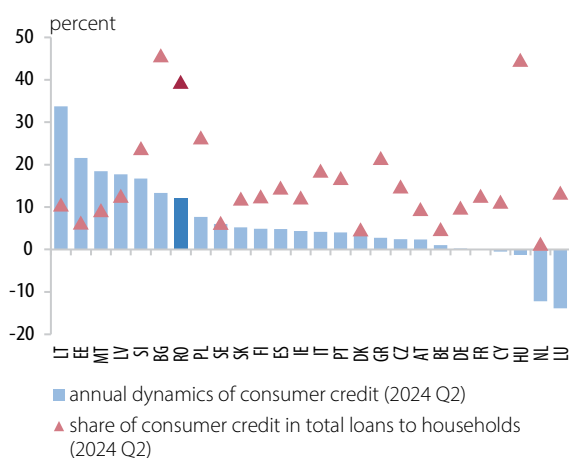
The main destination of consumer spending is the expenditure on food items and non-alcoholic beverages (35 percent of average consumer spending per household in 2024 Q2), its dynamics equalling 6 percent in 2024 Q2 versus 2023 Q2. Additional expense flows targeted purchases of non-food items, with strong dynamics for clothing and footwear (up 18 percent) or purchases of furniture, furnishings, household equipment and maintenance (up 23 percent).

Chart A. New consumer credit granted by banks (12-month moving sums) and average annual percentage rate of charge



Source: NBR

Chart B. Share of consumer credit in total loans to households and annual dynamics of consumer credit, international comparisons



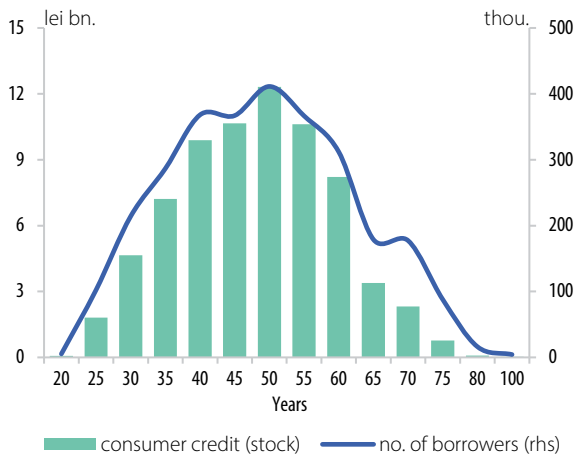
Source: ECB

In an international context, the performance of consumer credit is similar to that of some economies in the region (Bulgaria: 13 percent, Poland: 8 percent year on year in June 2024), while the Baltic States (Lithuania: 34 percent, Estonia: 22 percent and Latvia: 18 percent) count among the countries with the fastest-growing consumer loans (Chart B). By contrast, the Netherlands and Luxembourg posted a significant contraction in consumer credit (down 12 percent and 14 percent respectively).

In June 2024, about 2.9 million sole borrowers reported having taken consumer loans, credit cards and overdrafts included, with the average number of consumer loans held by one borrower running at 1.5. Debtors with multiple consumer loans hold more than half (56 percent) of total consumer credit granted by banks. Roughly 9 percent, or 262 thousand, of consumer loan borrowers also have outstanding housing loans, their consumer credit accounting for 10 percent of total consumer credit granted by banks.

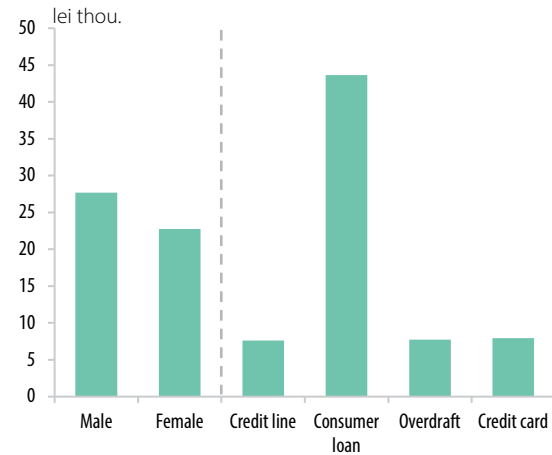
The mean and median age of debtors with consumer loans stands at 46 years (Chart C). For the consumer loan borrowers who also have outstanding housing loans, the median age is lower, at 40 years, whereas for debtors with multiple consumer loans the median age is 45 years.

Chart C. Breakdown of consumer credit by borrower's age (June 2024)



Source: NBR

Chart D. Average amount of consumer credit by borrower's gender and type of consumer credit (June 2024)



Source: NBR

Looking at the whole portfolio of consumer credit, the average outstanding amount is lei 16.3 thousand and the average amount granted equals lei 25.3 thousand. As for the type of consumer credit, the average amount granted is lei 43.6 thousand for consumer loans, lei 7.7 thousand for overdrafts and lei 8 thousand for credit cards (Chart D).

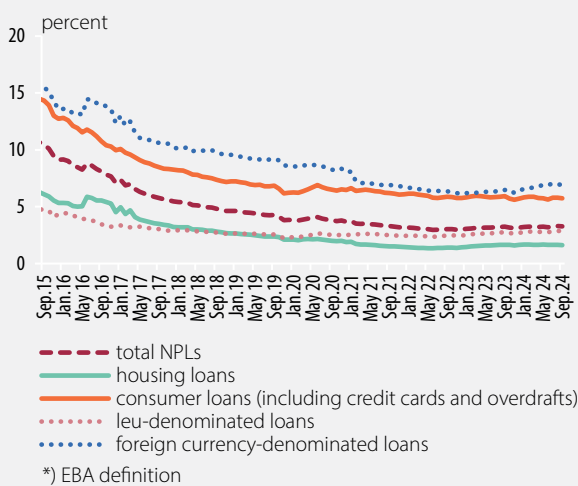
2.2.2. Households' capacity to service debt

Households' capacity to service debt has deteriorated slightly since the beginning of this year, with the non-performing loan ratio standing at 3.3 percent in September 2024, up from around 3.2 percent during the previous year (Chart 2.15). While having declined significantly from over 12 percent in 2015, the non-performing loan ratio for household loans in Romania exceeds the EU average (3.3 percent versus the EU average of 2.2 percent in 2024 Q2). Specifically, in a European context, the indicator records one of the highest values, after Greece (7.5 percent), Cyprus (6.2 percent), Hungary (4.2 percent), and Spain and Poland (3.7 percent, data as at 2024 Q2), Chart 2.16.

By type of loan, the portfolio of real estate investment loans continued to be high quality, with an NPL ratio of 1.6 percent (September 2024) compared to 5.7 percent in the case of consumer credit (September 2024, including credit cards and overdrafts), Chart 2.15. By currency, credit risk has been stronger for foreign currency-denominated loans (NPL ratio of 7 percent versus 2.9 percent in the case of leu-denominated loans), yet their share in the household loan portfolio has been on the decline (10 percent in September 2024 versus 26 percent five years

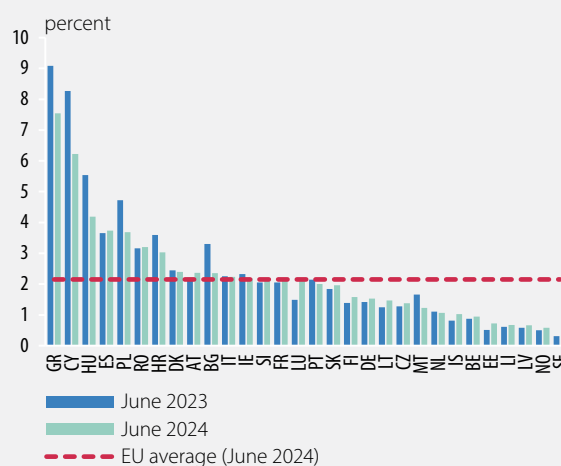
earlier and 63 percent ten years earlier). A significant share (63 percent) of foreign currency-denominated loans, which account for approximately 66 percent of total NPLs, was granted before the NBR implemented the measures to limit lending in foreign currencies in October 2011 and in 2012⁹⁴.

Chart 2.15. Banks' NPL ratio* by type of loan



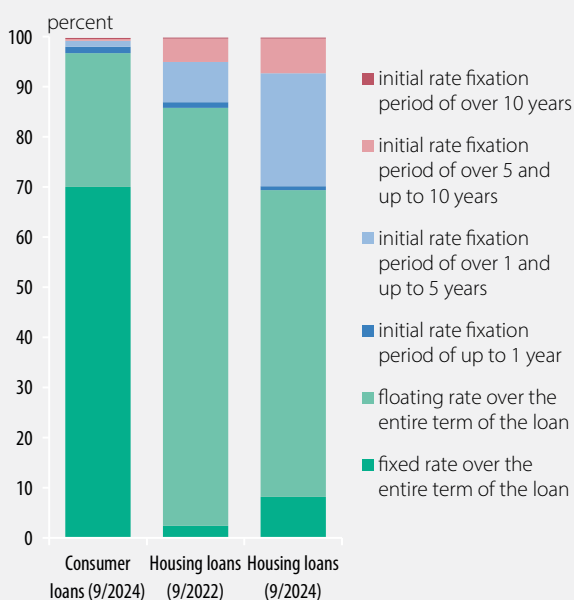
Source: NBR

Chart 2.16. Banks' NPL ratio for household loans, international comparisons



Source: NBR, EBA

Chart 2.17. Composition of household loans by the initial rate fixation period



Source: NBR

Interest rate risk for consumer credit is low, given that most of these loans (70 percent, September 2024) were granted with a fixed interest rate over the entire term of the loan (Chart 2.17). Conversely, in the case of housing loans, the largest proportion of outstanding loans were granted with a variable interest rate (61 percent, September 2024). However, the latter's share has been on a downward path (-22 percentage points versus September 2022), amid financing costs stabilising at higher levels over the past years (IRCC has stood around 6 percent since 2022 Q4).

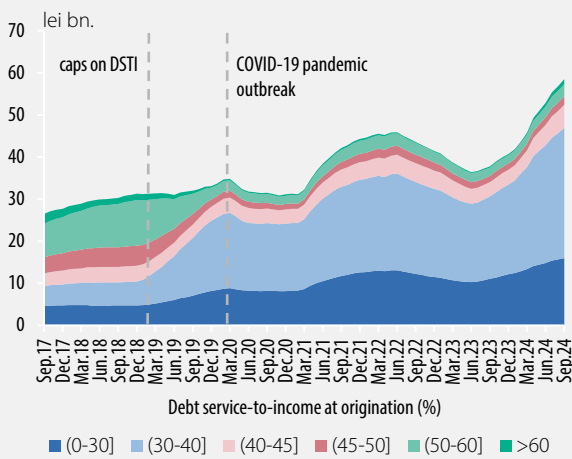
In the recent years marked by multiple shocks, from the COVID-19 pandemic to a series of other adverse events, the borrower-based macroprudential measures implemented by the NBR⁹⁵ have proven effective in enhancing the resilience of both debtors and credit institutions and in supporting a sustainable level of indebtedness. Thus, the median

⁹⁴ To incorporate the Recommendation of the European Systemic Risk Board on lending in foreign currencies (ESRB/2011/1), new requirements were introduced via NBR Regulation No. 17/2012 on certain lending conditions.

⁹⁵ The caps on the level of indebtedness (2019) and the loan-to-value ratio for real estate loans (2011 and 2022), differentiated by the currency of the loan

level of indebtedness at origination for the entire loan portfolio to households, as well as that for consumer credit, stood at 35 percent (September 2024), whereas that for housing loans stood at 36 percent, down 10 percentage points from the corresponding period before implementing the caps on the debt service-to-income at origination (DSTI-O). This was ascribable to the decrease in the share of the volume of new loans (12-month flows) granted with a DSTI greater than 40 percent, from 66 percent in August 2018 (prior to the cap implemented as of January 2019) to below 20 percent⁹⁶ currently (August 2024), Chart 2.18. Specifically, 27 percent of the flow of loans granted in October 2023 – September 2024 had a DSTI-O of up to 30 percent, while 53 percent of the volume of new loans granted in the same period had a DSTI-O between 30 percent and 40 percent.

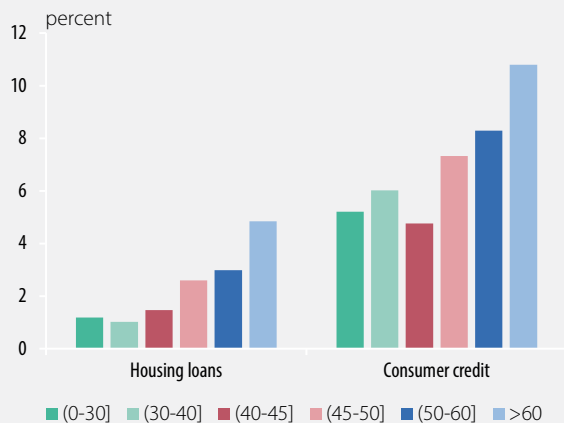
Chart 2.18. Composition of new loans by level of indebtedness at origination (12-month flows)



Source: NBR

Loans granted to borrowers with a higher DSTI-O carry an increased risk, their quality being lower than that of loans granted to less indebted borrowers (Chart 2.19). Thus, according to data as of September 2024, the NPL ratio for real estate investment loans taken by debtors with a DSTI-O of over 45 percent was 3.2 percent compared to 1.2 percent in the case of loans to debtors that had a DSTI-O below 45 percent. In addition, looking at housing loans that were classified as performing in September 2023 and within one year became non-performing (September 2024), approximately 36 percent in terms of volume were granted to borrowers with a DSTI-O above 45 percent (Chart 2.20).

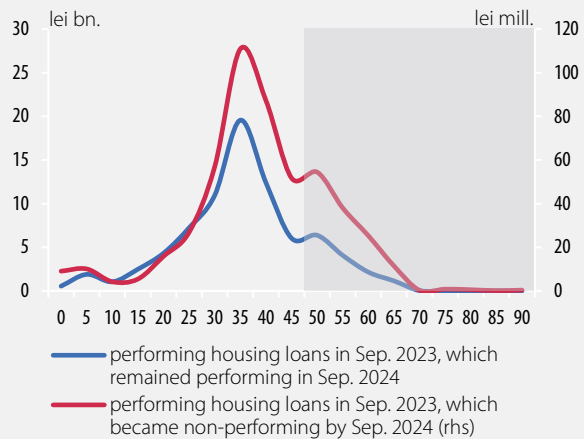
Chart 2.19. Banks' NPL ratio* for household loans by level of indebtedness at origination (September 2024)



*) EBA definition

Source: NBR

Chart 2.20. Distribution by level of indebtedness at origination for housing loans that became non-performing over the past 12 months



Source: NBR

⁹⁶ The 40 percent cap on the level of indebtedness for lei-denominated loans was exceeded due to the flexibility measures, i.e. the 5 percentage point increase in the cap on the level of indebtedness for housing loans for first-time buyers and the exception to the cap on the level of indebtedness for up to 15 percent of the arithmetic mean of quarterly volumes of consumer loans granted in each of the previous four quarters.

The ratio of the borrower's total debt at the loan origination date to the borrower's total annual disposable income at the loan origination date⁹⁷ (DTI-O – debt-to-income at origination) shows that half of housing loans have an associated DTI-O of up to 4. However, for around 16 percent of housing loans, the total level of debt is more than seven times higher than the borrower's annual disposable income. These loans have a median annual probability of default⁹⁸ more than three times higher than loans taken by debtors with a DTI-O below 3.

Since the latest *Report*, the annual default rate⁹⁹ fell marginally for both housing loans, to 0.23 percent in September 2024, and for consumer credit, to 3 percent. Estimates over the 12-month horizon show the default rate further increasing mildly for housing loans (+0.02 percent to 0.25 percent in September 2025, Chart 2.21) and more significantly for consumer credit (+0.6 percentage points to 3.5 percent in September 2025, Chart 2.22). Most debtors with no late repayments remained in this category after one year (95 percent, September 2024), and 89 percent of borrowers with loans more than 90 days past due remained in the non-performing category one year later (data as at September 2024). Looking at debtors with loans more than 90 days past due, their capacity to bring payments up to date within one year stayed modest (1 percent, September 2024).

Chart 2.21. Forecasted one-year default rate for housing loans

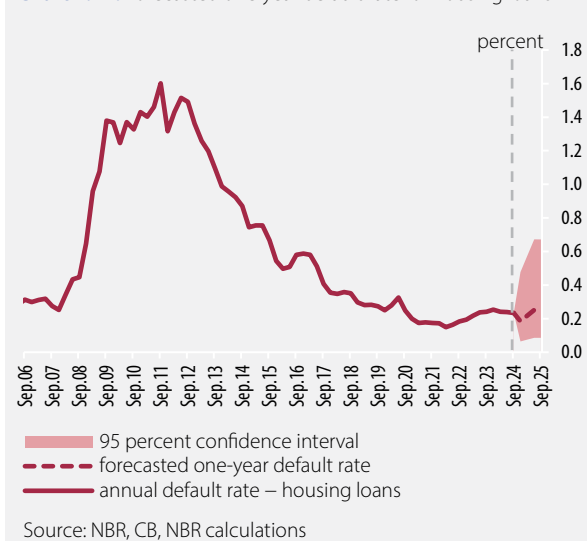
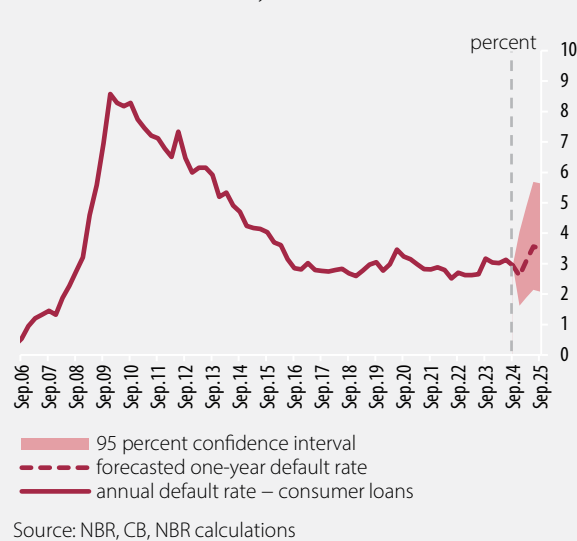


Chart 2.22. Forecasted one-year default rate for consumer loans



Borrowers that encounter difficulty in their relationship with a bank or NBF are supported by the Alternative Banking Dispute Resolution Centre (ABDRC), whose role is to facilitate dialogue between consumers and the banking sector and NBFs and to help the former to negotiate solutions (Box 4).

⁹⁷ Reporting on the indicator to the Central Credit Register started in May 2022. The loans for which the indicator was reported cover 35 percent of the value of housing loans in September 2024.

⁹⁸ The annual probability of default estimated for expected credit loss allowances according to IFRS 9 reported by banks

⁹⁹ According to the 90 days past due criterion

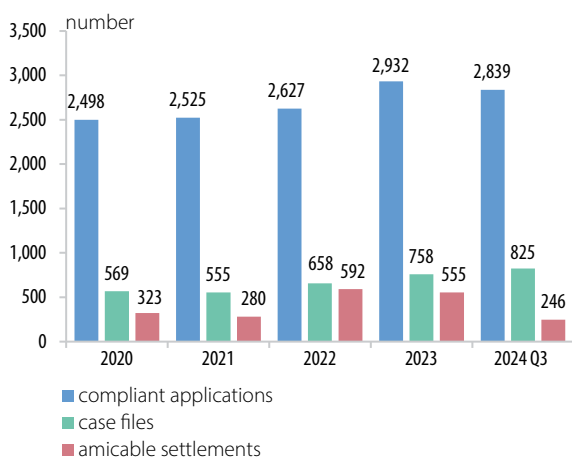
Box 4. The role of the Alternative Banking Dispute Resolution Centre (ABDRC) in supporting financial stability

The ABDRC encourages consumers to be open to building a trust-based relationship with banks. Banks understand and acknowledge the issues raised by consumers, particularly when these are justified and reasonable. The improvement in conciliation mechanisms, along with the willingness and flexibility of banks in dealing with consumer requests has led to a steady increase in the number of applications received, as well as in the number of cases resolved, with an input from both parties. The results of the ABDRC’s operational activities are detailed below.

The primary role of the ABDRC, i.e. to amicably settle disputes that may arise in contractual relations between consumers of financial services and banks or NBFIs, also retains an important financial education component. The ABDRC’s communication strategy for 2024 focused on financial education, with a dedicated section on the Centre’s website, with approximately 30 podcasts and live streams on financial education topics (over the past two years) featuring presidents and vice-presidents of commercial banks, conciliators, and representatives of the NBR, ARB, and ABDRC. The ABDRC is visible in both traditional and social media, through media partnerships, as well as through the media’s organic distribution of the video and written materials provided by the Centre as part of these financial information and education campaigns.

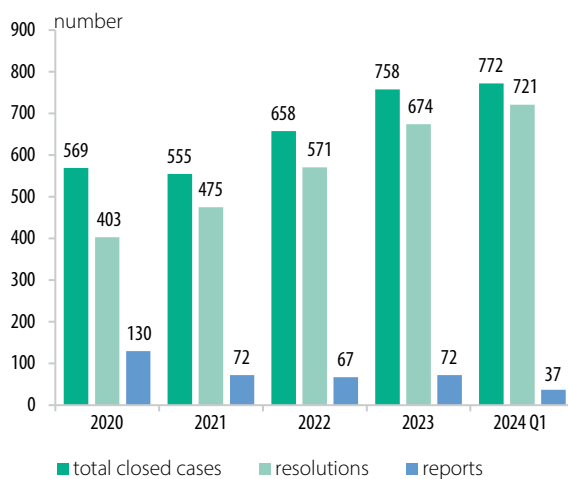
The fourth season of ABDRC Podcasts began in March 2024. The meetings will be held throughout the year and will be promoted in both traditional and social media, with each podcast benefiting from a dedicated two-week national promotion campaign. Banks’ top management representatives and legal professionals are invited to the debates moderated by journalists. The general theme of this season will be: “Consumers’ relationship with banks and personal finances in a volatile and unpredictable socio-economic context”.

Chart A. Annual dynamics: compliant applications, case files and amicable settlements



Source: ABDRC

Chart B. Closed cases: resolutions versus reports



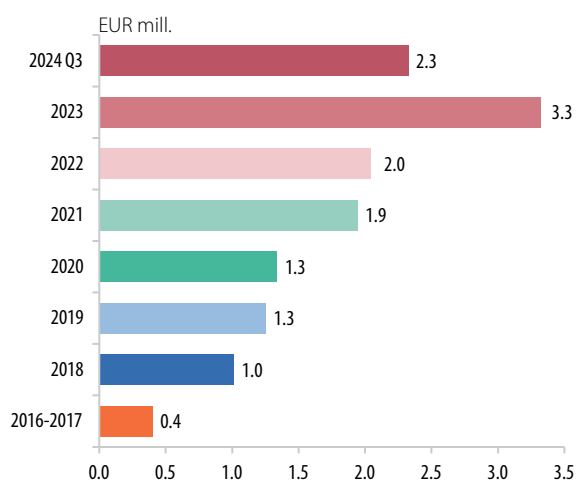
Source: ABDRC

In 2023, the ABDRC received 2,932 applications from consumers requesting banks and NBFIs to enter negotiations through the Centre. By the end of 2024 Q3, 2,839 requests for conciliation had already been submitted (2,084 related to banks and 755 to NBFIs), Chart A.

Specifically, the share of NBFi-related requests decreased slightly compared to the value recorded in the reference period of the previous year, from 36 percent of the total in 2023 Q3 to approximately 27 percent in 2024 Q3. Additionally, the share of bank-related requests increased over the two periods under comparison, from 62 percent of the total at the end of 2023 Q3 to 73 percent in 2024 Q3.

The total number of case files opened by the end of 2024 Q3 stood at 825. Only one negotiation file concerning NBFIs was formed, while all the others involved banks. By comparison, 575 case files were opened from January to September 2023, marking a 43 percent increase in 2024.

Chart C. Value of negotiated benefits



Source: ABDRC

Of the case files formed in 2024 and settled by the end of the reference period, 721 concluded with a resolution (the parties accepted the solution proposed by the conciliator), while another 53 case files were still being processed (Chart B). In 37 case files, one party rejected the solution proposed by the conciliator, resulting in a report being issued, while in 14 case files one of the parties withdrew from the procedure.

At end-2024 Q3, the negotiation procedures between consumers and banks, conducted via the ABDRC, resulted in benefits of approximately EUR 2.3 million. Specifically, the total amount of negotiated benefits over more than eight years of the Centre's activity is EUR 13.65 million, Chart C.

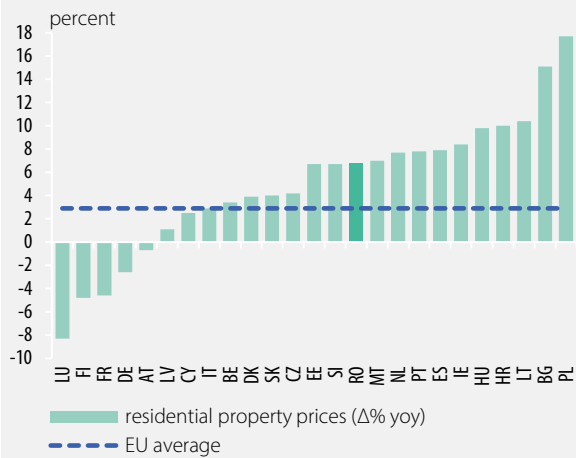
2.3. Real estate sector

2.3.1. Residential and commercial real estate markets

The residential real estate market

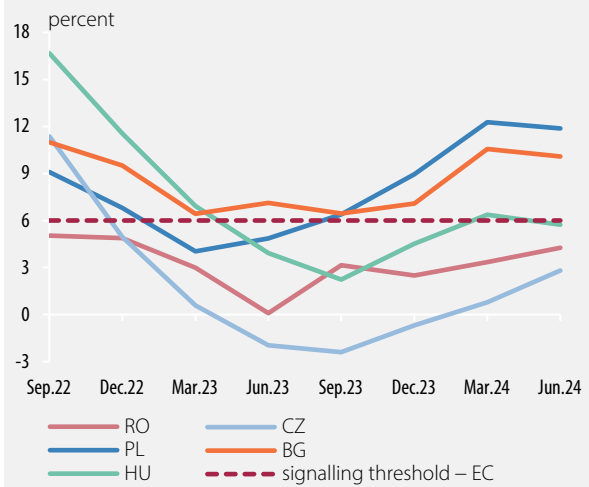
House prices further increased in Romania, at a pace above the EU and euro area averages, but below the growth rates recorded by its regional peers. In 2024 Q2, residential property prices rose by 6.8 percent in Romania versus 17.7 percent in Poland, 15.1 percent in Bulgaria or 9.8 percent in Hungary (Chart 2.23). In real terms, however, house prices in Romania posted slower annual dynamics, i.e. 4.3 percent (Chart 2.24). New house prices went up at a swifter pace (11.8 percent, 2024 Q2) than that of prices of existing dwellings (4.3 percent).

Chart 2.23. Dynamics of residential property prices in the European Union (2024 Q2)



Source: Eurostat, NBR calculations

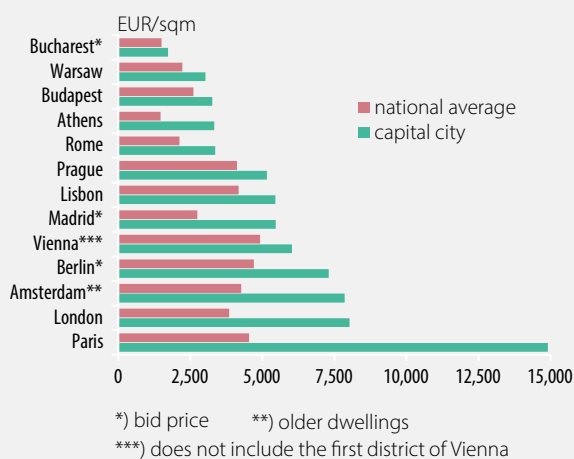
Chart 2.24. Real annual dynamics of house prices



Source: Eurostat, NBR calculations

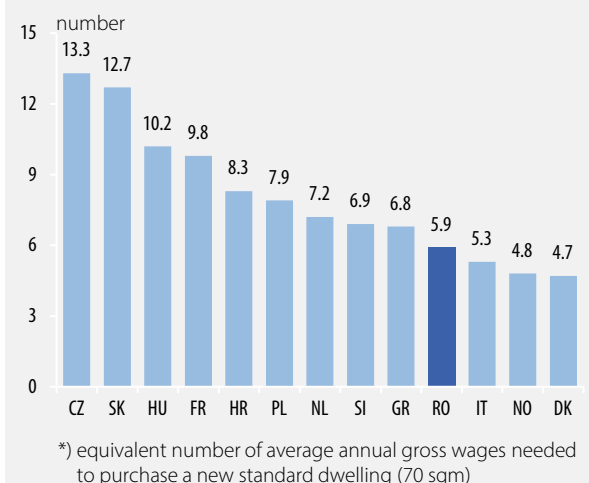
Nevertheless, housing units are more affordable in Bucharest than in other EU capital cities. Paris is the most expensive capital city, with a substantial gap to the country average (EUR 14,900/sqm against EUR 4,538/sqm). Bucharest stands at a considerable distance from the capital cities of the economies in the region in this respect, posting a low gap to the country average (Chart 2.25). Czechia is the least affordable country in terms of owning a house (Chart 2.26). The Czechs need to invest the equivalent of 13.3 average annual gross wages to purchase a new standard home. New buyers in Romania and Italy have to save the equivalent of five to six average annual gross wages to be able to buy a dwelling.

Chart 2.25. Average transaction price for new dwellings (2023), international comparisons



Source: Deloitte Property Index 2024

Chart 2.26. Housing affordability*

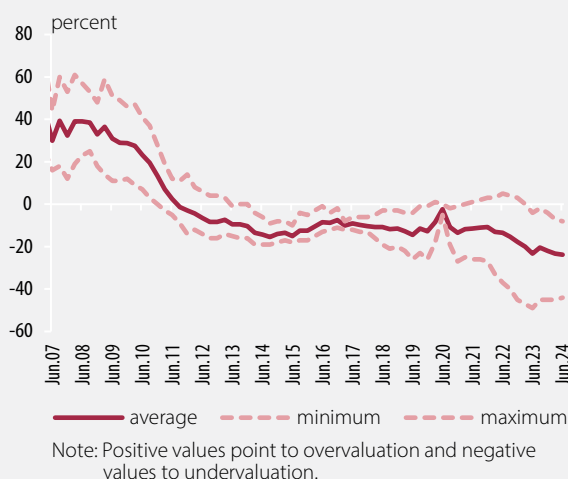


Source: Deloitte Property Index 2024

According to ECB estimates, residential property in Romania is undervalued, the degree of under/overvaluation having been negative since September 2011 (Chart 2.27). In an international context, house prices in Romania are mostly

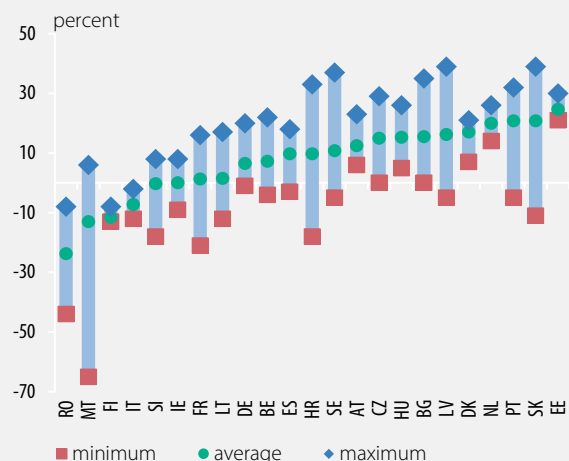
undervalued as compared with EU Member States (by -24 percent, on average, in 2024 Q2), followed by Malta (-13 percent), Finland (-12 percent) and Italy (-7 percent). At the opposite pole, the properties whose prices significantly exceed their fair value are in Estonia (+25 percent), Slovakia (+21 percent), Portugal (+21 percent) and the Netherlands (+20 percent, data as at 2024 Q2), Chart 2.28.

Chart 2.27. Degree of under/overvaluation¹⁰⁰ of house prices



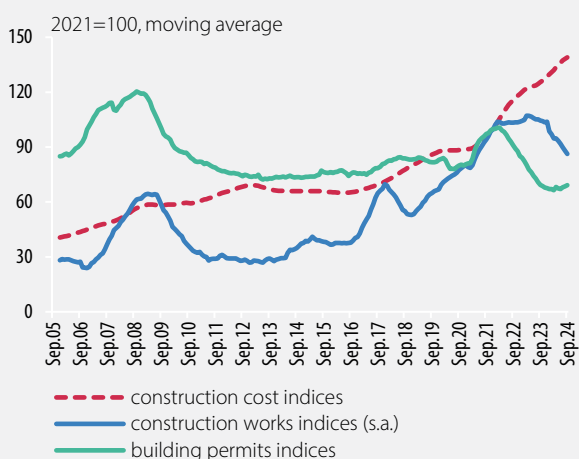
Source: ECB

Chart 2.28. Degree of under/overvaluation of house prices in EU Member States (2024 Q2)



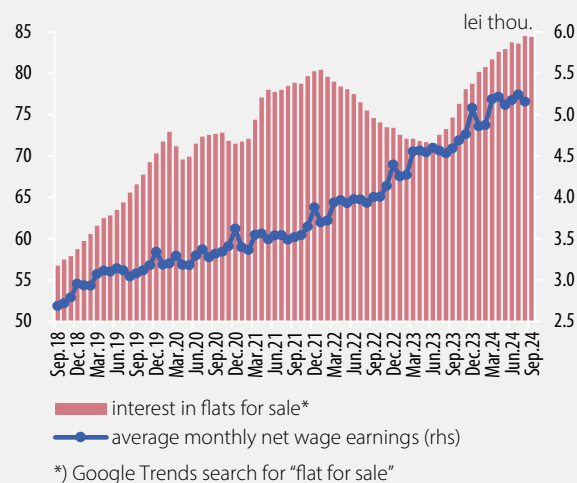
Source: ECB

Chart 2.29. Building permits, cost and volume of residential construction works



Source: NIS, NBR calculations

Chart 2.30. Interest in dwellings for sale and wage earnings



Source: NIS, Google Trends

The upward trend in residential real estate prices at national level is driven by the lower supply and the higher construction costs. The latter increased by approximately 11 percent in October 2023 – September 2024 as compared with the previous 12-month period, putting pressure on new house prices (Chart 2.29). The upward

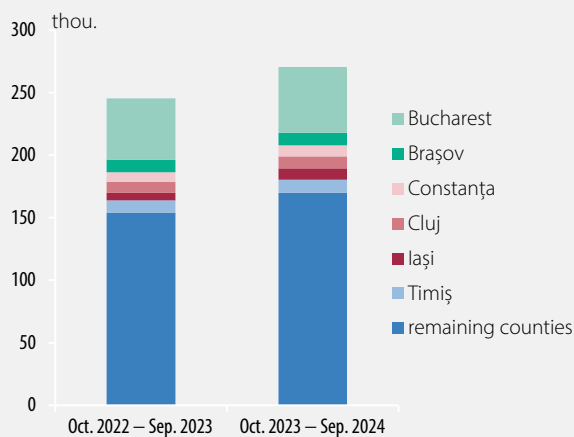
¹⁰⁰ Maximum and minimum estimates as a measure of the deviation of property value from the fair value. These estimates are derived based on four different factors: the price-to-rent ratio, the price-to-income ratio and two methods relying on econometric models, namely gross affordability and a measure of disequilibria in property valuation.

path of construction costs is expected to persist in the coming period, against the backdrop of the acute labour shortage and the fiscal measures implemented in 2024. Under the circumstances, the volume of construction works shrank by 16 percent over the same period (Chart 2.29).

The supply of properties available for sale has declined steadily (-8.8 percent in 2024 Q3 versus 2023 Q3 at national level and -18 percent in 2024 Q3 against 2023 Q3 in Bucharest¹⁰¹), particularly for new houses (-25 percent in Bucharest). This trend is expected to continue, given the still negative dynamics of the number of building permits issued recently (-0.1 percent in October 2023 – September 2024), even though there are signals of a trend reversal in the number of building permits for residential buildings (+3 percent January through September 2024 against the same year-earlier period), Chart 2.29.

Demand for residential property followed an upward path, on the back of economic growth and the higher wage income, the average monthly net wage earnings rising by 14 percent in September 2024 in annual terms (Chart 2.30). The interest in flats for sale was 14 percent stronger in October 2023 – September 2024 as compared to the previous corresponding period (Chart 2.30) and the number of real estate transactions grew by 10 percent over the same period. Around 59 percent of real estate transactions occurred in the six main regional centres (Chart 2.31), which posted significant positive dynamics (Iași – 53 percent, Constanța – 13 percent, Timiș – 11 percent, Bucharest – 8 percent, Cluj – 7 percent, Brașov – 1 percent).

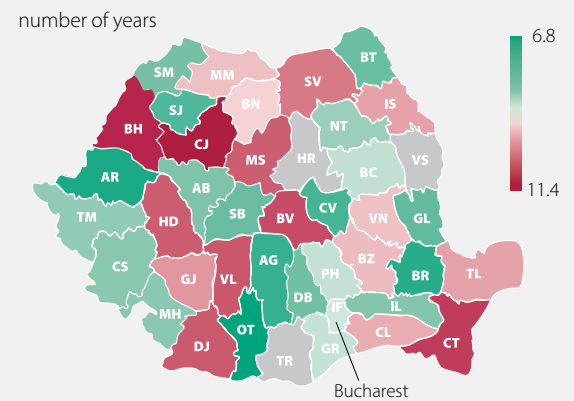
Chart 2.31. Number of real estate transactions*



*) number of dwellings

Source: ANCPPI

Chart 2.32. Adjusted price-to-income ratio¹⁰² by county (2024 Q1)



Note: No data are available for the grey areas; colours vary depending on the value of the indicator. For Călărași, Caraș-Severin and Covasna, the data are as at 2023 Q4.

Source: ANEVAR (National Association of Romanian Authorised Valuers), NIS, NBR calculations

Disparities in house prices and housing affordability remain important. At national level, the price-to-income ratio shows that the average period needed to purchase a standard home is approximately 8.8 years (March 2024), Chart 2.32. There are

¹⁰¹ Imobiliare.ro Report – Residential real estate market, 2024 Q3

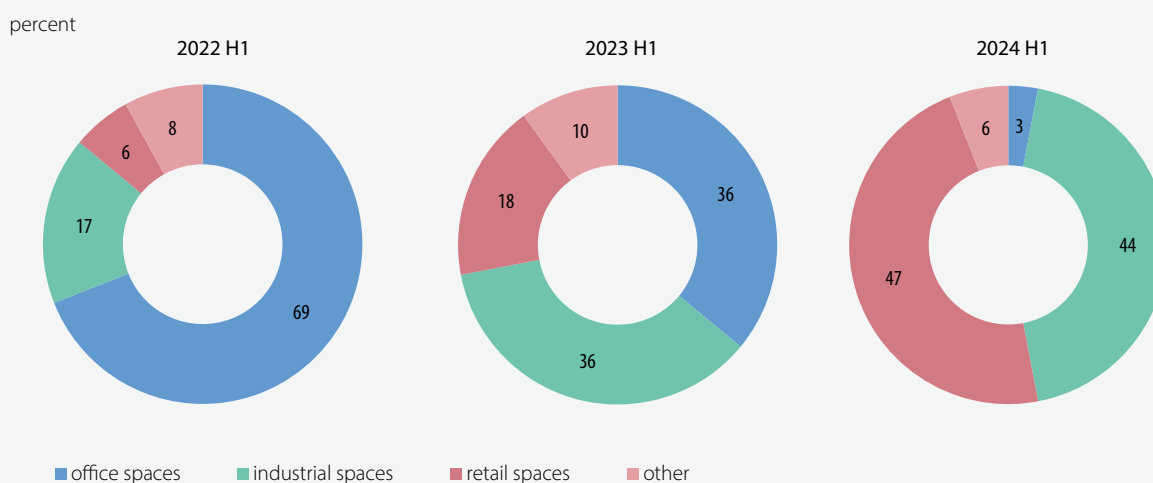
¹⁰² The price-to-income ratio shows the number of years needed to purchase a 2-room flat of 55 sqm. The income was adjusted by deducting subsistence expenses, estimated as a 50 percent share of the net minimum wage economy-wide.

significant heterogeneities across regions, the indicator ranging between 6.8 years in Bucharest (amid higher wage income) and over 11 years in the county of Cluj, amid lower net average wage income compared to house prices, which are the largest in Romania.

The commercial real estate market

At European level, the commercial real estate market showed signs of recovery in 2024 Q2, yet the pace and strength of the rebound vary across countries. In Central and Eastern Europe, investment volume increased by 55 percent in annual terms in 2024 Q2, Poland and Romania witnessing the largest annual changes¹⁰³.

Chart 2.33. Composition of investment by type of commercial real estate property



Source: Avison Young¹⁰⁴

At national level, the volume of investment in 2024 H1 accounted for 85 percent of investment recorded in 2023 as a whole, more than double the amount posted in the same year-earlier period, namely about EUR 420 million¹⁰⁵. Most investment was channelled into retail spaces (47 percent), ahead of industrial spaces (44 percent), whereas office spaces attracted only 3 percent of total investment¹⁰⁶ (Chart 2.33). The average transaction value was approximately EUR 24 million, up from EUR 13 million in the same year-ago period. In 2024 H1, the market witnessed a revival of foreign capital investment (around 74 percent of total investment volume), particularly from Czechia (40 percent) and Belgium (24 percent), Chart 2.34. Local investors mostly preferred retail spaces, especially big-box retail¹⁰⁷ and on-street retail units. At the end of September 2024, investment volume reached EUR 659 million¹⁰⁸,

¹⁰³ CBRE, *CEE Investment Figures Q2 2024*

¹⁰⁴ Avison Young, *Romanian real estate market overview H1 2024*

¹⁰⁵ EUR 422 million, according to CBRE (*Romania Real Estate Market Outlook H1 2024*); EUR 419 million, according to Avison Young (*Romanian real estate market overview H1 2024*); EUR 418 million, according to Cushman & Wakefield Echinox (*Marketbeat Romania Investment H1 2024*)

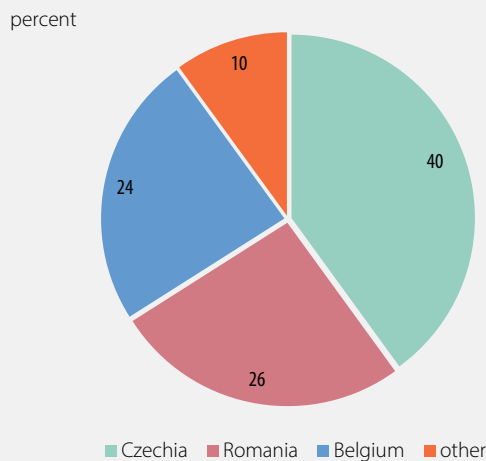
¹⁰⁶ Avison Young, *Romanian real estate market overview H1 2024*

¹⁰⁷ A big-box retailer is a retail store that occupies a large amount of physical space and offers a variety of products to its customers.

¹⁰⁸ CBRE, *Romania Real Estate Investment Volumes Q3 2024*

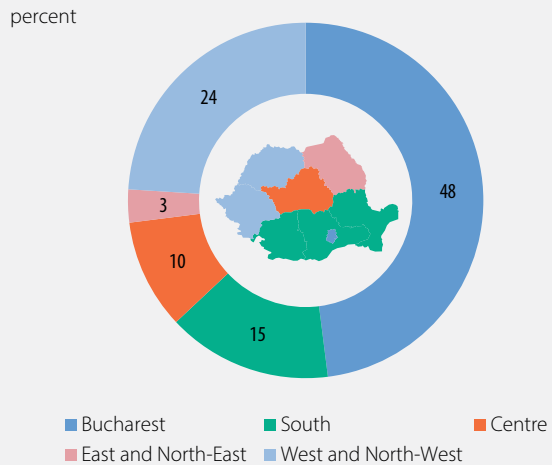
exceeding the total volume transacted in 2023 by 32 percent. Prospects remain positive for 2024, given the significant number of transactions at an advanced negotiation stage.

Chart 2.34. Composition of investment by source of capital (2024 H1)



Source: Avison Young

Chart 2.35. Modern industrial stock by region (2024 H1)



Source: CBRE

Investors in the commercial real estate market in Romania have been increasingly shifting their focus from office spaces to industrial and retail spaces owing to the latter’s resilience to adverse factors such as economic instability or geopolitical tensions. Romania’s attractiveness with respect to industrial and logistic spaces is expected to increase further once with its joining the Schengen area also in terms of land borders. The territorial distribution of the stock of modern industrial buildings is illustrative of their concentration in Bucharest (48 percent of the leasable area, Chart 2.35), being closely linked to the already developed infrastructure, whereas future industrial building deliveries depend on the infrastructure works under way.

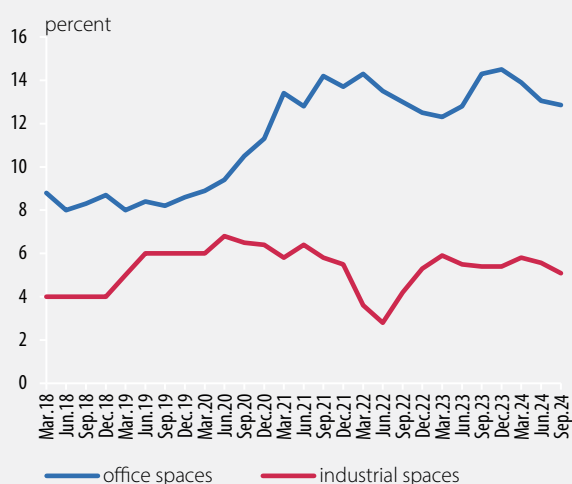
Prime yields¹⁰⁹ were stable across all market segments, with slight increases for industrial and retail spaces. Under the circumstances, Romania is still an attractive market for commercial real estate investors, as the spread between local prime yields and those in other CEE countries is relatively high for all segments (generally between 100 and 200 basis points)¹¹⁰.

In 2024 H1, firms continued to shift from remote work to in-office working, the demand for prime office premises offering accessibility and modern amenities remaining robust. According to a survey conducted by Colliers¹¹¹, office workers spend, on average, 2.9 days on site, 0.5 days on the field and 1.6 days working remotely, 0.5 days less than they would prefer. Under the circumstances, vacancy rates for office spaces in Bucharest fell from 14.5 percent at end-2023 to 12.9 percent in September 2024 (Chart 2.36).

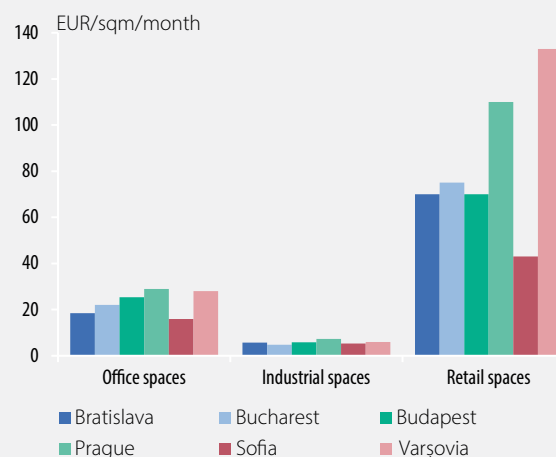
¹⁰⁹ Notional property of the highest quality and specification in the best location in a market

¹¹⁰ Cushman & Wakefield Echinex, Marketbeat Romania Investment H1 2024

¹¹¹ Colliers, Return to the office survey, October 2024

Chart 2.36. Office and industrial vacancy rates in Bucharest

Source: iO Partners

Chart 2.37. Prime rents in the capital cities of Central and Eastern European countries (2024 H1)

Source: Colliers

Commercial property rents for prime sites remained virtually unchanged January through June 2024, being expected to increase for office spaces and to stand still for industrial and retail spaces¹¹². As far as office spaces are concerned, the status quo in supply (no new office developments were delivered in 2024 Q2 any longer) will lead to a gradual decline in vacancy rates, supporting an additional hike in rents, particularly for prime office premises. As regards the monthly rent per square metre for prime locations in the capital cities in the region, Romania posts the lowest level for industrial spaces, whereas for the other market segments it is below average (Chart 2.37).

On the supply side, the volume of non-residential construction works decreased marginally in October 2023 – September 2024, also on the back of construction costs, which rose, on average, by 10 percent over the same reference period. Non-residential construction activity shows optimistic prospects: the number of building permits issued grew (by 4 percent in October 2023 – September 2024) and the useful floor area stipulated in them increased by 11 percent in the same period.

2.3.2. Risks generated by the residential real estate sector and real estate lending to households

The banking sector's exposure to the residential real estate market¹¹³ amounted to lei 114.5 billion (Chart 2.38) after a 1.6 percent rise in annual terms in September 2024. This occurred amid the 11 percent increase in standard housing loans¹¹⁴, which offset the decline in "First Home"/"New Home" loans (-15 percent in September 2024 versus September 2023) and in mortgage-backed consumer loans (-16 percent). Real estate investment loans accounted for a significant share

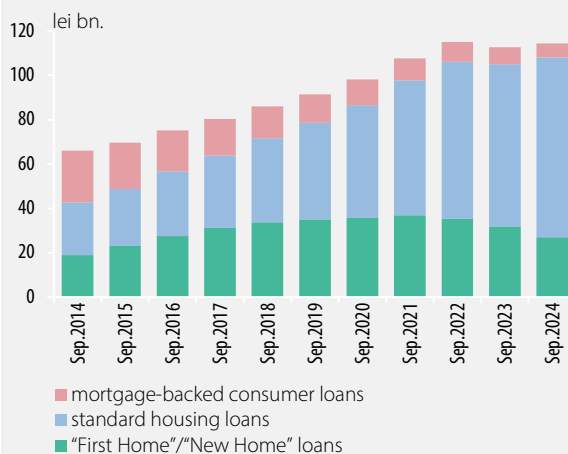
¹¹² Colliers, The CEE Investment Scene: H1 2024

¹¹³ Housing loans and mortgage-backed consumer loans are taken into consideration.

¹¹⁴ Other than "First Home"/"New Home" loans

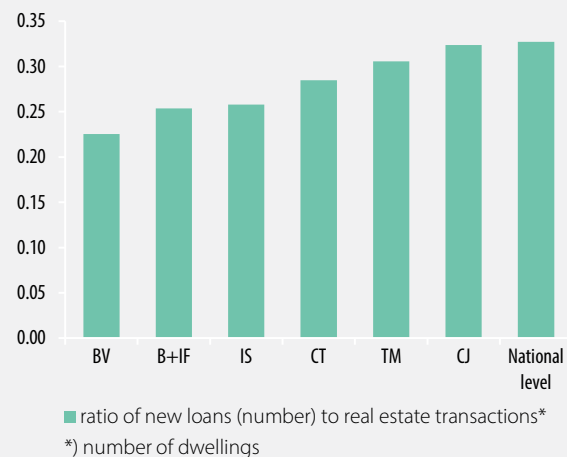
of the household loan portfolio, i.e. 58 percent (September 2024), slightly on the wane against the same year-ago period (from 61 percent), on the back of the advance in consumer loans.

Chart 2.38. Banking sector's exposure to the residential real estate market



Source: NBR, CB, National Credit Guarantee Fund for SMEs

Chart 2.39. Bank loan financing ratio for real estate transactions¹¹⁵ in the main regional centres (September 2024)



Source: ANCPI, NBR, NBR calculations

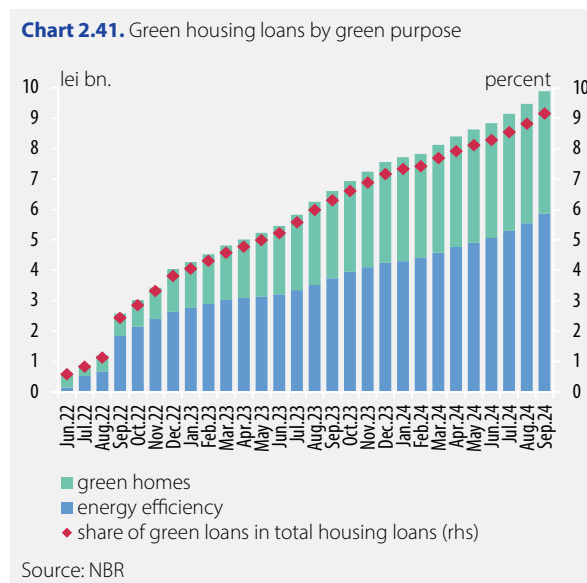
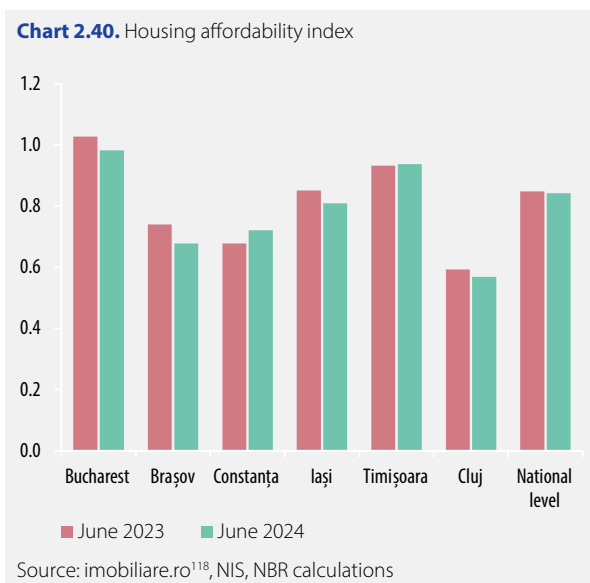
The volume of loans granted under the “First Home”/“New Home” government programme fell sharply to lei 27.1 billion in September 2024 from a high of lei 36.9 billion in August 2021. These loans held 25 percent of total housing loans, down from 45 percent five years ago (September 2019). Over the past years, the volume of new “First Home”/“New Home” loans has declined significantly, in October 2023 – September 2024 their value being 11 times lower than that recorded in October 2018 – September 2019 (lei 297.8 million versus lei 3.2 billion). This downward trend is expected to continue, amid the decrease in the guarantee ceiling, as well as amid the advance, diversification and customisation of supply of bank products depending on customer needs.

The quality of housing loans portfolio remained adequate, both at aggregate level, with an NPL ratio of 1.6 percent in September 2024, and for the two types of loans (1.56 percent for “First Home”/“New Home” loans and 1.61 percent for standard housing loans).

At national level, a third of real estate transactions are financed via bank loans (September 2024, Chart 2.39), down from approximately 50 percent in the pre-pandemic period. In the main regional centres, the ratio of new housing loans to real estate transactions is below the national average, but there are also counties where financing of real estate transactions is mostly carried out via bank loans (for instance, the counties of Ialomița – 91 percent, Argeș – 81 percent or Buzău – 75 percent).

¹¹⁵ Bank loan financing ratio for real estate transactions is calculated as a ratio of the number of new loans granted in a 12-month period to the number of real estate transactions over the same period.

Access to housing loans deteriorated marginally in mid-2024 versus the same year-earlier period in most regional centres (except for Constanța, Chart 2.40), amid the faster-paced increase in house prices than in income and the somewhat unchanged financing costs. The housing affordability index¹¹⁶ indicates more affordable housing in Bucharest and Timișoara, where the average net wage income was approximately equal to the income needed to purchase a 2-room flat¹¹⁷ (June 2024) via taking a bank loan. At national level, access to loans remained relatively unchanged.



The level of awareness of climate risks is on an upward trajectory in the case of households as well, with green loans making up about 20 percent of the housing loans granted in the first nine months of 2024. However, green loans further account for a small share of the total housing loan portfolio, i.e. 9.2 percent in September 2024 (Chart 2.41).

The home ownership rate in Romania is the highest in the EU, approximately 96 percent of Romania's households owning a dwelling versus 69 percent in the European Union (2023 data). About 87 percent of standard housing loans in banks' balance sheets are loans for owner-occupying purposes. Nonetheless, there has been a recent increase in loans granted to purchase a dwelling in addition to the debtor's primary residence used either as an investment property or as a holiday home or following a change in debtor's needs (for instance, for larger living space), only 42 percent of the new bank loans extended January through September 2024 being granted to first-time buyers (Chart 2.42).

Under the circumstances, the macroprudential measure implemented by the National Bank of Romania in April 2022 regarding an increase in the loan-to-value (LTV) ratio for debtors who own a dwelling at the date of loan application has become all the

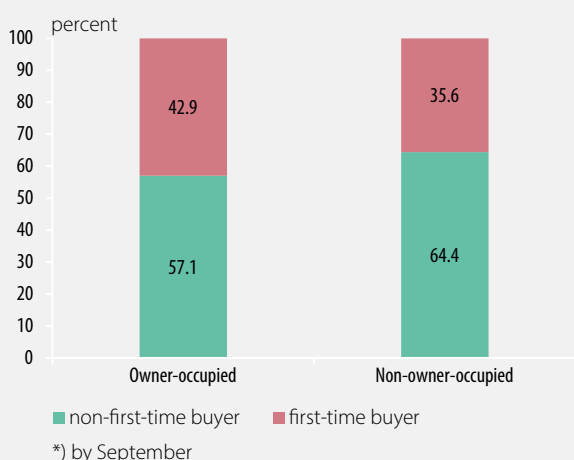
¹¹⁶ The housing affordability index measures the average net income relative to the income needed to purchase a dwelling, at a 15 percent down payment, a 45 percent debt service-to-income ratio, and a 25 year maturity.

¹¹⁷ A standard 2-room flat with a useful floor area of 55 sqm is taken into account.

¹¹⁸ Prices were adjusted for the bargaining margin, calculated as the difference between the selling price and the last ask price.

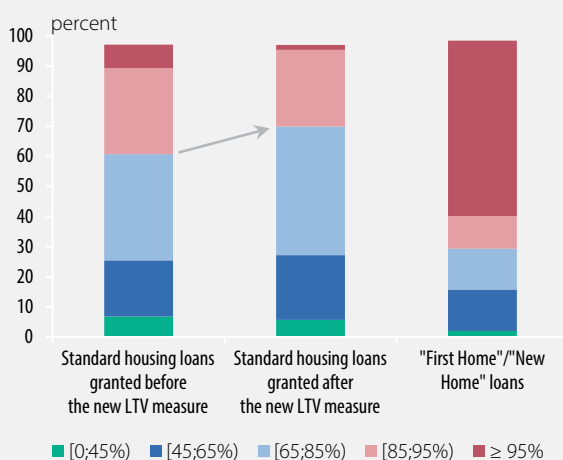
more important, given that, even though the NPL ratio for loans granted to debtors who are non-first-time buyers is currently low, it is five times higher than that for loans extended to first-time buyers (1.92 percent versus 0.35 percent, September 2024). As a result of this measure, the share of standard housing loans with an LTV ratio lower than 85 percent rose by 9 percentage points, from 61 percent to 70 percent (September 2024), Chart 2.43. Thus, the median LTV ratio for new loans ("First Home"/"New Home" loans excluded) was 73 percent, whereas the median LTV ratio for the entire housing loan stock stood at 68 percent (September 2024).

Chart 2.42. Breakdown of standard housing loans granted in 2024* by type of buyer and owner occupancy



Source: NBR

Chart 2.43. Distribution of housing loans before and after the implementation of the latest measure on the minimum LTV ratio



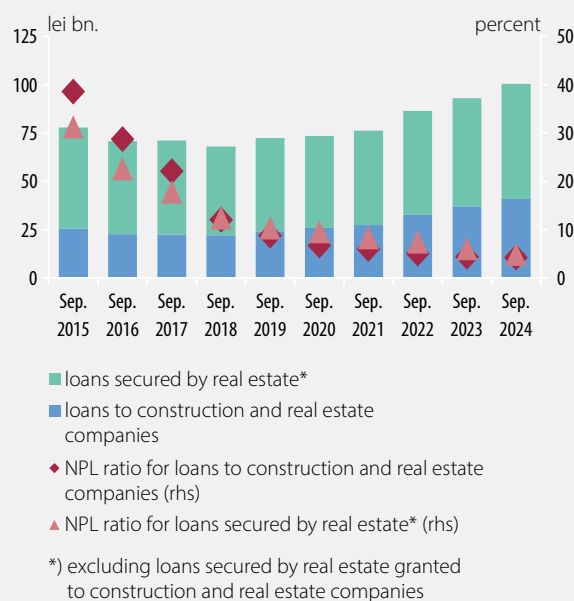
Source: NBR

2.3.3. Risks generated by the commercial real estate sector and mortgage-backed lending to non-financial corporations

The banking sector's exposure to the commercial real estate market, i.e. commercial real estate loans (CRE loans), is significant (lei 100.4 billion, September 2024), with a faster pace of increase than that of total loans to non-financial corporations (11 percent against 7 percent, September 2024), accounting for 50 percent of total exposures to non-financial corporations. Direct exposures to the construction and real estate sectors total lei 40.9 billion, whereas the higher amount of indirect exposures (lei 59.4 billion, these being loans secured by real estate extended to non-financial corporations, Chart 2.44) shows that commercial real estate secures also bank loans granted to companies operating in other business sectors.

Real estate sector developments are of great importance to the banking sector at both national and European levels, given the significant exposure of credit institutions to construction and real estate firms (Chart 2.45). Thus, Nordic countries in particular have the highest bank exposure to construction and real estate companies (Sweden – 62 percent, Norway – 49 percent, Denmark – 47 percent, June 2024), whereas countries in southern Europe post the lowest shares of such loans in banks' balance sheets (Greece – 10 percent, Malta – 14 percent, Italy – 15 percent). In Romania and the peer economies in the region, the exposures to the construction and real estate

Chart 2.44. Banking sector's exposure to the commercial real estate market



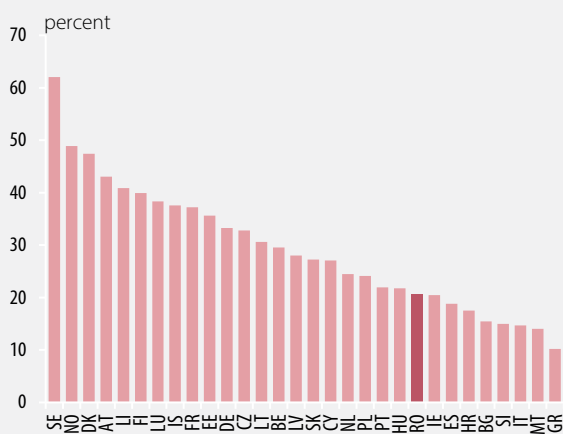
Source: NBR

sectors are moderate, ranking among the lowest at EU level (Romania – 21 percent, Poland – 24 percent, Hungary – 22 percent, Bulgaria – 15 percent).

Even though the quality of the CRE loan portfolio is further lower than that of the aggregate portfolio of loans to non-financial corporations, it continued to improve. Thus, the non-performing loan ratio for loans to construction and real estate companies was 4.3 percent in September 2024 (-0.1 percentage points against September 2023 and -4.5 percentage points versus September 2019), while that for loans secured by real estate (other than those granted to firms operating in the construction and real estate sectors) dropped to 4.9 percent in September 2024 from 6.1 percent a year before.

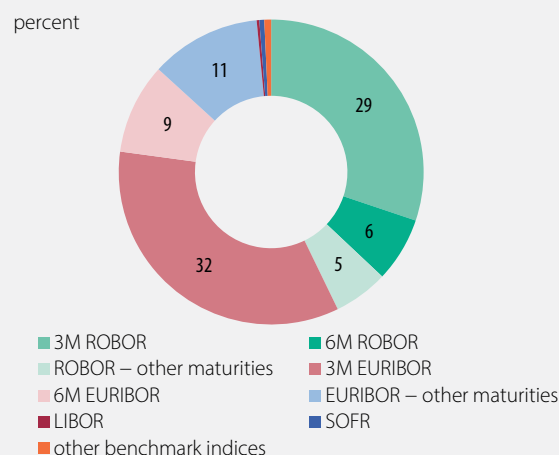
A substantial share of CRE loans (94 percent, September 2024) is exposed to interest rate risk, having a floating rate over the entire term of the loan. Of these, 34 percent are linked to 3M EURIBOR and another 30 percent are linked to 3M ROBOR (Chart 2.46). Solely 4 percent of the volume of CRE loans have a fixed interest rate over the entire term of the loan.

Chart 2.45. Banking sector's exposure to the construction and real estate sectors (% of loans to non-financial corporations), international comparisons (June 2024)



Source: EBA

Chart 2.46. Breakdown of CRE floating rate loans by the benchmark index (September 2024)

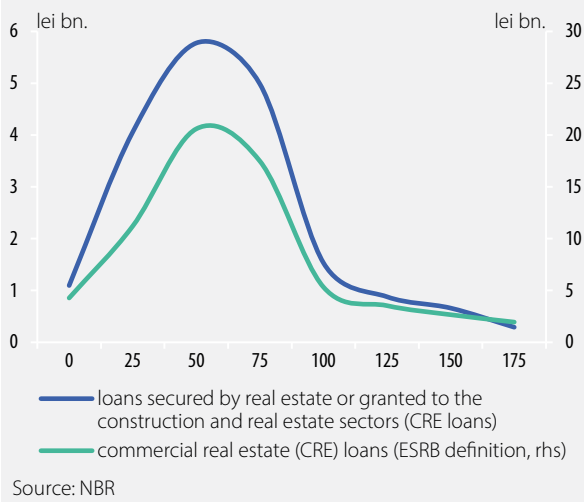


Source: NBR

According to the approach proposed by the European Systemic Risk Board (ESRB), which allows for a more precise identification of loans aimed at acquiring a CRE property (or set of CRE properties), i.e. CRE loans (ESRB definition), these loans¹¹⁹ accounted for 17 percent of the stock of exposures to non-financial corporations

¹¹⁹ The classification of loans according to Recommendation ESRB/2016/14 groups loans secured by real estate into commercial real estate loans (CRE loans) and residential real estate loans (RRE loans).

Chart 2.47. Distribution of CRE loans by the LTV ratio, depending on their definition (September 2024)



in September 2024, their breakdown by property type showing the following: industrial spaces held 29 percent, retail spaces took 24 percent and office spaces made up 8 percent. For 66 percent of CRE exposures (ESRB definition), the CRE property that secures these loans is used by its owners for own needs (conducting their business), for 8 percent it is rental housing, for 9 percent it is other income-producing real estate, and for 6 percent it is under construction.

Of the total outstanding CRE loans (ESRB definition)¹²⁰ for which the LTV ratio was reported, about 25 percent posted an LTV ratio of over 100 percent, while 23 percent had an LTV ratio between 75 percent and 100 percent (Chart 2.47). Looking at all direct and indirect exposures (CRE loans) for which the LTV ratio

was reported, approximately 28 percent have an above-one LTV ratio and a higher NPL ratio (6 percent versus 4 percent for loans with an LTV ratio below 100 percent, September 2024).

Most CRE loans (ESRB definition), i.e. 86 percent, have a higher than 2 debt service coverage ratio (DSCR)¹²¹, which shows that the companies that took these loans have the capacity to cover at least double of the annual debt service payments. At the same time, the average interest coverage ratio (ICR)¹²² is at approximately 536, according to data as at September 2024.

According to the latest assessments of the vulnerabilities related to the commercial real estate sector in Romania, risks remain manageable and on an improving trend, given the signs of recovery in the commercial real estate market. The National Bank of Romania monitors these developments on a continuing basis, in line with the ESRB methodology, across the four major risk stretches (collateral stretch, income and activity stretch, financing stretch and spillover stretch), Box 5.

Box 5. Soundness of construction and real estate companies

The construction and real estate sectors are important to financial stability owing to both their size and the interconnections with the financial system and the real economy. Gross value added in construction and real estate was 15.3 percent as a share of GDP (2024 Q2), rising over the past years (from 13.8 percent in 2022 Q2), pointing to the relevance of these sectors to financial and economic stability, but also to a substantial spillover risk to the real economy (Chart A). In comparison with

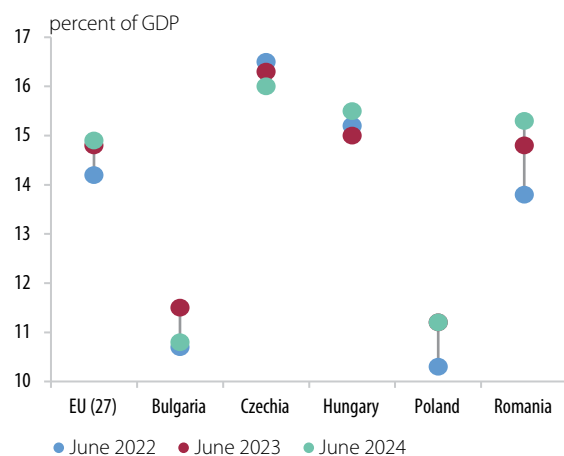
¹²⁰ CRE loans according to the ESRB definition cover loans granted as of May 2022.

¹²¹ The annual rental income or the annual cash flow generated by the activity related to a CRE property that is at least partially financed by debt, net of taxes and any operational expenses to maintain the property's value, relative to the annual debt service on the loan secured by the property

¹²² The net annual rental income or the annual cash flow generated by the activity relative to the annual interest cost of the loan secured by the property

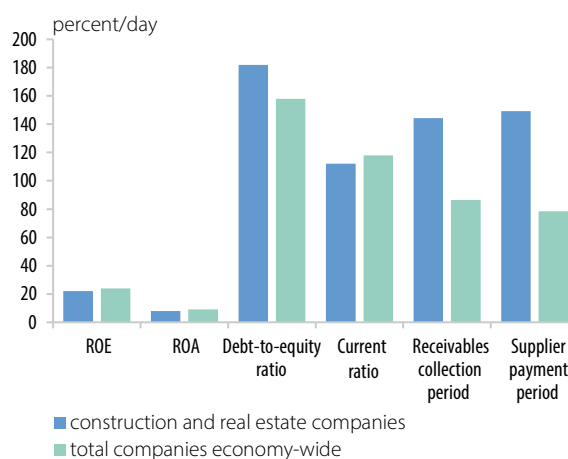
the EU, in Romania construction and real estate activity was above the EU average (14.9 percent of GDP in 2024 Q2), as well as above the levels recorded in some of the peer economies in the region (Bulgaria – 10.8 percent of GDP, Poland – 11.2 percent of GDP).

Chart A. Gross value added in construction and real estate, international comparisons



Source: Eurostat

Chart B. Economic and financial soundness indicators for construction and real estate companies



Source: NBR, MF

Firms in construction and real estate account for 15 percent of total non-financial corporations (approximately 126 thousand, 2023 data), employ 12 percent of the number of workers economy-wide (around 486 thousand) and hold 20 percent of non-financial corporations' assets.

The net profit margin indicates a higher profitability of construction and real estate companies than of non-financial corporations at aggregate level (12 percent versus 7 percent, 2023), the cash surplus that enterprises utilise to finance both their future growth and shareholder remuneration being larger than that of total companies in the economy (a 17 percent self-financing capacity to turnover ratio against an 11 percent level for total non-financial corporations as a whole).

Looking at return on assets (ROA) and return on equity (ROE), in 2023 companies operating in the construction and real estate sectors recorded levels marginally below the average of the non-financial corporations sector as a whole (8 percent versus 9 percent for ROA and 22 percent against 24 percent for ROE, Chart B).

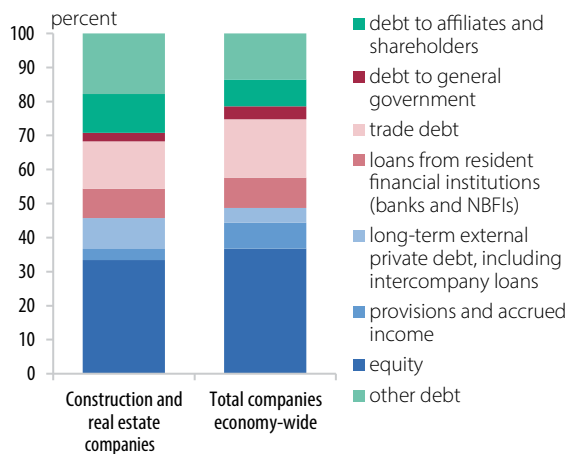
Construction and real estate firms have a higher level of indebtedness than the non-financial corporations sector, yet on a downtrend over the past years. Thus, the level of indebtedness (debt-to-equity ratio) was 181.7 percent in 2023 (as compared with 158.2 percent for non-financial corporations overall, Chart B), dropping from 210.6 percent in 2022. In addition, these companies have a higher share of short-term liabilities (37 percent of assets versus 28 percent for long-term liabilities), which means an elevated risk of debt refinancing and rollover.

The liquidity position of firms engaged in construction and real estate activities is satisfactory, similar to that across the economy (a current ratio of 1.1 in 2023, Chart B), yet the receivables collection period and the supplier payment period are much longer than at aggregate level. Specifically, construction and real estate companies report an average receivables collection period of 144 days (against 86 days on aggregate), which puts a drag on their activity and extends the supplier payment period to 149 days (versus 78 days at aggregate level).

The composition of liabilities and owners' equity of firms in construction and real estate shows that equity takes up a third (as compared with 37 percent for the non-financial corporations sector as a whole), Chart C. Moreover, about 30 percent of construction and real estate companies post equity below the minimum level set by law, accounting for 14 percent of total undercapitalised companies (38.3 thousand, 2023).

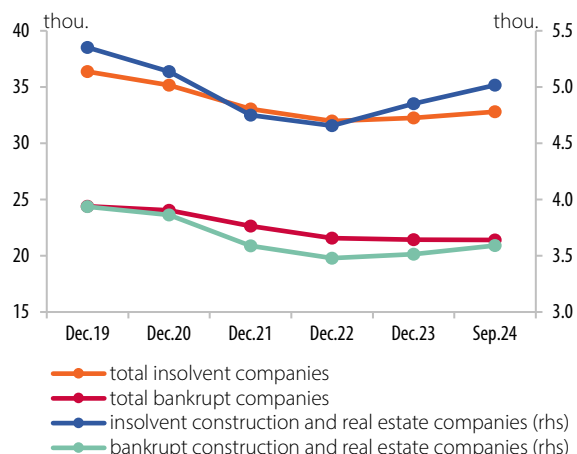
In terms of financing sources, firms operating in the construction and real estate sectors use less trade debt than the corporate sector overall (14 percent of assets versus 17 percent on aggregate) and make a larger recourse to financing through long-term external debt (9 percent of assets against 4 percent) and loans from affiliates and shareholders (11 percent as compared with 8 percent, 2023 data), Chart C.

Chart C. Composition of liabilities and owners' equity of construction and real estate companies (2023)



Source: NBR, MF

Chart D. Number of construction and real estate companies under insolvency and bankruptcy proceedings



Source: NBR, NTRO

According to data as at September 2024, 4 percent of construction and real estate companies were insolvent, whereas 3 percent of the said firms were bankrupt (Chart D). These account for approximately 15 percent of total companies under insolvency proceedings economy-wide and for 17 percent of total bankrupt companies. Compared to end-2023, the number of firms in construction and real estate subject to insolvency and/or bankruptcy proceedings increased at a somewhat faster pace than that of non-financial corporations under the same

proceedings, on aggregate (+3 percent versus +2 percent in the case of insolvency and +2 percent against -0.1 percent in that of bankruptcy, Chart D).

In 2023, the number of property developers in the records of the National Authority for Consumer Protection (ANPC) rose to 92 entities from 70 a year before, out of which only six were engaged in lending. Although further modest, the lending activity of property developers stepped up in 2023, 921 credit agreements for consumers, worth lei 470.9 million, being recorded, up from 677 credit agreements amounting to lei 287.9 million in 2022.

3. THE FINANCIAL SECTOR

The Romanian banking sector has been experiencing good times, as reflected by the maintenance of adequate indicators related to solvency (total capital ratio of 24.9 percent, September 2024), liquidity (liquidity coverage ratio of 248.8 percent and net stable funding ratio of 197.2 percent, September 2024) and asset quality (non-performing loan coverage by provisions of 66.8 percent and non-performing loan ratio of 2.54 percent, September 2024). Bank profitability is at historically high levels, the return on equity (ROE) standing at 20.2 percent in September 2024, and the results of the latest stress test confirm the capital adequacy to risks. Over the past decade, banks in Romania have pursued a conservative dividend distribution policy, with an annual profit retention rate of 59 percent, also favoured by both micro- and macroprudential policies, which has helped strengthen solvency. However, banks need to remain cautious in the period ahead, due to geopolitical tensions and uncertainties that may negatively impact borrowers' creditworthiness. The heightening of cyber risk calls for strong bank alertness, amid the increase in digitalisation of financial services, in order to prevent a potential operational crisis from turning into a liquidity crisis. The climate change effects may cause higher direct bank losses (particularly in vulnerable sectors such as agriculture), while also driving the accelerated implementation of measures to reduce greenhouse gas emissions, including via changes in the lending structure.

The Romanian banking sector's profit has contributed favourably to strengthening resilience in 2024, while its profitability remains significantly lower than that of the real economy (ROA of 1.87 percent in September 2024 versus 9.4 percent in 2023 for non-financial corporations). The improvement in operational efficiency registered over the past years is mainly driven by the dynamics of net interest income, under the influence of: (i) the swifter increase in interest rates on real sector loans (most of which bear floating interest rates) than in those on time deposits, (ii) the volume effect stemming from balance sheet growth, and (iii) the relatively low average funding cost due to the persistently high share of demand deposits in total liabilities. The most significant net interest income-generating items in banks' balance sheets result from the relationship with the real sector (non-financial corporations and households, accounting for 52.7 percent of total); however, their contribution has declined sharply since 2022, mainly in favour of exposures to the central government via debt securities.

The prospects for banking sector stability are good, but a number of elements can negatively impact the developments in risk indicators: (i) the expected increase in credit risk as a result of uncertainty-ridden macroeconomic environment, featuring large twin deficits, (ii) the unpredictable path of interest rates, owing to the geopolitical context, and (iii) the taxation of turnover over an indefinite time horizon. After the implementation of the turnover tax (approximately lei 1.28 billion, annualised as at September 2024), the expenses with fees and taxes led to a significant increase in administrative expenses, negatively impacting operational

efficiency indicators (CTI: 49.9 percent, September 2024). In recent years, operational efficiency has been positively influenced by the banking sector consolidation process, which has resulted in a lower number of banks.

The interlinkage of the banking sector in Romania and the government sector has become stronger, recording the highest level among EU countries. It manifests directly, via the loans granted and holdings of government securities (25.0 percent of assets, September 2024), indirectly, through the government-backed loans to the real sector (5.3 percent of assets), as well as through the state ownership of banks (14 percent of bank assets). Holdings of government securities help improve solvency ratios (due to low risk weights) and liquidity indicators, but expose the banking sector to the concentration and interest rate risks, being less favourable to financial intermediation (the annual dynamics of government securities holdings were 24.0 percent, as compared to 8.4 percent for credit to the real sector, September 2024). The funding risk for the Romanian banking sector remains low, given credit institutions' preference for traditional funding sources, such as retail deposits. Over the past years, there has been an increase in security-based funding, especially for meeting the minimum requirement for own funds and eligible liabilities (MREL), which incurs higher costs than those of deposits.

Non-bank financial institutions (NBFIs) continue to strengthen their asset position, which accounted for 4 percent of GDP in 2024 Q1. Most NBFIs loans go to the non-financial corporations sector, where the majority is in the form of foreign currency-denominated leases. However, the NPL ratio for NBFIs loans to companies remains lower than that for household loans that are, to a larger extent, more than 90 days past due.

Overall, the financial system continued to strengthen its asset position at aggregate level and by component in 2024 H1. In June 2024, total assets reached lei 1,172 billion (around 70 percent of GDP), up by 13 percent year on year. The breakdown shows that the banking sector further holds the largest share of the total (74 percent, -1.6 percentage points versus June 2023, Chart 3.1), followed by pension funds with 12.7 percent (+1.67 percentage points compared to June 2023), which recorded the fastest growth in the financial sector over the past years (Chart 3.2). The annual dynamics of investment fund assets returned to positive territory, but saw a modest increase, i.e. +0.9 percent, after eight consecutive quarters of contraction in annual terms, in the recent economic environment marked by changes in interest rates.

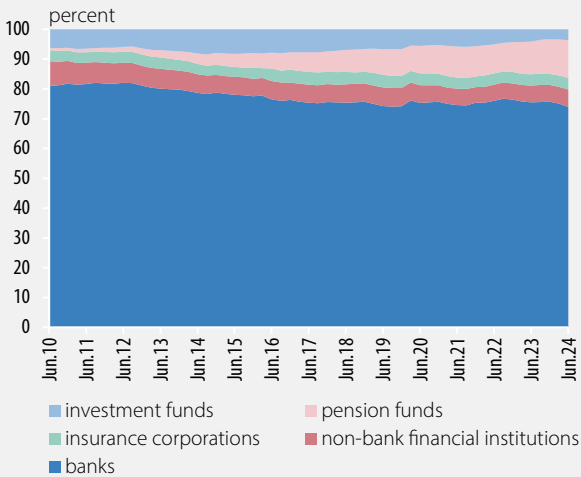
The ESRB further draws attention¹²³ to market and liquidity risks that can be amplified by the excessive use of leverage, used in particular by euro area investment funds. Risks are also flagged due to the high degree of interconnectedness of financial system components at EU level. Domestically, the contagion risk within the financial system remains low as a result of the limited interconnectedness between sectors.

As regards bank intermediation, expressed as the ratio of bank assets to GDP, Romania further ranks last among the EU countries, according to the ECB data for 2024 Q1,

¹²³ Non-Bank Financial Intermediation Risk Monitor, ESRB, June 2024

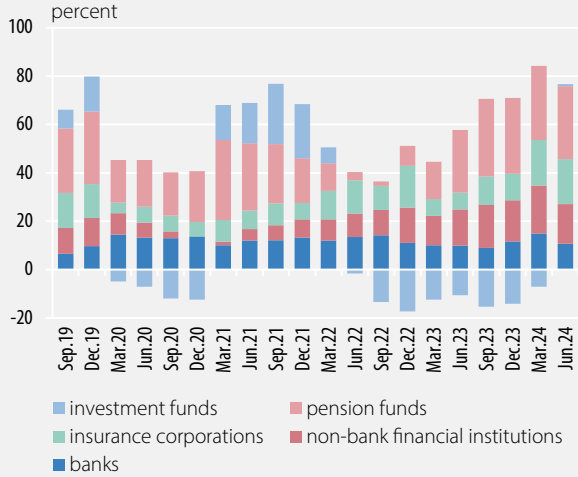
i.e. slightly above 51 percent, which is more than four times below the EU average of 215 percent (Chart 3.3), despite the strengthening of the banking sector assets that have however increased more slowly than economic growth.

Chart 3.1. Distribution of assets in the Romanian financial system



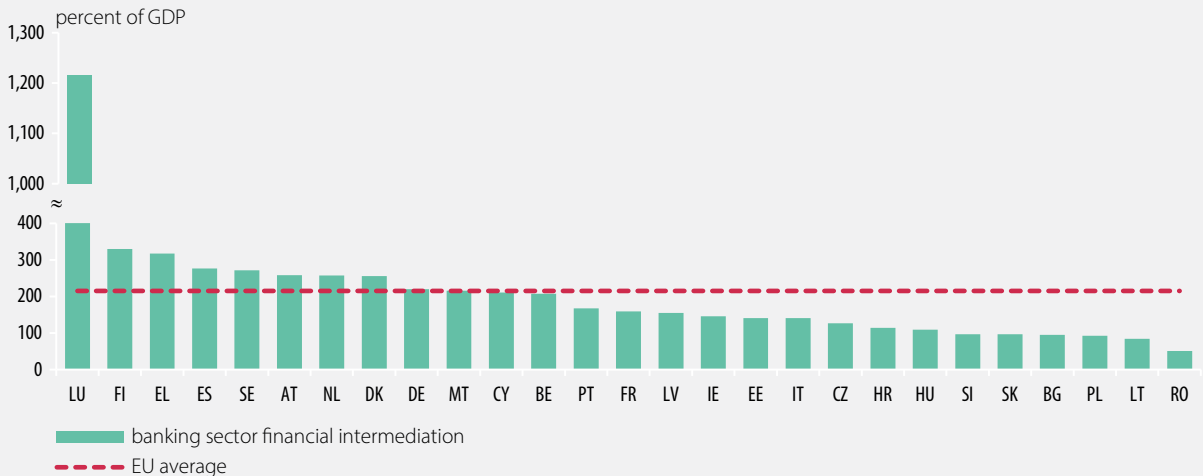
Source: NBR, FSA, NBR calculations

Chart 3.2. Annual dynamics of financial system assets



Source: NBR, FSA, NBR calculations

Chart 3.3. Banking sector size as a share of GDP



Source: ECB

Pension fund assets continue to accumulate, rising by 27 percent between October 2023 and October 2024, which is a sustained annual pace over the past 12 months. These dynamics emerge in a context where new participants were enrolled in Pillar II pension funds (about 149 thousand, +1.8 percent) and in Pillar III voluntary pension funds (111 thousand, +14 percent) during the same period, thus resulting in over 9 million participants at aggregate level. In addition, positive yields and the increase in the contribution rate to Pillar II¹²⁴ also supported the positive dynamics of assets.

¹²⁴ As of 1 January 2024, the contribution rate to private pension funds is 4.75 percent of the gross monthly income (GEO No. 23/2022 on supplementing Art. 43 of Law No. 411/2004 on private pension funds).

The weighted average rate of return on Pillar II pension funds remained constantly at around 7 percent throughout 2024 (6.8 percent in October 2024, double the value recorded two years before). The high returns are linked to interest rate developments over recent years, as well as to the positive stock market dynamics, which have increased the investment performance of portfolio assets, in the context of the prudential constraints imposed by specific regulations. At global level, the positive returns on pension funds in 2023, earned on bonds and equities, partly offset the losses from 2022¹²⁵ (growth rates of 8.6 percent in 2022-2023 and of -6.9 percent in 2021-2023 for reporting OECD countries). The main asset classes of Pillar II pension funds are further concentrated on the local market, consisting of government securities (67 percent, October 2024), equity (23.6 percent) and corporate bonds (4 percent).

The insurance market in Romania remains below 4 percent of GDP, despite the sustained increase in total assets (lei 47.6 billion, +18.6 percent in September 2024 versus September 2023). The development potential is visible particularly in the life insurance segment that accounts for only 16 percent of the total underwriting volume in 2024 Q1, which is a particularity of Romania as compared to the average for EU countries, where the share of gross premiums written is balanced between non-life and life insurance, according to EIOPA data (51 percent and 49 percent respectively, 2024 Q1). Financial education is a key factor that can accelerate the development of this market, as regards the insurance against natural disasters of both households and companies. In Romania, there is a significant gap in risk coverage through insurance, especially for earthquakes and floods¹²⁶. According to the FSA¹²⁷, 86 percent of the underwriting activity is attributed to companies authorised by the FSA, and the remainder comes from the underwriting of foreign company branches operating in Romania.

Investment fund assets re-embarked on an upward trend in 2024 H1 and then continued to rise (lei 44.6 billion in September 2024, +19 percent versus September 2023), following the decline in recent years, owing *inter alia* to the decrease in total assets of Fondul Proprietatea.

3.1. Banking sector

3.1.1. Profitability: developments and main determinants

Profitability contributed to strengthening the resilience of the Romanian banking sector in 2024. The return on assets (ROA) of the banking sector increased slightly in 2024, in line with trends at the European level, remaining however significantly lower (1.87 percent, September 2024) than that recorded by non-financial corporations in Romania over the past decade (9.4 percent in 2023), Chart 3.4.

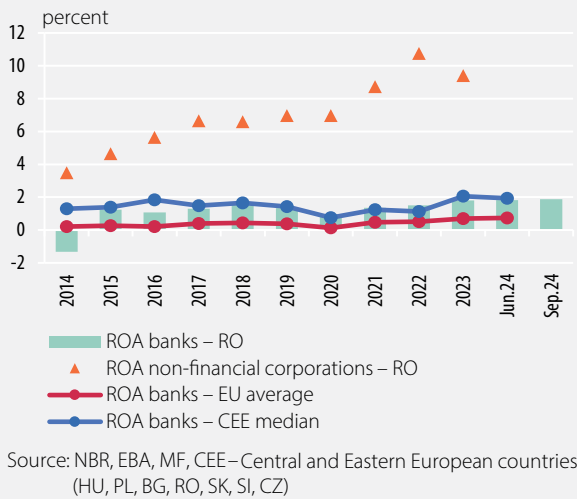
¹²⁵ OECD, *Pension Markets in Focus*, preliminary 2023 data, June 2024

¹²⁶ EIOPA Dashboard on insurance protection gap for natural catastrophes

¹²⁷ Insurance market report, 2024 Q1

The evolution of ROA of banks in Romania is strongly correlated with the values seen in other Central and Eastern European (CEE) countries, the indicator standing close to the ROA median in the region, but above the EU average (0.7 percent, June 2024).

Chart 3.4. Return on assets (ROA) of the Romanian banking sector – comparisons with EU countries and the domestic real sector

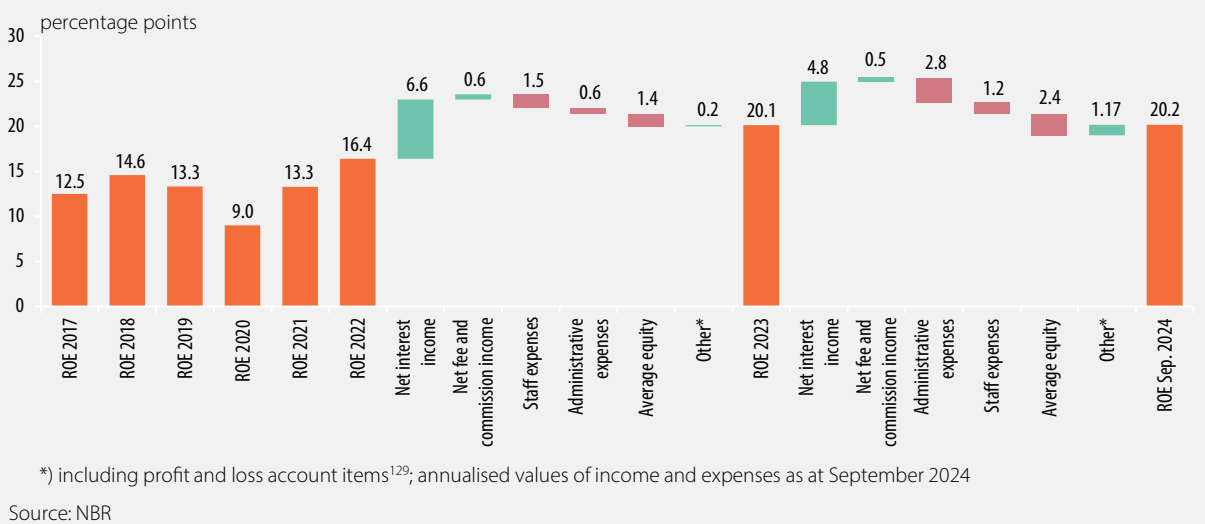


The return on equity (ROE) of the Romanian banking sector remained at a level similar to that recorded at end-2023, i.e. 20.2 percent (September 2024, Chart 3.5). The main determinants of developments in ROE in 2024 Q1-Q3 were: (i) net interest income and net fee and commission income, with a positive, but considerably lower contribution versus the 2022-2023 period, and (ii) administrative expenses, staff costs and the higher average equity, with a stronger negative contribution on the ROE in the recent period (Chart 3.5).

The profitability of the banking sector strengthened in 2024, amid the persistence of a substantial operating result and a low level of net impairment loss on financial assets. At end-September 2024, the net profit of credit institutions amounted to

approximately lei 11.5 billion, up by 10.7 percent as against the same year-ago period. The market share of loss-making banks was further small (0.26 percent), similar to the European average of 0.37 percent¹²⁸ as at December 2023, but the profitability continued to be polarised depending on the bank size.

Chart 3.5. ROE and contribution of determinants to ROE changes (annual terms)



¹²⁸ ECB, consolidated banking data

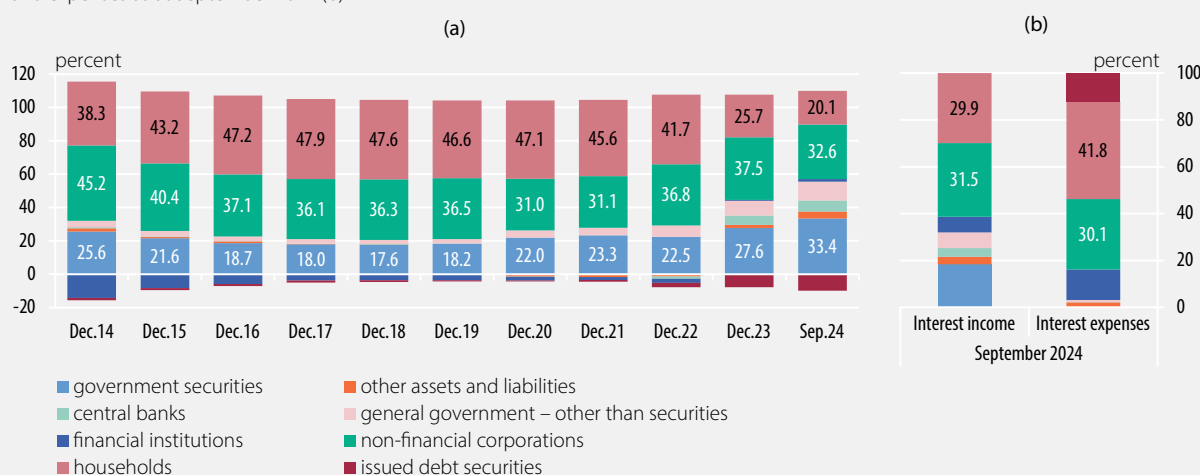
¹²⁹ Realised gains (losses) from financial assets and liabilities not measured at fair value through profit or loss – net; gains (losses) from financial assets and liabilities held for trading – net; exchange rate differences (gain/loss) – net; other income; amortisation, depreciation or resumption of losses from impairment of financial assets not measured at fair value through profit or loss; other expenses

In annualised terms, the dynamics of operating income were slower (12 percent versus December 2023) than those of operating expenses (17 percent), given the marked rise in administrative expenses (+30 percent, including also the expenses with the new tax on assets). The composition of operating income and expenses remained relatively stable. Net interest income held a prevailing share in total operating income (71 percent, September 2024), ahead of net fee and commission income (15 percent) – more than two thirds of which came from payment services – and net exchange rate differences (6 percent). On the other hand, in the case of operating expenses, staff costs accounted for the largest share (47 percent), followed by other administrative expenses (42 percent) and depreciation expenses (12 percent).

The high profitability over the last years has been largely driven by the change in net interest income, as a result of (i) the faster rise in interest rates on real sector loans (most of which bear floating-interest rates) than in those on deposits (Chart 3.9), (ii) the continued lending to the real and government sectors, (iii) the relatively low average funding cost, due mainly to the prevailing share of demand deposits in total deposits (51.2 percent, September 2024, Chart 3.10).

The most important net interest income-generating items¹³⁰ in banks' balance sheets are associated with the real sector (non-financial corporations and households, Chart 3.6a – 52.7 percent of net income), but this contribution has declined sharply since 2022, primarily in favour of debt securities – mainly government securities held by the general government in Romania. Debt securities holdings account for approximately one third of net interest income (August 2024, Chart 3.6a), due to the shift of a significant part of banks' balance sheets to these exposures, following the increase in the Romanian government bond yields (Chart 3.15).

Chart 3.6. Contributions of some institutional sectors (+/-) to net interest income (a)¹³¹ and the composition of interest income and expenses as at September 2024 (b)



Source: NBR; credit institutions, Romanian legal entities

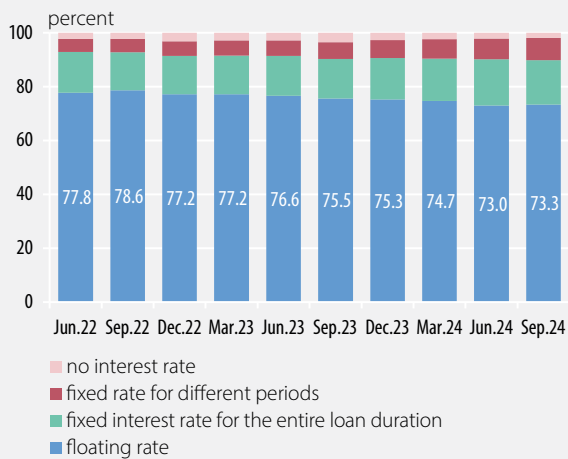
¹³⁰ Credit institutions, Romanian legal entities – for which more detailed reports are available

¹³¹ Net income under each category do not take into account the different shares of these categories in assets and liabilities. Assets in the form of debt securities largely comprise central government securities and do not have as counterpart credit institutions' liabilities. Moreover, debt securities issued are associated with liabilities alone, generating only interest expenses; for the remaining categories, net interest income is calculated as the differential between interest income and expenses.

Balance sheet items make different contributions to interest income and expenses, depending on the quantity and price effect specific to the business model. The largest part of the Romanian banking sector’s interest income comes from lending. In the past, loans to households accounted for a higher share of interest income (46 percent, on average, in the period from 2015 to 2021), but their contribution has decreased gradually since 2022, i.e. down to around 30 percent in September 2024 (Chart 3.6b). Lending to non-financial corporations currently generates the largest part of interest income (31.5 percent of total, Chart 3.6b). The general government has gained importance for net interest income, due to the rise in lending to this sector during 2024.

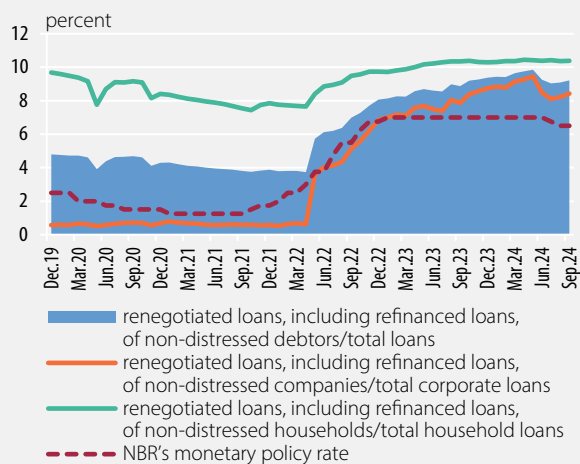
The composition of loans by type of interest (fixed or floating) facilitates the relatively fast transmission of interest rate changes to exposures to the real sector. The monetary policy rate cut in 2024 H2 is expected to influence the amount of interest income from loans (depending on the adjustment period of the reference rate), producing a negative effect via the price channel. Most bank loans have floating rates, but their share is on a downward trend (73.3 percent in September 2024 as compared to 78.5 percent in 2022, Chart 3.7). This can be ascribed to the post-pandemic developments characterised by higher interest rates, which prompted debtors to increasingly take up new loans at more favourable fixed rates, and to resort to the renegotiation and refinancing of current loans at lower interest rates.

Chart 3.7. Composition of bank loans by type of interest rate



Source: NBR, for loans reported to the Central Credit Register, according to the composition available since 2022

Chart 3.8. Bank loan renegotiation for debtors without financial difficulties

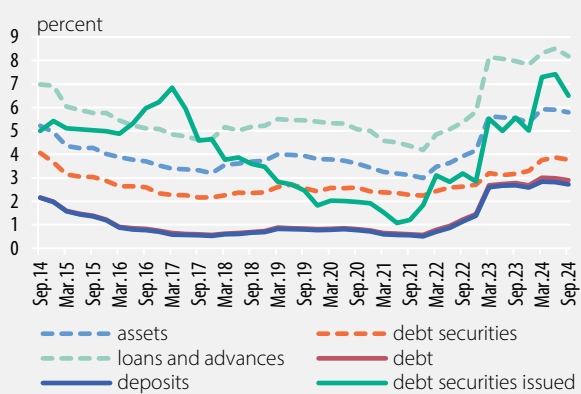


Source: NBR, for loans reported to Central Credit Register

A fixed interest rate for the entire loan duration is applied to 16.5 percent of the stock of loans, household loans in particular, namely consumer credit. Additionally, loans with an initial fixed-rate period of up to five years are another choice of debtors (6.4 percent of total loans). Corporate loans are more often granted at floating rates than household loans (90.3 percent versus 48.2 percent) and, thus, the downward adjustment of interest rates will impact companies to a greater extent than households. 12-month cumulative loan flows (September 2024) with different options for fixing interest rates hold a prevailing share of new business (60 percent).

Loan renegotiation was another way of reducing debtors' financing costs, as a result of the uptrend in interest rates in the 2021-2023 period (Chart 3.8), but it was used less once interest rates resumed a downward path. As compared to companies, a larger proportion of loans to non-distressed households (10.4 percent versus 8.4 percent, September 2024) was subject to renegotiation.

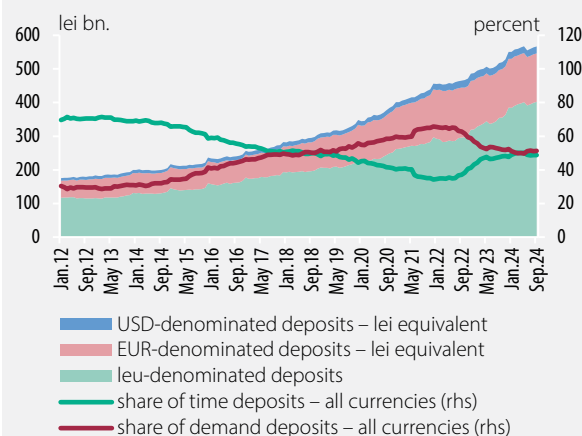
Chart 3.9. Developments in interest rates on selected balance sheet items



Note: The interest rate calculated as the ratio of annualised interest income to the balance sheet asset item, and as the ratio of annualised interest expenses to the balance sheet liability item.

Source: NBR; credit institutions, Romanian legal entities

Chart 3.10. Composition of deposits from the real sector (households and non-financial corporations) by currency and type (time/demand deposits)



Source: NBR

Banks are mainly funded by deposits from households, so that interest expenses are largely generated in relation to this institutional sector (41.8 percent), followed by those related to non-financial corporations (about 30 percent, Chart 3.6b). These developments stem from the increase in the interest expenses associated with household deposits over the past two years (annual growth of 194 percent in 2023 and 22 percent in September 2024, respectively), in line with interest rates dynamics.

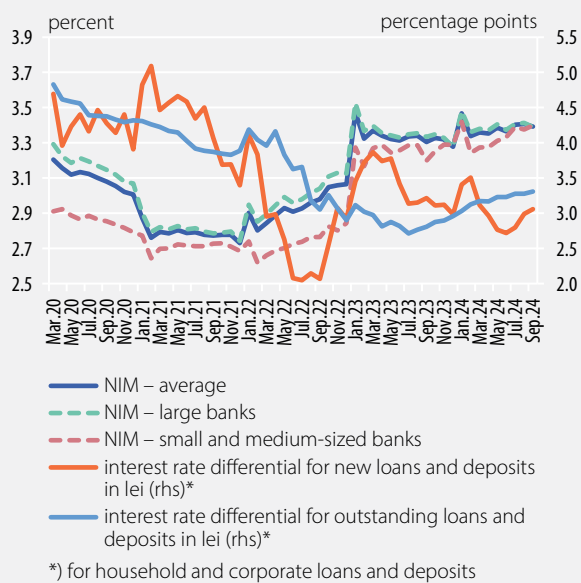
Banks' funding structure, based on deposits from the real sector (Chart 3.10), witnessed marginal changes through a rise in debt security issues, typically for meeting the minimum requirement for own funds and eligible liabilities (MREL), while their higher cost compared to the average interest rate on debt (6.5 percent versus approximately 3 percent in September 2024, Chart 3.9) makes a significant negative contribution to net interest income of about 10 percent (Chart 3.6a). Debt securities issued by banks are not intended to stimulate the covered bond market. As of May 2024, the balance sheets of domestic banks do no longer include these exposures, which were small, i.e. of approximately lei 1 billion until that date.

Deposits from the real sector amount to lei 567 billion¹³² (September 2024) and account for 67.2 percent of total bank assets. They are primarily denominated in lei (around 71 percent) and in euro (25.4 percent). After a period of migration towards time deposits on account of higher interest rates, the recent decline in deposit rates has diminished depositors' appetite for longer-maturity savings. Thus, demand deposits regained the majority (51.2 percent, September 2024), after

¹³² Deposits from households and non-financial corporations, according to the STM231 reporting

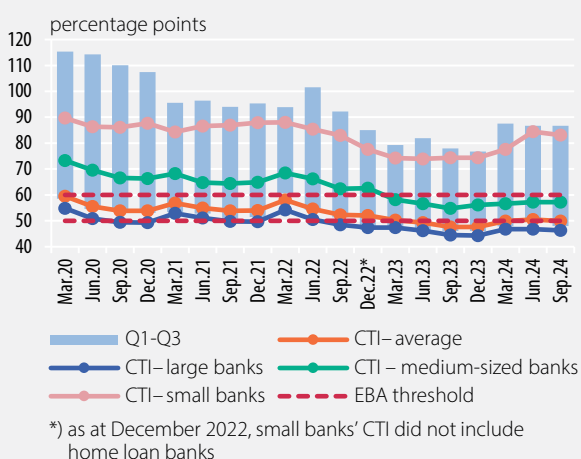
having fallen slightly below the 50 percent threshold in 2024 Q1. The average cost of leu-denominated financing vis-à-vis the real sector has been decreasing since the previous Report (3 percent, September 2024). Financing costs increased marginally over the same period for exposures to the real sector denominated in EUR (average financing cost of 1.1 percent) and in USD, but they remained low.

Chart 3.11. Developments in net interest margin (NIM) and interest rate differential for both new and outstanding loans and deposits in lei



Source: NBR

Chart 3.12. Developments in operational efficiency (cost-to-income ratio) by bank size¹³³



Source: NBR

The net interest margin of the banking sector has stabilised since 2023, reaching pre-pandemic levels, i.e. 3.4 percent in September 2024 (Chart 3.11).

The gap between the net interest margin of small and medium-sized banks and that of large banks narrowed. The interest rate differential for new leu-denominated loans and deposits saw steeper changes throughout the cycle of monetary policy rate adjustments, as compared to that related to loans and deposits (stock) in lei. After peaking at the beginning of 2023, interest rates on loans to households and non-financial corporations started to decline, albeit at a slower pace than deposit rates (Chart 3.9).

The cost-to-income ratio (indicator of operational efficiency) increased by 2 percentage points from end-2023 to 49.9 percent in September 2024 (Chart 3.12), but stayed within the EBA-defined low-risk bucket. The decrease in operational efficiency owed mainly to higher operating expenses, particularly “other administrative expenses”, as well as to the slower growth of operating income. Due to economies of scale, large banks can manage operating costs more efficiently, while smaller banks face challenges in optimising their fixed expenses (Chart 3.12).

As for credit institutions, Romanian legal entities, the significant rise in “other administrative expenses” owed primarily to a 5.5 times increase, in annualised terms, in expenses with fees and taxes, following the introduction of the additional 2 percent turnover tax under Law No. 296 of 26 October 2023, which entered into force at the beginning of 2024. Due to its nature, the tax on assets is expected to be of further relevance for “other administrative expenses” in the

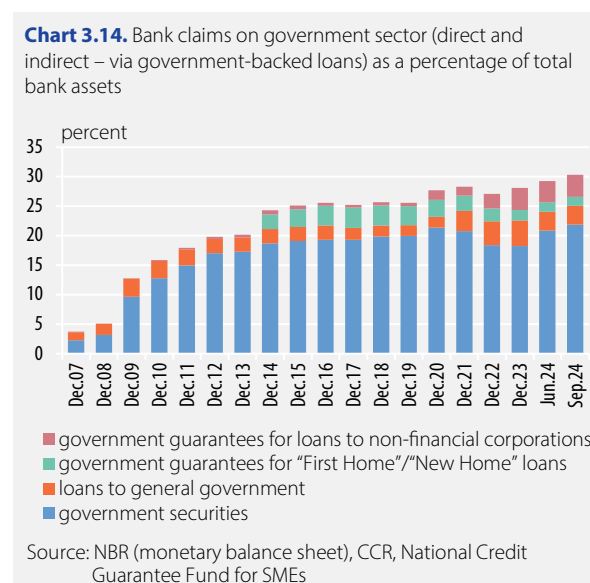
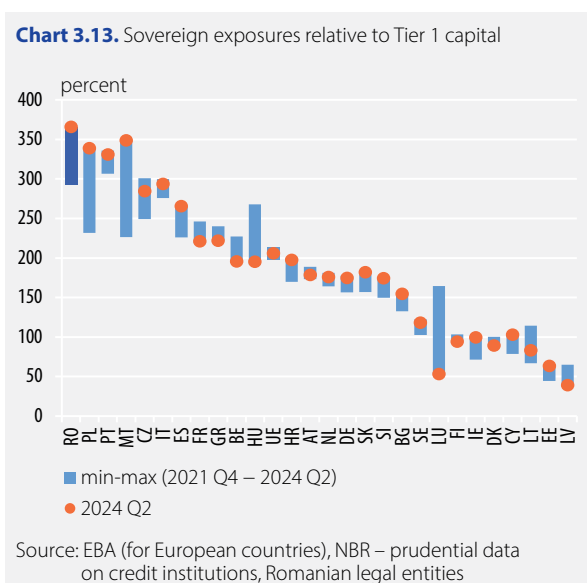
¹³³ Large banks have an asset market share above the 5 percent threshold, medium-sized banks have a market share between 1 and 5 percent, and small banks have a market share below 1 percent.

coming years. According to estimates, the additional tax will generate an amount of lei 1.28 billion¹³⁴ in 2024; in 2025 it will further account for 2 percent of turnover, while in 2026 it will equal 1 percent of turnover. IT expenses increased by 53 percent versus December 2020, amid the stronger efforts to digitalise banking activity and the rise in cyber risks. Most small and medium-sized banks have stepped up their investments in the development of IT infrastructure and cybersecurity solutions. Costs of outsourced IT services make up, on average, one third of total IT expenses (in September 2024), over 80 percent of them being associated with large banks.

The outlook for profitability is favourable, given the significant gap between benchmark indices for floating-rate loans, which dominate the market, and the average cost of financing, as well as the investment of a large part of assets in government securities. However, there are several factors that can negatively impact the banking sector’s profitability: (i) the increase in credit risk amid an uncertain macroeconomic environment featuring large twin deficits; (ii) the slower growth of net interest income in 2024, which is expected to persist over the next two years, according to the baseline scenario of the 2024-2026 macroprudential solvency stress test; (iii) an additional tax on turnover for an indefinite period; (iv) the escalation of extreme events caused by climate change, with important effects stemming from the direct impact and the measures aimed at reducing greenhouse gas emissions via the transition to a green economy.

3.1.2. Interconnection of banks with the government sector

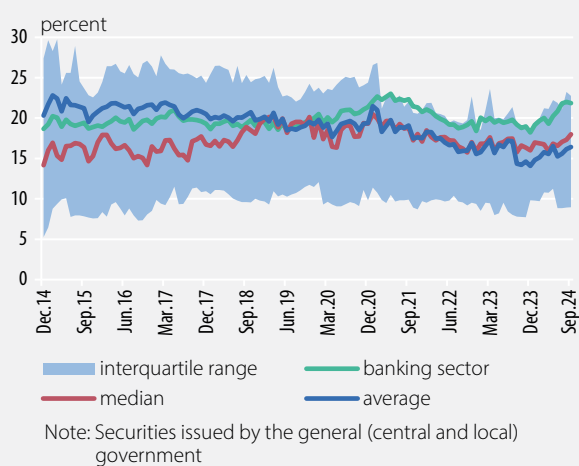
Over the past few years, the interconnection of banks in Romania with the government sector has increased, being the highest in the EU as regards the ratio between the value of sovereign exposures and Tier 1 capital (366 percent versus 206 percent in the EU, June 2024, Chart 3.13).



¹³⁴ Given the annualised turnover based on the data available at end-August 2024.

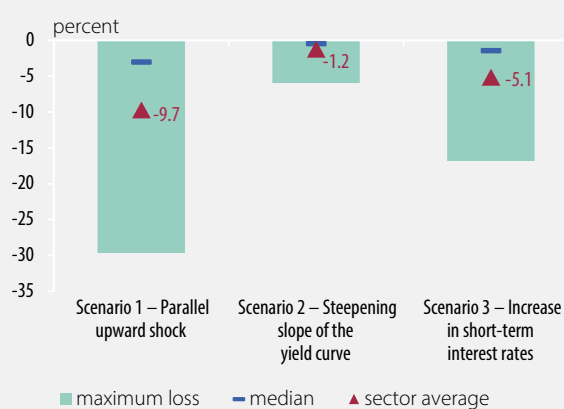
The link between banks in Romania and the government sector takes various forms: direct and indirect exposures, as well as exposures associated with the capacity of main shareholder in the case of two credit institutions. Direct exposures (25 percent of assets, September 2024) consist of claims in the form of government securities and loans to central and local governments, with holdings of government securities issued by local and central governments prevailing. Indirect exposures, i.e. the government-backed loans to the real sector, amount to 5.3 percent of assets (September 2024), including the guarantees on loans to non-financial corporations (3.8 percent of assets; e.g. IMM Invest, IMM Invest Plus, etc.) and "First Home"/"New Home" loans (1.5 percent of assets). Government guarantees for loans to non-financial corporations surged during the pandemic, when the state took measures to support firms by backing loans (Chart 3.14). The Romanian state is an important shareholder of banks, with the market share of state-controlled credit institutions standing at 14 percent (September 2024), up steadily over the last decade (8.7 percent in 2014).

Chart 3.15. Developments in the share of government securities held by banks in total bank assets – various descriptive statistics



Source: NBR

Chart 3.16. Distribution of the potential impact in Tier 1 capital of yield curve shifts for the portfolio of government securities measured at fair value held by credit institutions, Romanian legal entities, according to 3 scenarios (September 2024)



Source: NBR calculations

State loan guarantee schemes help banks contain losses in the event of borrowers' default, but state intervention in the credit market may enhance risks to financial stability via several channels, such as: (i) overheating certain markets (e.g. real estate market) and over-stimulating demand for certain groups of goods (e.g. dwellings, motor vehicles), (ii) strengthening the link between the banking sector and the state, (iii) mitigating the effect of borrower-based macroprudential measures and, last but not least, (iv) widening budget deficit.

Throughout 2024, banks' direct exposures to the state followed an upward path, their balance seeing an annual increase of 18.6 percent in September 2024, significantly higher than the annual dynamics of loans to the private sector (up 8.4 percent). Behind this stood, in particular, the attractiveness of government securities for banks in terms of profitability and prudential requirements; these instruments currently

account for 21.9 percent of total bank assets (September 2024, Chart 3.15), and their share has widened since the previous *Report*. The significant decline in the interquartile range of this percentage shows banks' alignment in terms of their high preference for holding such instruments.

Holdings of government securities help improve solvency indicators (due to low risk weights) and build liquidity buffers. However, they expose the banking sector to concentration and interest rate risks should adverse events occur. Although the trend is downwards, most of the securities portfolio is measured at fair value (58 percent in September 2024 versus 61 percent in the year-ago period), which contributes to the increase in the immediate effects of a potential change in the yield curve on securities and own funds. In fact, in 2022, a year marked by higher government bond yields, significant unrealised losses stemmed from the revaluation of securities, which had a negative impact on own funds. As most securities measured at fair value via other comprehensive income (FVOCI) items are de facto held to maturity, amid a relative stabilisation of bond yields in 2023-2024, the market value of securities in banks' portfolios for which losses had been previously recognised converged to par, thus compressing a large part of the unrealised loss.

Simulations designed to assess interest rate risk show that in the most severe scenario (Scenario 1¹³⁵), involving a parallel upward shock of 350 basis points on the yield curve of leu-denominated government securities and 200 basis points on the yield curve of EUR-denominated government stocks, the potential impact on the portfolio of central government securities on banks' balance sheets, measured at fair value as at 30 September 2024, amounts to a decrease in Tier 1 capital of 9.7 percent (Chart 3.16). Alternative scenarios would lead to a potential reduction in Tier 1 capital of 1.2 percent and 5.1 percent respectively. The loss is heterogeneous at bank level, varying between -29.7 percent and 0 percent relative to Tier 1 capital consistent with Scenario 1, depending on the balance sheet structure and the accounting classification of the securities portfolio (e. g. measured at fair value).

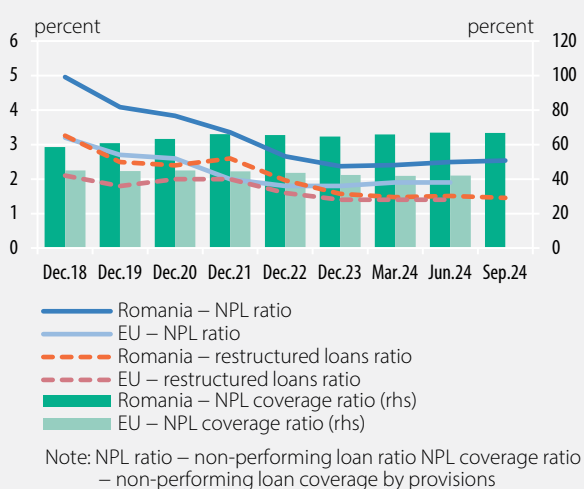
Despite high exposures, the capital requirements for credit risk associated with the central government are low, the average risk weight specific to these exposures according to the standardised approach being 3.5 percent, hinting at banks' preference to increase their exposures to the state. The current treatment of public debt issued in the currency of another EU Member State foresees the implementation of a zero risk weight in 2024, unlike the previous year when capital requirements for foreign currency-denominated exposures had an applicable risk weight of 10 percent.

¹³⁵ Scenario 1: a parallel upward shock of 350 basis points on the yield curve of leu-denominated government securities and 200 basis points on the yield curve of EUR-denominated government stocks; Scenario 2: steepening the slope of the yield curve on leu and EUR-denominated government securities by applying: (i) negative shocks of up to 500 basis points on short-term lei yields and positive shocks of up to 250 basis points for long-term lei yields, and (ii) negative shocks of up to 250 basis points on short-term EUR yields and positive shocks of up to 100 basis points on long-term EUR yields; Scenario 3: increase in short-term interest rates by up to 500 basis points for leu-denominated government securities and up to 250 basis points for EUR-denominated government stocks.

3.1.3. Asset quality

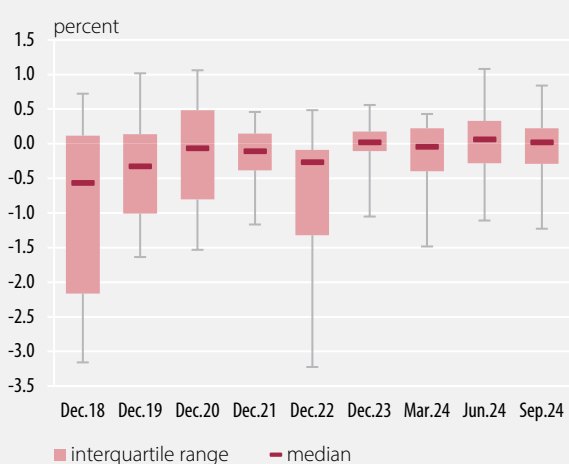
In the course of 2024, Romania's banking sector painted a favourable picture in terms of asset quality indicators. Similarly to developments at European level, the non-performing loan (NPL) ratio grew only marginally against end-2023, i.e. up 0.2 percentage points to 2.54 percent (September 2024, Chart 3.17). The evolution is based on the increase in the stock of non-performing loans (7.5 percent), concurrently with a slower rise in total loans and advances (0.5 percent).

Chart 3.17. Key asset quality indicators



Source: NBR, EBA

Chart 3.18. Distribution by banks of the net annual flow of non-performing loans relative to the stock of performing loans



Source: NBR

At individual level, only certain domestic banks posted a marginal increase in the non-performing loan stock in 2024, as illustrated by the net flow of non-performing loans relative to performing loans (Chart 3.18). The evolution of non-performing loans and advances was mainly driven by loans to SMEs (+16 percent) and consumer credit (+8.4 percent). The net flow of non-performing loans associated with the real sector has stood at lei 924 million since end-2023, following an upward trend over the past two years. Looking at the portfolio typology, the NPL ratio on loans to SMEs has increased by around 0.4 percentage points since end-2023. For other portfolios of the real sector (e.g. exposures secured by commercial, real estate, consumer guarantees), the non-performing loan ratio declined in this period, with consumer loans being still the riskiest group (see Chapter 2).

Romania's banking sector maintains a prudent approach to credit risk management, the NPL coverage by provisions remaining the second highest among EU Member States (66.8 percent in September 2024 versus the EU average of 42 percent in June 2024¹³⁶).

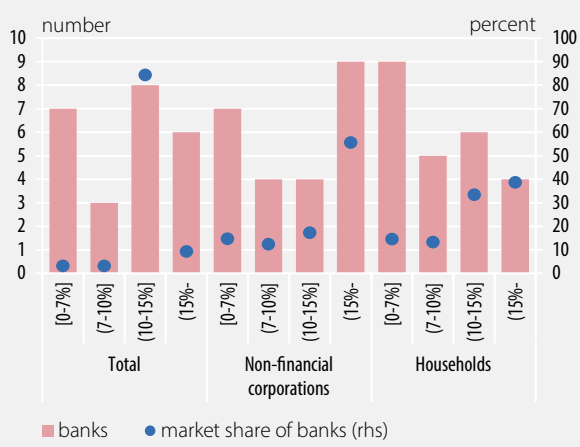
The restructured loans ratio was relatively steady throughout the year (1.5 percent, September 2024). The breakdown of restructured loans has adjusted in recent years, as illustrated by the larger share of performing loans. While at end-2018 the

¹³⁶ EBA, 2024 Q2

restructured performing loans accounted for only 23 percent of total restructured loans, their volume currently equalling that of non-performing loans, due to the lower stock of restructured non-performing loans (-45 percent) and the higher stock of performing loans (+63 percent).

The share of loans in Stage 2 of impairment under IFRS 9 in total loans and advances (12 percent, September 2024), an early warning indicator of asset quality worsening, narrowed by 1.8 percentage points from end-2023, standing, however, 2.7 percentage points higher than the EU average (9.3 percent, June 2024). On the other hand, the coverage ratio of Stage 2 loans posted a level considered conservative (9.6 percent, September 2024), significantly above the European average of 3.5 percent (June 2024), reflecting the pre-emptive strategy of local credit institutions vis-à-vis the potential expected risks associated with the real sector, which could impact its creditworthiness.

Chart 3.19. Distribution of the ratio between loans and advances in Stage 2 of impairment and total loans and advances by institutional sector (September 2024)



Source: NBR

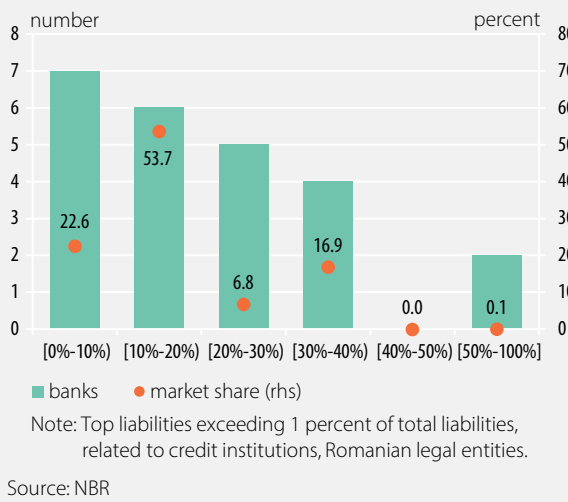
The distribution of the share of Stage 2 loans in total loans and advances (Chart 3.19) reflects differentiated approaches among banks, with higher values being recorded by large banks in particular. Turning to the exposures to non-financial corporations, this indicator came in at 14.9 percent, with nine banks (cumulatively holding approximately 60 percent of total loans and advances) posting values above 15 percent. As for Stage 2 exposures to households, the share is 13.6 percent of total household loans, while the market share of banks holding more than 10 percent of loans and advances to households surpassed 70 percent. The portfolio of household loans secured by real estate includes Stage 2 loans, accounting for 14.7 percent, i.e. 3.8 percentage points higher than consumer loans.

3.1.4. Resilience of the banking sector

The Romanian banking sector has proven resilient in the recent period by maintaining adequate asset quality, liquidity and solvency indicators, in the context of high profitability. However, banks need to exhibit prudent behaviour in the period ahead, amid uncertainties, as well as from the perspective of the envisaged fiscal consolidation measures, dictated by the protracted budget deficits and the rise in public debt, which would have potentially negative effects on borrowers' financial standing and creditworthiness. At the same time, higher cyber risk calls for greater vigilance from credit institutions, as financial services digitalisation and a connection with third-party service providers have increased.

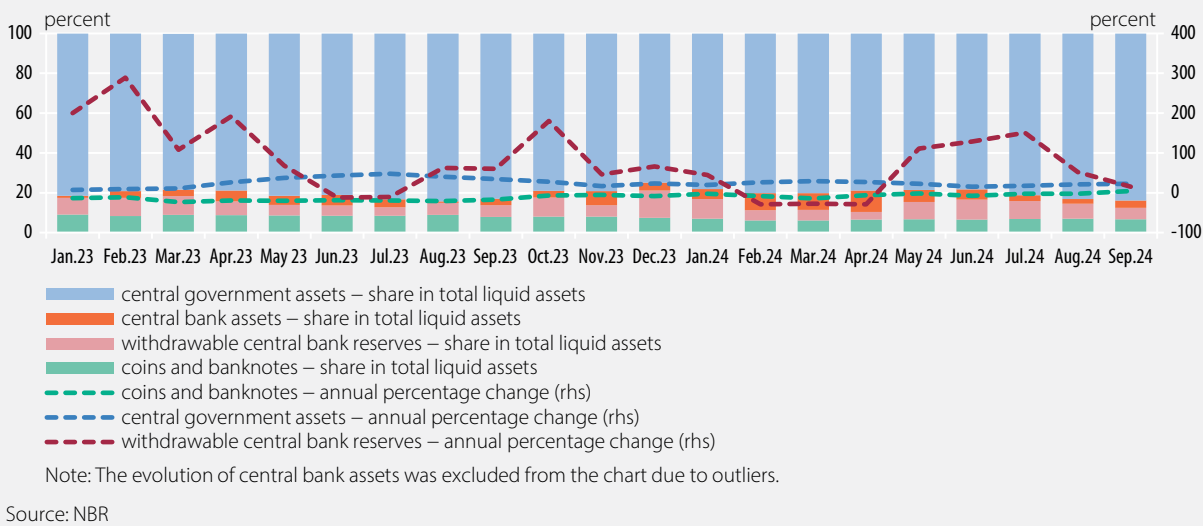
The liquidity indicators introduced at EU level (LCR – the liquidity coverage ratio and NSFR – the net stable funding ratio) performed well in European comparisons. At aggregate level, the LCR (248.8 percent, September 2024) and the NSFR

Chart 3.20. Distribution of banks based on the share of the 10 largest funding sources in total liabilities



(197.2 percent, September 2024) were above the 75th centile of the European distribution (247.2 percent and 148.7 percent respectively, June 2024). A high LCR ensures a substantial liquidity buffer to cover short-term withdrawals (30 days) under adverse circumstances, whereas a high NSFR guarantees that banks do not rely excessively on short-term funding sources (considered unstable), instead they have a balanced mix of stable funding to support their asset holdings. The liquidity buffer for LCR calculation consists mostly of general government assets (84 percent¹³⁷, September 2024) and of withdrawable central bank reserves (5.7 percent). Coins and banknotes (holding a 6.7 percent share) have the lowest volatility in the period under review (Chart 3.21).

Chart 3.21. Breakdown and evolution of components of the liquidity buffer for LCR calculation



Raising interest rates or maintaining them at high levels led to the migration of demand deposits towards time deposits, which entailed lower liquidity outflows, and had a positive impact on the LCR indicators specific to banks in the EU and Romania in 2023. However, once interest rates stabilised or embarked on a downward trajectory, this trend witnessed a reversal.

The share of liquid assets in banks' balance sheets (33 percent¹³⁸, September 2024) places Romania among the top banking sectors in the EU and provides ample room for credit institutions in the event of unexpected bank runs. The non-diversified liquidity buffer (consisting mainly of general government assets) is based on the

¹³⁷ The share of these instruments in total liquid assets is higher only in countries such as Poland or Iceland. Source: *EBA Report on Liquidity Measures under Article 509(1) of the CRR* (EBA/REP/2023/40)

¹³⁸ Determined as the share of the liquidity buffer for LCR calculation in total assets

favourable prudential treatment of government securities, given a lack of alternative investments and a relatively weak lending activity in relation to banks' resources (a loan-to-deposit ratio for non-bank customers of 67.3 percent in September 2024, below the 25th centile in the EU, which was 74.2 percent, June 2024¹³⁹).

Increased granularity of banks' liabilities, also confirmed by the relatively small share of the largest funding sources in total debt, ensures the good stability of funding sources. The low volatility of funding sources over an entire financial cycle (2007-2014) shows that customers preserved their confidence in credit institutions even under adverse circumstances. Nevertheless, this low fluctuation could also be explained by the weak appetite of bank creditors for other types of investments, in the context of modest financial literacy, the ageing trend of the population, as well as of uncertainties surrounding the macroeconomic framework, characterised more frequently by the search for stable and predictable yields.

Most banks (with a market share of 76 percent) hold up to 20 percent of the total large funding sources in total debt, suggesting a low risk profile in terms of concentration. The vulnerabilities identified for a few banks are limited (Chart 3.20): banks with an insignificant market share (0.1 percent) recorded more than 40 percent of large funding sources. Even in the case of these credit institutions, the sources identified are from parent banks or from other entities within the group, for which the anticipated withdrawal of financing is unlikely.

Banks did not have to liquidate their assets in a short time to cover potential liquidity shortfalls. The composition of the liquidity reserve (consisting mainly of government securities) would allow credit institutions to engage in operations with the central bank in order to accommodate temporary liquidity shortfalls. However, the recent period was characterised by excess liquidity on the interbank money market, mopped up by the central bank via the deposit facility (with average daily transactions amounting to lei 39.2 billion, September 2024).

The liquidity risk and/or funding risk of credit institutions following possible shocks induced by the worsening of solvency ratios is low. Specifically, the adequate solvency levels even under stress conditions contribute to preserving the confidence of depositors and other creditors in banks' capacity to service maturing debts or cover the funding cost, without exerting pressure on banks' liquidity position.

Although local banks' liquidity risk is viewed as low, the current environment (characterised by increases in geopolitical tensions and digital services, as well as by the emergence of new risks linked to the implementation of artificial intelligence technologies in the financial field) requires maintaining a high level of prudence and rethinking the methods currently used to identify and address traditional banking risks. Cyberattacks can transform an operational crisis (with relatively low direct losses) into a liquidity crisis, by way of a bank run if there is generalised panic induced by the operational unavailability of the bank or entities attacked. Therefore, credit institutions must invest in advanced cybersecurity solutions to lessen the effects of

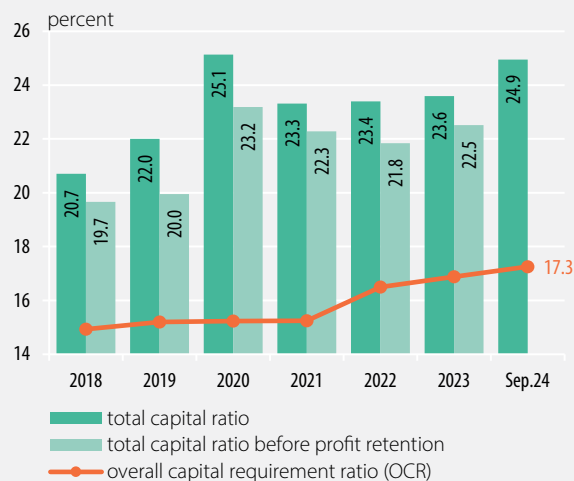
¹³⁹ Source: EBA

cyberattacks, including the indirect ones, which may become systemic and impact financial stability.

In terms of solvency, the resilience of the banking sector to potential adverse macroeconomic developments strengthened, as reflected by the dynamics of the main capital adequacy indicators, as well as by the results of the solvency stress test covering the 2024-2026 period.

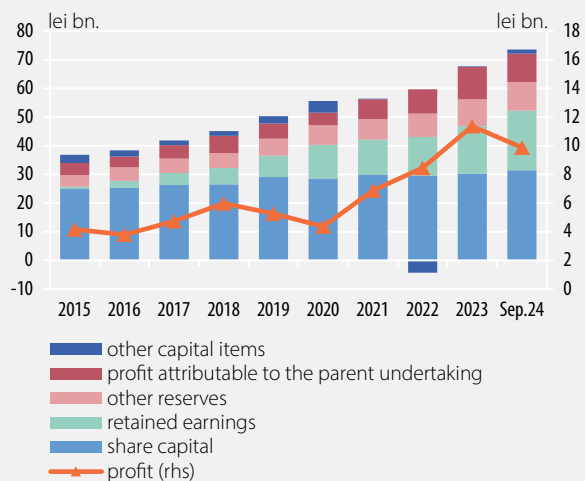
In 2024, the total capital ratio increased to 24.9 percent in September 2024, above the EU average of 20.1 percent (June 2024). The high profit retention ratio contributed significantly to this growth (Chart 3.22). The capital surplus over the overall capital ratio (17.3 percent) expanded, the macroprudential measures to restrict dividend distribution adopted during the COVID-19 pandemic being relevant for these dynamics, with positive effects on mitigating systemic vulnerabilities. The breakdown of capital requirements, especially those associated with credit risk – the most relevant for the Romanian sector –, shows the penchant for less risky assets, as highlighted by the dynamics of the overall risk ratio, which has decreased constantly over the years to 27 percent (September 2024, Chart 3.23). These developments indicate a declining risk appetite of credit institutions, both as a result of alternatives to lending to the real sector, and due to constraints from eligible demand.

Chart 3.22. Total capital ratio before and after profit retention



Source: NBR

Chart 3.23. Capital and its components over the last decade

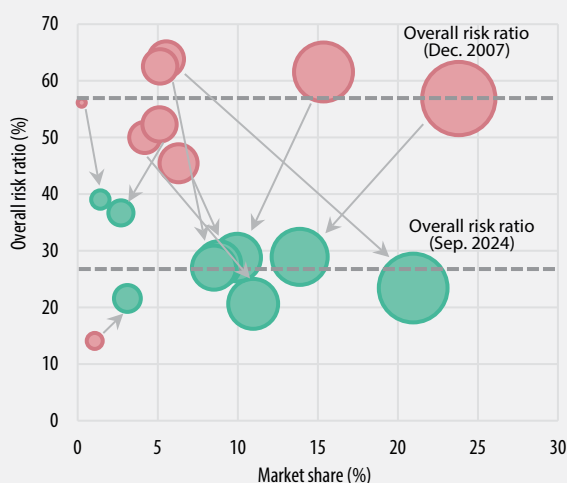


Source: NBR

The securitisation operations of the Romanian banking sector are low, accounting for 1.1 percent of the assets of credit institutions, Romanian legal entities (September 2024), polarised across three banks.

These practices are expected to continue in the coming period. The benchmark portfolios subject to securitisation remained in banks' balance sheets, the potential losses being allocated to tranches based on seniority.

Chart 3.24. Overall risk ratio for a selection of banks and at aggregate level



Source: NBR

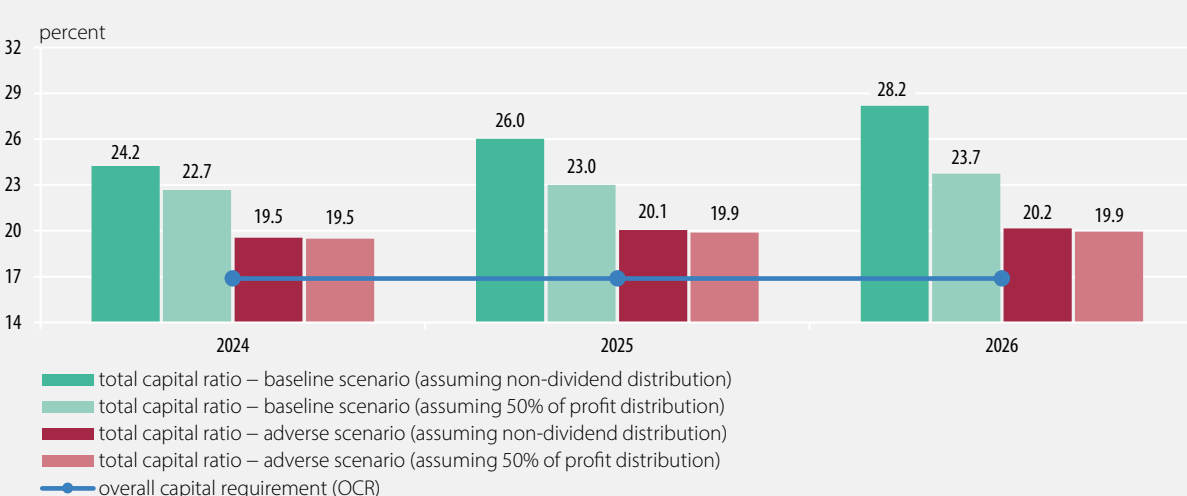
Pressures on the capital position exerted by the expiry of the measures under the CRR “quick fix” package (introduced via Regulation (EU) 2020/873) are offset by the entry into effect, in the period under review, of the transitional changes provided in the CRR3 package (Regulation (EU) 2024/1623). Therefore, banks will further receive a favourable treatment related to the capital position.

Over the past decade, banks in Romania have pursued a conservative dividend distribution policy (Chart 3.23), with a retention ratio of 59 percent over the medium term (measured as the ratio of total profit for the period from December 2015 to September 2024 to the change in total own funds over the same period). In the past two years, as the economy started to recover after the period

of suspending and limiting dividends amid the COVID-19 pandemic, banks resumed dividend distribution. This process was balanced, adjusted depending on each bank’s capacity to maintain adequate capital levels, under the careful supervision of the National Bank of Romania.

The results of the solvency stress test covering the 2024-2026 period show the adequate resilience of the Romanian banking sector at aggregate level, supported by a robust operational capacity, especially among large banks. However, a series of small-sized banks with a limited market impact (1.8 percent asset share in the adverse scenario) might record capital shortfalls in the scenarios tested, amid lower operational efficiency.

Chart 3.25. Total capital ratio according to the solvency stress test covering the 2024-2026 period



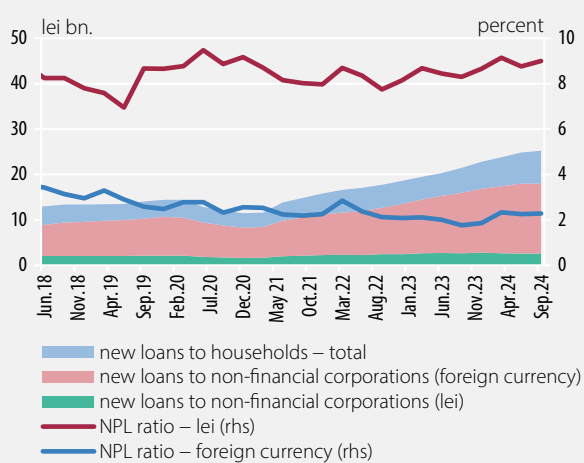
Source: NBR

The total capital ratio would increase throughout the entire period under review in the baseline scenario and gradually reach 28.2 percent in 2026, assuming the non-distribution of dividends (Chart 3.25). In the scenario of distributing 50 percent of the profit, the total capital ratio would stand at 23.7 percent at the end of the reviewed period. In the adverse scenario, the solvency ratio would decrease to approximately 20.2 percent at end-2026 (19.9 percent if 50 percent of the profit is distributed).

3.2. Non-bank financial institutions

The aggregate balance sheet of non-bank financial institutions recorded a 16 percent annual increase at end-2024 Q2, with total assets reaching lei 68.2 billion. The composition of assets shows that currency, overnight deposits, time deposits and other equity witnessed a considerable advance year on year, whereas unlisted shares and financial derivatives declined. The portfolio of loans granted to non-financial corporations and households, which were reported to the Central Credit Register, amounted to lei 52.5 billion at end-September 2024, up 14 percent from September 2023.

Chart 3.26. Non-performing loan ratio and new loans (12-month rolling sums)



Source: NBR

New loans provided by NBFIs have been on an upward path since mid-2021, primarily on the back of foreign currency-denominated loans to non-financial corporations (Chart 3.26).

Most NBFIs exposures to the real sector are loans to non-financial corporations (80 percent), which have a clear and constantly growing preference for foreign currency-denominated loans (84 percent, up 3 percentage points over the past two years). These dynamics are explained by the prevailing share of leases in total corporate loans (67 percent, 2024 Q3), being characterised by foreign currency-denominated exposures and low non-performance. The sectors that resort the most to lending from NBFIs are services, communications, and agriculture. The highest share of loans more than 90 days past

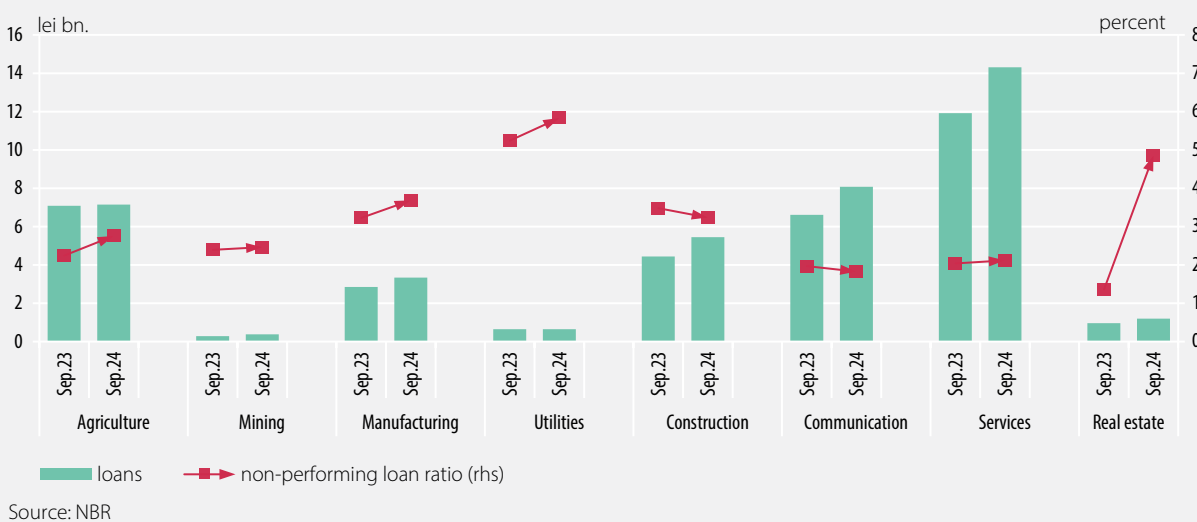
due is held by utilities firms (5.8 percent, September 2024), followed by real estate companies, posting a steep rise over the past 12 months (from 1.36 percent to 4.85 percent), Chart 3.27.

At aggregate level, the non-performing loan (NPL) ratio¹⁴⁰ for loans granted by NBFIs stood at 3.7 percent (+0.4 percentage points in September 2024 versus the same year-ago period). The portfolio of NBFIs loans to non-financial corporations has a significantly lower NPL ratio than that of NBFIs loans to households (2.59 percent

¹⁴⁰ The NPL ratio in the case of NBFIs is calculated as the ratio of the sum of loans more than 90 days past due to total credit.

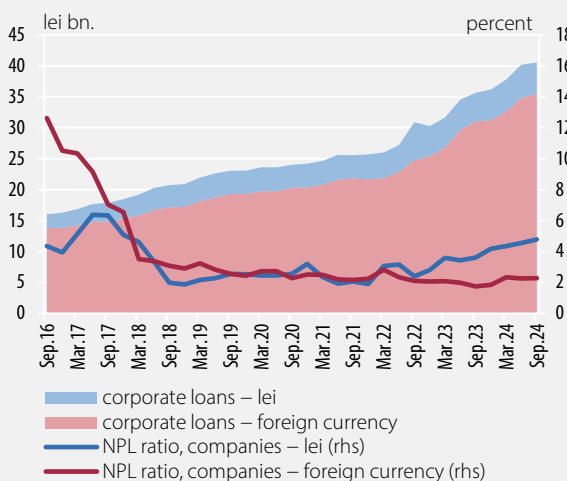
compared to 7.45 percent, Charts 3.28 and 3.29). Foreign currency-denominated loans granted by NBFIs are associated with better payment discipline than those in domestic currency, for both non-financial corporations and households. This has been especially the case over the past five years, after a period marked by significant NPL ratios for foreign currency-denominated loans to companies (2012-2017).

Chart 3.27. NPL ratio for the corporate portfolio by business sector



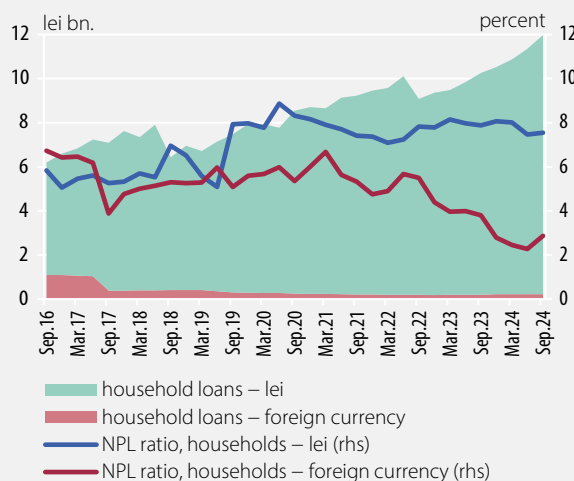
Source: NBR

Chart 3.28. Corporate loans and NPL ratio (lei/foreign currency)



Source: NBR (CCR)

Chart 3.29. Household loans and NPL ratio (lei/foreign currency)

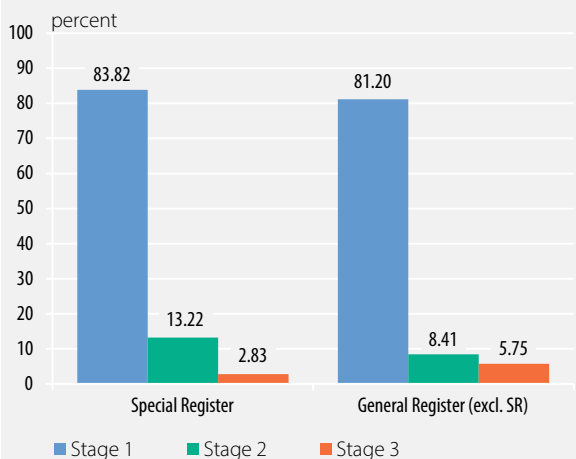


Source: NBR (CCR)

According to IFRS reports submitted by non-bank financial institutions for September 2024, there has been a slight increase in annual terms in loans and advances classified in Stage 2 and Stage 3 of impairment by NBFIs listed in the Special Register (+3.3 percentage points for Stage 2 and +0.7 percentage points for Stage 3 respectively). Specifically, 13.2 percent of loans and advances are classified in Stage 2 (for which credit risk has gone up significantly since the initial recognition), and

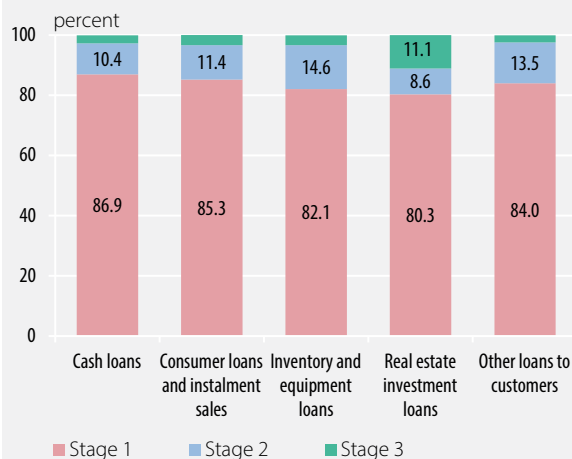
2.8 percent are included in Stage 3 (non-performing), Chart 3.30. Looking at claims from client operations, inventory and equipment loans held the largest share of Stage 2 loans, whereas real estate investment loans accounted for most of Stage 3 loans (Chart 3.31).

Chart 3.30. Share of assets under various stages of impairment in total loans and advances, September 2024



Source: NBR

Chart 3.31. Share of assets under various stages of impairment by type of loans, Special Register, September 2024



Source: NBR

4. FINANCIAL SYSTEM INFRASTRUCTURE – STABILITY OF PAYMENT AND SECURITIES SETTLEMENT SYSTEMS¹⁴¹

During the period under review, all payment and securities settlement systems in Romania continued to function smoothly, without major operational incidents.

The National Bank of Romania has been steadily monitoring financial market infrastructures in order to ensure their effective and safe operation with a view to maintaining financial stability. This implies, *inter alia*, monitoring and testing the action plans where improbable but predictable risks materialise. The oversight by the National Bank of Romania is based on the international oversight standards set out in the Principles for financial market infrastructures and implemented by way of NBR Regulation No. 3/2018.

4.1. Stability of payment systems

Functioning of ReGIS¹⁴²

In 2024 H1, ReGIS system rules were updated to reflect GDPR requirements. In the context of migrating to an improved version of the ReGIS system application, the aim of the update was to fill out the personal data processed by the new ReGIS system application, as well as to reconsider the basis for the processing of personal data.

Looking at the system activity, the value of processed payments increased to lei 17,904 billion compared to lei 13,805 billion at end-2023. The number of transfer orders went up to 5.8 million from 5.5 million in 2023 H2.

On 25 June 2024, the system reported a peak number of payments per day, i.e. 88,889 payment instructions. It is worth mentioning that, in spite of this elevated volume, the system faced no problems in terms of processing capacity¹⁴³.

¹⁴¹ This chapter was prepared by the Financial Market Infrastructures and Payments Oversight Department.

¹⁴² ReGIS is the most important payment system in Romania, ensuring the real-time gross final settlement of participants' transfer orders and of net positions arising from ancillary systems.

¹⁴³ According to the oversight standards in the field, ReGIS is designed to take in, within one hour, 40 percent of the estimated highest daily volume of payments in order to process in a short period of time a large volume of payments left unprocessed in the aftermath of a major, lengthy incident (including a cyber incident). At the same time, the processing power of ReGIS servers is scalable, so as to quickly accommodate sustained increases in the volume of payments.

In 2024 H1 the average settlement ratio¹⁴⁴ amounted to 100 percent, reflecting a good settlement discipline. Furthermore, the average monthly availability ratio¹⁴⁵ came in at 100 percent, indicating that the system, which functions on the technical platform operated by the central bank, was fully reliable.

The probability for the liquidity risk to materialise remains low, as reflected by the absence of gridlock situations in the waiting queues. At the same time, the number of intraday loans required by the participants to facilitate payments in ReGIS decreased significantly from 126 in 2023 H2 to 9 in 2024 H1.

The number of participants in ReGIS amounted to 34 entities, including ancillary systems.

Both the number and the value of transactions posted a slightly higher concentration ratio¹⁴⁶. Specifically, the records show an increase from 61.5 percent to 63.1 percent for the volume of transactions and from 58 percent to 60.7 percent for the value of transactions. These trends suggest a reduced likelihood for the contagion risk to materialise in the system.

Functioning of SENT¹⁴⁷

In the period under analysis the system rules governing SENT were subject to some changes, as a result of including the RoPay service among the services provided by TRANSFOND S.A. The RoPay service allows real-time payments, 24 hours a day, 7 days a week, so that funds are available in the beneficiary's account within seconds from the initiation of the transfer. This service is integrated into the IT payment infrastructure of TRANSFOND S.A., and the payment instructions initiated through the RoPay service are netted and settled through the Instant Payment component of SENT. Moreover, the system rules were reworded and supplemented – in this respect worth mentioning is the waiver of the requirement for indirect participants in the SENT system to have a physical presence in Romania through a branch, which could boost an increase in the number of indirect participants. The possible rise in the number of indirect participants from outside Romania will not pose additional risks to SENT or its participants, as appropriate control measures are in place.

In 2024 H1, the value of netted orders in lei in SENT totalled lei 280 billion compared to lei 283 billion in 2023 H2. However, the number of transactions rose to 79.2 million compared to 76.6 million in the previous six-month period.

¹⁴⁴ Calculated as a ratio of transfer orders settled in the system to the accepted transfer orders.

¹⁴⁵ The availability ratio is defined as a ratio of the actual operating time to the scheduled operating time, during the system's normal operating hours.

¹⁴⁶ Calculated as the sum of the five largest individual market shares in terms of the value or volume of settled transfer orders. The alert threshold stands at 80 percent, with higher values indicating a significant probability for the systemic risk to materialise.

¹⁴⁷ SENT is an electronic system for the multilateral netting of retail interbank payments among participants, during several daily sessions.

Looking at transactions in euro, the value of netted orders dropped from EUR 2.23 billion to EUR 1.97 billion. At the same time, the number of payment transactions in euro saw a decline from 308.27 thousand to 289.14 thousand in the period under review.

The monthly availability ratio of SENT, operated by TRANSFOND S.A., stood at 100 percent¹⁴⁸ for both the multiple payment component in lei and the multiple payment component in euro, which proves the smooth functioning of this system.

The settlement ratio¹⁴⁹ of lei-denominated payment instructions remained elevated, i.e. 99.56 percent, which indicates a good settlement discipline. In parallel, the netting ratio rose from 24.79 percent to 26.7 percent, which reflects an efficient management of lei-denominated liquidity, without significant risks¹⁵⁰.

The settlement ratio of EUR-denominated payment instructions remained at 100 percent, which shows a strong payment discipline.

The number of participants in SENT – the lei component stood at 35 institutions.

In terms of the volume of netted orders in lei, the participants' concentration ratio posted a slight increase from 62.4 percent to 63.6 percent, while in terms of value it rose from 61.4 percent to 62.6 percent. This shows a low likelihood for the contagion risk to materialise in the SENT system.

4.2. Securities settlement systems

Functioning of SaFIR

In the period under analysis the system rules governing SaFIR were brought up to date. In the context of migrating to an improved version of the SaFIR system application, the aim of the update was to fill out the personal data processed by the new SaFIR system application, as well as to reconsider the basis for the processing of personal data. Other relevant provisions were also amended/supplemented with regard to: (i) the suspension of participants if they consistently and systematically fail to deliver the securities related to transactions at the intended settlement date (ISD); (ii) the application of cash penalties to instructions held back from settlement and not settled until ISD; (iii) the obligation of confidentiality if participation is terminated, as well as (iv) the provisions related to the prevention and combating of money laundering and terrorist financing in line with the applicable legislation in the field.

¹⁴⁸ The system rules set forth a minimum accepted limit of 99 percent.

¹⁴⁹ Calculated as a ratio of the value of netted-settled transfer orders to the value of processed transfer orders.

¹⁵⁰ The alert threshold consists in a netting ratio below 10 percent, coupled with large-value net debit positions, which can pose systemic risks if a critical participant does not participate in the settlement.

SaFIR functioned optimally, the availability ratio¹⁵¹ standing at 100 percent.

In 2024 H1 the aggregate value of leu-denominated securities recorded in SaFIR followed an upward trend, reaching lei 362 billion from lei 329 billion in the previous six-month period.

The number of transactions increased from 20,602 to 23,474¹⁵². At the same time, the value of transactions fell from lei 372.8 billion to lei 359.1 billion.

The number of EUR-denominated transactions went up from 272 in 2023 H2 to 341 in 2024 H1. Moreover, the value of EUR-denominated transactions also picked up from EUR 788 million in 2023 H2 to EUR 818 million in the period under review.

Free-of-payment transfers expanded in terms of volume, i.e. from 3,075 in 2023 H2 to 3,587 in 2024 H1.

The settlement ratios¹⁵³ continued to be high, standing at 99.93 percent for transactions in lei and at 99.6 percent for transactions in euro, which indicates a good settlement discipline.

The number of participants in SaFIR amounted to 32 institutions, of which: 3 central depositories, the National Bank of Romania, the Ministry of Finance and the remaining were credit institutions or branches of credit institutions.

Functioning of RoClear

During the period under review, the Central Depository, the administrator of the securities settlement system RoClear, obtained the NBR's approval to make several changes to the system rules. These amendments envisaged mainly setting new principles for determining, by reference to the replacement cost, the level of variable contributions to the Guarantee Fund administered by the Central Depository and used to cover net settlement transactions, carried out by participants in the RoClear system. These new principles will have a lower impact in terms of liquidity cost on RoClear participants. In addition, the wording was amended and supplemented for greater clarity, being also updated to reflect compliance of the rules governing the Central Depository with the changes to Regulation (EU) No 909/2014. Specifically, for transactions settled in other currency than the leu or the euro, the settlement can be performed through a credit institution or through a central depository authorised to provide banking-type ancillary services, with which the Central Depository S.A. opens an account.

¹⁵¹ The availability ratio is defined as a ratio of the actual operating time to the scheduled operating time, during the system's normal operating hours.

¹⁵² The system's processing capacity allows for much larger volumes of instructions to be settled.

¹⁵³ Calculated as a ratio of the value of netted-settled transfer orders to the value of processed transfer orders.

4.3. Operational and security incidents affecting payment services providers

In 2024 H1, 5 payment services providers (PSPs) reported 9 major operational incidents and 1 major security incident to the central bank, i.e. down by 55 percent from the previous six-month period. The major incidents that occurred affected the availability of some payment services relating to: (i) credit transfers performed by means of internet or mobile banking applications, (ii) card payment acceptance (e.g. the impossibility of using POS/ATM terminals), (iii) card payment transactions and cash withdrawals from a payment account, (iv) direct debit payment transactions and (v) open-banking – the provision of account information and payment initiation services.

These major incidents were caused by both internal and external issues, as reported by PSPs. For example, a Distributed Denial of Service (DDoS) attack, power outages at some payment services providers' sites, equipment or application failures and operation errors.

4.4. Technological innovation and payment services security

The NBR is permanently connected to Fintech entities through the Fintech Innovation Hub – the dedicated channel made available to the latter. Specifically, it remains involved, on an ongoing basis, in innovation projects in the financial and payments sector and payments market development projects. The number of entities having submitted an application amounted to 67. Moreover, one Fintech entity was authorised as an electronic money institution, one Fintech entity submitted a formal application for authorisation as a payment institution and two Fintech entities initiated a prior consultation process in order to submit a formal application for authorisation as a payment institution.

Furthermore, with input from the Romanian Association of Banks and TRANSFOND S.A., a payment scheme called RoPay was developed across the banking community. This includes the development of new business models (person-to-person, person-to-business, person-to-merchant payments) that should enable interbank or intrabank instant payments at the points of sale, based on uniform standards, while using the central infrastructure of the RoPay service, implemented at TRANSFOND level. These standards will allow users to initiate instant payments in a much easier but more secure way, thus paving the way for the development of alternative card- and cash-based payment solutions.

In the work to promote payment security, a diversification of fraud methods was noted in the aftermath of the malicious use of new technologies. The most common fraud scenarios refer further to social engineering frauds based on various forms of user manipulation. In this respect, a number of scenarios were identified, such as: the promise of big returns in exchange for investing small amounts of money, the fictitious request to update personal data registered with payment services providers

or the undertaking of alleged actions to unlock the account, etc. In addition, new fraud scenarios were identified in the Romanian market, such as: deepfake by which fraudsters use technology to create videos featuring well-known people that spread false information in the criminals' interest; smishing, a fraud method similar to phishing in which false messages, which seem to come from official sources, are communicated through SMS; and spoofing, a method by which fraudsters make a fake email address, caller ID, website, IP address or even build a fake DNS (Domain Name System) server. The central bank has been monitoring this phenomenon on a continuous basis, issuing recommendations for payment services providers to strengthen security measures in line with the existing fraud scenarios. The following recommendations made during the period under review are worth mentioning: (1) the implementation of real-time transaction monitoring tools for payment transactions initiated through remote access payment instruments, namely cards, allowing the identification of potentially fraudulent transactions and (2) the improvement of modalities to link cards to various payment applications, or activate mobile-banking applications and token software at the time when new devices are added to the payment services providers' systems.

At the same time, in order to mitigate the fraud risk related to leu-denominated credit transfer payment services, the NBR reiterated in 2024 H1 its previous recommendations to payment services providers on the implementation of the Beneficiary Name Display Service (BNDS), which allows the verification of the correspondence between the IBAN code and the beneficiary's name.

5. FINANCIAL STABILITY, REGULATORY FRAMEWORK AND MACROPRUDENTIAL POLICIES

5.1. Capital buffers applicable to credit institutions, Romanian legal entities

The macroprudential policy has increased its role once passing the maturity test, proving its effectiveness in front of the successive shocks facing the global environment in the past five years. Macroprudential instruments, designed and then implemented on a large scale due to the need to prevent shocks, such as those generated by the fallout from the Great Financial Crisis, seem likely to become more than measures used exclusively for managing vulnerabilities specific to the financial sector and include new responsibilities. While still in a draft stage, broadening the scope of macroprudential policy is encouraged at European level.

Box 6. Current and future challenges of the technological progress

In the welcome address at the eighth annual conference of the European Systemic Risk Board, Christine Lagarde, President of the ECB, pleaded for extending the role of macroprudential policy in strengthening resilience and ensuring financial stability, in front of the challenges that technological innovations may pose to the financial system. The ECB's President made particular reference to technologies like quantum computing and generative artificial intelligence (AI). Cryptography is the cornerstone of the modern financial system, and without it, no card transactions or internet banking transfers could be made. All these became real after the public-key cryptography (RSA algorithm) emerged in late 1970s. The family of public-key cryptography protocols is the most vulnerable to a quantum computing attack.

The special characteristics of this computational paradigm enable the running of Shor's algorithm, probably the best-known quantum algorithm, and the factorisation of a very large number in polynomial time. However, a strong academic effort is put forth in parallel, developing a mathematical theory for a post-quantum world, where the new algorithms have security guarantees even when the computational power of a functional quantum computer is used. Also worth noting is the active effort of implementing preventive measures to strengthen the current systems by standardising new post-quantum protocols to withstand standard or quantum attacks. Mention should be made that, despite the progress made, a system large enough to enable the running of Shor's algorithm and, implicitly, the unauthorised decryption of current systems is yet to be built. The industry consensus is that such a threshold could be reached no sooner than the 2030s and,

thus, no imminent danger is in sight. The great technological challenge of building a quantum computer large enough is related to the correction of errors generated by environmental disruptions. With the objective of prudence in mind, the authorities should make efforts to migrate towards safe protocols, because the quantum moment can be a particularly dangerous point for data safety and the smooth functioning of financial systems built starting with the end of 1970s and up to now.

Under safety and predictability conditions, the economic impact of progress in quantum information technology will be historically high. This is also the message of Christine Lagarde, highlighting that, in order to benefit the most from technological advances, conditions should be created to ensure financial stability and implement mechanisms to prevent using them to the detriment of citizens.

A more visible and closer challenge is that of generative AI. The enhanced capabilities of linguistic models have already been applied in various industries and have impressed thanks to the apparent fluency and coherence of generated texts. Unlike the progress made in automated learning and computerised vision at the beginning of the 2010s, the revolution produced by linguistic models implies much more complex challenges.

President Lagarde also recalled the moment when a faulty software update from a global cybersecurity firm triggered systems problems that left a large number of customers worldwide without access to services and affected also air travel, thus highlighting the importance the authorities should give to assessing and monitoring companies that are critical suppliers of digital services. In the current security context, these suppliers may become easy targets for states that seek to wreak havoc in rival countries.

Therefore, it is necessary to have a macroprudential approach that also takes into account the new risks posed by cybersecurity threats. While the initial role of macroprudential policy, i.e. that of safeguarding financial stability, remains unchanged, the framework, measures and instruments need to be tailored so as to cover an increasingly broad and diverse range of risks. This requires a continued adjustment, depending on the general evolution of society.

As regards the macroprudential instruments currently available to the authorities, worth noting is the more frequent use of the countercyclical capital buffer (CCyB). While in 2016 only two countries applied a CCyB rate above 0 percent and three years later their number rose to 12, after the pandemic outbreak, the message of European institutions, delivered by the European Banking Authority and the European Central Bank, was to encourage EU Member States to fully use the existing instruments. The reduction of CCyB rates in countries that had already created macroprudential space in the pre-pandemic period had a stimulative effect on their economies in the 2020-2021 period. After the signs of economic recovery have emerged, there was a growing concern for strengthening the banking sector resilience, as the majority of European countries chose to early build up capital reserves that could be subsequently used in periods of distress (Charts 5.1 and 5.2).

Chart 5.1. CCyB rate in EEA countries at end-2020

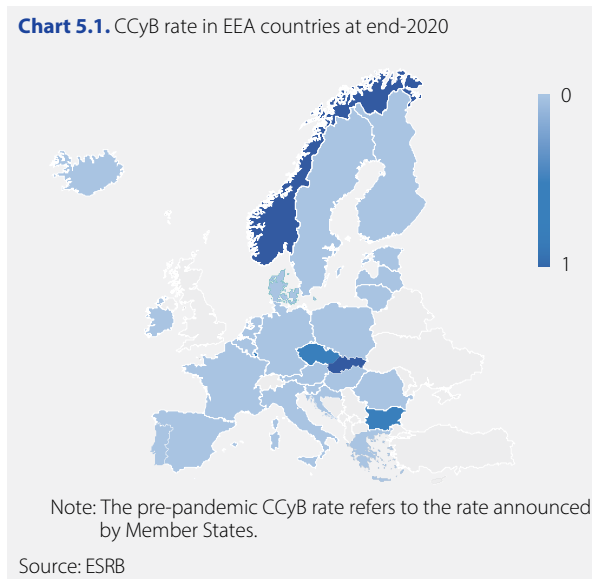


Chart 5.2. CCyB rate in EEA countries announced for 2024-2025

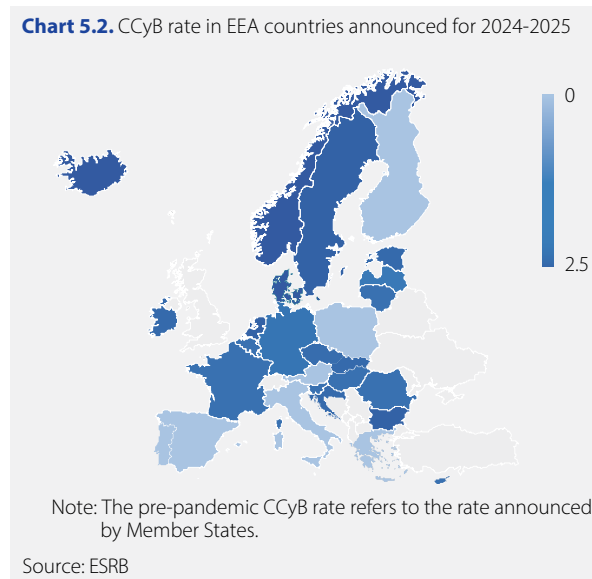
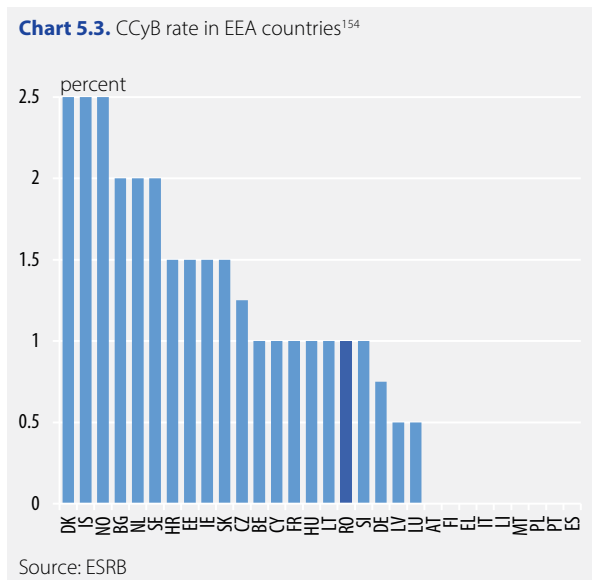


Chart 5.3. CCyB rate in EEA countries¹⁵⁴



Specifically, Norway, Sweden, Denmark, Iceland, Romania, Czechia, Bulgaria, Estonia, Germany, Croatia, Hungary, Ireland, the Netherlands, France, Slovakia, Lithuania, Cyprus, Belgium, Slovenia and Latvia took measures to raise the CCyB rate. Some of these measures have already become effective, while others will be implemented in the course of 2025.

In Romania, the General Board of the National Committee for Macroprudential Oversight (NCMO) decided to keep the CCyB rate at 1 percent in its third meeting of the year, held in October 2024. The decision was taken amid the persistence of systemic risks, especially from a geopolitical perspective, and the tensions surrounding macroeconomic equilibria. Romania is in the second half of the ranking of countries applying a

CCyB rate above 0 percent (Chart 5.3). By contrast, North European countries show the highest preference for using the countercyclical capital buffer, leading by far in the category of countries with CCyB rates of 2.5 percent (Denmark, Iceland and Norway).

The experience with the COVID-19 pandemic has sparked discussions about the role of releasable capital buffers and highlighted the desirability of enhancing their use in order to better address economic shocks, as also shown in an article published in the ECB's *Macroprudential Bulletin* of June 2024¹⁵⁵. More widespread use of releasable

¹⁵⁴ The CCyB rate announced for 2025 was taken into account.

¹⁵⁵ "The importance of being positive: costs and benefits of a positive neutral rate for the countercyclical capital buffer", ECB, June 2024

buffers has resulted in a noticeable increase in macroprudential space, the total amount of releasable buffers in the banking union reaching around EUR 82 billion¹⁵⁶. An early and gradual build-up of the main releasable buffer, CCyB, may lower the economic costs of increasing capital requirements. The new tendency in what concerns the countercyclical capital buffer is that of introducing a positive neutral rate (already implemented in Cyprus, Czechia, Ireland, the Netherlands, Lithuania, Latvia, Estonia, Sweden, Hungary and Slovenia and to be implemented in other countries, such as Greece, Spain and Poland).

From among the buffers provided for in the European regulatory framework, the systemic risk buffer (SyRB) ensures the greatest flexibility, as it can be calibrated depending on the specifics of the national banking sector and applied directly to sectoral exposures deemed to be risky. In Romania, the calibration methodology is based on the objective of ensuring the adequate management of credit risk from a macroprudential perspective. Specifically, the SyRB rate is determined on account of two indicators of asset quality assessment (the NPL ratio and the NPL coverage by provisions), being calibrated at 0 percent, 1 percent or 2 percent, depending on the methodology thresholds (5 percent for the NPL ratio and 55 percent for the NPL coverage by provisions).

Since its implementation as of 30 June 2018 and up to now, the SyRB proved its effectiveness in the prudential policy mix, the NPL ratio going down from 6.16 percent prior to buffer application to 2.54 percent in 2024 Q3. Moreover, the NPL coverage by provisions in Romania is above the EU average (41 percent), running at approximately 67 percent in June 2024 (according to EBA data).

As an overall trend in the Romanian banking sector, credit institutions applying a 2 percent SyRB rate were seen migrating to the category of banks using lower SyRB rates. This observation is supported by the fact that, in 2024 H2, no credit institution applied a SyRB rate of 2 percent.

Amid the coordination of macroprudential measures to mitigate regulatory arbitrage risks in Europe, the NCMO General Board decided, since the previous Report, not to apply through voluntary reciprocity the macroprudential measures adopted by Portugal, Denmark and Italy¹⁵⁷, given that the exposures of the Romanian banking sector to these countries are immaterial.

Box 7. The systemic risk buffer (SyRB): a sectoral approach for managing climate-related exposures

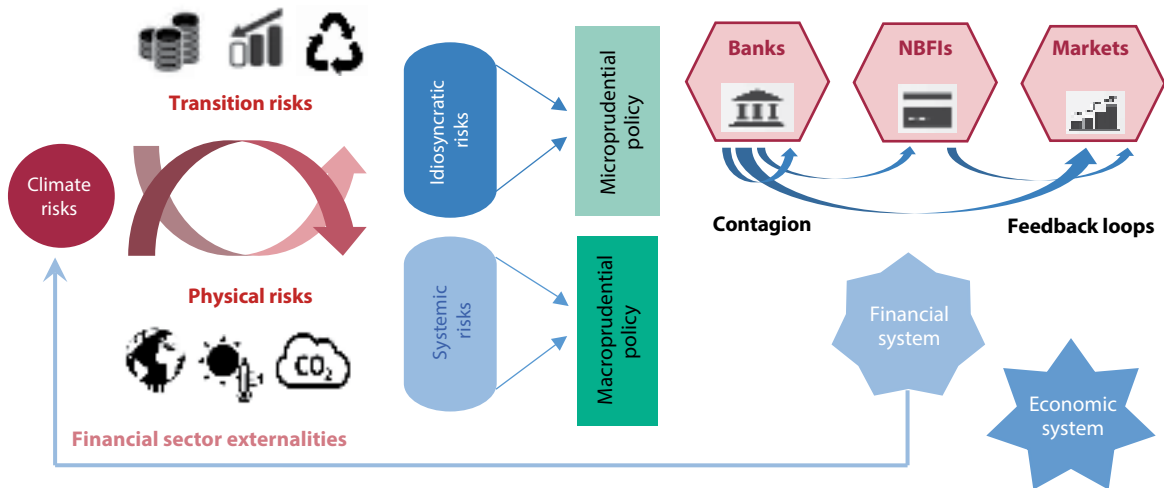
An increasingly frequent topic on the agenda of policymakers and regulatory authorities worldwide refers to the risks generated by climate change, the transition risk in particular. Climate risks pose a wide range of threats to the banking sector, carrying the potential to trigger significant systemic vulnerabilities. Underestimating climate-related risks can lead, similarly to other situations,

¹⁵⁶ *Financial Stability Review*, ECB, May 2024

¹⁵⁷ The macroprudential measures are presented in Recommendations ESRB/2023/13, ESRB/2024/2 and ESRB/2024/3.

to the build-up of systemic risks, to the inefficient allocation of capital and to economic losses associated with the irreversibility of climate change. Thus, regulatory authorities expand their toolkit for countering these threats to the financial system, by instituting a holistic approach that comprises micro- and macroprudential measures alike. A macroprudential policy that focuses on preventing the build-up of risks might fend off the inaction trend, by taking proactive measures, not just making corrective interventions, in order to mitigate these risks. The toolkit that can address these risks contains measures on both the lender's side (sectoral capital buffers, concentration thresholds) and from the borrower's perspective (such as the instruments aimed at informational failures).

Chart A. Complementarity of micro- and macroprudential measures in managing climate-related risks in the financial system



Source: ECB-ESRB, *The macroprudential challenge of climate change*, July 2022 (adapted)

Chart A depicts the way in which micro- and macroprudential policies complement one another in order to address climate risks in the financial system. Climate-related risks, through their direct and indirect impact, can generate contagion and feedback loops among banks, NBFIs and markets, while prudential interventions are of the essence to limit these effects and enhance financial resilience to climate change.

Numerous studies prepared by the ECB, ESRB, EBA or the Financial Stability Board highlight the potential of the systemic risk buffer to mitigate losses associated with climate change and to increase banking sector resilience; hence, the SyRB is acknowledged as an adequate instrument in this sense. Given the flexibility of its nature to approach specific risks, the SyRB is identified in the CRD VI as well (through the provisions of Article 133) as an instrument capable of addressing climate change-related risks. An ECB paper in 2024¹⁵⁸ shows how climate-related challenges are tackled by calibrating a general multi-rate SyRB. The calibration methodology is based on the findings of the climate stress test exercise in which

¹⁵⁸ Bartsch, F., Busies, I., Emambakhsh, T., Grill, M., Simoens, M., Spaggiari, M., & Tamburrini, F. (2024). "Designing a macroprudential capital buffer for climate-related risks" (ECB Working Paper No. 2943)

potential losses are quantified for financial institutions under short-term transition risk scenarios. The calibration of the SyRB uses a bucketing approach depending on each bank's exposure to transition risk. Estimated losses are expressed as a share of risk-weighted assets (RWA) and each bank is placed in a bucket corresponding to the estimated losses. The SyRB is then set in steps of 0.50 percentage points, depending on the level of losses estimated for each bank.

A drawback of using a general SyRB (applied to all risk-weighted assets) is that the tool does not address directly the climate risk-related exposures. Therefore, using a sectoral systemic risk buffer (sSyRB) might be a more adequate option for managing more accurately the climate risks characterised by their sectoral or geographic concentration. The buffer calibration depending on banks' exposures to high-risk sectors, defined by their vulnerability to the physical and the transition impact of climate change, could enable more effective risk management. However, there are also disadvantages when using the sSyRB, since this instrument is conceptually more complex and more difficult to manage than a general SyRB. According to current EBA guidelines on sectoral definitions, applying the sSyRB would call for the use of a high level of sectoral aggregation, which means that the instrument is not sufficiently granular to tackle risky exposures accurately.

Climate risks require a unitary approach at EU level, by implementing a common framework and close coordination among European jurisdictions. As shown in several ECB occasional papers on the economy-wide climate stress test¹⁵⁹, the earlier and more effective the transition, the lower the overall costs and risks. Macroprudential policy, through its toolkit, plays a major role in supporting the financing of the transition, while also safeguarding the financial system against the potential negative effects of climate change.

5.2. The activity of the NBR in its capacity as resolution authority¹⁶⁰

The bank resolution activity continued to focus on resolution planning, the main line of action envisaging the operational aspects of resolution strategies. Specifically, credit institutions' progress on resolvability was further monitored, *inter alia* in compliance with EBA Guidelines on improving resolvability (EBA/GL/2022/01)¹⁶¹. Additionally, the NBR in its capacity as resolution authority (NBR-RA), established the format of banks' resolvability self-assessment report [also, where appropriate, with regard to developing the capabilities set forth in EBA Guidelines for institutions and resolution authorities to complement the resolvability assessment for transfer

¹⁵⁹ Emambakhsh, T., Fuchs, M., Kördel, S., Kouratzoglou, C., Lelli, C., Pizzeghello, R., Salleo, C., & Spaggiari, M. (2023). The Road to Paris: "Stress testing the transition towards a net-zero economy. The energy transition through the lens of the second ECB economy-wide climate stress test" (*Occasional Paper Series* No. 328)

¹⁶⁰ This section was prepared by the Bank Resolution Department.

¹⁶¹ [https://www.eba.europa.eu/sites/default/files/document_library/Publications/Guidelines/2022/EBA-GL-2022-01%20Guidelines%20on%20resolvability/1025905/Final%20Report%20on%20Guidelines%20on%20improving%20resolvability%20for%20institutions%20and%20resolution%20authorities%20\(2\).pdf](https://www.eba.europa.eu/sites/default/files/document_library/Publications/Guidelines/2022/EBA-GL-2022-01%20Guidelines%20on%20resolvability/1025905/Final%20Report%20on%20Guidelines%20on%20improving%20resolvability%20for%20institutions%20and%20resolution%20authorities%20(2).pdf) and <https://www.bnro.ro/page.aspx?prid=21557> (available in Romanian only)

strategies (Transferability guidelines) – EBA/GL/2022/11¹⁶²]. The results of the analysis of these documents will be used to develop the programmes to test the resolvability of institutions in the area of competence of the NBR-RA, in accordance with Guidelines amending Guidelines EBA/GL/2022/01 on improving resolvability for institutions and resolution authorities under articles 15 and 16 of Directive 2014/59/EU (Resolvability Guidelines) to introduce a new section on resolvability testing (EBA/GL/2023/05)¹⁶³.

Moreover, in order to strengthen the institutional framework for the resolution of banks failing or likely to fail, the NBR-RA, together with the Bank Deposit Guarantee Fund and the Magyar Nemzeti Bank, in its capacity as resolution authority, initiated a technical assistance programme for the operationalisation of transfer strategies, with funding from the Technical Support Instrument managed by the European Commission.

At the same time, the MREL capacity continued to be monitored in what concerns the build-up of adequate internal resources for the financing of potential resolution actions in order to comply with the MREL target on a continuous basis, after the end of the transition period stipulated by the bank resolution framework. For resolvable credit institutions, in which case the MREL also includes the recapitalisation amount, the weighted average of the MREL target level decreased slightly by 0.17 percentage points at the reference date of 30 June 2024 as compared to end-2023 to 24.46 percent of the total risk exposure amount (without the combined buffer requirement). Where the combined buffer requirement is taken into account, the change would go down as well, i.e. from 29.6 percent to 29.44 percent.

In view of the increase in the reporting base (total risk exposure amount), the aggregate MREL in nominal terms was higher at mid-2024, i.e. up by lei 1.6 billion to lei 75.9 billion for resolvable credit institutions, out of which lei 38.6 billion is the requirement imposed by the NBR-RA, in addition to own funds requirements.

The MREL resources of resolvable credit institutions saw a cumulative surplus of lei 16.1 billion¹⁶⁴, up by lei 2.6 billion versus end-2023. The higher MREL capacity was ascribed to the larger stock of eligible debt instruments¹⁶⁵, as well as to the rise in own funds. MREL eligible resources were raised via issues of senior non-preferred (SNP) bonds on the international capital market and SNP loans from parent banks, the 2024 H1 cumulative flow amounting to approximately lei 2.3 billion. Against this background, all resolvable credit institutions recorded surpluses of eligible resources.

¹⁶² https://www.eba.europa.eu/sites/default/files/document_library/Publications/Guidelines/2022/EBA-GL-2022-11%20GL%20on%20transferability/1039809/Final%20report%20on%20Guidelines%20on%20transferability.pdf and <https://www.bnro.ro/page.aspx?prid=22837> (available in Romanian only)

¹⁶³ https://www.eba.europa.eu/sites/default/files/document_library/Publications/Guidelines/2023/1056369/Guidelines%20amending%20Guidelines%20on%20improving%20resolvability%20for%20institutions%20and%20resolution%20authorities.pdf and <https://www.bnro.ro/page.aspx?prid=23680> (available in Romanian only)

¹⁶⁴ 5.2 percent of total risk exposure amount

¹⁶⁵ Lei +1.6 billion or up 4.5 percent in 2024 H1

In August 2024, the NBR-RA updated the policy on setting the minimum requirement for own funds and eligible liabilities (MREL) for credit institutions within the field of competence of the NBR, in its capacity as resolution authority¹⁶⁶. Apart from the change in the approach to set the additional amount the resolution authority deems necessary for resolution entities to maintain sufficient market confidence charge (MCC), this initiative also focused on aspects related to checking the compliance with eligibility conditions of debt instruments while monitoring the MREL (introduction of a self-assessment template of meeting the eligibility conditions) and setting the MREL target for entities resolvable through liquidation.

Bank Resolution Fund

At mid-2024, the Bank Resolution Fund's resources amounted to lei 3.29 billion (lei +0.27 billion from end-2023), due inter alia to the collection of contributions for 2024 (lei 0.19 billion), which were fully paid by all credit institutions authorised on the territory of Romania. Relative to the legal provision on the minimum target level of the available financial resources of the Bank Resolution Fund, i.e. 1 percent of the covered deposits of all credit institutions authorised on the territory of Romania (lei 315 billion as at 30 June 2024), envisaged to be reached no later than end-2024, the coverage ratio was above one for the first time ever.

Regulatory framework for bank resolution

The resolution framework is to be extended at the level of primary legislation through the transposition of Directive (EU) 2024/1174 of the European Parliament and of the Council of 11 April 2024 amending Directive 2014/59/EU and Regulation (EU) No 806/2014 as regards certain aspects of the minimum requirement for own funds and eligible liabilities (Daisy Chain Directive). Since the entry into force of the legal act amending Law No. 312/2015, the resolution authority will neither determine nor impose the MREL to credit institutions resolvable through liquidation, but only when it deems necessary to set the MREL above own funds, namely the loss absorbing capacity, taking particularly into account any potential impact on financial stability and contagion risk in the financial system, including regarding the financing capacity of deposit guarantee schemes. As for the resolution groups, according to the Daisy Chain Directive, the resolution authority may allow a credit institution that is an intermediate entity in a resolution group to comply with the MREL on a consolidated basis only, whenever the intermediate entity is subject to additional own funds requirements on a consolidated basis and all the other conditions laid down in the legal framework are met. The deadline for transposing the Daisy Chain Directive into the national law and enforcing it is 13 November 2024, the Member States having the obligation to implement its provisions as of 14 November 2024.

Relevant developments in the primary regulatory framework are also expected for operational resilience issues, once with the transposition into the national law of Directive (EU) 2022/2556 as regards digital operational resilience for the financial sector (DORA Directive), which will improve credit institutions' resolution planning

¹⁶⁶ <https://www.bnr.ro/uploads/editor/1854800485.pdf> (available in Romanian only)

and resolvability assessment. The main amendments proposed in the field of bank resolution aim to demonstrate the capacity of ensuring digital operational resilience¹⁶⁷ and assess the reliability of arrangements on the use of ICT services in terms of robustness and enforceability in the event of resolution of the institution, particularly the networks and systems supporting critical functions and core business lines of the institution. DORA Directive and the implementing regulation will be effective as of 17 January 2025.

The secondary legislation was supplemented by NBR Regulation No. 4/2024 on the authorisation of a bridge institution, published on the NBR's website¹⁶⁸, setting forth the authorisation conditions and the documents accompanying the authorisation application based on which the National Bank of Romania, in its capacity as competent authority, authorises a bridge institution.

Another piece of Level 2 legislation is NBR Regulation No. 8/2024 amending and supplementing NBR Regulation No. 5/2013 on prudential requirements for credit institutions¹⁶⁹ which, together with NBR Instructions No. 3/2024 on outsourcing arrangements, ensures the transposition at national level of EBA Guidelines on outsourcing arrangements¹⁷⁰. In terms of bank resolution, these requirements are part of the resolvability framework.

¹⁶⁷ i.e. the continuous functioning of the network and information systems, identifying critical ICT third-party service providers, as well as the results of digital operational resilience testing

¹⁶⁸ <https://www.bnr.ro/23478-regulament-4-2024> (available in Romanian only)

¹⁶⁹ <https://www.bnr.ro/23246-regulament-8-2024> (available in Romanian only)

¹⁷⁰ <https://www.eba.europa.eu/documents/10180/2551996/38c80601-f5d7-4855-8ba3-702423665479/EBA%20revised%20Guidelines%20on%20outsourcing%20arrangements.pdf> and <https://www.bnr.ro/page.aspx?prid=24941>

Special feature. Access to cash in Romania

One of the steady concerns of the National Bank of Romania is to ensure economic agents' access to cash, in line with their real needs. For households and companies alike, access to cash plays a major role in ensuring participation in economic activities, both as a means of extinguishing obligations between parties and as an instrument securing financial inclusion, particularly in rural areas and in regions with underdeveloped financial infrastructure, where the degree of financial inclusion is lower. Moreover, access to cash ensures a higher degree of freedom and autonomy¹⁷¹. Aside from the important role that cash plays in normal circumstances, it can prove all the more relevant in times of crisis, especially considering the step-up in cyber risk amid geopolitical developments. The EU has also taken steps in this direction, by including in the digital euro package the proposal for a regulation on the legal tender of euro banknotes and coins. In addition, the central bank of Sweden points out the need to implement more measures to protect access to cash¹⁷², while the Swedish Civil Contingencies Agency recommends, *inter alia*, keeping a week's cash at home.

Background and European comparisons

In Romania, the use of cash followed an upward trend over the past 10 years (an average annual growth rate of currency in circulation of 11 percent in the period from September 2015 to September 2024, to lei 120.3 billion, the equivalent of EUR 24.2 billion), more visibly during the pandemic, as well as at the onset of the conflict in Ukraine (Chart 1). Cash continues to play a major role in Europe too, with an overall uptrend across a wider timespan, although the past two years have seen a slight reduction in preference for cash (reaching EUR 1.6 trillion).

In relation to economic activity as a whole, however, the share of cash in GDP witnessed a decline after the COVID-19 pandemic. It narrowed to 6.9 percent in Romania as compared to 10.7 percent in the euro area (versus the March 2021 peaks of 8.3 percent and 12.8 percent respectively).

According to the latest edition of the ECB's *Study on the payment attitudes of consumers in the euro area* (SPACE 2022), the move towards cashless payments continues (Chart 2). Nevertheless, cash remains the predominant payment method at the point of sale (59 percent of the total number of payments, 2022) and for person-to-person payments.

¹⁷¹ https://www.ecb.europa.eu/euro/cash_strategy/cash_role/html/index.en.html

¹⁷² <https://www.riksbank.se/en-gb/payments--cash/payments-in-sweden/payments-report--2024/the-riksbanks-work-and-policy/more-measures-needed-to-protect-cash/>

Chart 1. Currency in circulation, Romania vs. euro area

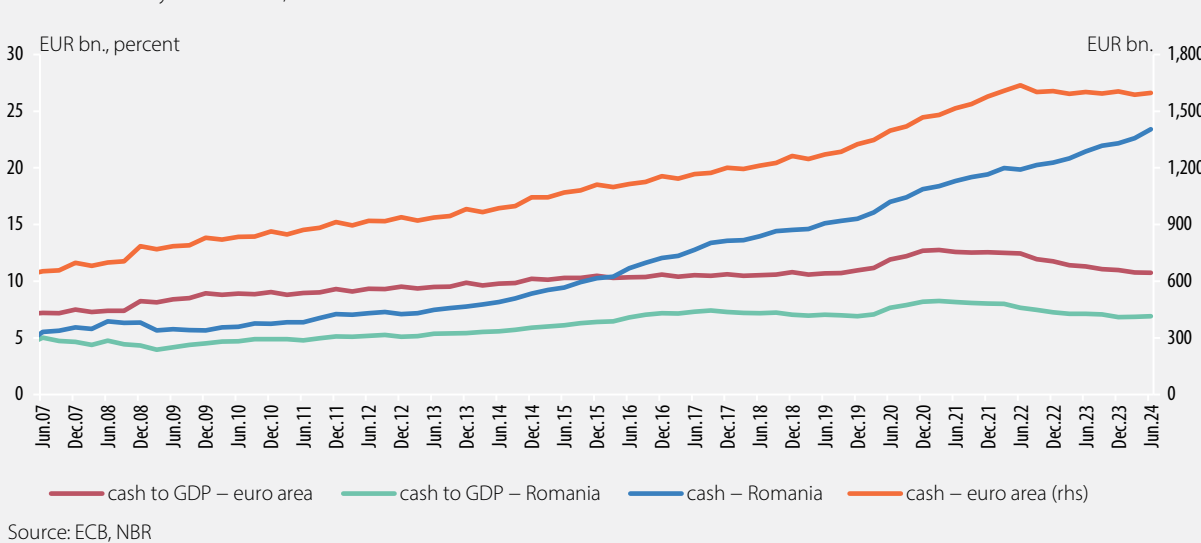
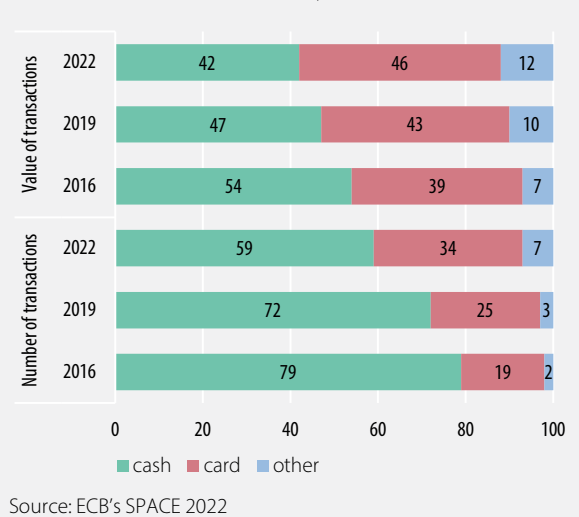


Chart 2. Share of payment instruments used at the POS in terms of number and value of transactions, euro area



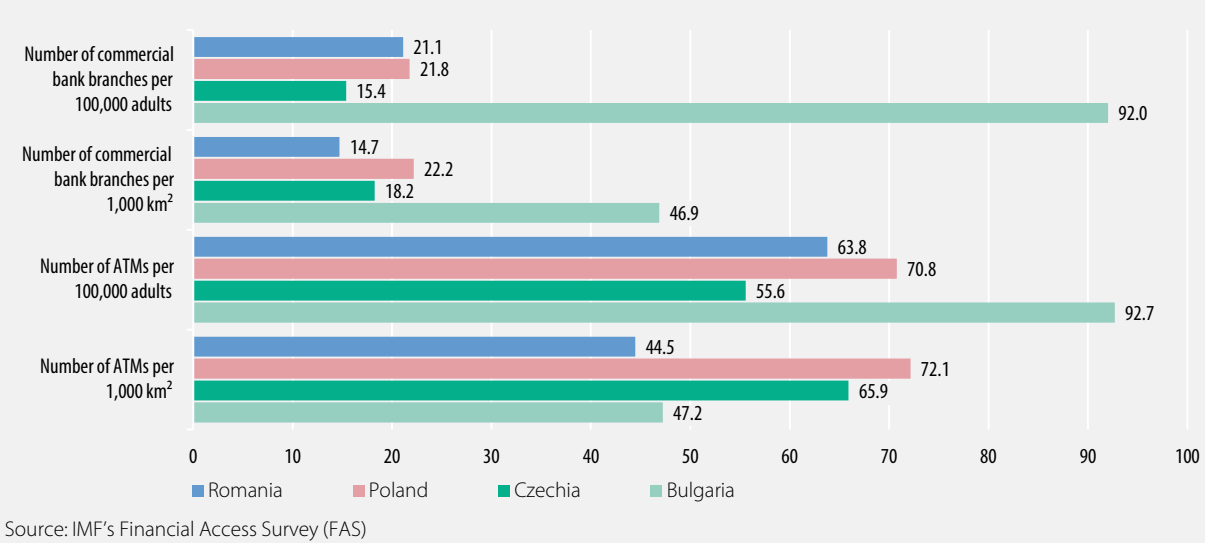
The same study shows that the majority of euro area consumers considered having cash as a payment option to be important or very important. The perceived key advantages of cash are its anonymity and protection of privacy and the perception that it makes one more aware of one's own expenses. Against this background, 37 percent of consumers keep cash reserves at home (2022), outside the wallet or a bank account, up from 34 percent in 2019.

In this context, the NBR surveyed, in the period from March to April 2024, both Romanian legal entities and subsidiaries¹⁷³ in Romania through a questionnaire meant to collect information on the geospatial location of ATMs and bank units, alongside other elements regarding cash availability and withdrawals across ATMs and bank units.

The banking sector in Romania has a network of ATMs and units that generally accommodates properly the characteristics and needs of customers. The comparison with countries in the region, in terms of population coverage (per 100,000 adults) shows that Romania has a wider network than Czechia (for both ATMs and number of bank units), similar to that of Poland, yet smaller than that in Bulgaria. Nonetheless, in terms of territorial coverage (per km²), Romania ranks last by the number of ATMs and bank branches alike (Chart 3).

¹⁷³ The questionnaire does not include information on third-party suppliers of ATMs that are not part of the network of a bank under NBR supervision.

Chart 3. European comparisons on the spread of ATMs and bank branches (2023 data)



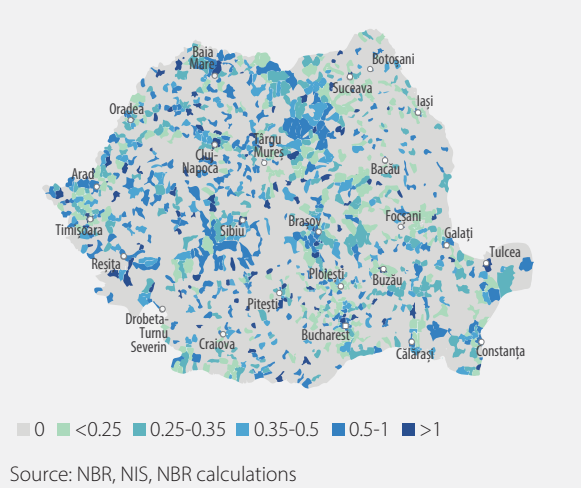
Source: IMF's Financial Access Survey (FAS)

The territorial spread of the ATM network across Romania

The outreach of the ATM network is generally satisfactory (Chart 4) in relation to the spread of the population within administrative-territorial units (ATUs¹⁷⁴). Of the 3,186 ATUs across Romania, there are ATMs in 1,055 (32 percent, Chart 4), but they cover a population of 13.4 million (around 71 percent of total resident population aged above 15). All ATUs in urban areas have ATMs. Moreover, of the 221 ATUs with more than 10,000 inhabitants, only three do not have an ATM, while 312 of the 464 ATUs with a population between 5,000 and 10,000 have ATMs (67 percent). On the other hand, ATMs are available in only 525 of the 2,501 ATUs with less than 5,000 inhabitants (21 percent).

Chart 4. ATM density across towns, cities and communes

no. of ATMs per 1,000 inhabitants



The spread of the ATM network across the territory of Romania is closely linked to the population density. Specifically, 25 percent of Romanians live at a distance¹⁷⁵ of maximum 1 km to the nearest ATM, with more than 50 percent of the population within 2 km to the closest ATM. However, a fourth of the

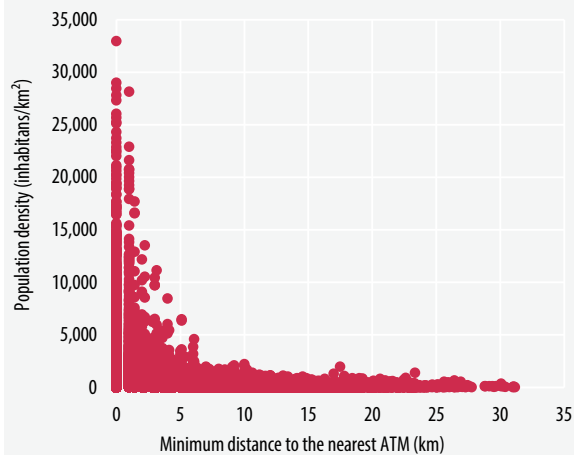
population lives in areas 5 km or further from an ATM, of which 10 percent have to travel more than 8.5 km. Approximately 1 percent live at a distance exceeding 15.8 km (Chart 5).

¹⁷⁴ ATUs are forms of administrative organisation on the territory of Romania, which include communes, towns, cities and counties.

¹⁷⁵ Distances are calculated on a straight line basis, underestimating in some cases the actual number of kilometres that need to be travelled according to the existing road infrastructure.

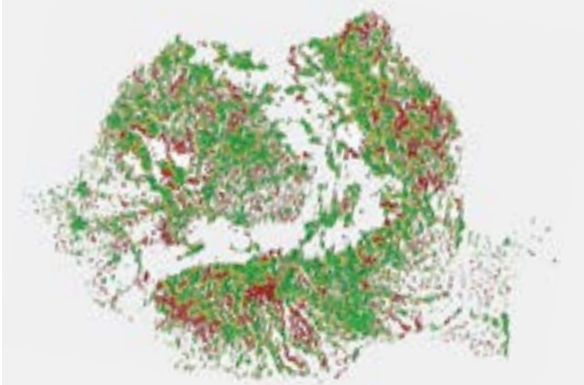
In spite of a good outreach, there is a higher density of population with more difficult access to the ATM network, particularly in certain areas in Moldavia and part of the South-West Oltenia and South Muntenia regions (Chart 6).

Chart 5. Population density in relation to the distance to the nearest ATM



Source: NBR, NIS, NBR calculations

Chart 6. Map of distances to the nearest ATM



Note: Across areas marked in red, inhabitants are 10 km or further from the closest ATM, while green areas refer to a distance of up to 2 km.

Source: NBR, NIS, NBR calculations

Bucharest is equipped with the largest number of ATMs (1,604), boasting the highest density of ATMs per 1,000 inhabitants (one ATM per 1,160 inhabitants) and also per km² (6.37 ATMs per km², Chart 8). Of the six districts making up the capital city, District 1 has the highest density of ATMs and District 5 the lowest. Looking at the other counties, Cluj ranks second (440 ATMs), with a density of one ATM per approximately 1,583 inhabitants and per 15.3 km² respectively, ahead of Timiș (413 ATMs) with a density of one ATM per approximately 1,643 inhabitants and per 21.5 km² respectively. The county reporting the lowest number of ATMs (77) is Giurgiu, with a density of one ATM per 3,386 inhabitants and per 46.7 km² respectively.

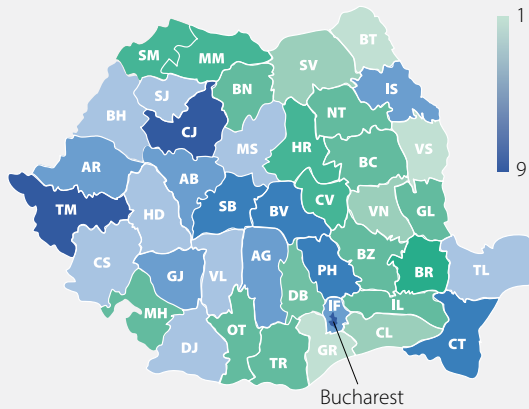
The distribution of counties by number of bank units per 100,000 inhabitants, GDP/capita and employment rate shows that the more developed the economic activity, the more widespread the bank network (Chart 7). As a rule, the literature points out that cash is more readily used within poorer communities. The distribution in Romania in terms of the number of ATMs/100,000 inhabitants reveals the opposite, in the sense that access to cash is better across wealthier communities.

The high degree of cash availability¹⁷⁶ (98 percent) at national level points to adequate cash accessibility for customers, in terms of both money supply and ATM functionality within normal parameters. The ATM network, effectively distributed across ATUs, ensures swift and convenient access to cash for the entire population. This territorial coverage shows that banks have adopted strategies for optimising their physical presence to meet a wide range of customer needs, irrespective of geographical

¹⁷⁶ Determined as the ratio of the time during which the ATM had cash available for withdrawal by clients and the total operating time.

location, thus helping preserve a constant cash flow in the economy. A number of banks concluded partnerships with other institutions to share the network of ATMs so as to broaden the scope of coverage and cut the costs associated with ATM installation and maintenance.

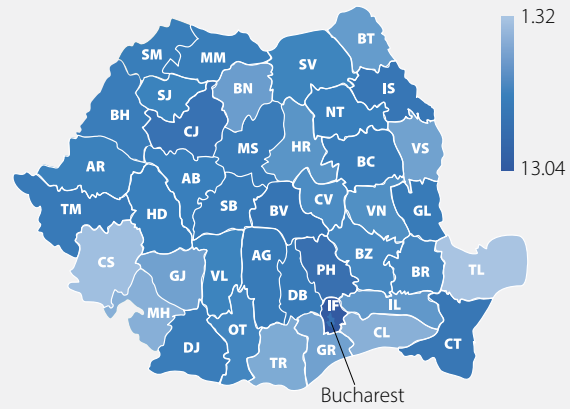
Chart 7. Distribution of counties by number of bank units per 100,000 inhabitants, GDP/capita and employment rate¹⁷⁷



Source: NBR, Eurostat, NBR calculations

Chart 8. ATM density per 100 km² by county

ATMs/100 km²



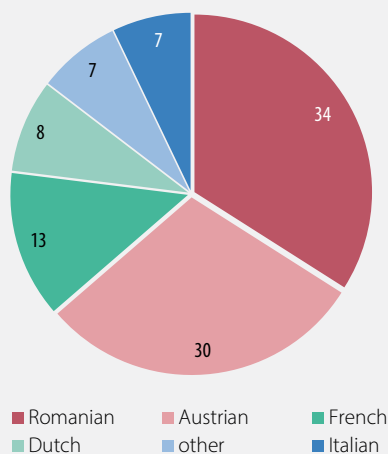
Note: The actual value for Bucharest is 100 times higher.

Source: NBR, Eurostat, NBR calculations

Total cash withdrawals from ATMs throughout Romania during 2023 amounted to lei 257 billion and EUR 820 million. The largest amounts were withdrawn in Bucharest, followed by the large cities: Timișoara, Cluj-Napoca and Iași. Bank units reported in 2023 total cash outflows worth lei 93 billion and EUR 4 billion.

Chart 9. ATM breakdown by origin of the bank's capital

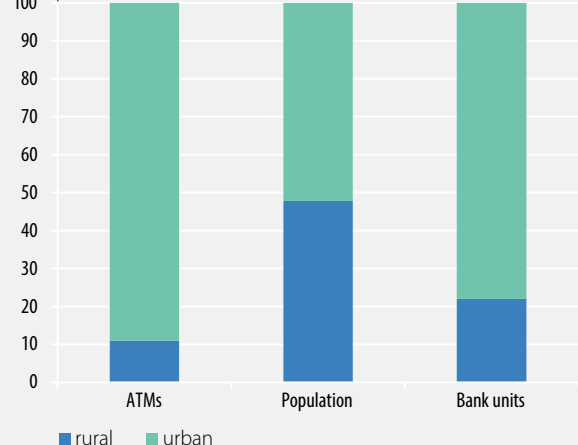
percent



Source: NBR, NBR calculations

Chart 10. Breakdown of ATMs and bank units by rural or urban area

percent



Source: NBR, NIS, NBR calculations

¹⁷⁷ The map is the outcome of a multivariate clustering procedure (using three indicators) and the clusters were classified by the GDP/capita indicator.

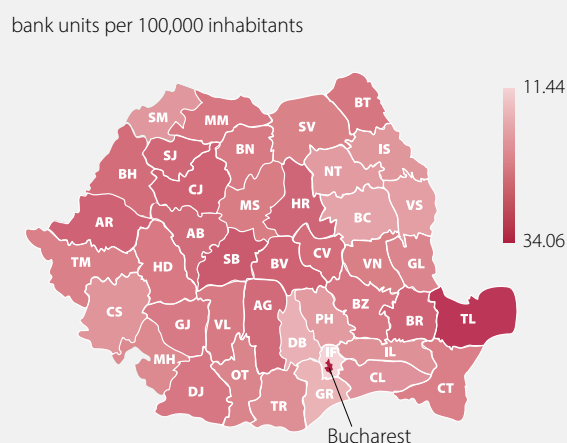
The breakdown by origin of capital (Chart 9) shows that banks with domestic capital account for 34 percent of the overall ATM network at regional level, followed closely by banks with Austrian capital. Banks with Romanian capital play a key role in preserving access to cash in underdeveloped or rural areas, contributing significantly to territorial coverage, especially in regions where other international banks are less present.

As for the breakdown by rural or urban area (Chart 10), the percentage of ATMs and bank units is considerably smaller in the former case than in urban centres, although almost half of Romania’s population lives in the rural area. This discrepancy highlights the fact that the banking infrastructure remains strongly concentrated in urban areas, where demand for financial services and access to technology is higher, whereas in the rural communities access to these facilities is still more limited. A solution in this respect could be installing ATMs to a larger extent beyond the proximity of banks’ territorial units.

The distribution of the bank unit network across the country

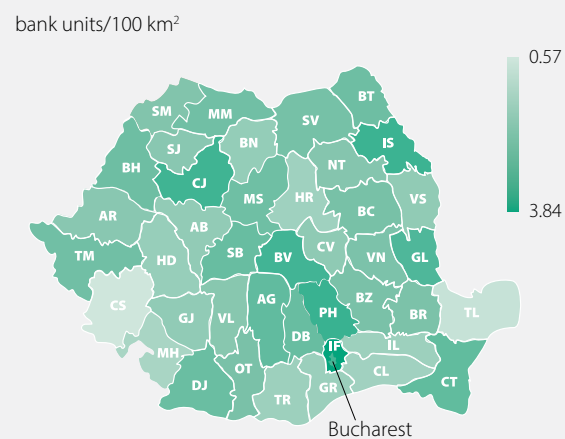
According to the questionnaire data, there are 4,286 bank units in Romania, on a steady decline over the past decade amid the ongoing digitalisation of banking services. For instance, in September 2019 there were 4,818 units and in September 2014 there were 6,055 bank units. Moreover, the number of bank employees also dropped significantly as a result of digitalisation, a process that reduced the need for human presence in many operational activities. While 57,985 persons were active in the banking sector in September 2014, that number had diminished to 51,492 at the time of conducting the survey. Furthermore, banking sector consolidation led to the closure of some branches and hence to personnel cuts.

Chart 11. County density of bank units per 100,000 inhabitants



Source: NBR, Eurostat, NBR calculations

Chart 12. County density of bank units per 100 km²



Note: The actual value for Bucharest is 100 times higher.

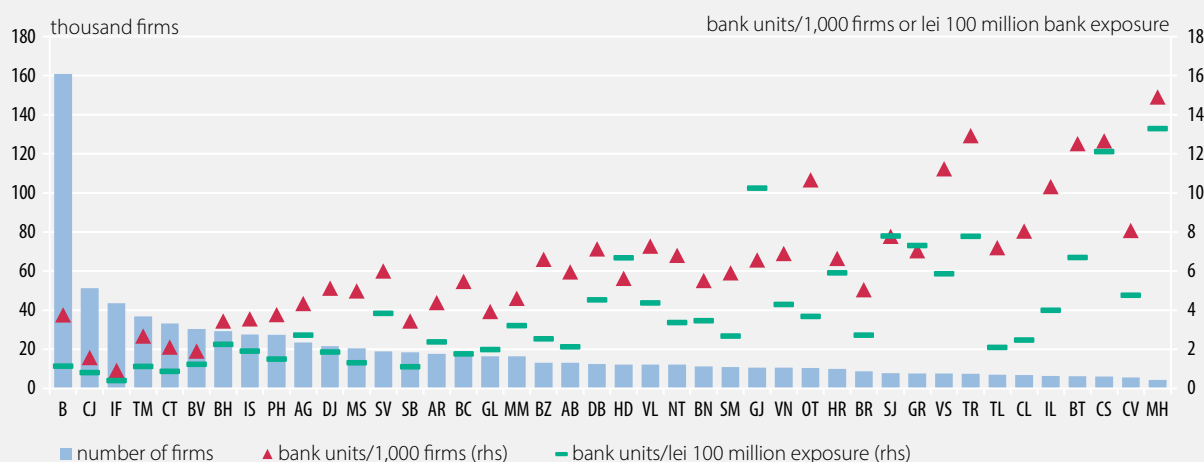
Source: NBR, Eurostat, NBR calculations

Most bank units are located in Bucharest (604), which also has the highest density of population (6,683 inhabitants per km²), ahead of Cluj (173), Iași (147) and Timiș (143) counties, Chart 11. At the opposite end stands Giurgiu, with only 40 bank units, i.e. one unit per approximately 6,518 inhabitants and per 88.5 km² respectively. Giurgiu is the county with the third lowest GDP according to NIS data (2023), with EUR 8,034 per capita.

As regards the number of bank units per 100,000 inhabitants, Bucharest is followed by Tulcea county with the second highest density, i.e. one bank unit per 3,354 inhabitants. There are no significant differences among large counties. In terms of the distribution of bank units per km² (Chart 12), Tulcea records the second smallest value, due to the low density of population (22 inhabitants per km²). The fewest bank units per km² are in Caraș Severin, a county with the second lowest employment rate, where a bank unit serves on average an area of 175 km².

The effectiveness of bank unit functioning vis-à-vis the corporate sector at county level can be measured through the number of bank units per lei 100 million exposure to non-financial corporations (Chart 13).

Chart 13. Number of firms, density of bank units per 1,000 active firms and number of bank units per lei 100 million exposure to firms, by county



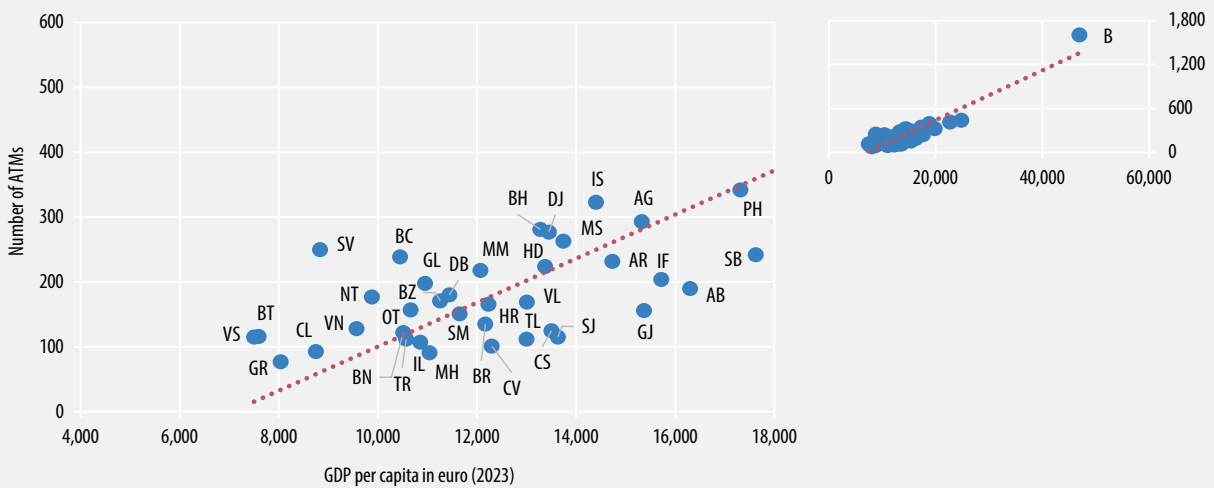
Source: NBR, MF, NBR calculations

Based on this indicator, the most effective bank units would be those in Ilfov and Cluj counties, where the value is 0.4 and 0.8 bank units/lei 100 million exposure respectively. With the highest exposure to the non-financial corporations sector, i.e. lei 52 billion at end-2023 (27 percent of total), Bucharest records a value of 1.1 territorial units/lei 100 million exposure. At the opposite end stands Mehedinți, a county where this indicator has a value of 13.3 bank units/lei 100 million exposure. In fact, the highest values of this indicator are generally seen in counties with less than 70 bank units and less than 10,000 firms. It should be noted that this indicator is affected by certain qualitative factors, such as banks' strategy for the corporations segment at regional level or the credit appetite of companies in the region.

The nexus between access to the financial infrastructure and economic activity and lending

The strong link between the number of ATMs and the level of economic development by county (Chart 14), measured via GDP per capita, highlights the regional economic disparities. On one hand, in counties with a higher GDP per capita, where the purchasing power is stronger and economic activity is more intense, there is the largest number of ATMs to accommodate household and corporate needs. On the other hand, the density of ATMs and bank units is low in counties with a smaller GDP per capita, reflecting both the more subdued demand for banking services and the low level of economic development. This correlation underlines the impact of economic development on the access to the financial infrastructure.

Chart 14. Statistical relation between the number of ATMs and GDP per capita by county (2023)



Source: NBR, NIS, NBR calculations

Chart 15. Link between the number of bank units and the share of credit in the total loan stock



Source: NBR, NBR calculations

Moreover, there is a close connection between the number of ATMs/bank units and the employment rate (97 percent and 97.6 percent respectively). In the regions with an elevated employment rate, the level of bank transactions and demand for cash are higher, which leads to a higher density of ATMs and bank units. This connection illustrates the key role of a more balanced development across regions of economic activity and of employment, with implications also for the access to financial services.

Furthermore, there is a strong and positive correlation between the number of bank units and the share of credit (companies and households) at county level in the total loan stock (Chart 15). The share of credit in total is, however, reliant on other factors as well, such as population, number of firms, and the financial education of households, managers and entrepreneurs, as well as the propensity to use banking services and entrepreneurs'/managers' trust in the banking system.

Conclusion

The banking sector in Romania has a territorial network that is generally tailored to the characteristics and needs of clients. The high degree of cash availability (98 percent) points to adequate cash accessibility, in terms of both money supply and ATM functionality.

The step-up in digitalisation efforts, which was especially visible after the outbreak of the COVID-19 pandemic, caused banks in Romania to stick to the trend of cutting down on their territorial footprint. Nonetheless, banks managed to keep a proper balance between digital services and client counselling within branches, thus meeting customer expectations to the best of their ability. This balance is essential in the specific context of Romania, with significant disparities between urban and rural areas, a low degree of financial inclusion and digital skills, as well as an ageing population. Enhancing the digital skills of the population is also conducive to more readily accessible financial services.

Households display a keen appetite for cash, given the large volumes of lei and euro cash drawn from ATMs and bank units, but also the steadily rising values of currency in circulation. Moreover, the large share of individuals (employees and retirees) collecting their income in cash in Romania, the low degree of financial education and the population ageing trend point to the need for a gradual approach in the event of implementing measures to limit cash as means of payment.

The use of cash in Romania remains essential, especially given the limited access to financial services in certain geographical areas and the low degree of financial education and digital skills. In rural areas and in less developed regions, access to ATMs is lower, which underlines the importance of financial infrastructure and the need to expand access, chiefly from a digital perspective, in order to ensure financial inclusion, particularly in isolated or deprived communities.

Finally, the analysis of the geospatial distribution of the ATM and bank unit network across Romania underlines the importance of a balanced coverage between urban

and rural areas to ensure financial inclusion at a regional level. Identifying the regions with limited access to cash, particularly in rural or isolated areas, provides an opportunity for implementing corrective measures to support local economic development and to reduce inequalities. A strategic distribution of the bank infrastructure can facilitate the access of households and firms to essential financial services, contributing to their more effective integration in the economic system.

Abbreviations

ANCPI	National Agency for Cadastre and Land Registration
BIS	Bank for International Settlements
CB	Credit Bureau
CCR	Central Credit Register
CEE	Central and Eastern Europe
CRD IV	Capital Requirements Directive IV
CRR	Capital Requirements Regulation
DSTI	debt service-to-income
EBA	European Banking Authority
EBIT	earnings before interest and taxes
ECB	European Central Bank
EIOPA	European Insurance and Occupational Pensions Authority
ESA	European System of Accounts
ESRB	European Systemic Risk Board
EU	European Union
Eurostat	Statistical Office of the European Union
FDI	foreign direct investment
FSA	Financial Supervisory Authority
GDP	gross domestic product
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
LCR	liquidity coverage ratio
LTV	loan-to-value
MF	Ministry of Finance
NBFIs	non-bank financial institutions
NBR	National Bank of Romania
NCMO	National Committee for Macroprudential Oversight
NIS	National Institute of Statistics
NPL	non-performing loans
NSFR	net stable funding ratio
NTRO	National Trade Register Office
OECD	Organisation for Economic Co-operation and Development
O-SII	Other Systemically Important Institutions
ReGIS	Romanian electronic Gross Interbank Settlement
ROBOR	Romanian Bid Offered Interest Rate
ROE	return on equity
SaFIR	Government securities depository and settlement system
SENT	Electronic Net Settlement System
SMEs	small- and medium-sized enterprises
VAT	value added tax

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