



The National Committee for Macprudential Oversight

Annual Report

2023



Annual Report
of the National Committee
for Macroprudential Oversight
for the year 2023

NOTE

All rights reserved.
Reproduction for educational and non-commercial purposes
is permitted provided that the source is acknowledged.

National Bank of Romania
25, Lipscani St., postal code 030031, Bucharest – Romania
Telephone: 40 21/312 43 75; Fax: 40 21/314 97 52

<http://www.cnsrmro.ro/>

ISSN 2601-8802
ISSN-L 2601-8802

Contents

Organisation	5
Overview	6
1. The National Committee for Macroprudential Oversight's activity in 2023	9
1.1. Macroprudential policy framework in Romania and the European Union	9
Box A. The ESRB approach to macroprudential stance assessment	10
1.2. Topics discussed during the NCMO meetings	13
1.3. The activity of working groups within the NCMO	16
1.4. Collaboration of NCMO member authorities with the macroprudential authority at EU level	16
2. Overview of the main risks and vulnerabilities to financial stability	19
2.1. Assessment of risks and vulnerabilities at global level	19
2.2. Main challenges at national level	20
2.2.1. Banking sector	26
Box B. The evolution of digitalisation and cyber security in the Romanian banking sector	32
2.2.2. Non-bank financial markets	34
3. Measures implemented for achieving national macroprudential objectives	43
3.1. Capital buffers	43
3.1.1. The countercyclical capital buffer	45
Box C. Alternative approaches to calibrating the CCyB buffer and applying a positive neutral CCyB rate across the EEA countries	51
3.1.2. Buffer for other systemically important institutions	56
Box D. ECB decisions on introducing a floor methodology for the O-SII buffer	60
3.1.3. The systemic risk buffer	70

3.2. Other instruments with an impact on financial stability	76
3.2.1. Implementation through voluntary reciprocity of macroprudential policy measures taken by other Member States	76
Box E. Developments in exposures subject to the measures proposed for reciprocity by EU Member States in 2021-2023 and assessment of the cross-border effects of the macroprudential measures adopted in Romania	81
3.2.2. Assessment of materiality of third countries for the Romanian banking sector in relation to the recognition and setting of countercyclical buffer rates	90
Box F. The ESRB methodology to identify and monitor material third countries for the European banking sector	93
3.2.3. Assessment of the impact of credit institutions' funding plans on the flow of credit to the real economy	96
3.3. Assessment of macroprudential instruments	99
4. Implementation of macroprudential policy	103
Box G. Assessment of the implementation of the recommendation	106
Annex	109
Abbreviations	114
List of tables	115
List of figures	116
List of charts	116

Organisation

The National Committee for Macroprudential Oversight (NCMO) comprises:



The National Bank of Romania. The NBR has an intrinsic role in maintaining financial stability, given its responsibilities arising from its multiple capacity as monetary, prudential, resolution and payment system oversight authority. Financial stability objectives are pursued both by way of its prudential, regulatory and resolution functions exerted on the institutions under its authority, and by the design and efficient transmission of monetary policy measures, as well as by overseeing the smooth functioning of systemically important payment and settlement systems.



The Financial Supervisory Authority. The FSA contributes to the consolidation of an integrated framework for the functioning and supervision of non-bank financial markets, of the participants and operations on such markets.



The Ministry of Finance. The MF is organised and run as a specialised body of central public administration, with legal status, subordinated to the Government, which implements the strategy and Government Programme in the field of public finance.

Overview

The economic picture of 2023 was dominated by a series of major intertwined and mutually-influencing themes, such as the geopolitical tensions, the slowdown of inflation globally and the frailty of the post-pandemic economic recovery. The evolution of the war in Ukraine remained deeply unpredictable and its overlapping with the very complicated situation in the Middle East warrants a further cautious stance of economic policymakers, in a potential scenario of short- or medium-term risks materialising. In this uncertain macro-financial context, the conditions that favour the normalisation of the international economic environment seem to take shape starting 2023.

Domestically, the persistence of twin deficits has remained a major vulnerability of the Romanian economy, which can be compounded by a potential delay in the structural reforms the authorities have committed themselves to and in the absorption of European funds, especially via the National Recovery and Resilience Plan (NRRP). From the perspective of domestic financial market stability, market risk remains elevated, tending to stagnate, amid contagion and interlinkages, with indices reacting promptly to the materialisation of tensions or risk factors. Conversely, the prudential indicators of the local banking sector paint a favourable picture, also in terms of comparisons at EU level – solvency and liquidity stand significantly above the European average, while the non-performing loan (NPL) ratio entered the EBA-defined low-risk bucket. Looking at the non-bank financial sector, the capital market has witnessed a sustained advance, *inter alia* amid the listing of Hidroelectrica, the largest initial public offering (IPO) in Europe in 2023. Private pension funds in Romania further reported asset increases, with the system still at an accumulation stage, with no sales pressures for carrying out payments.

In terms of macroprudential policies, a shift has been noticeable from the regime of speeding up the implementation of new measures to that of keeping in place the policies started one or two years earlier. Thus, in 2023 only a part of the European countries announced capital buffer increases for the following 12 months, the tightening of macroprudential policy being a feature of the 2021-2022 period in particular.

During 2023, the NCMO issued recommendations on the recalibration of capital buffers (i.e. four recommendations following the quarterly analyses on the countercyclical buffer and one based on the annual assessment of the buffer for other systemically important institutions), deciding as follows:

- ➔ The applicable countercyclical buffer (CCyB) rate is 1 percent as of 23 October 2023. The measure took into consideration the following: (i) the liquidity and profitability levels of the banking sector in Romania enabled the consolidation of macroprudential policy

without negatively influencing loan supply to eligible borrowers; (ii) the consolidation trend of banking sector profitability continued, and credit institutions could allocate some of these profits for prudential purposes by strengthening capital reserves – in line with EU practices and recommendations (NCMO Recommendation No. R/1/2023, NCMO Recommendation No. R/2/2023, NCMO Recommendation No. R/3/2023 and NCMO Recommendation No. R/5/2023);

- ➔ Nine systemically important institutions (O-SIIs) were identified for 2024, their list remaining unchanged from the previous year (NCMO Recommendation No. R/4/2023). The level of the buffer applicable to the identified banks is proportional to the institutions' systemic footprint.

Similarly to previous years, credit institutions in Romania apply a capital conservation buffer, whose rate of 2.5 percent is set through European legislation, and a systemic risk buffer (SyRB), whose methodology is defined based on the identified vulnerabilities of a systemic nature.

Specifically, in Romania, the SyRB is calibrated based on an algorithm that takes into account the NPL ratio and the coverage ratio for non-performing loans in banks' balance sheet. The positive evolution of the two ratios has entailed a migration of the capital requirement towards the low risk level (0 percent), namely the case in which a credit institution records an NPL ratio lower than 5 percent and a coverage ratio above 55 percent. While nine banks were in the least favourable category at the time of implementing the measure, no credit institution is currently in that category, testifying to the sustained balance sheet clean-up efforts in the banking sector in Romania.

The NCMO General Board was informed on the result of the assessment of macroprudential instruments since their implementation in the national legislation and until the end of 2023. The analysis concluded that capital buffers had contributed significantly to improving credit institutions' prudential indicators and to increasing the banking sector's resilience, in line with European approaches.

Also during 2023, the NCMO decided not to apply through voluntary reciprocity the macroprudential policy measures adopted by Norway, Sweden and Belgium, given that the exposures of the Romanian banking sector to these states are well below the materiality threshold set by the competent authorities of the initiating countries. Moreover, the NCMO conducted an assessment on identifying material third countries for the Romanian banking sector in relation to the recognition and setting of countercyclical buffer rates, the Republic of Moldova being the only country included in this category. Hence, the NCMO would monitor the economic and financial developments in Moldova for as long as it preserved the material third country status within the annual identification exercise.

Furthermore, the NCMO issued a decision on developing the cooperation framework laid down in Recommendation ESRB/2021/17 on a pan-European systemic cyber incident

coordination framework (EU-SCICF) for relevant authorities. In the context of intensive digitalisation and the current geopolitical situation, cyber risk has become increasingly relevant for the financial infrastructure and institutions. Thus, with a view to implementing the measures laid down in the recommendation, the NCMO decided to set up a standing inter-institutional working group within the Technical Committee on systemic risk, which would facilitate the development of the cooperation framework among relevant institutions at national and European levels.

1. The National Committee for Macroprudential Oversight's activity in 2023

1.1. Macroprudential policy framework in Romania and the European Union

The measures taken by national macroprudential authorities in 2023 aimed to further strengthen banks' resilience to risks by additionally increasing capital requirements. These measures were supported by the robust financial performance of banks and their substantial voluntary capital reserves, which helped to avoid some negative economic effects in an environment marked by low credit demand and banks' more cautious risk management strategies. Nevertheless, unlike the previous year, when measures to increase capital buffers were taken at a fast pace, in 2023 the national authorities chose rather to preserve the previously imposed requirements and even raised the buffer rates further in some cases (either as a result of prior decisions that entered into force in 2023 or by adopting new decisions).

Macroprudential policy remained focused chiefly on building up the countercyclical capital buffer (CCyB) in order to expand the macroprudential space by increasing the buffers that are explicitly designed to be released during the contractionary phases of the business cycle, as well as on applying systemic risk buffers to mitigate the vulnerabilities identified in certain sectors (most often in real estate). Thus, the general rationale was to enhance the resilience of the banking sector, at a time favourable to the adoption of such measures, in order to be able to further provide financial services and mitigate the amplification effects that this sector may have on economic activity should risks materialise.

This course of action was also supported by the ECB¹, which encourages macroprudential authorities to preserve the capital buffers they have built to ensure that they remain available if banking sector conditions deteriorate. At the same time, targeted increases in buffer rates could still be taken into consideration in countries with vulnerabilities, as long as the risk of procyclicality remains low. At a conceptual level, the main factors that could guide the potential decisions to reduce/release capital buffers relate to (i) expectations of a tightening of bank credit supply due to capital constraints and (ii) the anticipated likelihood of widespread materialisation of bank losses. According to ECB analyses, neither of these conditions is currently fulfilled, the deceleration in lending growth over the recent period

¹ "Implications for macroprudential policy as the financial cycle turns", "What informs the decision to release capital buffers", *Macroprudential Bulletin*, ECB, July 2023, *Financial Stability Review*, ECB, November 2023.

being ascribed to low credit demand, rather than to capital constraints. As regards the increased likelihood of widespread materialisation of bank losses, data further show a good quality of bank assets and substantial bank profitability. Maintaining capital buffers ensures the resilience of credit institutions and trust in the banking sector when risks emerge, is beneficial to financing costs and promotes the prudent distribution of dividends by banks. Even though banks enjoy a comfortable capital position, the recent experience has shown that they are reluctant to using capital buffers to cover losses and rather choose deleveraging to maintain capital ratios. The reasons relate to the fact that such an action automatically entails limitations to dividend distribution². Conversely, the build-up of buffers that may be released following the decision of designated authorities, without restrictions on buffer usability, as is the case with the CCyB, can mitigate the deleveraging risk.

As regards the relevant legislation, on 24 January 2024 the European Commission published a *Report*³ that assesses the EU macroprudential framework set out in the CRR and Directive 2013/36/EU (CRD) with a view to identifying the potential elements that may be reviewed to increase the efficiency and effectiveness of macroprudential policy. The assessment also took into consideration the effects of the pandemic and post-pandemic macroeconomic conditions, of the increasing role of the NBFIs sector and of the US banking crisis of March 2023. In this vein, the EC chiefly focuses on three courses of action: (i) monitoring the usability and releasability of capital buffers to support lending to the economy in the event of a systemic shock, while preserving financial stability, (ii) promoting consistency in the use of macroprudential tools by national authorities, and (iii) assessing the scope for simplification and the efficiency and the ability of the macroprudential framework to tackle both conventional and new risks, such as climate change-related risks and cyber risks.

Box A. The ESRB approach to macroprudential stance assessment

At European level, one of the topics of major interest to the European Systemic Risk Board (ESRB) is the macroprudential stance assessment. In this vein, the report entitled "Improvements to the ESRB macroprudential stance framework"⁴ was published in January 2024. It puts the spotlight on the instruments developed for comparing systemic risks, macroprudential policies and resilience across the EU Member States. This assessment is useful because of the information provided by the methodology used to calibrate the macroprudential policy, the macroprudential measures being classified as loosening, tightening or neutral. The results show that the stance assessment can help

² Unlike minimum capital requirements, which should be maintained at all times by credit institutions, the main characteristic of capital buffers is their usability by the said institutions. Specifically, banks may operate below these buffers for some time, in which case they face automatic restrictions on dividend distribution.

³ *Report from the Commission to the European Parliament and the Council on the macroprudential review for credit institutions, the systemic risks relating to Non-Bank Financial Intermediaries (NBFIs) and their interconnectedness with credit institutions*, under Article 513 of Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and amending Regulation (EU) No 648/2012.

⁴ Improvements to the ESRB macroprudential stance framework

shape the manner in which policies should be conducted in the future, depending on the specifics of each economy and the phases of business and financial cycles.

The macroprudential stance is assessed via the growth-at-risk (GaR) and indicator – based approaches (used for both borrower – and capital-based measures), as well as a micro-macro model known as the Banking Euro Area Stress Test (BEAST). This multitude of approaches highlights the lack of a uniform methodology to determine the macroprudential stance, thus leaving room for research on this topic at European and national level, on the one hand, and the complementarity of simultaneously using these methodologies, on the other hand. The approaches look at these issues from different perspectives: the GaR approach is forward-looking, while the indicator-based approach focuses on the macroprudential instruments used and the cross-country comparison. Given the different approaches, there may be some inadequacies in the final outcome, which calls for further analysis (especially in the case of contradictory results).

The recent analysis includes changes from the ESRB's past report⁵ on the macroprudential stance assessment (2021) regarding both GaR and indicator-based approaches. The most notable changes are summarised in Tables A.1 and A.2:

Table A.1. Improvements to the GaR approach

Issue	ESRB Report, 2021	ESRB Report, 2023
COVID-19 period is not covered in the assessment	Sample stopped before the COVID-19 period	Updated model now includes the COVID-19 period
GaR does not reflect COVID-19 period volatility	Sample stopped before the COVID-19 period	GEOVOL index and dummies were proposed as additional variables
Bias in quantile regression coefficients	Panel data fixed effects quantile regression (QR)	Bias-corrected panel QR and comparison of new results
GaR back-testing methodology	–	Added to evaluate the predictive accuracy
Incorrect entries in the Macroprudential Policies Evaluation Database (MaPPED)	–	Check of MaPPED entries
Discontinuation of MaPPED in 2018	Sample did not go beyond 2018	ESRB measures database appended to MaPPED
Measures from ESRB measures database are not classified as loosening, neutral or tightening	–	Classifications added based on rulebook
Verbalised stance assessment for GaR	Stance can be positive (loose) or negative (tight)	Proposal of a five-level assessment model with a more granular scale (similar to indicator-based approach)

Source: adapted from the ESRB

The results in the two reports differ for the GaR approach, mainly due to the correction of estimation distortions and the revision of the macroprudential policy index.

⁵ Report of the Expert Group on Macroprudential Stance – Phase II (implementation)

Table A.2. Improvements to the indicator-based approach

Issue	ESRB Report, 2021	ESRB Report, 2023
Indicator standardisation	Bucketing	Cumulative distribution function (CDF) approach
Abrupt change in the stance assessment	Low granularity, based on thresholds, to describe the range of risk, resilience, policy	Indicator values are comparable within the indicator set without losing their continuous properties
Assessment changes based on new observations	All assessments change if percentile-based thresholds change with new observations	Past assessments are fixed (pseudo-real-time approach)
End-level problem	Further increases in risk/resilience/policy effects are not represented if their assessment is already in the highest bucket	Risk/resilience/policy effects are represented on the continuous scale
Complex methodology and decomposition of borrower-based measures (BBM) stance	The stance is the weighted sum of two sub-segments (value- and income-based). Not all inputs into the final stance are additive, and bucketing is applied at different levels, making stance decomposition more complicated	A simplified approach is used (similar to that used for capital-based measures). All components of the stance are additive and stance decomposition is straightforward
Final stance difficult to explain	Percentile-based bucketing of indicators, their subsequent aggregation and a further bucketing of the final stance	Weighted sum of all CDF-transformed indicators
Thresholds for stance assessment are arbitrary and not symmetric	The range of the overall stance indicator is divided on the basis of expert judgement	Percentiles of a fixed sample (2016 Q1 – 2021 Q3 for borrower-based measures; 2016 Q1 – 2022 Q3 for capital-based measures)

Source: adapted from the ESRB

For the indicator-based methodology, policy stance results are similar in both reports (loose, neutral or tight) for more than half of the countries under review. For a rather small percentage, the assessment varies by more than one level (shift from one state to another). This outcome can be explained by the fact that the data sample used in the latest report is distributed symmetrically in the zones for the stance assessment (loose, grey-loose, neutral, grey-tight and tight).

Given the importance of assessing the macroprudential policy stance, as well as the relative novelty of its scope, compared to monetary policy or fiscal policy, where transmission mechanisms and instruments are much better understood, this topic and the related methods, will continue to be subject to debate both domestically (Škrinjarić, 2023⁶) and globally. The ESRB will remain focused on improving the macroprudential stance assessment approaches so as to provide the best guidelines on how decision-makers in EU Member States may adjust their macroprudential policies to mitigate systemic risks most effectively.

⁶ Macroprudential stance assessment: problems of measurement, literature review and some comments for the case of Croatia

1.2. Topics discussed during the NCMO meetings

During 2023, the Chairman of the NCMO convened four meetings of the National Committee for Macroprudential Oversight, which were held at the NBR headquarters on 23 March, 20 June, 19 October and 14 December.

During the four meetings, papers on topics concerning the macroprudential policy and the systemic risk to financial stability in Romania were presented to Board members. These papers were subject to debates and analyses based on which measures were adopted for NCMO member authorities.

In line with its mandate and complying with the principle of transparency and institutional accountability, the NCMO continued its communication to the public in 2023, by posting on its website press releases after each General Board meeting. The NCMO General Board members discussed, agreed on and approved the contents of press releases during the meetings.

The NCMO General Board meeting of 23 March 2023. The agenda of the NCMO General Board's first meeting of 2023 included topics such as the regular analysis on the recalibration of the countercyclical capital buffer and the discussion for approval of the draft *Annual Report* of the National Committee for Macroprudential Oversight for 2022, the final version of which was to be submitted to Parliament, in accordance with the legal provisions. In addition, the NCMO General Board was informed of: (i) the actions taken by the addressees in order to implement the recommendations issued by the NCMO in 2022, as well as those issued in the previous period, which were not completed or are applicable on a permanent basis, (ii) the systemic risks to financial stability identified by member authorities as per their specific area of competence, with 31 December 2022 as reference date, and (iii) the solvency stress test results for the banking sector. Moreover, aspects related to the government exposures of the banking sector in Romania were also discussed during the meeting.

During the meeting, the following acts were approved:

- NCMO Recommendation No. R/1/2023 on the countercyclical capital buffer in Romania whereby the National Bank of Romania was recommended to keep in place the measure to set the countercyclical buffer rate at 1 percent, as of 23 October 2023, and to further monitor developments in the economy and lending, amid a financial system still deeply riddled with uncertainty;
- NCMO Decision No. D/1/2023 on the *Annual Report* of the National Committee for Macroprudential Oversight for 2022.

The NCMO General Board meeting of 20 June 2023. The NCMO General Board convened in June to debate on: (i) the regular analysis on the recalibration of the countercyclical capital buffer, (ii) designating the Republic of Moldova as a material third country for the banking

sector in Romania in terms of recognising and setting countercyclical buffer rates, (iii) not applying through voluntary reciprocity the macroprudential policy measures adopted by Norway, set forth in Recommendation ESRB/2023/1, (iv) assessing the cross-border effects of macroprudential measures, following the submission of the compliance report in relation to Recommendation ESRB/2015/2, as well as (v) approving the method of implementing domestically Recommendation ESRB/2021/17 on a pan-European systemic cyber incident coordination framework (EU-SCICF) for relevant authorities.

In addition, the NCMO General Board was informed of: (i) the regular analysis on the systemic risk buffer (SyRB), (ii) developments in the commercial real estate market in Romania and the publication of Recommendation ESRB/2022/9 of 1 December 2022 on vulnerabilities in the commercial real estate sector in the European Economic Area, (iii) the systemic risks to financial stability identified by member authorities as per their specific area of competence, with 31 March 2023 as reference date, (iv) the assessment of Romanian competitive companies with domestic capital that operate in strategic sectors, identified based on the previous analyses of NCMO working groups, and (v) the stress test results for private pension funds in Romania.

The NCMO meeting for 2023 Q2 ended with the adoption of the following recommendations and decisions:

- NCMO Recommendation No. R/2/2023 on the countercyclical capital buffer in Romania, whereby the National Bank of Romania was recommended to keep in place the measure to set the countercyclical buffer rate at 1 percent, as of 23 October 2023, given the international environment still deeply riddled with uncertainty, the persistence of domestic imbalances, as well as the fact that eligible borrowers' access to finance is not negatively influenced by the application of the buffer;
- NCMO Decision No. D/2/2023 on designating the Republic of Moldova as a material third country for the banking sector in Romania in terms of recognising and setting countercyclical buffer rates;
- NCMO Decision No. D/3/2023 on not applying through voluntary reciprocity the macroprudential policy measures adopted by Norway. Given that the eligible exposures of the Romanian banking sector to this country are immaterial, the macroprudential policy measures adopted by the Norwegian authorities, set forth by Recommendation ESRB/2023/01, are not reciprocated.

The NCMO General Board meeting of 19 October 2023. Among the topics on the agenda of the NCMO General Board's third ordinary meeting were: (i) the regular analysis on the systemic risk buffer (SyRB), (ii) the impact of credit institutions' funding plans on the flow of credit to the real economy, (iii) the systemic risks to financial stability identified by member authorities as per their specific area of competence, with 30 June 2023 as reference date, as well as (iv) the analysis on the implications of introducing an additional tax on banks in Romania. In addition, General Board members examined analyses and adopted measures

concerning macroprudential policy and systemic risk, namely: (i) the regular analysis on the recalibration of the countercyclical capital buffer, (ii) the regular analysis on the recalibration of the capital buffer for systemically important institutions, as well as (iii) not applying through voluntary reciprocity the macroprudential policy measures adopted by Sweden, set forth in Recommendation ESRB/2023/4.

During the meeting, Board members adopted the following recommendations and decisions on national macroprudential policy:

- NCMO Recommendation No. R/3/2023 on the countercyclical capital buffer in Romania, whereby the National Bank of Romania was recommended to keep in place the measure to set the countercyclical buffer rate at 1 percent, as of 23 October 2023;
- NCMO Recommendation No. R/4/2023 on the capital buffer for other systemically important institutions in Romania, whereby the National Bank of Romania was recommended to implement, starting 1 January 2024, at the highest level of consolidation, a capital buffer for other systemically important institutions (O-SII) applicable to banks identified as systemically important pursuant to the Methodology for identifying systemic credit institutions and calibrating the O-SII buffer, based on data reported as at the reference date of 31 December 2022;
- NCMO Decision No. D/5/2023 on not applying through voluntary reciprocity the macroprudential policy measures adopted by Sweden, providing for the non-recognition through voluntary reciprocity of the macroprudential policy measures adopted by the Swedish authorities, given that the eligible exposures of the Romanian banking sector to this country are immaterial.

The NCMO General Board meeting of 14 December 2023. During the last meeting of 2023, Board members examined analyses and adopted measures concerning macroprudential policy and systemic risk, namely: (i) the regular analysis on the recalibration of the countercyclical capital buffer and (ii) the decision not to apply through voluntary reciprocity the macroprudential policy measure adopted by Belgium. In addition, the NCMO General Board was informed of: (i) the assessment on the implementation framework of capital buffers in Romania, (ii) the solvency stress test results for the banking sector, (iii) the systemic risks to financial stability identified by member authorities as per their specific area of competence, (iv) the results of the questionnaire on assessing trends and preparedness related to climate change among financial institutions, and (v) the calendar of ESRB recommendations with implementation deadlines over the period ahead, for which national authorities have to take implementing measures.

The NCMO meeting ended with the approval of the macroprudential policy measures below:

- NCMO Recommendation No. R/5/2023 on the countercyclical capital buffer in Romania, whereby the National Bank of Romania was recommended to keep in place the measure to set the countercyclical buffer rate at 1 percent, as of 23 October 2023;

- NCMO Decision No. D/6/2023 on not applying through voluntary reciprocity the macroprudential policy measures adopted by Belgium, providing for the non-recognition through voluntary reciprocity of the macroprudential measure adopted by the Belgian authorities, given that the eligible exposures of the Romanian banking sector to these countries are immaterial.

1.3. The activity of working groups within the NCMO

NCMO Working Group on addressing vulnerabilities stemming from the widening of the agri-food trade deficit. NCMO Decision No. D/4/16 December 2019 set forth the set-up of a Working Group tasked with the identification of possible solutions for reducing risks from the widening of the agri-food trade deficit. The Working Group carried out its activity over the course of 2020, its results being broadly presented in the analysis published on the NCMO website. The key proposals of the Working Group's analysis and their implementation are detailed in Chapter 4 of this *Report*.

NCMO Working Group on supporting green finance. It was established according to NCMO Decision No. D/4/14 October 2020, with the aim of identifying possible solutions to support green finance. The Working Group conducted its activity throughout 2021, its results being presented in the analysis published on the NCMO website. The key proposals of the Working Group's analysis and their implementation are detailed in Chapter 4 of this *Report*.

NCMO Working Group on sustainable increase in financial intermediation. The third NCMO Working Group was established pursuant to NCMO Decision No. D/7/15 December 2021 and was tasked with identifying possible solutions for the sustainable increase in financial intermediation. The working group carried out its activity over the course of 2022, its results being broadly presented in the analysis published on the NCMO website. The key proposals of the Working Group's analysis and their implementation are detailed in Chapter 4 of this *Report*.

1.4. Collaboration of NCMO member authorities with the macroprudential authority at EU level

The coordination of macroprudential policies, as well as the cooperation between the relevant authorities at national and European level should be enhanced, in order to ensure financial stability in the single market and identify the best practices in the field of macroprudential supervision, especially as regards the adoption of effective and efficient measures. To this end, each NCMO member authority participates in national working groups, such as the NCMO working groups, as well as in those established by the European

Systemic Risk Board (ESRB). Specifically, in 2023, representatives of the National Bank of Romania, the Financial Supervisory Authority and the Ministry of Finance participated in the meetings of the following ESRB working groups:

- Project team to assess compliance with Recommendation ESRB/2020/12 on identifying legal entities: experts from the national authorities of Member States, including a representative of the National Bank of Romania participated in the Working Group. The activity of the Working Group started in 2022 and continued throughout 2023, culminating in a Compliance Report on the ESRB recommendation, which is to be published on the ESRB website in 2024.
- The ATC-FSC Project team on climate risk monitoring, made up of experts from Member States, has been operational since 2020. In 2023, at the fourth step of its activity, the working group aimed to improve the framework for monitoring and assessing climate risk and its implications for the financial system, and to introduce a new element consisting in the exploration of other environmental risks, such as biodiversity loss. It focused on: (i) developing and introducing a set of indicators (including forward-looking ones) and methodologies for assessing climate risk implications for the financial system, (ii) presenting a strategy of using existing macroprudential instruments to mitigate climate risk, and (iii) assessing the implications of other environmental risks in terms of transmission channels to the real economy, the connection to climate risk, and the implications for the financial system. The NBR representative was involved in the substructure of the working group, which analysed the implications of other environmental factors.
- The ATC Analysis Working Group of the ESRB (AWG) is a permanent substructure of the ESRB Advisory Technical Committee (ATC) that carries out regular, as well as thematic analyses. In the latter case, the proposals are submitted by the ATC at the beginning of each year. The regular analyses include: the quarterly *Risk Dashboard*, the ESRB's Bottom-Up Survey, the ECB/ESCB crises database update, the annual assessment of risks and policy priorities, the banking sector analysis and others. In 2023, quarterly meetings also discussed other topical issues, such as the vulnerabilities and risks associated with (residential and commercial) real estate markets, the systemic liquidity risk, the implications of high inflation and interest rates for financial stability, the climate risk or the cyber risk.
- The Contact Group on Macroprudential Stance was operational until end-2023 and completed its activity by publishing a report entitled *Improvements to the ESRB Macroprudential Stance Framework*⁷ in early 2024. It served as a forum for Member States to exchange ideas and views with the ESRB Secretariat on the experience gained in implementing the macroprudential policy stance methodologies. The key findings of the *Group's Report* are detailed in Box A. The ESRB Approach to Macroprudential Stance Assessment.

⁷ Improvements to the ESRB Macroprudential Stance Framework (europa.eu)

Moreover, the European Banking Authority (EBA), the European Insurance and Occupational Pensions Authority (EIOPA) and the European Securities and Markets Authority (ESMA) are required, under the legislation in force, to assess the resilience of the banking sector, insurance companies, investment funds, and central counterparties in Europe in the event of adverse developments materialising in the macroeconomic environment. These stress tests rely on EU-wide macroeconomic narratives and harmonised scenarios for possible developments in the macroeconomic environment and financial markets, which are prepared in collaboration with the ESRB, within the Task Force on Stress Testing (TFST)⁸.

In 2023, a number of scenarios used across the EU in the stress testing of financial institutions were developed within the TFST Working Group:

- (i) the adverse scenario for the 2023 central counterparty stress test, designed in line with the ESRB's assessment of prevailing sources of systemic risk to the EU financial system;
- (ii) the scenarios for the Fit-for-55 climate risk stress testing exercise, aimed at capturing shocks to the financial system (climate, conventional, economic) that could jeopardise the EU's ability to achieve its climate targets – reducing net greenhouse gas emissions by at least 55 percent by 2030, compared to 1990 levels;
- (iii) the adverse scenario for the money market fund stress testing exercise, which is consistent with the uncertainty deriving from the economic consequences of prolonged geopolitical tensions.

Furthermore, preparations have started to devise the scenarios for the EIOPA insurance stress test and the system-wide liquidity stress testing exercise, which are to be conducted in 2024.

⁸ The TFST Working Group brings together experts from national regulatory and supervisory authorities, including the NBR.

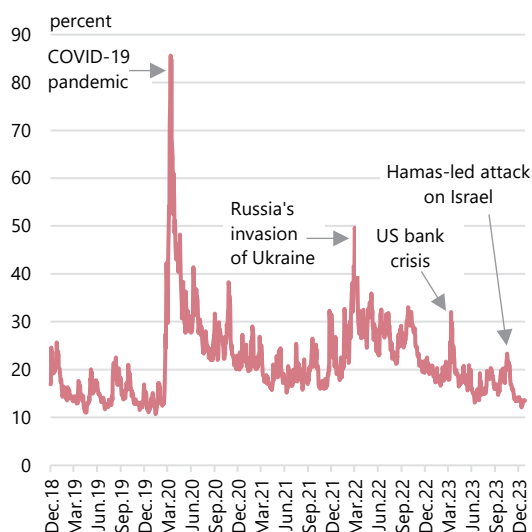
2. Overview of the main risks and vulnerabilities to financial stability

2.1. Assessment of risks and vulnerabilities at global level

Risks to financial stability posted mixed developments in 2023 (Chart 2.1). Macro-financial resilience came under the impact of factors such as persistent inflation (particularly core inflation), slower economic growth and higher financing costs amid the monetary policy normalisation at global level. However, investor sentiment improved on expectations of a rather swift moderation of inflationary pressures, without causing a substantial fall in economic activity. The banking sector turbulences of March 2023, stemming from the collapse of Silicon Valley Bank, the biggest US bank failure in 15 years, and the UBS take-over of Credit Suisse, abated.

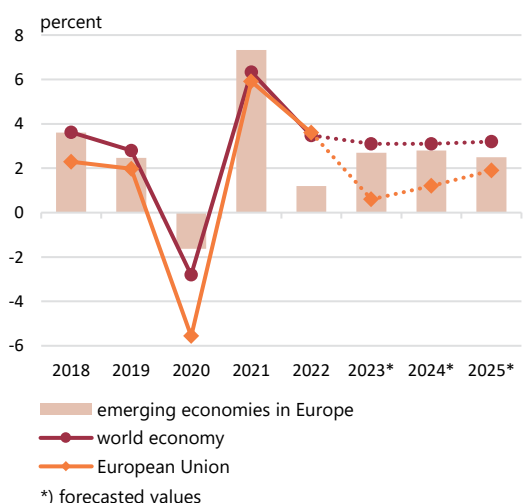
Geopolitical risks increased amid fears of a resurgence of the Russia-Ukraine war and the subsequent escalation of the conflict in the Middle East, the latter having tremendous implications for the global commodity market. According to the latest IMF assessment, the global economy grew by an estimated 3.1 percent (revised by +0.1 percentage points compared to the October *Report*). Economic growth is expected to remain at 3.1 percent

Chart 2.1. Risk aversion indicator (VSTOXX)



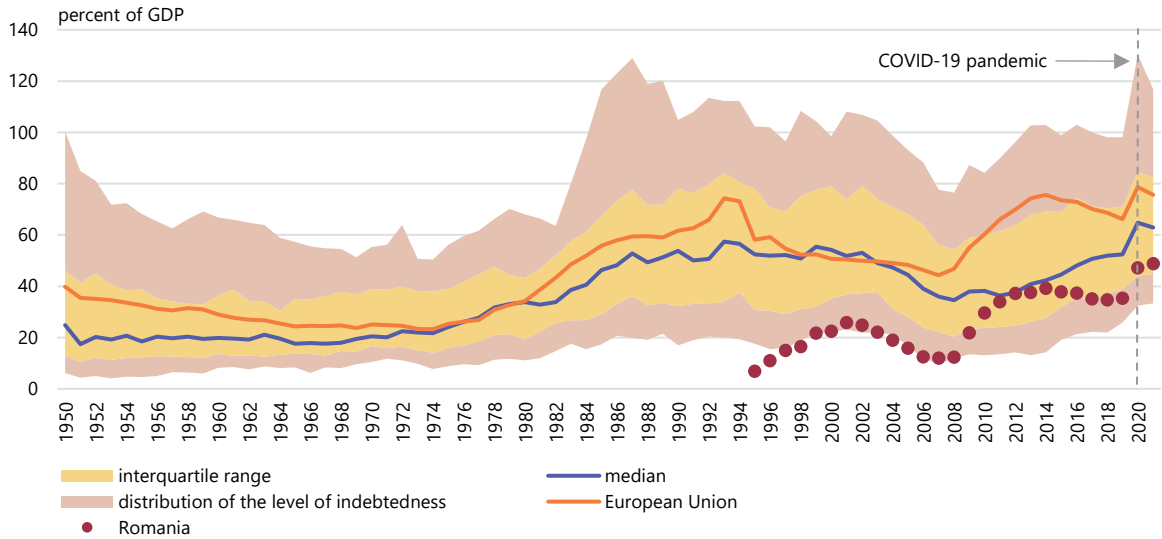
Source: Refinitiv

Chart 2.2. Economic growth worldwide, in the EU and emerging economies in Europe



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

Chart 2.3. Global public debt



Source: IMF

in 2024, before rising slightly to 3.2 percent in 2025⁹. In turn, core inflation is projected on a downward path globally, from an annual average of 6.8 percent in 2023 to 5.8 percent in 2024 and 4.4 percent in 2025.

In advanced economies, government bond yields increased markedly, also as a result of central banks' continued monetary policy tightening. The European Central Bank (ECB) hiked the key policy rate several times starting July 2022, but left it unchanged at 4.5 percent towards the end of 2023. Similarly, in July 2023 the Federal Reserve (FED) decided to keep unchanged its federal funds rate after 11 consecutive increases that started in March 2022.

The ongoing tight monetary policy stance at global level, amid the persistence of inflation in the new geopolitical context, together with weaker growth prospects, also reflected in the evolution of the global financial cycle, with emerging signals pointing to the end of its expansionary phase.

Unlike the previous financial cycles, current financial conditions were extremely favourable during the expansionary phase, pushing indebtedness levels above previously recorded values, a trend supported by the pandemic, with more pronounced developments in the public sector (Chart 2.3).

2.2. Main challenges at national level

Local challenges in 2023 remained similar to those identified a year earlier, with risks compounded by heightening economic and geopolitical uncertainties worldwide. The most significant risks, assessed as severe, are the global uncertainties amid the energy crisis and

⁹ IMF, *World Economic Outlook*, January 2024.

the conflicts in Ukraine and the Middle East, on the one hand, and the tensions surrounding macroeconomic equilibria, exacerbated by regional and international geopolitical developments, and the outlook for the national fiscal stance, on the other hand. The following risks identified by importance are as follows: (i) the delay in implementing structural reforms committed to by the authorities and in absorbing EU funds, especially via the National Recovery and Resilience Plan (NRRP), and (ii) the default risk for loans to the private sector, assessed as high and moderate respectively.

Structural vulnerabilities, which amplify systemic risks to financial stability and contain sustainable and inclusive economic growth, are: (i) weak payment discipline in the economy and vulnerabilities in companies' balance sheets, (ii) low financial intermediation, (iii) the demographic problem, and (iv) climate change.

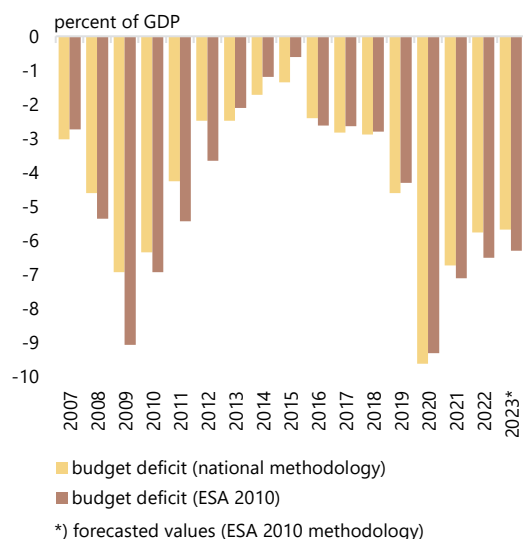
The tensions surrounding macroeconomic equilibria were felt domestically, the real annual economic growth rate reaching 2.1 percent at end-2023¹⁰. The outlook for the period ahead is overshadowed by uncertainties surrounding the fiscal and income policy stance amid the widening of the consolidated general government deficit to 5.68 percent of GDP at end-2023. Maintaining high interest rates locally, as a result of inflation developments and the global geopolitical context, may put additional pressure on the budget deficit due to higher debt financing costs. According to the European Commission's economic forecast for Romania¹¹, GDP will advance by 2.9 percent in 2024, amid an estimated rebound in loans to the private sector and rising disposable income, before reaching 3.2 percent in 2025. Estimates are lower than in the autumn 2023 forecast, given that inflation remains high, putting a drag on domestic demand.

Public debt exceeded the level recorded at the end of the COVID-19 pandemic (48.9 percent of GDP, December 2023, up by 1.7 percentage points year on year), pointing to a disadvantage in the region, as Romania's peers (except Czechia) reported post-pandemic adjustments in the public debt-to-GDP ratio in a range between 2 percentage points and 8 percentage points. The increase in public debt was influenced by the delayed fiscal consolidation and was accompanied by a larger share of non-residents' government securities holdings. Twin deficits ran high in 2023 as well. The budget deficit reached 5.68 percent of GDP (lei 89.9 billion) (Chart 2.4), standing 11 percent higher than at end-2022, amid rises in all expenditure items, particularly staff costs (+12.8 percent), social security (+9.6 percent, driven by the increase in pensions) and interest (+5.2 percent). On an annual basis, expenditures grew by 13 percent on aggregate, while revenues were up by 13.3 percent. As for the latter, apart from the positive dynamics of revenues from EU funds, the increase in receipts from wage and income taxes (up 20 percent, which also contributed to the removal in November 2023 of the tax incentives for certain professional categories), ahead of social security contributions (+13.4 percent). The balance-of-payments current account posted a lower deficit in 2023 against the same year-earlier period, yet still

¹⁰ According to NIS data as at 8 March 2024.

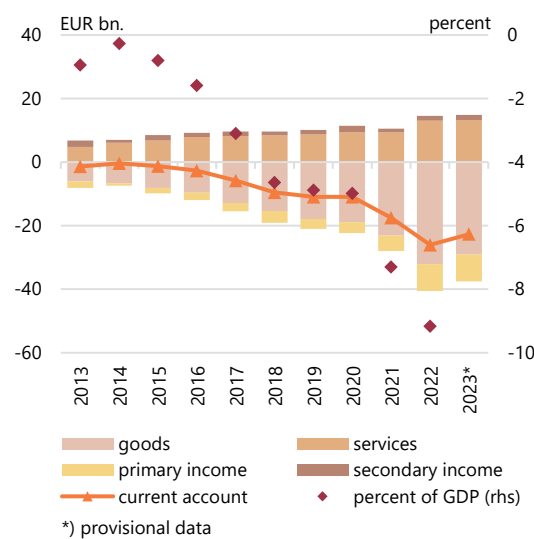
¹¹ Winter 2024 Economic Forecast, European Commission

Chart 2.4. Budget deficit



Source: MF, European Commission

Chart 2.5. Current account deficit



Source: NBR, Eurostat

running high (EUR 22.7 billion¹², down from EUR 26 billion in 2022; Chart 2.5). The positive dynamics vis-à-vis a year earlier were influenced by a narrowing of the deficit on trade in goods (EUR -3 billion) and on primary income (EUR -9 million), while the services balance registered a higher surplus of EUR 204 million.

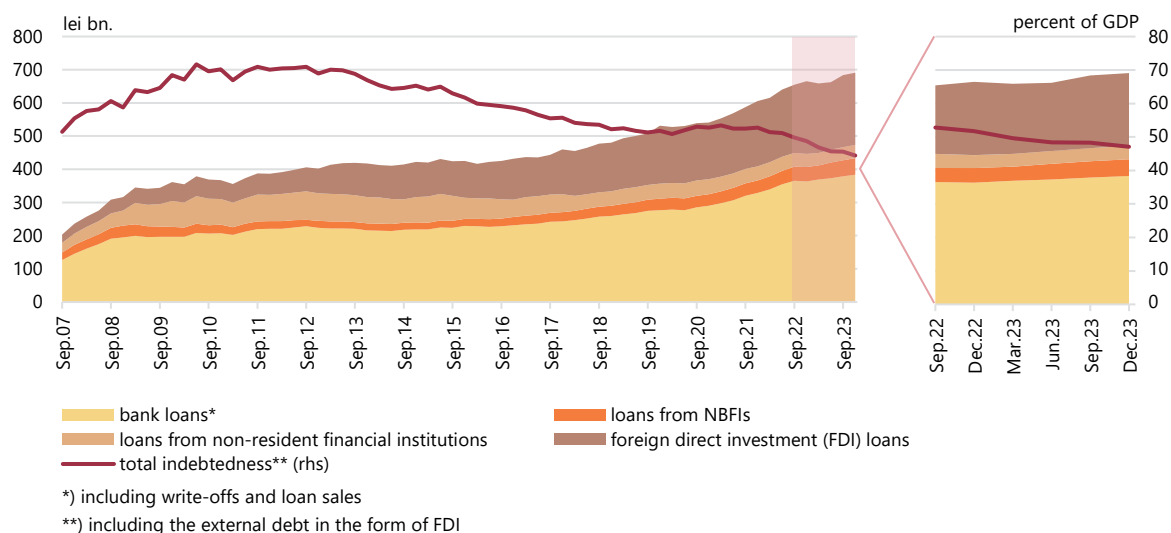
In the opinion of the Fiscal Council¹³, Romania's most serious problem is the budget deficit, which exceeded the 4.4 percent-of-GDP target, calling for a correction on the revenue side, with additional measures alongside those adopted by the government in 2023, a new pension law and the ongoing fiscal reform. Given the need for fiscal consolidation, combined with the global economic and geopolitical challenges, Romania should capitalise on the funding opportunities of the EU's Recovery and Resilience Facility to implement the necessary reforms for the transition of economy to a sustainable growth model. However, in order to benefit from the full amounts, it is necessary to complete all the reforms and investments provided for in the National Recovery and Resilience Plan (NRRP), and Romania was suspended from the disbursement of around EUR 50 million (second payment request) after not satisfactorily fulfilling two milestones related to energy investments. Several delays are noted in the implementation of NRRP measures, not only in implementing reforms and projects, but also in submitting payment requests, translating into delayed fund allocation, which caused deficits to widen. In order to catch up with the delays and bring the programme back to the agreed schedule, reforms should be put on a faster track and, once achieved, they will ensure a smoother transition of the economy towards a sustainable and inclusive growth model.

The interest rate hikes and the overall economic picture helped deepen the real sector's debt cycle, in particular with regard to households. Non-financial corporations' demand

¹² Preliminary data as at 13 February 2024.

¹³ Fiscal Council's Opinion on the State Budget Law for 2024, the Social Security Budget Law for 2024 and the 2024-2026 Fiscal Strategy

Chart 2.6. Private sector indebtedness



Source: NIS, NBR calculations

for bank loans decreased in 2023 Q3, which is offset by a rise in households’ housing and consumer loans¹⁴.

On the whole, the real sector’s total debt climbed to lei 705.6 billion, at an annual rate of 4 percent in 2023, i.e. below nominal GDP growth (Chart 2.6). Specifically, the share of non-financial corporations’ debt in GDP narrowed from 48.5 percent at end-2022 to approximately 45 percent at end-2023. Most of the loans to companies and households (64 percent of total) come from domestic financial institutions. Worth noting is also the intercompany lending in the form of foreign direct investment (FDI), which reached 31 percent of total debt and 13.6 percent of GDP (Chart 2.6). Foreign currency loans kept rising, albeit at a slower pace than in 2022. This occurred in the context of further monetary policy tightening in the euro area in 2023 H1, which caused the narrowing of the spread between interest rates on new leu- and EUR-denominated loans. The share of foreign currency-denominated loans neared 46 percent in December 2023 in the portfolio of non-financial corporations, remaining relatively flat in annual terms, while foreign currency-denominated loans to households continued to have a low importance (12.4 percent of total at end-2023, on an annual decline from approximately 14.5 percent).

Financial intermediation remains low in Romania compared to the other EU countries, with the lowest bank assets-to-GDP ratio, i.e. 50 percent in 2023 Q3. In 2022, opportunities for sustainable growth of bank financing were analysed by the NCMO Working Group on Financial Intermediation¹⁵, which identified a number of development opportunities in order to bridge regional differences and ensure the transition to a higher value added economy. Green finance is both an opportunity and a challenge, due to its potential to increase financial intermediation as a result of the funds needed to meet the targets

¹⁴ NBR’s Bank Lending Survey, 2023 Q3.

¹⁵ <https://www.cnsmro.ro/en/publicatii/studii-si-analize/grupului-de-lucru-cnsm-pentru-cresterea-sustenabila-a-intermedierii-financiare/>

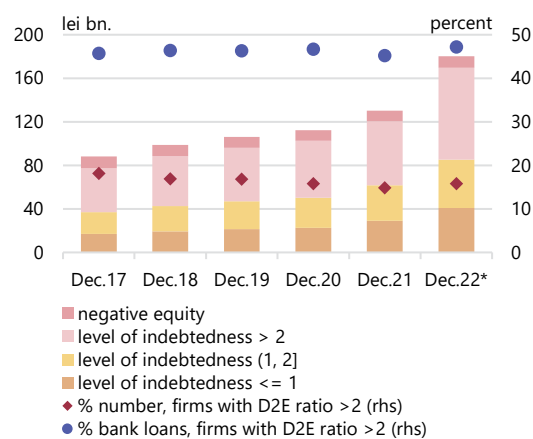
assumed under international agreements¹⁶, on the one hand, and the climate change risks to the financial system, on the other hand. Financial institutions in Romania have made progress in incorporating risks into their business strategies¹⁷, and the appetite to support green finance is significant, but efforts are still needed to identify and manage the physical and transition risks of climate change to the economy.

In 2022, the financial health of non-financial corporations improved in an economic environment marked by high inflation and uncertainties, particularly about geopolitical developments. Corporate profitability was fuelled by robust consumer demand, with the return on equity going up 6 percentage points in annual terms (28.7 percent), despite the pressures from higher energy and agri-food prices, as well as from tighter financial conditions. The rise in funding costs amid high inflation resulted in lower interest coverage ratio (EBIT/interest expenditure) reported by companies, especially by SMEs. Firms' level of indebtedness (debt-to-equity ratio) added 7 percentage points to 166.7 percent over the same period. Against the backdrop of heightened geopolitical and economic uncertainty, tighter financial conditions may entail difficulties in debt servicing or accessing finance, given that 16 percent of firms were in the risk zone in 2022, similarly to the previous year, with a debt-to-equity ratio above 200 percent (Chart 2.9). Exposure to these entities accounts for approximately half of banks' corporate portfolios. Loans to non-financial corporations posted a slower increase than in 2022, with the annual growth rate standing at 9.9 percent in December 2023 (versus 21 percent in December 2022), amid costlier financing.

The quality of corporate loans further improved in 2023. Firms' NPL ratio dropped gradually to 3.7 percent in December 2023, pointing to a 0.5 percentage point annual decline, the lowest level since the European Banking Authority's definition was introduced in 2015.

Financial corporations' capitalisation shortfalls are still a critical issue. Approximately one third (30.4 percent) of non-financial corporations in Romania have equity below the regulatory threshold, with implications for payment discipline, accounting for 58 percent of total overdue payments to banks, as well as for their access to finance. Hence, the NCMO General Board issued two recommendations on this issue, as follows: (i) NCMO Recommendation No. R/2/2018¹⁸ and (ii) NCMO Recommendation No. R/3/2022 (point 4)¹⁹.

Chart 2.7. Distribution of bank loans by firms' level of indebtedness



*) D2E – level of indebtedness calculated as the debt-to-equity ratio. Loans taken by firms that submitted their financial statements in 2022 were calculated as at September 2023.

Source: MF, NBR, NBR calculations

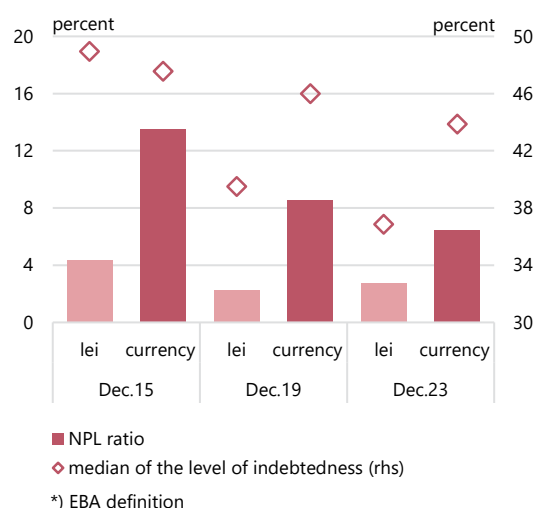
¹⁶ Paris Agreement, which entered into force in 2016.

¹⁷ NBR's 2023 Climate Change Survey

¹⁸ NCMO Recommendation No. R/2/2018 on implementing some measures related to firms' financial soundness

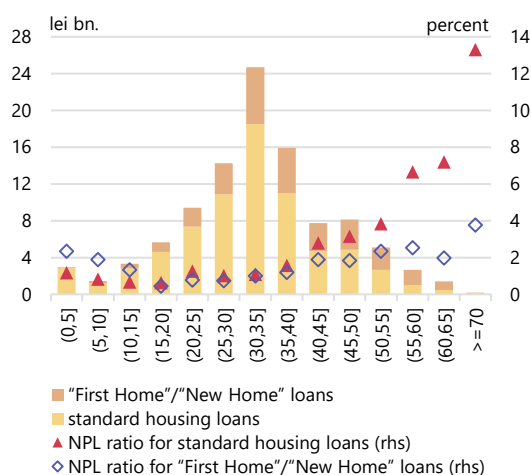
¹⁹ NCMO Recommendation No. R/3/2022 on the sustainable increase in financial intermediation

Chart 2.8. NPL ratio* by currency and the median of the level of indebtedness for outstanding loans



Source: NBR

Chart 2.9. Distribution of the level of indebtedness at origination for housing loans and NPL ratio, 2023



Source: NBR, NBR calculations

Over the past years, households managed to enhance their resilience to shocks by reducing the debt service-to-income, a tendency also supported by the NBR’s macroprudential measures to cap the maximum level of indebtedness when accessing loans, depending on the currency (January 2019) and the loan-to-value ratio (April 2022). Nonetheless, recent crises and the geopolitical situation discontinued this evolution, in an environment marked by high inflation and rising interest rates, highlighting even more the importance of previous measures taken to increase borrower resilience. In 2023, households’ new loans from banks declined by 5.7 percent (cumulative flow compared to 2022), while their capacity to service debt worsened. The NPL ratio grew in 2023, reaching 3.2 percent at the end of the year. The breakdown of loans by purpose shows a significant difference in loan quality, the NPL ratio standing lower for housing loans (1.65 percent in December 2023) than for consumer credit (12.4 percent for consumer loans secured by real estate and 5.5 percent for unsecured consumer loans). This is at odds with the interest rate risk of the loans, namely housing loans mainly have a variable interest rate over the entire term of the loan (71 percent of housing loans, including the “First Home” loans), while only 29 percent of consumer loans have variable interest rate.

Vulnerable debtors, with a level of indebtedness exceeding 45 percent, took mainly secured consumer loans (42 percent) and “First Home”/“New Home” loans (41 percent) (Chart 2.9), with a 37 percent (median) indebtedness at aggregate level, according to end-2023 data. Foreign currency-denominated loans continued to be significantly riskier than leu-denominated ones (with a double NPL ratio), the vulnerabilities stemming from the stock of foreign currency-denominated loans granted before 2019, when the National Bank of Romania introduced caps on the level of indebtedness, differentiated by currency (40 percent for domestic currency-denominated loans, 20 percent for foreign currency-denominated loans) (Chart 2.8).

In 2023, the residential real estate market saw a slowdown on both demand and supply side. House prices continued to rise, posting an annual advance of 4.8 percent in 2023 Q3 and showing no signs of trend reversal in the period ahead. Among the factors putting pressure

on prices were the significant decline in the number of building permits (-21 percent in 2023 from 2022) and the further sustained growth of construction costs for residential buildings (up 12 percent in December 2023 against the same year-earlier period). Romania counted among the top seven climbers in terms of residential property prices across the EU (after Croatia, Poland, Bulgaria, Lithuania, Portugal and Slovenia), whereas some Member States experience significant declines in house prices (e.g. -10 percent in Germany). Regional disparities were further significant for Romania in terms of house prices, access to housing calculated as price-to-income ratio, and trading activity. The new VAT regime for residential property, effective 1 January 2024, is expected to put additional pressure on house prices.

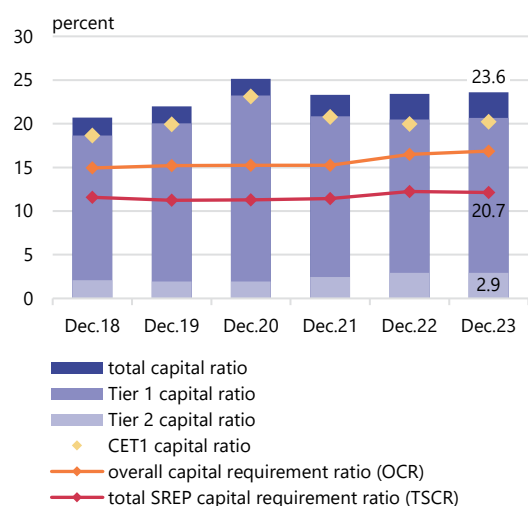
In 2023, the commercial real estate market activity slowed down. Real estate investment volume amounted to EUR 62.4 million in 2023 Q3²⁰, declining markedly compared to previous periods, but many positive trends are emerging, and a potential recovery is in sight. There is a keen interest in retail spaces and office spaces, with the rental activity hitting record highs, mainly driven by a significant number of rent extensions and cost-effective relocation solutions. The useful floor area stipulated in non-residential building permits grew by merely 7 percent in 2023 over the year before and the average cost index for non-residential constructions stood 10 percent higher in 2023 than in 2022. In the run-up to the end of 2023, lending to construction and real estate companies rose gradually to lei 37.5 billion, 12 percent above the end-2022 level.

2.2.1. Banking sector

The financial position of the Romanian banking sector improved and the prudential indicators remained adequate in terms of solvency, liquidity, and asset quality, despite the worsening confidence in the US and Swiss banking sectors in the first part of 2023 and the challenges associated with the regional geopolitical context. The profitability of the Romanian banking sector was robust, favoured by the step-up in lending and by the balance sheet structure focused on retail funding from demand deposits, thus supporting the strengthening of solvency and operational efficiency. Asset quality and liquidity improved, the specific indicators faring better than EU averages. Macroeconomic uncertainties and the global geopolitical situation, as well as the fiscal measures introduced as of 2024 could lead to: (i) rising credit risk against the background of inflationary environment, high interest rates, implications for business competitiveness, due to pressures to raise wages amid a labour deficit and fiscal changes introduced by the authorities; (ii) a stronger link between the banking and government sectors, entailing a higher concentration risk and interest rate risk; (iii) a further low financial intermediation and a smaller contribution of the banking sector to supporting structural changes in the economy; (iv) banks' exposure to the fast digital transformation in the financial sector (Box B).

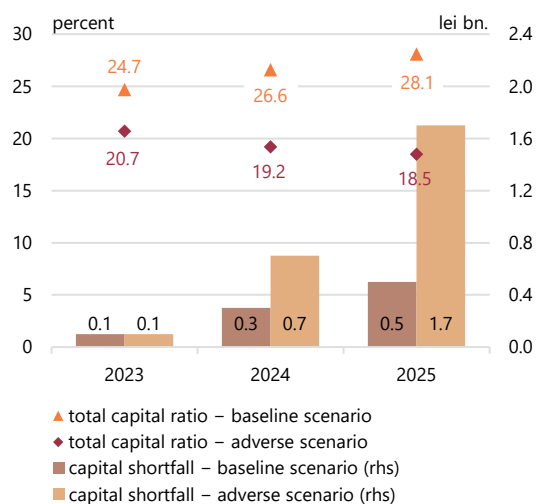
²⁰ CBRE Romania Real Estate Investment Volumes Q3 2023.

Chart 2.10. Total capital ratio and capital requirements



Source: NBR

Chart 2.11. Results of the macroprudential stress test exercise (2023-2025)



Source: NBR

The solvency of the banking sector in Romania was adequate throughout 2023. The total capital ratio stood at 23.6 percent in December 2023 (audited data), thus remaining above the European average of 19.9 percent. Developments in the total capital ratio in 2023 were impacted by the expiry of certain temporary provisions under the CRR “quick fix” package, which was implemented during the COVID-19 pandemic to limit the effects of economic shocks and to support real sector financing.

Banks in Romania have a capital reserve significantly higher than the total SREP capital requirement ratio (TSCR) and the overall capital requirement ratio (OCR), which shows an adequate capacity to absorb unexpected losses in the event of a worsening macroeconomic context (Chart 2.10). Solvency has consolidated also due to the high profit retention rate over the past few years, amid substantial financial results (Chart 2.12).

The gradual decrease in the overall risk ratio (defined as the ratio of credit risk-weighted assets to total credit risk-relevant exposures) had a positive influence on solvency (28.4 percent in December 2023 compared to 50.7 percent at end-2008). The change is attributable to the significant increase in the share of exposures to the central government, to retail lending and to a hike in lending to non-financial corporations via government guarantee programmes.

The resilience of the domestic banking sector is also confirmed by the latest solvency stress test of credit institutions covering the 2023-2025 horizon, which involved assessing the impact of two – baseline and adverse – macroeconomic scenarios. The overall results of the exercise were benign and mainly ascribable to enhanced operational efficiency (especially that of large banks), as well as to the initially high solvency level (December 2022). However, in a number of (generally small) banks, the level of capital at the end of the forecast horizon might fall below the prudential limits.

The results of the baseline scenario reflect a gradual increase in the total capital ratio by the end of the forecast horizon, to 28.1 percent in 2025 (Chart 2.11). The non-performing

loan ratio could rise to 5.6 percent. In the adverse scenario, which assumes much greater severity compared to the baseline scenario, the estimates hint at a potentially significant deterioration of asset quality. The most affected portfolios would be those of exposures to non-financial corporations (small- and medium-sized enterprises, in particular), as well as those of consumer loans. The total capital ratio could decline at the end of the forecast horizon by approximately 4.9 percentage points compared to the reference year.

The full transposition of the changes to the Basel III framework into EU legislation could contribute to an increase in capital requirements, with a negative impact on solvency ratios.

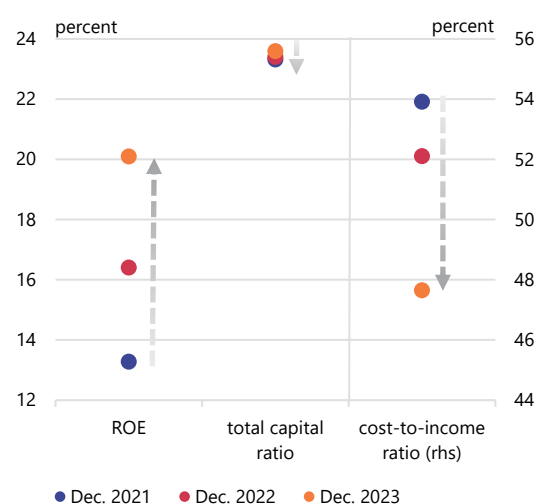
The robust profitability of the Romanian banking sector was a significant source for strengthening both the banking sector's solvency and operational efficiency (Chart 2.12). In 2023, the banking sector posted a net financial result of lei 13.5 billion²¹, up by 34.3 percent from the previous year. The upward trend of operating profit, amid high interest rates and low credit risk (as shown by the annual decline in net provision costs), contributed to the high levels of profitability indicators, ROA and ROE (1.8 percent and 20.1 percent respectively). Profitability continued to be polarised, driven by the size and corporate governance of credit institutions, as well as by the low market share of loss-making banks.

Net interest income is the main source of profitability (70.3 percent of total operating income). Interest income further rose at a swift pace (47.9 percent), spurred by high interest rates on loans, as well as by the retail funding structure, with demand deposits holding a significant share (52.3 percent, December 2023). Interest expenses witnessed fast dynamics (108.9 percent), on the back of the rise in time deposits. The competition for funding sources will continue, which is especially relevant for small- and medium-sized enterprises, with a lower capacity to raise demand deposits, which negatively affects their net interest income and operational efficiency.

Net fee and commission income was the second source of income (16.1 percent of total operating income), but its share has gone down over the past few years in favour of net interest income. Exchange rate differences held the third position (8.2 percent of total operating income).

The annual increase in operating expenses persisted (+10.3 percent), under the impact of the price effect induced by higher wages, associated with the inflationary environment

Chart 2.12. Profitability, operational efficiency and capitalisation indicators



Source: NBR

²¹ Data for December 2023 are not audited.

and the further investments in digitalisation (Box B), partly offset by the ongoing decline in the number of bank units²². Although the operating expenses-to-assets ratio (2.1 percent) exceeds the EU median (1.4 percent), as in most Central and Eastern European banking sectors, its level has improved by approximately 1 percentage point over the past 10 years.

Operational efficiency as measured by the cost-to-income ratio decreased to 47.6 percent (falling within the EBA-defined low-risk bucket and below the EU average of 56 percent, December 2023). However, small banks²³ are still vulnerable from this perspective, with a median cost-to-income ratio in 2016-2023 standing 33.1 percentage points above the sectoral ratio, potentially indicating further banking sector consolidation.

Net annual expenses for impairment of financial assets (lei 1.6 billion) dropped by 25 percent year-on-year, with recoveries largely offsetting the adjustments for new non-performing loans.

The fiscal measures that will be introduced as of 2024 may negatively impact mainly smaller banks, as well as the level of financial intermediation, which is already the lowest in the EU, thus amplifying the challenges to the banking sector, due to domestic macroeconomic imbalances, the global geopolitical situation and the expectations of greater default risk for loans to the real sector.

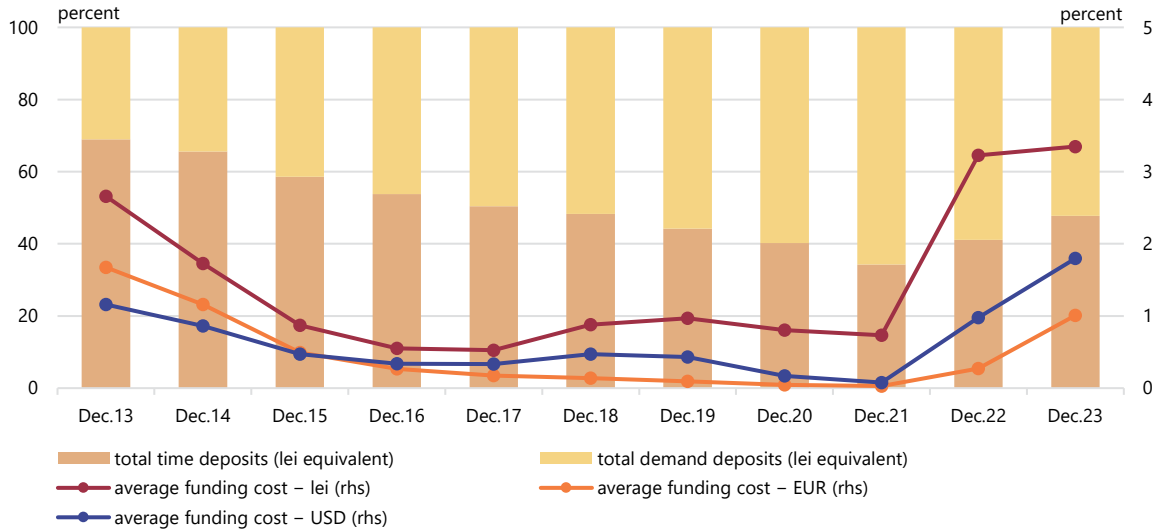
The structural developments in the local banking sector's balance sheet in 2023 contributed both to strengthening the solvency and liquidity positions and to ensuring a good profit-making capacity due to: (i) the increase in the volume of deposits, while maintaining a high share of funding via demand deposits; (ii) the rebound in leu-denominated lending, after the temporary shift towards EUR-denominated loans in 2022 and in the first part of 2023, (iii) the further strong link between the banking sector and the government (assessed in terms of direct and indirect exposures); (iv) the rise in liquid assets in the balance sheet, as result of larger exposures to the central bank and the general government; (v) higher foreign funding of the banking sector also in the context of the need to meet the MREL (minimum requirement for own funds and eligible liabilities) targets.

Although 2022 marked the beginning of a migration towards time deposits, demand deposits continue to hold the prevailing share in banks' portfolio (52.3 percent, December 2023). Despite the strong rise in interest rates, the structure of deposits made it easier to maintain relatively low funding costs in domestic or foreign currency (euro and US dollars), which did not exceed the 10-year high (Chart 2.13).

²² Increasing automatization and digitalisation was the main measure to reduce operating expenses, as indicated by the 85 European credit institutions that responded to a recent EBA survey (*Risk Assessment Questionnaire*, Spring 2023), followed by overhead and staff cost reduction, and reducing business activities (business lines and locations, including branches).

²³ Large banks – market share >5 percent, medium-sized banks – market share between 1 percent and 5 percent, small banks – market share <1 percent.

Chart 2.13. Deposits – composition and funding costs



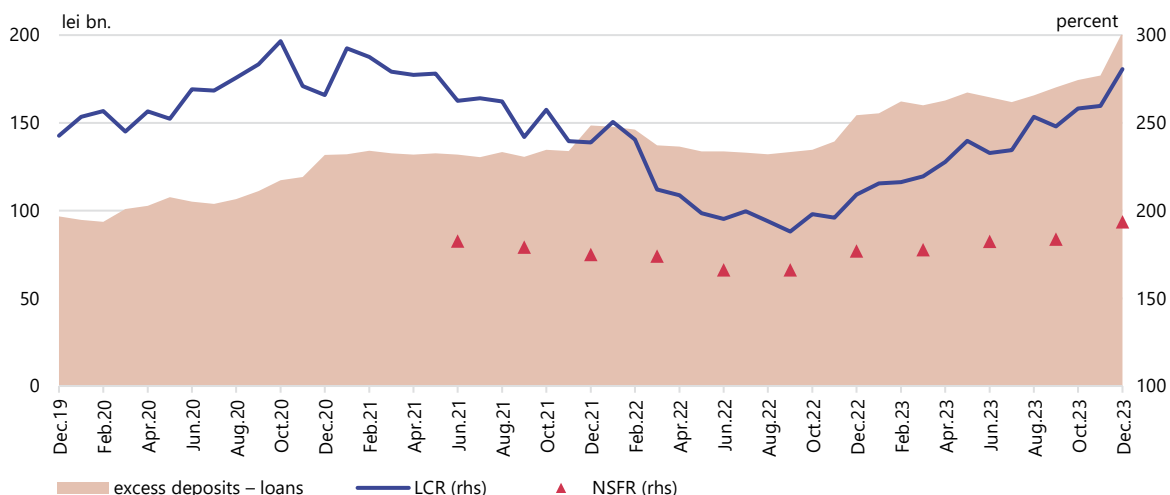
Source: NBR

2023 witnessed a significant increase in time deposits (31.5 percent versus December 2022), which amounted to an equivalent of lei 262.6 billion. Demand deposits posted a marginal rise (0.6 percent), up to lei 287.6 billion in December 2023.

The total volume of new leu-denominated loans went up 16.7 percent in 2023 from 2022, these dynamics including refinanced loans. The breakdown shows that this evolution was mainly ascribable to lending to households (up by 20.7 percent), the new loans to non-financial corporations increasing at a slower pace of approximately 11.4 percent. The volume of new EUR-denominated loans recorded an annual contraction of 8.7 percent in 2023, on account of lending to non-financial corporations (down by 9.1 percent). The shift in debtors' preference towards leu-denominated loans was also due to the narrower interest rate spread on leu- and EUR-denominated loans, due to the higher interest rates in the euro area.

Given the prudential treatment of sovereign exposures, which favours the solvency and liquidity ratios, as well as the participation of banks in government loan guarantee programmes, there is a further significant concentration of sovereign exposures in banks' balance sheets in Romania. Exposures to the central government consist of: (i) direct exposures (government securities and loans to central and local governments, with a share of 22.6 percent as at December 2023, up from 22.4 percent at end-2022), (ii) state guarantees on loans granted by banks to the real sector, making up 5.8 percent of assets (via programmes such as IMM Invest, IMM Invest Plus, "First Home"/"New Home", etc.), as well as (iii) the market share of assets held by banks with majority state-owned capital (14.3 percent in December 2023 versus 12.1 percent in December 2022). However, holdings of government securities increase exposure to concentration risk and interest risk (by expanding the average duration of assets). Most of the securities portfolio is measured at fair value through other comprehensive income (55.4 percent, December 2023), its frequent marking to market exerting a direct impact on own funds and solvency. Higher interest rates and the worsening investor sentiment on financial markets in the region during the

Chart 2.14. Developments in excess deposits compared to loans and advances, and in liquidity indicators



Note: This took into account deposits, loans and advances granted to both non-financial corporations and households.

Source: NBR

pandemic, up to 2022, led to a rise in government securities yields, with a negative impact on the market value of government securities held by banks. However, Romania’s sovereign debt yields declined in 2023, which entailed the increase in the market value of government securities throughout that year.

Foreign funding (primarily from parent banks) posted an average annual growth of almost 26 percent January 2022 through December 2023, after having seen negative average annual dynamics between 2015 and 2021, which led to an increase in the share of these funds in total liabilities of up to 7.4 percent in December 2023 (7.0 percent in December 2022), from an average share of 6.0 percent in 2020-2021. From a historical perspective, the share of these funding sources is low, given the annual average of 26 percent in 2007-2013. At the same time, bond issues increased in importance relative to total assets, *inter alia* due to the binding MREL targets as of 2024: debt securities issued by banks went up from 1.9 percent of assets in 2022 to 3.4 percent in 2023.

Amid these structural developments, the liquidity position of the domestic banking sector improved significantly in 2023, in spite of some disrupting events on the global financial markets (bank failures in the US, the takeover of Swiss bank Credit Suisse Group AG by UBS) and of geopolitical conflicts in the region and in the Middle East. Although investor sentiment on global financial markets deteriorated, the local banking sector consolidated its liquidity position, the central bank maintaining its net debtor position vis-à-vis credit institutions. Specifically, amid a faster rise in the deposit base than in lending to the real sector, the banking sector recorded excess liquidity in a high interest rate macroeconomic environment.

In December 2023, the loan-to-deposit ratio of banks, Romanian legal entities, was 61 percent (Chart 2.14), due to a surplus of deposits over loans of around lei 201.7 billion (double than in December 2019, before the onset of the COVID-19 pandemic). The loan-to-deposit ratio trended downwards between 2019 and 2023 (equivalent to an increase

in the surplus of deposits over loans), based on a higher saving rate in contrast with lending after the pandemic outbreak. By comparison, in December 2019 the loan-to-deposit ratio was 69.5 percent, while the surplus of deposits over loans was approximately lei 97 billion.

Recent developments, even in unfavourable market conditions, have shown the resilience of the traditional funding model based on raising retail deposits, with no significant withdrawals of these funding sources. However, the current global trends in accelerating the transition towards digital banking services (Box B) pose a significant risk for bank's liquidity position, given the ease and speed with which users can withdraw their funds (via online banking platforms), which could be triggered and/or amplified by information/rumours spread through social media platforms.

As for liquidity indicators, the LCR has improved considerably (reaching 280.6 percent at end-2023 versus 209.2 percent at end-2022, Chart 2.14), following both the increase in the liquidity buffer (lei +47.8 billion, up 26.3 percent compared to December 2022) and the decline in net liquidity outflows (lei -5.1 billion, down 5.9 percent compared to end-2022). The NSFR also fared well, reaching 193.6 percent in December 2023 (up by approximately 16.6 percentage points versus end-2022, Chart 2.14). Both indicators stand comfortably above the EU averages (LCR – 167.1 percent, NSFR – 126.8 percent, December 2023).

Box B. The evolution of digitalisation and cyber security in the Romanian banking sector

In November 2023, the NBR launched the *Survey on recent developments and prospects for digitalisation*, concerning all credit institutions (legal entities and branches) in Romania. According to the *Survey*²⁴, credit institutions in Romania continued to adapt to new technologies over the recent period, investing in digital infrastructure. The pace of alignment to technological changes has been heterogeneous, being faster in the case of large banks, due to their larger development potential and higher investment capacity. The main digitalisation challenges facing banks are linked to high IT costs, the capacity to hire qualified staff and ensure cybersecurity.

Regarding the use of advanced technologies, the *Survey* highlighted that: (i) approximately half of respondent banks (with a cumulative market share of 85 percent) use various machine learning applications, (ii) about one third of banks (with a cumulative market share of 68 percent) resort to AI applications, particularly for processing texts (NLP) and images (CV), (iii) 20 percent of respondent banks rely on Big Data and (iv) no bank currently uses blockchain applications.

The digitalisation of banking services and products impacted the number of bank units and employees (which has continued to fall), as well as the financial inclusion (which has improved), given that banks' geographic area of operations has expanded through the

²⁴ 27 banks (out of a total of 32 banks), with an asset market share of 98.4 percent, participated in the *Survey*.

use of electronic channels. Specifically, the access of customers to banking products and services via digital channels increased markedly, and so did the number of users, the number and volume of transactions (especially in the form of payments and domestic transfers) on these platforms. Moreover, there has been a steady increase in mobile banking applications, as well as in the number of users of electronic wallets (provided by Apple Pay, Google Pay or internally, via solutions adopted at bank level).

Due to intensive digitalisation and the current geopolitical context, the cybersecurity risk has become increasingly relevant for financial infrastructure and institutions. The latest ENISA *Report*²⁵ highlights a notable escalation in cybersecurity attacks. The wide resort to advanced technologies has increased the dependence on digital infrastructure, which can intensify cyber threats, including those facing financial institutions. Taking into consideration that cyberattacks can adversely affect the critical infrastructure (including that of the banking sector), it is necessary to implement a series of measures for the prevention and early detection of such incidents, as well as for the development of response and recovery strategies in the aftermath of successful attacks.

Up to now, cyberattacks have failed to cause major disruptions in the banking services provided to customers, nor have they impaired the quality of such services in the case of banks in Romania (according to the responses of the surveyed banks), the most frequent incidents being those classified as Distributed Denial of Service (DDoS) and phishing attempts. Although the attacks have not had a significant impact on the banking sector so far, they may create economic instability (through the contagion effects to real and public sectors), as a result of financial and non-financial losses that could be incurred by the affected bank or group of banks.

Therefore, it is crucial to raise awareness of cybersecurity risks facing both credit institutions and the central bank. Adopting a comprehensive set of measures could help identify specific vulnerabilities and improve the response capacity should a real cyber attack occur, in order to mitigate the effects across the banking sector and the economy.

Bank asset quality indicators have been improving throughout 2023. Despite the uncertain macroeconomic context, characterised by high interest and inflation rates, the non-performing loan ratio contracted by 0.3 percentage points compared to end-2022, down to 2.4 percent in December 2023, remaining within the EBA-defined low-risk bucket (Chart 2.15). This decline was ascribable primarily to lending, as the stock of NPLs increased marginally. As at December 2023, only two banks posted NPL ratios above the 5 percent threshold (one of the relevant criteria for calibrating the systemic risk buffer). The current macroeconomic framework lays the groundwork for a rise in non-performing loans, and in this context it is important to favour NPL resolution, including through the fiscal treatment

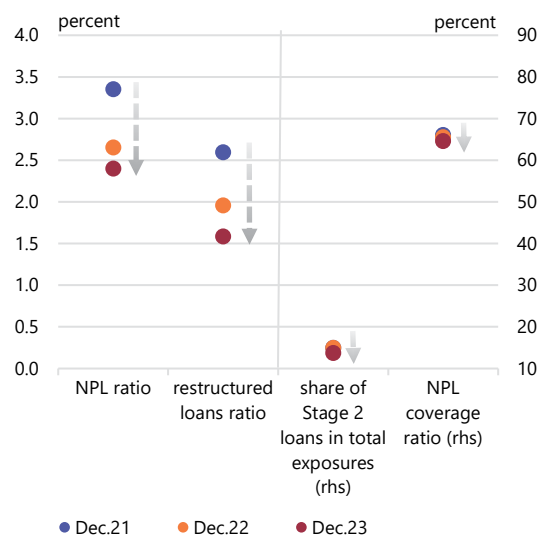
²⁵ *Threat Landscape Report 2023* (<https://www.enisa.europa.eu/publications/enisa-threat-landscape-2023>), European Union Agency for Cybersecurity.

of non-performing loan sales. The restructured loans ratio went down during 2023, standing in December 2023 near the EU average (1.6 percent compared to 1.4 percent in the EU), therefore still in the EBA-defined medium-risk bucket.

As for the expected pace of deterioration in asset quality, the share of loans classified in Stage 2 of impairment under IFRS 9 in total loans continued to improve, reaching 13.7 percent in December 2023 (compared to 14.9 percent, December 2022, Chart 2.15).

The Romanian banking sector posted the highest NPL coverage by provisions among the EU Member States (64.6 percent, December 2023, versus the EU average of 42.3 percent), which reflects the prudent provisioning policies of banks in Romania, as well as the more subdued expectations of debt recovery amid the uncertainty surrounding the macroeconomic framework. In addition, EU regulations (Regulation EU 2019/630) set minimum loss coverage for non-performing exposures after 2019, treated as secured or unsecured. According to this Regulation, the minimum loss coverage for non-performing exposures stood at lei 692 million (December 2023), corresponding to a non-performing exposure of lei 5.2 billion (42.8 percent of total non-performing loans).

Chart 2.15. Asset quality indicators



Source: NBR

2.2.2. Non-bank financial markets

Non-bank financial markets

European financial markets saw mixed developments in 2023 amid expectations of a slower pace of the monetary policy tightening and external geopolitical tensions. Looking ahead, markets are foreseen to remain highly sensitive, especially to potential worsening of economic fundamentals or risks in financial institutions, tracking closely the sustainability of public and private debt in a higher interest rate environment.

From the perspective of domestic financial stability, market risk remains elevated, tending to stagnate amid contagion and interlinkages, with financial markets reacting promptly to the materialisation of any tensions and risk factors, in an environment where tighter financial conditions coupled with the external geopolitical situation have a strong influence on them.

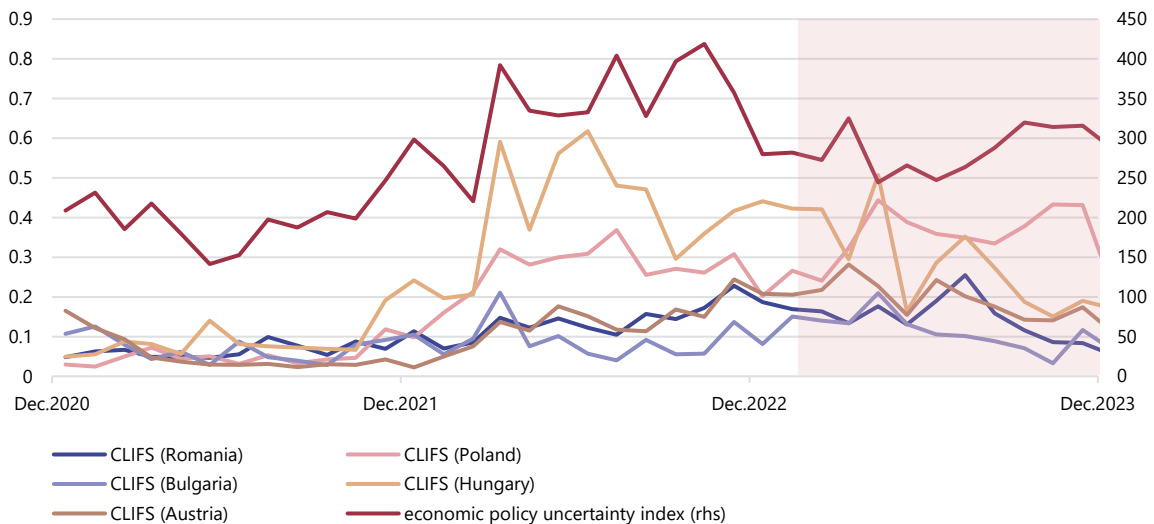
The higher systemic risk in the Romanian economy is largely accounted for by exogenous shocks. The capital market in Romania is sensitive to the same regional risk factors

influencing returns in Austria, Poland, Hungary, or Bulgaria, with the big bourses in terms of capitalisation acting by transmitting volatility to less interconnected and more weakly capitalised markets. An analysis of how systemic risk evolved for six companies included in the BET index based on Value at Risk (VaR) and Conditional Value at Risk (CoVaR) shows that the impact of selected companies on systemic risk in 2023 was low.

As a result of developments in the local market, chiefly the listing of Hidroelectrica, the highest IPO in Europe in 2023, the index for Romania’s capital market posted a sustained increase, above the estimated latent, model-based equilibrium level. However, the outcome of specific econometric tests (Supremum Augmented Dickey Fuller test) shows that the swift dynamics of the price-dividend ratio recorded by the BET index do not point to a rational speculative bubble in the domestic capital market.

On the insurance market, the hike in inflation rate has an adverse effect from two perspectives: the increases in acquisition and administration costs and in the value of damages push up insurers’ costs, on the one hand, and the decline in households’ purchasing power as a result of price rises across the board may put a damper on demand, on the other hand. Insurance companies are, therefore, exposed to two potential risks: higher costs and a potential fall in income. However, the local insurance market remains dominated by the compulsory motor vehicle insurance segment, which mitigates the risk of a sharp drop in insurers’ income. The exposure of insurance companies in Romania to government bonds is further significant, as the risk generated by the abrupt rise in the returns impacting the market value of government securities in insurers’ portfolios remains a topical issue. Nonetheless, the increase in interest rates entailed an opportunity for insurance companies to reinvest premiums and returns from maturing fixed-income instruments in higher-yield securities.

Chart 2.16. Country-Level Index of Financial Stress (CLIFS) in Austria, Bulgaria, Poland, Romania, Hungary



Source: ECB, Economic Policy Uncertainty, FSA adaptation

Private pension funds in Romania reported asset increases in 2023, yet the system is currently still at an accumulation stage, with no sales pressures, due to the very low level of payments.

In 2022, Romania witnessed a surge in financial stress amid mounting economic uncertainty worldwide, but saw a swift downtrend in the degree of financial stress in 2023, as shown in the Chart below. The Country-Level Index of Financial Stress (CLIFS) is calculated by the European Central Bank to measure and compare the level of financial stress at country level.

The higher systemic risk in the Romanian economy is largely accounted for by exogenous shocks. Chart 2.16 sets out a high co-dependence of CLIFS and the economic policy uncertainty index calculated for Europe's economy in 2023.

Capital market

Romania's stock market indices posted a positive performance at end-2023 against end-2022. The BET benchmark index, which captures developments in the most heavily traded companies on the BSE regular market, stood 31.79 percent higher on 29 December 2023 compared to end-2022.

Table 2.1. Capital market yields

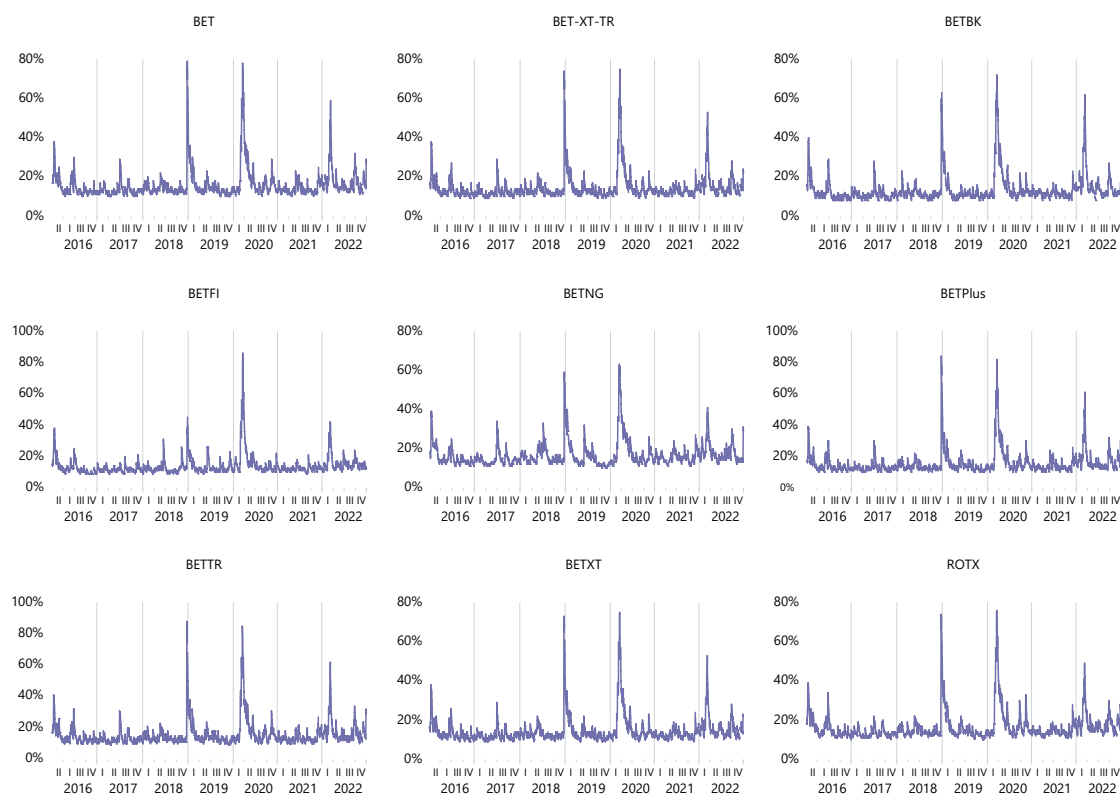
Global market indices (%)	3M	6M	12M	BSE indices (%)	3M	6M	12M
EA (EUROSTOXX)	7.54	2.78	15.66	BET	7.21	23.13	31.79
FR (CAC 40)	5.72	1.93	16.52	BET-BK	7.90	22.89	31.08
DE (DAX)	8.87	3.74	20.31	BET-FI	9.63	21.25	17.95
IT (FTSE MIB)	7.47	7.51	28.03	BET-NG	4.85	16.85	31.42
GR (ASE)	6.93	1.14	39.08	BET	8.24	27.24	39.93
IE (ISEQ)	4.08	0.43	23.23	BET-TRN	8.15	25.26	37.45
ES (IBEX)	7.15	5.31	22.76	BET	6.93	22.12	29.96
UK (FTSE 100)	1.65	2.68	3.78	BET-XT-TR	7.71	25.61	37.27
US (DJIA)	12.48	9.54	13.70	BET-XT-TRN	7.64	23.82	35.02
IN (NIFTY 50)	10.66	13.25	20.03	BETAeRO	6.85	12.76	19.98
SHG (SSEA)	-4.36	-7.08	-3.68	BETPlus	6.89	22.62	30.42
JPN (N225)	5.04	0.83	28.24	ROTX	7.88	22.72	31.24

Note: 3M = 29 December 2023 vs. 29 September 2023; 6M = 29 December 2023 vs. 30 June 2023; 12M = 29 December 2023 vs. 30 December 2022; Max (green) and min (red) are fixed at $\pm 4\%$ (3M), $\pm 8\%$ (6M) and $\pm 15\%$ (12M).

Source: FSA calculations based on Refinitiv Datastream data

Volatility is used to measure risk and gauge the uncertainty faced by investors when buying/selling financial assets. In times of uncertainty, market volatility increases, along with contagion effects on financial markets, and financial assets become much more highly correlated with each other.

Chart 2.17. Volatility of BSE indices, GARCH model (1,1), Student-t distribution



Source: FSA calculations based on BSE data

During 2023, volatility of the Bucharest Stock Exchange indices (Chart 2.17) was much lower than a year earlier. Thus, the highest volatility recorded by the BET index was 28 percent in 2023 compared to 59 percent in 2022, with similar developments in the other BSE indices as well. The lower volatility was also supported by an increase in the BET index that was mainly driven by endogenous factors.

Total traded value on the BSE regulated market and through the multilateral trading facility (MTF) reached lei 38.04 billion at the end of 2023 Q4, up 58.4 percent from the same year-earlier period. The total number of trades conducted on the BSE in 2023 stood 18 percent higher than in the previous year. Approximately 98.5 percent of the total value of trades took place on the BSE regulated market, the remainder being carried out via the MTF. The value of dealings in government securities as at 29 December 2023 dropped against the same period of 2022, standing at approximately lei 3.2 billion. Stocks are further the prevailing asset class, accounting for 64.9 percent of BSE trades at end-December 2023.

Over the same period, regulated market capitalisation reached lei 294.2 billion, up by about 49.2 percent versus end-December 2022.

As at end-2023, trading on the BSE regulated market were 28 intermediaries, of which 18 financial investment services companies, three local credit institutions and seven entities licensed in other EU Member States. As for the MTF, as at end-2023, trading was accounted for by 22 intermediaries, of which 17 financial investment services companies, three local credit institutions and two entities licensed in other EU Member States.

Over the same period, local credit institutions recorded the heaviest trading on the BSE (regulated market and the MTF), with a value coming in at roughly lei 37.3 billion. Local intermediaries (financial investment services companies and credit institutions) accounted for about 93 percent of the total value of trades. Of the intermediaries licensed in other EU Member States that conducted trades on spot markets, investment firms reported the heaviest trading, with a 4.46 percent market share.

As at end-December 2023, the cumulated value of assets held by the financial investment services companies ran at lei 30.79 billion (approximately EUR 6.19 billion), comprising customers' cash and holdings of financial instruments. Customer accounts of the financial investment services companies totalled 84,687 at end-2023.

Assets of undertakings for collective investment (UCIs) in Romania amounted to approximately lei 36.5 billion as at 29 December 2023, down by 1 percent from the end of the previous quarter and by 14 percent against 30 December 2022. At the end of 2023, operating in Romania were 17 administrators, of which six were licensed solely as investment management companies, two were licensed solely as alternative investment fund managers, and nine were dual-licensed. Moreover, as at 29 December 2023, licences were granted to 92 undertakings for collective investment in transferable securities (UCITS), 36 alternative investment funds (AIFs) including the six financial investment companies (FICs) and Fondul Proprietatea. Depository services for the 128 UCIs were provided by four depositories.

At the end of 2023, banking groups were further the largest category of administrators, controlling the bulk of aggregate assets managed by the investment management companies.

Insurance market

At end-December 2023, 25 insurance companies were licensed by the FSA to operate on the insurance market.

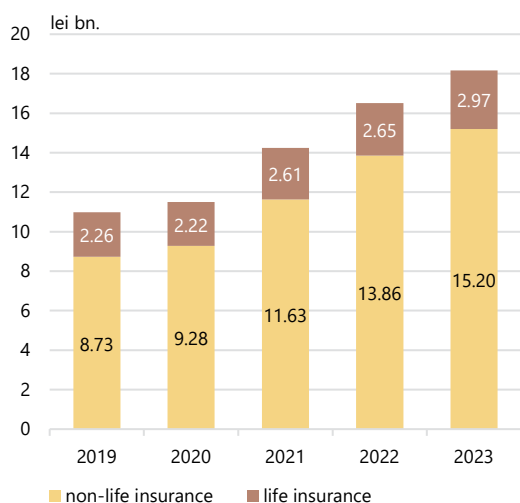
In 2023, gross premiums written by insurance companies licensed and regulated by the FSA amounted to approximately lei 18.2 billion²⁶, up by around 10 percent from 2022. The insurance market in Romania remains focused on non-life insurance business, with an 84 percent share in total gross premiums written (GPW) by insurance companies licensed and regulated by the FSA, remaining at a level similar to that recorded in the previous year.

Out of the total gross premiums written in 2023 (lei 18.2 billion), the gross premiums written by insurance companies licensed and regulated by the FSA in other countries recorded a volume of around lei 114 million, i.e. approximately 0.6 percent of the total volume of GPW, down approximately 25 percent compared to the previous year (around lei 153 million).

²⁶ Including the gross premiums written by Euroins România in 2023 Q1.

The volume of gross premiums written for life insurance stood at lei 3 billion, up 12 percent from 2022 (lei 2.65 billion). Behind the positive evolution stood primarily the increase by around 50 percent in subscriptions for class C3 (Life insurance and annuities related to investment funds), partly offset by the drop in the volume of GPW for class C1 (Life insurance, annuities and additional life insurance: -4 percent).

Chart 2.18. Volume of gross premiums written in 2019-2023



Source: FSA

In 2023, the non-life insurance market remained dominated by motor vehicle insurance, as class A3 (Motor third-party liability insurance for land vehicles, other than railway rolling stock) and class A10 (Compulsory motor third-party liability insurance) made up for approximately 76 percent of total GPW for non-life insurance and 64 percent of total GPW by insurance companies licensed by the FSA.

The high concentration of the insurance market in Romania remains a vulnerability not only from the perspective of exposure by main class of insurance, but also of the significant size of market shares held by a relatively small number of insurance companies.

The value of GPW for motor vehicle insurance (class A3 and compulsory motor third party liability insurance – RCA, including the activity of branches operating in Romania) stood at approximately lei 13 billion in 2023, with 28 percent of the volume being subscribed for voluntary motor third party liability insurance and 72 percent for RCA.

Concentration is elevated on both the voluntary motor third party liability insurance market and the RCA market.

Specifically, the top three insurance companies hold a 74 percent market share of the volume of GPW for class A3 (excluding branches).

The top three insurance companies on the RCA market hold a combined share of 57 percent of the RCA insurance portfolio in Romania (including branches), on a decline compared to previous periods, amid the advance in the volume of gross premiums written by the two branches operating on this segment.

Health insurance witnessed positive dynamics in 2023, with a volume of subscriptions by insurance companies licensed by the FSA of around lei 813 million, up 21.5 percent from 2022 (approximately lei 670 million). GPW for health insurance make up 4.5 percent of total gross premiums written by insurance companies licensed and regulated by the FSA, which has increased compared to the similar year-ago period (4.1 percent). The number of new contracts concluded in 2023 stood at around 250 thousand, similarly to 2022.

The gross compensations paid by insurers licensed and regulated by the FSA amounted to lei 7.7 billion in 2023, down approximately 1 percent from 2022, of which lei 6.3 billion were paid for non-life insurance and lei 1.4 billion for life insurance (including the amounts paid for maturities and redemptions). Separate from the gross compensations paid by insurance companies licensed by the FSA, the total value of sums approved for claims payment by the Insurance Guarantee Fund (IGF) in 2023 was approximately lei 872 million.

At end-2023 Q4, total gross technical reserves of insurance companies licensed and regulated by the FSA amounted to roughly lei 25.6 billion²⁷, according to statutory reports. Out of them, 60 percent were technical reserves for non-life insurance (roughly lei 15.3 billion), whereas 40 percent were for life insurance (lei 10.3 billion).

The solvency ratios (SCR and MCR), calculated for the entire insurance market, were above-one at end-December 2023, according to insurance companies' reports. Therefore, the ratio of own funds eligible to cover solvency capital requirements to the SCR ratio for the insurance market was 168 percent, whereas the MCR ratio was 368 percent.

At end-2023 Q4, the value of the assets (measured in accordance with the Solvency II requirements) of insurance companies licensed and supervised by the FSA went up 18 percent year-on-year. The value of total debt increased by 8 percent²⁸.

In 2023, the volume of gross premiums written by insurance companies licensed in other EU Member States, based on the freedom of establishment (FOE) in Romania, via 15 branches, amounted to approximately lei 2.95 billion (14 percent of total GPW by local companies licensed by the FSA and branches), up by roughly 54 percent compared to 2022.

In 2023, premiums distributed by brokers stood at roughly lei 14.7 billion, up by 18 percent from 2022. The positive dynamics are attributable to the higher volume of non-life insurance premiums (+18 percent) and to the advance in life insurance premiums (+11 percent).

For companies licensed in Romania (excluding FOS and FOE), brokers distributed in 2023 approximately 69 percent of the total volume of gross premiums written by insurers for both non-life and life insurance. The level of distribution, was 79.71 percent for non-life insurance and 13.33 percent for life insurance.

The share of income from the distribution of insurance in total premiums on the insurance brokerage market was 13 percent (average fee), with approximately 12.1 percent in the non-life insurance segment and 41.3 percent for life insurance.

²⁷ Excluding the technical reserves of Euroins România.

²⁸ The statistical data in accordance with the Solvency II regime presented in this *Report* do not include data from Euroins România for 2023 Q4, but include FSA adjustments from the supervisory and control activities covering Euroins România with the reference date of 30 September 2022.

Private pension market

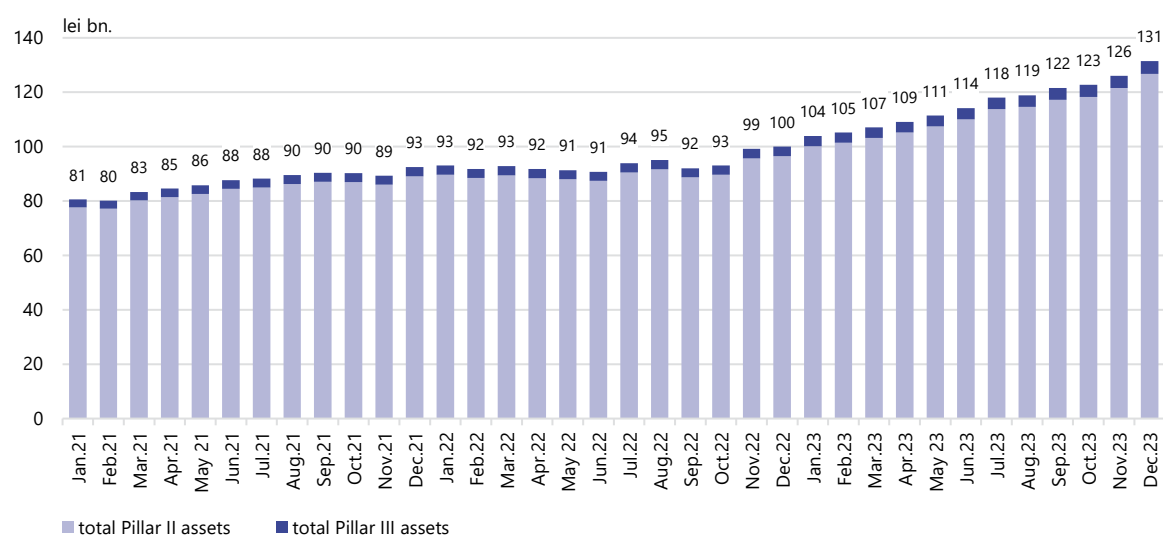
According to the latest International Monetary Fund's communications, the global economic recovery following the COVID-19 pandemic, Russia's invasion of Ukraine and the associated cost-of-living crisis remains resilient. Inflation has been declining faster than anticipated, resulting in a lower-than-expected impact on employment, reflecting favourable supply-side developments and central banks' further monetary tightening measures, which have kept inflation expectations anchored. At the same time, the persistence of high interest rates to fight inflation and the withdrawal of fiscal support amid high debt are expected to weigh on economic growth in 2024.

Private pension funds in Romania totalled assets worth lei 131.5 billion at end-December 2023, standing 31.4 percent higher than at end-2022. Specifically, at end-2023 Q4, total assets of privately administered pension funds (Pillar II) and of voluntary pension funds (Pillar III) amounted to lei 126.7 billion and lei 4.75 billion respectively, up by 31.4 percent and 31.1 percent compared to the same period of the previous year.

Financial instruments in private pension fund portfolios traded on financial markets are subject to mark-to-market valuation, regardless of the duration they are expected to be held in portfolios. Private pension funds have a long-term investment horizon and have demonstrated good resilience to past shocks affecting financial markets.

As at 31 December 2023, the 17 private pension funds had 8.86 million participants, compared to 8.59 million at end-2022. The number of participants in the system of privately administered pension funds as at 31 December 2023 came in at 8.15 million versus 7.96 million in December 2022, while in the system of voluntary pension funds it stood at 771 thousand against 627 thousand as at 31 December 2022.

Chart 2.19. Total assets of the private pension system



Source: FSA calculations

The investment policy of private pension funds further focused on the local financial market. As at end-December 2023, the share of investments in fixed-income securities accounted for 73 percent of the total investment portfolio of private pension funds and equity investments made up 23 percent.

Market risk is the risk of loss resulting from adverse fluctuations in interest rates, exchange rates or market prices in general. It is typically managed by administrators through diversification, as well as by monitoring the price volatility of key financial instruments while actively managing short-term portfolios. Market risk is assessed to remain medium to elevated due to expectations of persistently high interest rates in an environment riddled with ongoing global uncertainties, compounded by mounting geopolitical pressures, following the outbreak of a new military conflict in the Middle East.

In a high-for-long scenario, the real economy may be adversely affected, as financial markets eventually reflect the resulting vulnerabilities and naturally adjust their risk premiums associated with yield expectations.

Credit risk remains low due to the high-quality requirements for issuers of fixed-income instruments in fund portfolios, the vast majority being government securities and bonds issued by international financial institutions.

Liquidity risk is low, as the assets held in current accounts and short-term deposits make up 1.14 percent of total assets of pension funds, down from 4 percent at end-2022. In terms of liquidity, the private pension system is currently resilient to any out-payments due to its going through the accumulation phase (funds with monthly contributions), whereas outflows (prompted by death, invalidity, retirement, transfer) remain subdued.

Solvency risk also remains low due to several mechanisms to protect participants (separation between the assets of administrators and those of funds, the setting-up of technical provisions, the Private Pension System Rights Guarantee Fund).

3. Measures implemented for achieving national macroprudential objectives

3.1. Capital buffers

In 2023, the countercyclical capital buffer (CCyB) was the most widely used instrument by the macroprudential authorities in the European Economic Area. Specifically, 15 countries, including Romania, have started to apply a higher CCyB rate as of 2023. In general, the decision to apply the buffer is announced 12 months prior to its entry into force. Therefore, the latest wave of increases in 2023 was the result of the measures taken by the authorities in 2022. In the immediate aftermath of the pandemic, and against the backdrop of heightened global turmoil, driven primarily by the challenging military situation in Europe, the strong hikes in energy prices, and the overall inflationary environment, the consensus across Europe was to strengthen the resilience and response capacity of European countries with the help of macroprudential instruments.

Hence, there is a noticeable contrast between the pre-pandemic period, when most European countries applied CCyB rates close to 0 percent, and the present time, when CCyB rates are still heterogeneous at European level, ranging from 0 percent to 2.5 percent, but standing above 0 percent in most cases.

The second most widely used instrument in 2023 was, once again, the capital buffer for other systemically important institutions (O-SII), in which case the general trend was that of strengthening the applicable requirements.

Looking at borrower-based measures, no clear trend has been observed. The European real estate market, one of the most significant sources of potential risk to financial stability, witnessed mixed developments in 2023, with no notable price hikes, while rental markets in Western Europe (Germany, Denmark) even experienced price decreases.

Table 3.1. Summary of macroprudential measures taken in 2023

Country	Buffer				Borrower-based measures		
	CCOB	CCyB	O-SII	SyRB	LTV	DSTI	DTI
Austria	Yellow	Yellow	Orange	Red	Yellow	Yellow	Grey
Belgium	Yellow	Yellow	Yellow	Yellow	Yellow	Grey	Grey
Bulgaria	Yellow	Red	Green	Yellow	Grey	Grey	Grey
Croatia	Yellow	Red	Orange	Yellow	Grey	Grey	Grey
Cyprus	Yellow	Red	Red	Grey	Yellow	Yellow	Grey

– continued –

Country	Buffer				Borrower-based measures		
	CCOB	CCyB	O-SII	SyRB	LTV	DSTI	DTI
Czechia	Yellow	Yellow	Yellow	Grey	Yellow	Green	Green
Denmark	Yellow	Red	Red	Grey	Yellow	Grey	Grey
Estonia	Yellow	Red	Yellow	Grey	Yellow	Yellow	Grey
Finland	Yellow	Yellow	Yellow	Yellow	Yellow	Red	Grey
France	Yellow	Red	Yellow	Red	Grey	Yellow	Grey
Germany	Yellow	Red	Green	Yellow	Grey	Grey	Grey
Greece	Yellow	Yellow	Red	Grey	Grey	Grey	Grey
Hungary	Yellow	Yellow	Red	Grey	Green	Green	Grey
Ireland	Yellow	Red	Green	Grey	Green	Grey	Grey
Iceland	Yellow	Yellow	Yellow	Yellow	Yellow	Yellow	Grey
Italy	Yellow	Yellow	Orange	Grey	Grey	Grey	Grey
Letonia	Yellow	Yellow	Yellow	Grey	Yellow	Yellow	Yellow
Liechtenstein	Yellow	Yellow	Yellow	Yellow	Yellow	Grey	Grey
Lithuania	Yellow	Red	Red	Red	Yellow	Yellow	Grey
Luxembourg	Yellow	Yellow	Orange	Grey	Yellow	Grey	Grey
Malta	Yellow	Yellow	Red	Grey	Yellow	Yellow	Grey
Netherlands	Yellow	Red	Yellow	Grey	Yellow	Grey	Grey
Norway	Yellow	Red	Yellow	Yellow	Yellow	Grey	Yellow
Poland	Yellow	Yellow	Red	Grey	Yellow	Yellow	Grey
Portugal	Yellow	Yellow	Red	Grey	Yellow	Yellow	Grey
Romania	Yellow	Red	Yellow	Yellow	Yellow	Yellow	Grey
Slovakia	Yellow	Red	Yellow	Grey	Yellow	Yellow	Yellow
Slovenia	Yellow	Red	Yellow	Yellow	Yellow	Red	Grey
Spain	Yellow	Yellow	Red	Grey	Yellow	Grey	Grey
Sweden	Yellow	Red	Red	Yellow	Yellow	Grey	Grey

Note: Czechia and Hungary adopted measures on the debt-to-income (DTI) ratio and the loan-to-value (LTV) ratio in 2023, but they apply from 1 January 2024.

Legend:

- the instrument is not applicable in that country or its rate is zero
- the instrument's rate and scope of application have remained unchanged
- the instrument's rate and scope of application have been adjusted to strengthen the requirements
- the instrument's rate and the number of institutions to which it applies have been adjusted in both directions (e.g. lowering the minimum threshold, easing the requirement, concurrently with applying it to a larger number of institutions, and strengthening the requirements)
- the instrument's rate and scope of application have been adjusted to ease the requirements or replace it with another measure
- instruments that were introduced through a phase-in decision

Source: ESRB, NBR adaptation

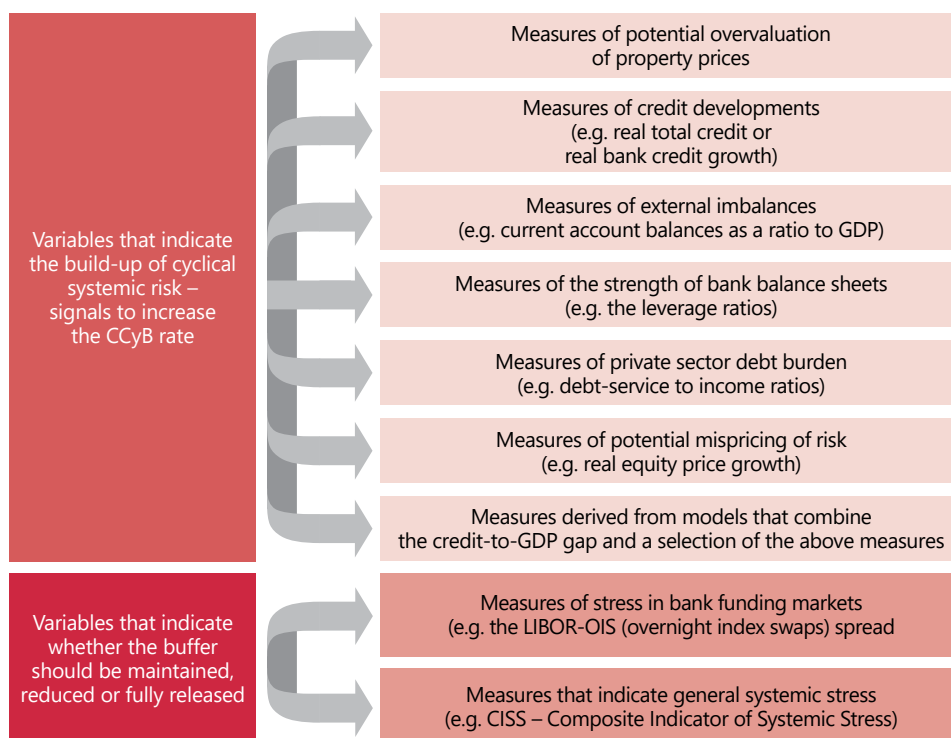
Moreover, as regards borrower-based measures, there is a general tendency to keep credit standards unchanged, given the uncertainty surrounding economic prospects in a higher interest rate environment. Against this backdrop, there are also countries such as Finland and Slovenia that decided to strengthen credit standards by recalibrating the debt service-to-income (DSTI) ratio to address potential risks of over-indebtedness in periods of

stress. At the same time, the slowdown in credit growth prompted some countries to ease these requirements in order to boost lending, particularly for consumer credit secured by residential property (Czechia), or to support first-home loans (Hungary).

3.1.1. The countercyclical capital buffer

The countercyclical capital buffer (CCyB) is a macroprudential instrument designed to help counter the procyclicality in the financial system. According to the EU’s regulatory framework, the national designated authorities in the EEA countries are responsible for setting and regularly recalibrating the countercyclical capital buffer. With a view to implementing it in the European Economic Area (EEA) countries, in 2014 the ESRB issued Recommendation ESRB/2014/1 on guidance for setting countercyclical buffer rates, which outlines in detail: (i) the principles guiding the setting of CCyB rates, (ii) guidance on the measurement and calculation of the credit-to-GDP gap, a benchmark in the calibration of the CCyB buffer, (iii) variables indicating the build-up of system-wide risk associated with periods of excessive credit growth, as well as (iv) variables that indicate that the buffer should be maintained, reduced or fully released (Figure 3.1).

Figure 3.1. Variables recommended by the ESRB for calibrating the CCyB rate



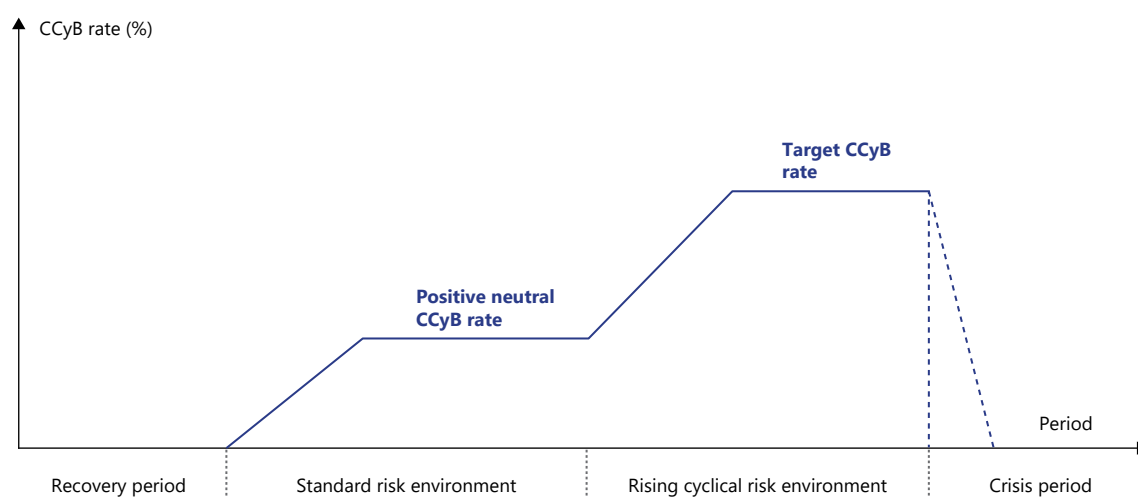
Source: ESRB

The countercyclical capital buffer (CCyB) is designed to help dampen excessive credit growth during the upswing of the financial cycle, by increasing the capital requirements, and absorbing the potential losses generated by an unfavourable evolution of the economy, by

reducing or even completely eliminating it. These countercyclical measures act to smooth the credit cycle, by building up reserves in the expansionary periods and using them as an incentive during recessions.

An approach increasingly used by the European countries with regard to this buffer refers to the positive neutral CCyB rate. In this sense, the buffer rate and, implicitly, the capital buffer requirements should be increased for precautionary purposes already in a standard risk environment (Figure 3.2). Apart from the neutral positive rate, the CCyB rate should be raised to reach the target level in an environment where cyclical risks grow. In addition to the build-up phase, when market conditions call for it, the buffer can be reduced or even fully released. The buffer can be fully released to 0 percent based on a single measure, or gradually released based on successive reduction measures. CCyB rates were recalibrated downwards during the COVID-19 pandemic, when most European countries that had implemented positive buffer rates reduced them or even fully and promptly released the buffer.

Figure 3.2. Mechanism for setting and releasing the countercyclical capital buffer



Source: Adapted from Behn, M., Pereira, A., Pirovano, M. and Testa, A. "A positive neutral rate for the countercyclical capital buffer – state of play in the banking union", *Macprudential Bulletin*, European Central Bank, vol. 21, 2023.

As regards operationalisation, the countercyclical capital buffer rate may range between 0 percent and 2.5 percent and be calibrated in minimum steps of 0.25 percentage points. However, most countries have so far calibrated the buffer in increments of 0.5 percentage points or 1 percentage point, therefore reducing the number of measures to change the buffer rate and providing more predictability in the build-up of capital buffers. For the purpose of determining the additional capital to be maintained to meet this buffer requirement, the CCyB rate shall apply to the total risk exposure amount and the capital buffer shall consist of Common Equity Tier 1 capital. As an exception to the rule, where the systemic risks identified are very high, a CCyB rate above the maximum 2.5 percent level may be used, in line with EU rules.

One of the key features of the countercyclical capital buffer is the predictable implementation of the measure. Unlike the buffer for other systemically important institutions (O-SII) or the systemic risk buffer (SyRB), the CCyB rate shall be raised at least 12 months after the macroprudential authority took the decision and announced it publicly in its press releases. This period between the date of the decision and the date of implementation gives credit institutions time to adapt to the new additional capital requirements. This mechanism also benefits the macroprudential authority, allowing it the flexibility to waive the application of the measure within this timeframe, should the economic dynamics require it. However, maintaining the 12-month period between the date of the decision and the date of implementation is necessary only for the measures to raise the CCyB rate; where an increase in capital requirements is necessary, in the event of a reduction in the rate, the measure can be applied as from the time of the decision.

In line with Recommendation ESRB/2014/1 on guidance for setting countercyclical buffer rates, the national designated authorities are under the obligation to communicate to the ESRB, the Council of the European Union and the European Commission the actions they have taken to comply with those recommendations or to provide adequate justification in the case of inaction. To this end, the addressees of the recommendation shall provide a report every three years explaining the measures taken to comply with the provisions of the recommendation. The first reporting deadline was 30 June 2016, the second reporting deadline was initially postponed by one year, and subsequently, due to the effects of the COVID-19 pandemic, it was completely cancelled in accordance with Decision ESRB/2020/10 on the cancellation of certain reports on actions and measures taken pursuant to Recommendation ESRB/2014/1 and Recommendation ESRB/2015/2. In line with these changes, the second reporting deadline was 30 June 2022. At the same time, during 2019, the first assessment of the implementation of Recommendation ESRB/2014/1 was published, based on the notifications sent by the Member States in 2016. The assessment results show that, following the measures implemented, Romania was among the European countries that was given an overall grade of fully compliant (FC) with the Recommendation.

The experience across the EU

During 2023, the countercyclical capital buffer was one of the most widely used macroprudential instruments across the European countries. Buffer rates trended upwards, following most countries' decisions to raise them. In addition to the measures applied, in 2023 decisions were also taken to increase the CCyB rates, which would take effect during 2024. From a historical perspective, between 2016 (the year the buffer was implemented across the EU) and 2019, the number of the states that set a positive CCyB buffer rate was on the increase. Thus, in 2016 only two countries had a positive CCyB rate, their number reaching 12 in 2019. As a result of the outbreak of the COVID-19 pandemic, many European countries cut or even fully reduced the CCyB rate. However, the number of the countries applying a positive buffer rate has been again on a rise since 2022. End-2023 data show that 18 countries

in the European Economic Area had positive CCyB buffer rates and, by the end of 2024, the number of EEA countries with positive rates is set to increase to 20 (Chart 3.1).

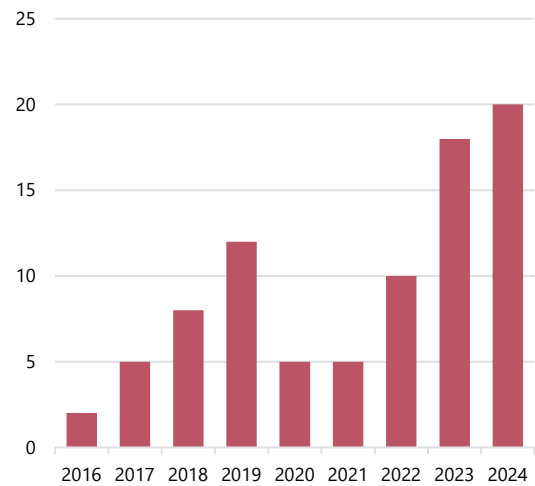
In 2023, the Member States continued to strengthen the resilience of the banking sector, in particular by building up reserves that can be used during periods of stress or in the event of an exogenous shock, and raised the CCyB rate. Compared to the year when the CCyB started to be implemented, not only the number of countries applying a positive buffer rate increased, but so did the level of the CCyB rates (Charts 3.2 and 3.3).

In 2023, the macroprudential authorities of Bulgaria, Croatia, Cyprus, Denmark, Estonia, France, Germany, Ireland, Lithuania, the Netherlands, Norway, Romania, Slovakia and Sweden took the most important decisions to raise the CCyB rate (Chart 3.4). Some countries decided to increase the capital requirement in one step, while others decided to raise it gradually to achieve the macroprudential goal.

In most cases, the CCyB rate increase during the year ranged from 0.5 percentage points (for Estonia or Slovakia) to 1 percentage point (for Norway or Sweden).

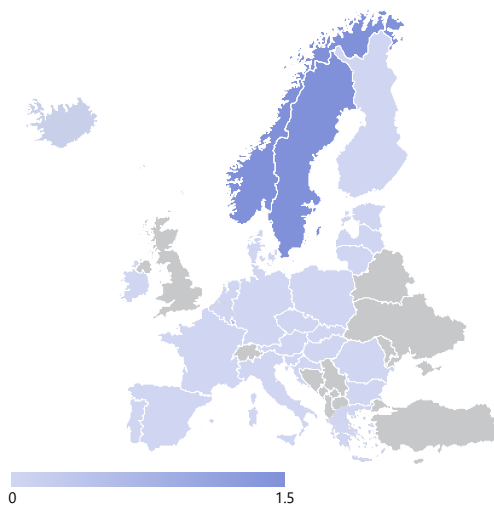
Positive cycle-neutral CCyB rates have lately become increasingly popular at European level. This approach advocates the use of a positive CCyB rate even when there is no marked

Chart 3.1. Number of countries applying a CCyB rate higher than 0 percent



Source: ESRB

Chart 3.2. CCyB rates in EEA countries at end-2016



Source: ESRB

Chart 3.3. CCyB rates in EEA countries announced for 2024-2025

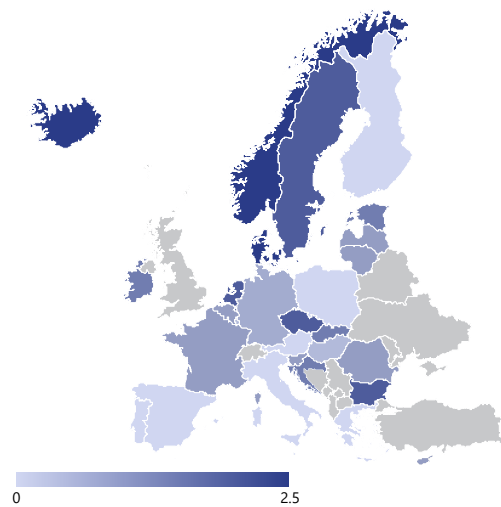


Chart 3.4. Measures to increase the CCyB rate during 2023



Note: The arrow base shows the CCyB rate at end-2022, while the arrow tip indicates the CCyB rate at end-2023.

Source: ESRB

increase in lending. Positive cycle-neutral CCyB rates may differ across the countries, ranging from 0.5 percent (Cyprus) to 2 percent (Sweden). At the same time, some countries started to apply this approach at an early stage (Lithuania in 2017), while others, such as Ireland or the Netherlands, have resorted to this measure relatively recently, starting in 2022.

Table 3.2. CCyB rates applicable in EEA countries at end-2023 and CCyB rates announced for 2024

Country	CCyB rate at 31 December 2023	CCyB rate announced for 2024
Austria	0	0
Belgium	0	1
Bulgaria	2	2
Croatia	1	1.5
Cyprus	0.5	1
Czechia	2	2
Denmark	2.5	2.5
Estonia	1.5	1.5
Finland	0	0
France	0.5	1
Germany	0.75	0.75
Greece	0	0
Hungary	0	0.5
Iceland	2	2.5
Ireland	1	1.5
Italy	0	0
Latvia	0	0

– continued –

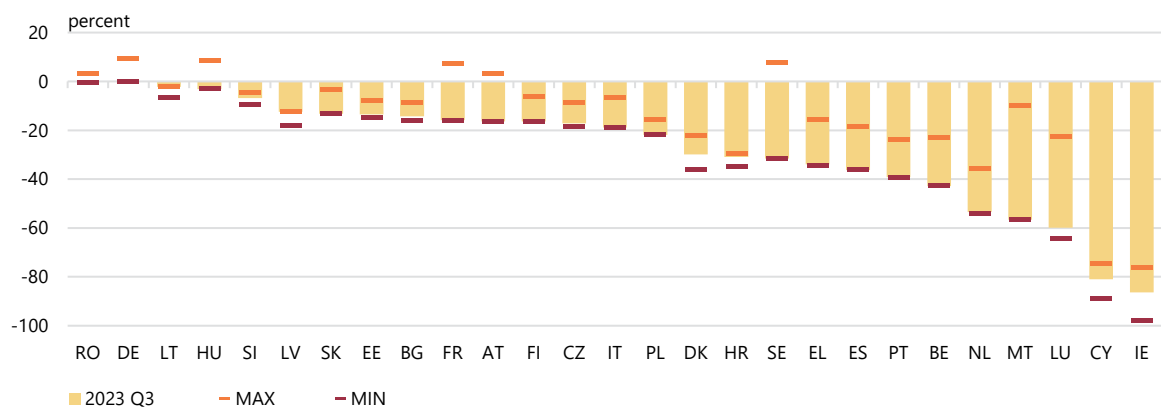
Country	CCyB rate at 31 December 2023	CCyB rate announced for 2024
Liechtenstein	0	0
Lithuania	1	1
Luxembourg	0.5	0.5
Malta	0	0
Netherlands	1	2
Norway	2.5	2.5
Poland	0	0
Portugal	0	0
Romania	1	1
Slovakia	1.5	1.5
Slovenia	0.5	0.5
Spain	0	0
Sweden	2	2

unchanged
 0.5 pp increase
 0.75 pp increase
 1 pp increase

Source: ESRB

At the end of 2023, 18 EEA countries applied positive CCyB rates. The countries with a maximum buffer rate of 2.5 percent are Norway and Denmark, followed by Bulgaria, Czechia, Iceland and Sweden, each with a 2 percent rate. Cyprus, Luxembourg, France and Slovenia report the lowest positive CCyB rates, i.e. 0.5 percent, followed by Germany with 0.75 percent. For 2024, the buffer rates are expected to be raised in Belgium, Croatia, Cyprus, France, Hungary, Iceland, Ireland, and the Netherlands, following the decisions taken in 2023 (Table 3.2). In 2023, the situation was special in Czechia: the CCyB rate was raised

Chart 3.5. Credit-to-GDP gap in Member States (2023 Q3)



Note: The values calculated by the ESRB may differ from those calculated by national macroprudential authorities, due to different calculation methodologies.

The MAX variable represents the maximum credit-to-GDP gap during 2021 Q4 – 2023 Q3.

The MIN variable represents the minimum credit-to-GDP gap during 2021 Q4 – 2023 Q3.

Source: ECB, ESRB

from 2 to 2.5 percent as of 1 April 2023 and then was subject to two successive cuts, initially to 2.25 percent as of 1 July 2023, and subsequently to 2 percent as of 1 October 2023. In the meeting of October 2023, Belgium decided to raise the CCyB rate in two successive steps, as follows: to 0.5 percent as of June 2024 and to 1 percent starting with October 2024.

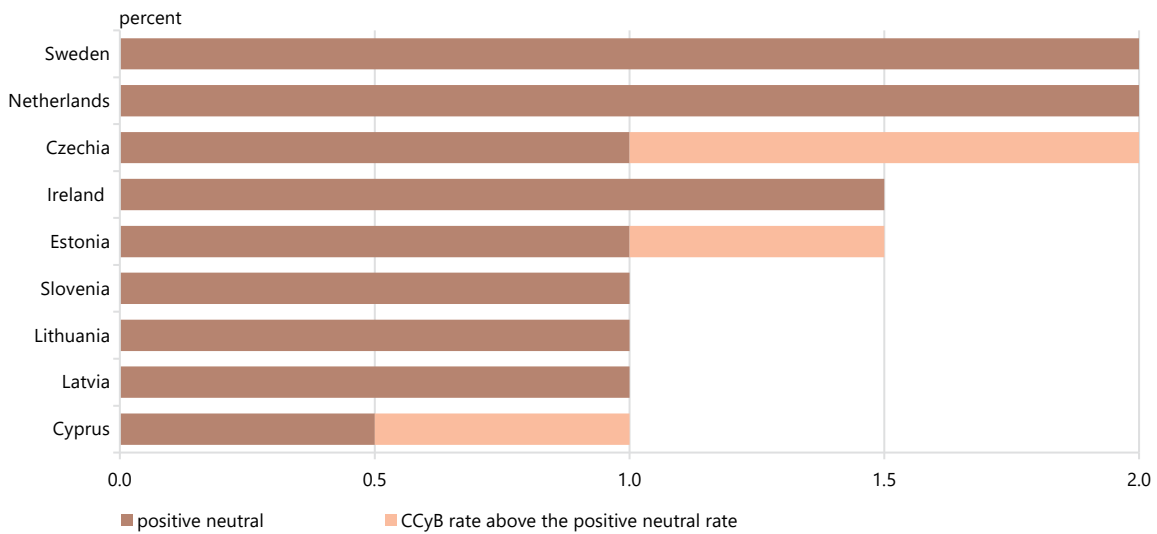
Among the European countries' arguments underpinning their decisions to increase the countercyclical capital buffer rates were: a sharp increase in lending, higher real estate prices or even a worsening macroeconomic outlook. However, mention should be made that, in addition to the standard approach to the calculation of the Basel indicator, which illustrates the deviation of the credit-to-GDP ratio from its long-term trend, most countries also take into account other variables in substantiating their calibration decisions. Thus, the standard Basel indicator has recently been in negative territory at European level (Chart 3.5), but most countries decided to raise the CCyB rate, despite this outcome.

Box C. Alternative approaches to calibrating the CCyB buffer and applying a positive neutral CCyB rate across the EEA countries

The countercyclical capital buffer (CCyB) is designed to counter the procyclical behaviour of the financial system. Credit institutions are prompted to accumulate capital when the cyclical systemic risk is judged to be building up, by setting a CCyB buffer that can be used during periods of stress, when vulnerabilities materialise, so as to increase the resilience of the banking sector.

The decision on the appropriate CCyB rate, according to the European legislation in force, follows the principle of "guided discretion". Thus, the decision to activate this instrument may reflect the information provided by the credit-to-GDP gap, alongside the assessment of quantitative and qualitative information on developments in real

Chart C.1. Positive-cycle neutral CCyB rates in EEA countries at end-2023



Source: websites of designated authorities in each country

estate markets, the macroeconomic and financial framework, the level of private sector indebtedness or credit standards. In order to ensure a level playing field for the CCyB implementation across Member States, the European Systemic Risk Board issued Recommendation ESRB/2014/1 on guidance for setting countercyclical buffer rates.

Most EEA countries use the analysis of indicators (assessed individually and/or collectively as a composite indicator) both to identify cyclical vulnerabilities and to calibrate the countercyclical capital buffer. However, in other states, the designated authorities also consider other quantitative elements in the decision-making process. Specifically, some countries (Luxembourg, Poland) have started using early warning models in order to identify risks, while others use structural/semi-structural models (France, Slovenia) or stress testing to calibrate the CCyB rate (Czechia, France, Iceland, Ireland, Latvia, Norway, Slovakia).

With the post-pandemic economic recovery, more and more countries have re-established their countercyclical capital buffers or have implemented positive CCyB rates for the first time. Some designated authorities adopted a positive cycle-neutral CCyB rate approach with a view to creating, at an early stage, more room for manoeuvre in the event of risks materialising. However, three of the countries that implemented a positive cycle-neutral CCyB rate deemed it necessary to increase the rate applicable as a result of growing risks to financial stability (Chart C.1). Thus, the CCyB is activated in the “standard risk environment” stage, the CCyB rate being subsequently raised when cyclical systemic risks increase. Mention should be made that the definition of a standard risk environment is slightly different at country level, although in all countries the definition includes measures of macroeconomic, credit market and banking sector conditions. As regards the calibration of the positive neutral rate, authorities rely on different approaches. These include, for instance, analyses of historical losses, stress test models, assessments of the impact of buffer releases during the pandemic and expert judgement. The benchmark buffer rate heterogeneity across countries reflects, on the one hand, the national characteristic and, on the other, the calibration methods used.

Figure C.1. Main arguments underpinning the decisions taken by national authorities to recalibrate the CCyB rate in 2023



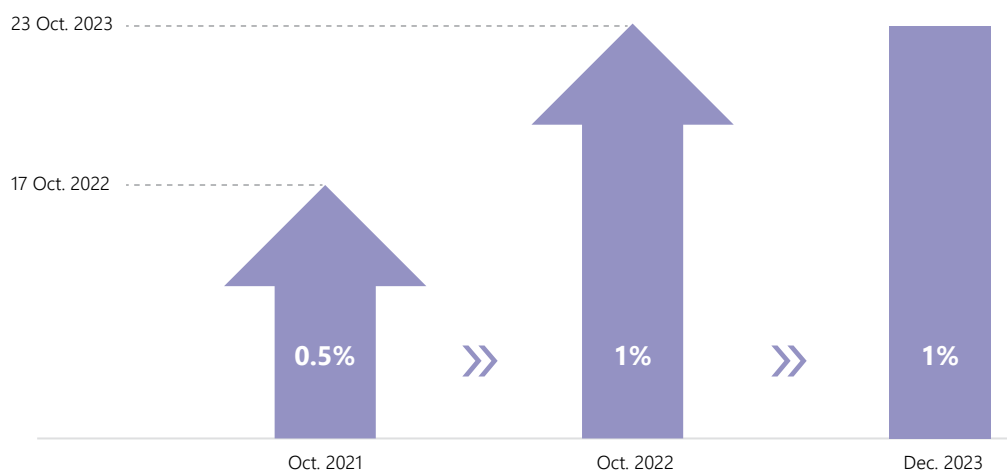
Source: ESRB

While the 2021-2022 period saw a wave of decisions to raise the CCyB rate at European level, mainly substantiated by economic recovery and fast increase in lending, the year 2023 was marked particularly by the preservation of existing requirements or the build-up of additional reserves for the main purpose to strengthen the resilience of the banking sector. As part of the general main objective to enhance resilience in the event of potential shocks affecting the financial system, the countries having implemented additional CCyB rate increases since the previous *Report* justified their decisions by a series of arguments that can fall into four main categories, namely: (i) the setting-up of the positive neutral CCyB rate, (ii) the real estate market vulnerabilities, (iii) the favourable banking sector conditions, allowing for the implementation of such measures, as well as (iv) the macroeconomic conditions characterised by different types of vulnerabilities (Figure C.1). In 2023, Sweden decided to raise the CCyB rate with a view to setting up the positive neutral buffer rate, while the Netherlands took a similar decision applicable as of 2024. Countries such as Iceland took measures following the vulnerabilities identified in the real estate market or at macroeconomic level, while Norway deemed it appropriate to increase the CCyB rate due to the favourable banking sector conditions that allow for partial capital conservation. It is worth noting that such justifications can also be found in the quarterly press releases published by the national designated authorities that decided to maintain the CCyB measures.

Implementation of the countercyclical capital buffer in Romania

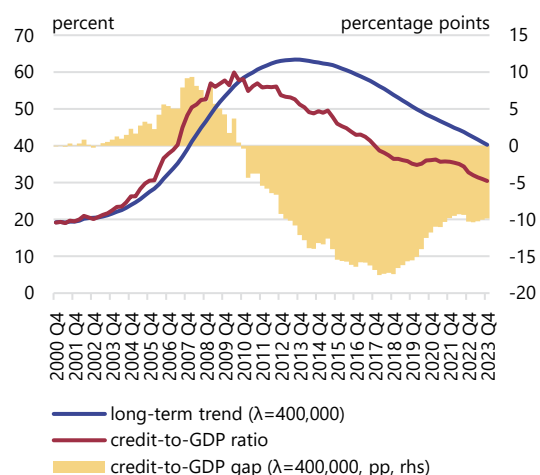
In Romania, the countercyclical capital buffer was introduced as of 1 January 2016, being maintained at a rate of 0 percent until 2022. The CCyB rate was changed for the first time following the NCMO General Board's decision of 14 October 2021, when the buffer rate was raised from 0 percent to 0.5 percent. In line with the application methodology of the buffer, the increase became effective on 17 October 2022, namely 12 months after it was

Figure 3.3. Calendar for implementing the measures to raise the CCyB rate



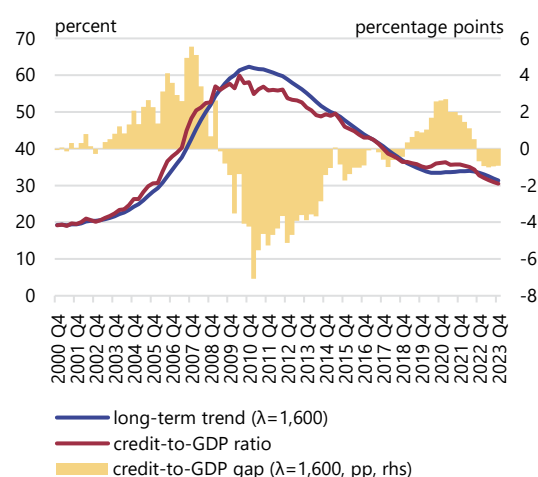
Source: NCMO

Chart 3.6. Analysis of the countercyclical capital buffer in Romania (2000 Q4 – 2023 Q4), assuming a long financial cycle (Basel indicator)



Source: NBR, NIS, NBR calculations

Chart 3.7. Analysis of the countercyclical capital buffer in Romania (2000 Q4 – 2023 Q4), assuming a short financial cycle²⁹ (alternative indicator)



Source: NBR, NIS, NBR calculations

announced via NCMO Recommendation No. R/7/2021 on the countercyclical capital buffer in Romania. The measure was taken in the context in which: (i) lending increased fast, (ii) the tensions surrounding macroeconomic equilibria persisted, especially via the twin deficits, (iii) the high levels of voluntary capital reserves built up by the banking sector and of liquidity indicators, exceeding the EU averages, allowed capital to be conserved, without affecting the loan supply, and (iv) the eligible borrowers had access to finance, with credit institutions estimating credit standards to remain unchanged. Due to the one-year period between the announcement of the decision and its implementation, the macroprudential authority had the possibility to revise the recommended measure, depending on the macroeconomic conditions and lending developments. NCMO Recommendation No. R/7/2021 addressed to the National Bank of Romania was implemented by issuing NBR Order No. 6 of 19 November 2021 amending NBR Order No. 12/2015 on the capital conservation buffer and the countercyclical capital buffer.

Shortly after the entry into force of the measure to raise the CCyB rate to 0.5 percent, the NCMO General Board decided to further increase the buffer rate during its meeting of 20 October 2022 (Figure 3.3). In line with the application methodology of the buffer, the increase became effective on 23 October 2023, namely 12 months after it was announced via NCMO Recommendation No. R/4/2022 on the countercyclical capital buffer in Romania. The decision was taken in the context in which the previous years' experience showed the importance of proactively building up capital buffers to mitigate possible shocks and allow the banking sector to subsequently support economic recovery. The European Systemic Risk Board favoured this approach and most EEA countries decided in 2022 to tighten the macroprudential policy by increasing the countercyclical buffer rate. The measure to raise the buffer rate also took into account the ESRB warning published at the end of September 2022, drawing attention to the growing risks and the need for both credit institutions and national supervisory authorities or EU institutions to make prudent assessments so as to ensure the

²⁹ The smoothing parameter (λ) of 1,600, is used in cycles similar in length to business cycles, referred to in the literature as short cycles (less than 8 years).

resilience of financial institutions and financial market infrastructures, in the event of adverse scenarios materialising. For this purpose, the ESRB warning highlights that authorities should envisage the relevant micro and macroprudential instruments at their disposal to improve the shock-absorption capacity across financial institutions. Moreover, at national level, credit institutions are expected to take a cautious approach, *inter alia* by consolidating the capital base, where an additional build-up of risks to financial stability is found, the growth rate of lending remains among the highest in the European Union and vulnerabilities associated with current account deficit and budget deficit persist. At the same time, the liquidity and profitability levels of the banking sector allowed for an increase in the countercyclical buffer rate, without negatively affecting banks' loan supply to eligible borrowers.

Chart 3.8. Nominal annual growth in lending



Source: NBR

A number of indicators on lending dynamics, real estate market dynamics, financial health of the banking sector, credit standards or even macroeconomic indicators are used to substantiate the decisions to change the CCyB rate. These include the standard Basel indicator which determines the credit-to-GDP gap for developed economies (a long financial cycle of over 20 years). In order to calibrate it to the specificities of domestic economy and the national financial system, the alternative indicator is also calculated on a quarterly basis, aiming to identify the short financial cycle, with a length similar to that of the business cycle. The 2023 analyses show that the credit-to-GDP gap, determined based on the Basel indicator, was in negative territory throughout the year, with the latest available data (Chart 3.6) illustrating a ratio of -9.85 percentage points (December 2023). Turning to the additional indicator, its level was also in negative territory during 2023, albeit much closer to the 0 percent threshold, with the latest available data (Chart 3.7) showing a ratio of -0.93 percentage points (December 2023). As a general trend, the alternative indicator values were much lower than those recorded in 2022.

Apart from the Basel indicator and the additional indicator, the lending dynamics indicators are also essential for calibrating the CCyB buffer (Chart 3.8). During 2023, the nominal annual growth rate of lending slowed down compared to the previous years. At sectoral level, the strongest decline was recorded by loans to households, their growth rate nearing the 0 percent threshold at the end of 2023 Q3. The growth rate of loans to non-financial corporations decreased sharply as well. Looking at the dynamics of loans to households by component, consumer credit and housing loans posted mixed developments. Specifically, the nominal annual growth rate of consumer credit remained in positive territory during 2023, while that of housing loans entered negative territory.

3.1.2. Buffer for other systemically important institutions

Implementation framework of the macroprudential instrument

The build-up of vulnerabilities in the case of large banks often played a key role in the outbreak and spread of systemic financial crises. First, the failure of a large bank can put additional pressure on budget expenditure if the government decides to bail it out. Moreover, a halt in large banks' provision of essential services (loans, deposits, payments, etc.) to the real economy can result in the worsening of macroeconomic conditions on the domestic front or even at cross-border level, as far as international banking groups are concerned. The threat posed by these institutions is proportional to their size, interconnectedness, complexity and the difficulty to replace them. In order to prevent the build-up of systemic risks generated by the misaligned incentives and moral hazard implied by these financial institutions, the ESRB recommends national authorities to use, as a dedicated macroprudential instrument, the capital buffers applicable to O-SIIs³⁰ in the national financial system or G-SIIs³¹ at international level.

³⁰ Other Systemically Important Institutions

³¹ Global Systemically Important Institutions

The objectives to impose additional capital requirements on systemically important institutions are as follows: (i) enhance their loss-absorption capacity, with positive effects on mitigating the systemic risk generated by the size of institutions, (ii) lower the likelihood of financial difficulties for systemic banks, (iii) reduce the severity of the potential impact of financial stress episodes that large banks could face, (iv) build up capital reserves that can ensure the continued financial intermediation during the downturn of business and financial cycles and (v) correct the advantages of “too big to fail” institutions as a result of implicit government guarantees, promoting a level playing field in the market for all credit institutions.

2023 was a year of adapting to a challenging macroeconomic environment, hampered by many uncertainties. Central banks continued to adjust the monetary policy stance by raising interest rates, in an attempt to keep inflation under control. Macroprudential policy tightened further, due to the measures adopted by national authorities in face of challenges to financial system stability. In many jurisdictions, the capital requirements for other systemically important institutions (O-SII buffer) were increased (*inter alia* as a result of amendments in the applicable legislation or the phase-in measures), many EU countries also making adjustments to the list of systemically important institutions at national level, in line with changes in the market strategies of banks.

The O-SII buffer, introduced in the European regulations once the CRD IV legislative package was adopted, experienced a series of changes in its implementation, following Member States’ proposals that identified certain limitations in the initial set-up of this macroprudential instrument. These limitations were likely to affect the adequate coverage of risks that systemically important institutions could have transferred to the national financial sector and the real economy. Specifically, according to the CRD V regulatory framework, the O-SII buffer rate that Member States’ competent authorities can impose in the country of origin on banks with domestic capital was increased to 3 percent of the total risk exposure amount (as compared to the previous threshold of 2 percent). The maximum amount the authorities in host countries may set for foreign bank subsidiaries was also raised. Moreover, the CRD V regulatory framework reset the implementation of structural buffers (O-SII and SyRB buffers), namely the systemic risk buffer may be cumulative with the O-SII buffer in the case of systemically important banks subject to a systemic risk buffer, given that the two instruments are meant to cover different risks. Where Member States intend to impose on systemically important banks an O-SII buffer higher than 3 percent or where the sum of the O-SII buffer rate and the SyRB rate is higher than 5 percent, competent/designated national authorities shall request the European Commission’s approval before the measure becomes effective. The authorities should ensure that this approach does not entail disproportionate adverse effects on the whole or parts of the financial system in other Member States or in the Union as a whole, forming or creating an obstacle to the functioning of the single European market.

The experience across the EU

In order to ensure a level playing field in the EU banking market with regard to identifying and designating systemically important institutions, the European Banking Authority (EBA) developed a common methodology (Guidelines EBA/GL/2014/10³²), with the help of national authorities. The Guidelines specify the adequate methodology to make a standardised assessment of systemically important institutions, while also leaving room for manoeuvre to the national authorities, given the significant differences in the specificities of Member States' financial systems.

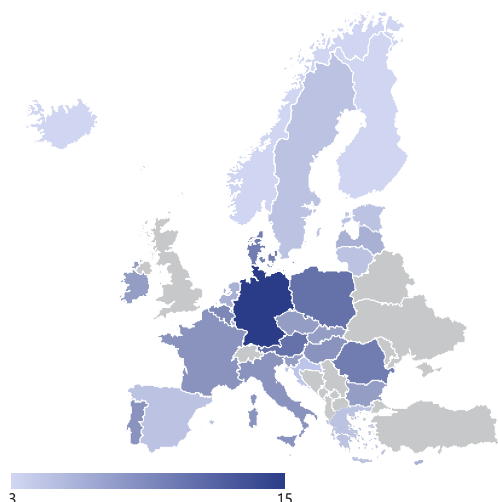
The methodology comprises two steps. In the first step (which is common at EU level), 10 indicators are calculated based on the following criteria: (a) size; (b) importance for the economy of the relevant Member State, capturing substitutability and the financial institution infrastructure; (c) complexity of cross-border activity and (d) interconnectedness of the institution or group with the financial system. This step ensures comparability and transparency in the assessments to designate systemically important institutions at the level of Member States. In the second step, the specificities of the national financial systems are taken into account and a set of optional indicators may be used, so as to capture other relevant aspects of the banking sector, which have not been identified in the first stage of assessment. Following the annual assessments to identify systemically important institutions, all EU Member States submit the results to the ESRB.

In 2023, 182 systemically important institutions were identified in EEA countries (Chart 3.9), on a rise from the year before, when 181 entities were classified as O-SIIs. The countries that reported a larger number of systemically important institutions were Italy (+3 O-SIIs), Denmark (+1 O-SII) and Austria (+1 O-SII). Conversely, unlike the 2022 identification exercise, the number of O-SIIs dropped from 8 to 6 in Bulgaria, from 6 to 5 in Luxembourg and from 16 to 15 in Germany. The number of O-SIIs varies across EEA countries, from a maximum of 15 in Germany to a minimum of 3 in countries such as Finland, Iceland, Liechtenstein and Norway, depending on the specificities of each banking sector and the related level of concentration.

As regards the calibration of the O-SII buffer, the maximum buffer rate follows an uptrend (Chart 3.10), mainly as a result of phase-in measures, due to the entry into force of CRD V. Specifically, in 2023, eight countries increased the maximum O-SII buffer rate, as follows: Greece and Spain by 0.25 percentage points, Cyprus by 0.375 percentage points, Croatia, Italy and Luxembourg by 0.5 percentage points, while Hungary and Poland saw the most substantial rise in the O-SII buffer rate, i.e. up by 1 percentage point. In 2023, no measures were taken to lower the maximum applicable rate. On the other hand, the minimum buffer rate was raised by five countries: Malta (+0.125 percentage points), Poland (+0.15 percentage points), Portugal (+0.5 percentage points) and Lithuania and Sweden (+1 percentage point each). Four countries recorded declines in

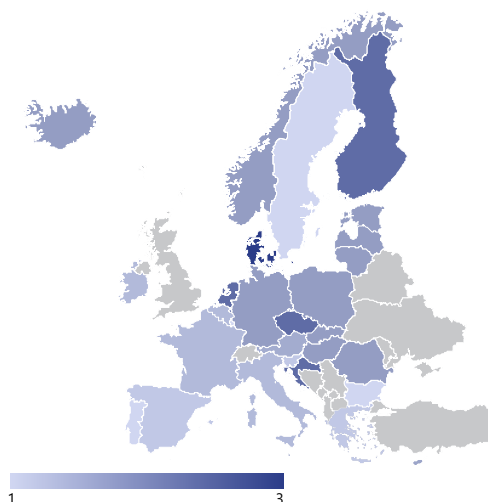
³² Guidelines on the criteria to determine the conditions of application of Article 131(3) of Directive 2013/36/EU (CRD) in relation to the assessment of other systemically important institutions (O-SIIs) – EBA-GL-2014-10_RO_GL on O-siis.pdf

Chart 3.9. Number of O-SIIs in EEA countries in 2023



Source: ESRB

Chart 3.10. Maximum O-SII buffer rate in EEA countries in 2023



the minimum buffer level, with Austria and Ireland reporting the most significant change (-0.5 percentage points each).

Moreover, in 2023, seven global systemically important banks were identified in Europe, one institution less than in the year before. They were based in France (4), Germany (1), the Netherlands (1) and Spain (1), while the institution that left the G-SII group in the latest identification exercise was based in Italy.

While the identification of systemically important banks is harmonised at European level according to Guidelines EBA/GL/2014/10 (as all Member States have to apply the scoring methodology based on the calculation of mandatory indicators), setting the O-SII buffer rate falls within the scope of national authorities in Member States, given the significant differences in the specificities of national banking sectors (the share of the banking sector in the national financial system, the volume of bank assets as a share of GDP, banking sector concentration, banking sector structure by size of institutions, etc.).

Since 2016, the European Central Bank has implemented a methodology for calibrating the minimum O-SII buffer rate depending on the size of the institution. The floor methodology applies to systemically important banks in the countries subject to ECB Banking Supervision (SSM – Single Supervisory Mechanism). Following the European Banking Authority's proposal, the ECB methodology was revised, increasing the number of buckets to which O-SIIs are allocated from four to six and raising the floor level for the highest bucket from 1 percent to 1.5 percent. The new methodology has been effective since 1 January 2024, aiming to further reduce the unwarranted heterogeneity of O-SII buffer calibration methods used by countries participating in the SSM, while also ensuring a level playing field and more consistency in the resilience of O-SIIs.

Further details on the ECB's decisions to establish a floor for the O-SII buffer rate applicable to systemically important banks in the countries subject to ECB Banking Supervision are presented in Box D.

Box D. ECB decisions on introducing a floor methodology for the O-SII buffer

In 2016, the European Central Bank introduced the first floor methodology for the O-SII buffer, applicable to systemically important institutions in Banking Union countries. The O-SII buffer floors were set depending on the scores assigned to systemically important banks while calculating the mandatory indicators recommended by Guidelines EBA/GL/2014/10³³, as follows:

Bucket	Score calculated based on mandatory indicators recommended by Guidelines EBA/GL/2014/10	O-SII buffer floor	Bucket bandwidth
1	... - 1,249	0.25%	1,250
2	1,250 - 1,949	0.50%	700
3	1,950 - 2,899	0.75%	950
4	2,900 - ...	1.00%	...

Note: There is no fixed lower cut-off score for the first bucket, given the Member States' flexibility in setting the threshold from which institutions are automatically designated as O-SIIs, granted under the provisions of EBA/GL/2014/10. Specifically, the standard upper cut-off score recommended by the EBA Guidelines is 350 basis points, but the national competent authorities can lower/increase this level by 75 basis points, so that the floor can be set at 275 basis points and the maximum threshold at 425 basis points, depending on the characteristics of the national banking sector.

As of June 2016, compliance with the floor methodology for setting the O-SII capital buffer was included in the ECB's regular analyses on the recalibration of the instrument implemented by the competent authorities in countries under the banking supervisory remit of the ECB (SSM – Single Supervisory Mechanism). The ECB floor methodology builds on the following principles: (i) providing a floor to O-SII capital buffers, which should be taken into consideration by national authorities when recalibrating the instrument; (ii) adopting a bucketing approach (which ensures a higher degree of standardisation); (iii) using a common methodology to assess the size of credit institutions in all Member States, selecting in this respect the scores calculated based on the mandatory indicators set forth in Guidelines EBA/GL/2014/10; (iv) calibrating a non-zero O-SII buffer for the first bucket. The ECB and the authorities in SSM jurisdictions ran the cluster analysis to calibrate the O-SII buffer, which resulted in four buckets. Specifically, given that the ECB set a floor for each bucket, the O-SII buffer that can be imposed on each systemically important bank in a particular bucket must be at least equal to or greater than the minimum buffer rate associated with each bucket, according to the methodology. In addition, considering that the lowest buffer rate is non-zero, this means that institutions that have been identified as O-SIIs will automatically have a positive O-SII buffer requirement.

³³ The size and importance of the institution, its complexity and interconnectedness reflect in the score assigned by calculating the mandatory indicators recommended by the EBA via Guidelines EBA/GL/2014/10 on identifying systemically important banks. The methodology is applied consistently across all Member States, as the indicators are calculated using harmonised definitions, based on consolidated financial reports prepared in accordance with the implementing technical standards on an EU-wide common supervisory reporting framework.

According to ECB assessments, introducing a floor methodology for the O-SII buffer led to less heterogeneous practices of competent authorities in SSM countries on setting the buffer applicable to national systemically important banks³⁴.

In December 2020, the European Banking Authority (EBA) issued the *Report on the appropriate methodology to calibrate O-SII buffer rates* (EBA/Rep/2020/38)³⁵, in line with the requirements of the European regulatory framework in effect (CRD V), whereby the EBA was given a mandate to report to the European Commission on the appropriate methodology to calibrate O-SII buffer rates. Against this background, the EBA prepared an alternative floor methodology for the O-SII buffer as a recommendation. The EBA methodology envisages an increased level of granularity compared to the previous methodology imposed by the ECB (i.e. larger number of buckets corresponding to more O-SII buffer floors), with a view to ensuring comparability, a level playing field across the EU and a higher level of harmonisation among Member States, while maintaining the flexibility for national authorities to implement the instrument adequately depending on the specificities of the national financial system. The alternative methodology proposed by the EBA is presented in the table below:

Bucket	Score calculated based on mandatory indicators recommended by Guidelines EBA/GL/2014/10	O-SII buffer floor	Bucket bandwidth
1	... - 749	0.25%	400
2	750 - 1,299	0.50%	550
3	1,300 - 1,949	0.75%	650
4	1,950 - 2,699	1.00%	750
5	2,700 - 4,449	1.25%	1,750
6	4,450 - ...	1.50%	...

The EBA methodology was based on the analysis made using the reports submitted by Member States on the identification of systemically important banks and the calibration of the O-SII buffer for the reference date of 31 December 2019. The results showed that, out of the 206 systemically important banks included in the analysis, the O-SII buffer rate should be increased for only 24 credit institutions (12 percent of O-SIIs), while for most banks (182 institutions accounting for 88 percent of O-SIIs), the O-SII buffer rate should remain unchanged, observing both the alternative methodology proposed by the EBA and the initial methodology imposed by the ECB. This reflects the adequacy of the policies implemented by the national authorities regarding this macroprudential instrument.

³⁴ ECB, Chapter 1– “Topical issue ECB floor methodology for setting the capital buffer for an identified Other Systemically Important Institution (O-SII)”, in *Macprudential Bulletin*, Issue 3, June 2017, pp. 4-11 (<https://www.ecb.europa.eu/pub/pdf/mpbu/ecb.mpbu201706.en.pdf>).

³⁵ https://www.eba.europa.eu/sites/default/documents/files/document_library/Publications/Reports/2020/961796/EBA%20report%20on%20calibration%20of%20O-SII%20buffer%20rates.pdf

According to the EBA's December 2020 report, the proposed methodology is not mandatory, therefore it does not suggest and/or request that the national authorities should set their O-SII buffer rates specifically at this floor, but rather use it as a fundamental principle and lower bound for their buffer rate decisions. For the methodology to become mandatory, in a subsequent iteration, the European authorities with regulatory and legislative tasks (European Commission, EU Council, European Parliament) may issue a legal mandate to the EBA for prescribing the appropriate methodology to calibrate O-SII buffer rates, one that would also introduce a floor methodology to be taken into account by national authorities. Such a mandate, depending on its timing, should consider reviews to the macroprudential toolbox in the EU, as well as any new international proposals on the implementation of capital buffers. While a one-size-fits-all methodology seems inappropriate and difficult to be pursued in the near term, considering the significant differences among the banking sectors in Member States, the EBA mentions in the report the need for clarification and enhancement of the regulatory framework. Given that the EBA has not been mandated under CRD V to draft technical standards prescribing a common methodology at EU level to calibrate the O-SII buffer, the implementation of this macroprudential instrument for systemically important banks has remained fully at the discretion of the national designated/competent authorities.

Subsequently, the ECB's Governing Council approved the new methodology proposed by the EBA. Specifically, following the meeting of the Macroprudential Forum on 30 November 2022, the ECB's Governing Council published a statement on the revised floor methodology for the O-SII buffer applicable to systemically important banks in the Member States participating in the Single Supervisory Mechanism (SSM)³⁶. The new methodology raises both the number of buckets (from 4 to 6) and the floor level of the O-SII buffer applicable to entities within the highest bucket (from 1 percent to 1.5 percent), and shall be used as of 1 January 2024.

Bucket	Current methodology (fully applicable as of 1 January 2022)		Revised methodology (applicable as of 1 January 2024)	
	Score	O-SII buffer	Score	O-SII buffer
1	up to 1,250	0.25%	up to 750	0.25%
2	1,250 - 1,950	0.50%	750 - 1,299	0.50%
3	1,950 - 2,900	0.75%	1,300 - 1,949	0.75%
4	over 2,900	1.00%	1,950 - 2,699	1.00%
5	-	-	2,700 - 4,449	1.25%
6	-	-	over 4,450	1.50%

According to the ECB's statement, the new floor methodology for the O-SII buffer applicable to systemically important banks in Member States participating in the SSM will help strengthen the capacity of those institutions to absorb losses and continue

³⁶ https://www.bankingsupervision.europa.eu/ecb/pub/pdf/ssm.gc_statement_macroprudential_policy~4dfa34c05f.en.pdf

to provide financial services to the real economy with no disruptions, in line with the direction set out in the November 2022 Governing Council statement on macroprudential policies. At the same time, the new methodology aims to further reduce the unwarranted heterogeneity in how the O-SII buffers are set in the countries participating in the SSM and ensure more consistency for systemically important banks.

Although Romania is not participating in the SSM, which means that the regulations applied in SSM countries are not enforceable at national level, the NBR's O-SII buffer calibration methodology by size of the institution, applicable to banks, Romanian legal entities as of 2022, is compliant with the buckets set by the ECB, according to both the initial and the revised methodology, given the ECB objective to reduce the unwarranted heterogeneity of O-SII buffer calibration methods, especially that the Romanian banking sector comprises a large number of foreign bank subsidiaries registered in the European Union. Thus, a level playing field can be provided to EU credit institutions, irrespective of the Member State where they are active. As an EU Member State aspiring to join the banking union, Romania also has the obligation to implement the EBA Guidelines and the ECB decisions.

Implementation of the buffer for other systemically important institutions in Romania

The O-SII buffer is implemented by the National Bank of Romania, in its capacity as sectoral supervisory authority, following the recommendations issued by the National Committee for Macroprudential Oversight (NCMO). According to the regulatory framework, banking sector assessment from the perspective of systemically important institutions and the calibration of the O-SII buffer applicable to eligible banks should be made annually³⁷.

The national methodology to identify systemically important banks³⁸ is harmonised with the recommendations of Guidelines EBA/GL/2014/10, being also updated with the new provisions of the European regulatory framework (CRD V) for the buffer applicable to national systemically important banks. In this context, a new O-SII buffer calibration method was introduced, taking into account the systemic footprint of banks. The methodology has been applied as of 1 January 2022 and uses the scores of systemic banks, following the calculation of the EBA-recommended mandatory indicators. It implies using the bucketing approach, i.e. 500-basis points buckets, which are assigned O-SII buffer values in ascending order based on systemic importance, in equal increments of 0.5 percentage points (from 0.5 percent to 3 percent), Table 3.3.

³⁷ Art. 24 para. (2) of NCMO Regulation No. 2/2017 on the methodology and procedures used for setting capital buffers and the scope of these instruments, as amended and supplemented by NCMO Regulation No. 1 of 18 December 2020 and NCMO Regulation No. 1 of 20 October 2022, lays down the following: (2) The Committee shall revise annually the identified O-SIIs and shall report the result to the other systemically important institutions concerned and the ESRB[...]. Art. 232 para. (6) of the same Regulation sets forth that: (6) The Committee shall revise the O-SII buffer at least annually.

³⁸ An overview of the methodology used is available on the NBR website: Methodology for identifying systemic credit institutions and calibrating the O-SII buffer (overview)

Table 3.3. O-SII buffer calibration methodology based on the bucketing approach

Bucket	Limits (minimum - maximum) (basis points)	O-SII buffer rate (% of total risk-weighted exposures)
1	275 - 500	0.5%
2	501 - 1,000	1.0%
3	1,001 - 1,500	1.5%
4	1,501 - 2,000	2.0%
5	2,001 - 2,500	2.5%
6	above 2,500	3.0%

Note: The first bucket has a minimum threshold of 275 basis points, from which banks are automatically designated as being systemically important, according to the methodology approved by the NBR, in its capacity as sectoral supervisory authority. Where a bank is assessed as being systemic based on additional indicators, but its score assigned by the mandatory indicators stands below the 275 basis point threshold, then the institution falls within the first bucket.

Source: NBR

In 2023, NCMO Recommendation No. R/5/2022 on the capital buffer for other systemically important institutions in Romania³⁹ was implemented. The National Bank of Romania is recommended to impose, starting 1 January 2023, a capital buffer for other systemically important institutions (O-SII buffer), on an individual or consolidated basis, as applicable, calculated based on the total risk exposure amount for all the credit institutions identified as having a systemic nature according to the data reported as at 31 December 2021, as follows: (i) 2 percent for Banca Transilvania S.A., (ii) 1.5 percent for UniCredit Bank S.A., Banca Comercială Română S.A. and BRD – Groupe Société Générale S.A., (iii) 1 percent for Raiffeisen Bank S.A. and (vi) 0.5 percent for OTP Bank România S.A., CEC Bank S.A., Alpha Bank România S.A. and Banca de Export-Import a României EXIMBANK S.A. The NBR implemented the NCMO recommendation by issuing Order No. 8/2022 on the buffer for credit institutions authorised in Romania and identified as other systemically important institutions (O-SIIs)⁴⁰.

In 2023, the assessment was resumed, relying on credit institutions' reports at the end of the latest financial year, namely the reference date of 31 December 2022. The analysis identified the systemically important banks in 2024:

- ➔ A) eight credit institutions were identified in the first assessment stage, having recorded a score above the threshold of 275 basis points, based on the mandatory indicators recommended by the EBA: Banca Transilvania, BRD – Groupe Société Générale, Banca Comercială Română, UniCredit Bank, Raiffeisen Bank, CEC Bank, OTP Bank and Alpha Bank;

³⁹ NCMO Recommendation No. R/5/2022 on the capital buffer for other systemically important institutions in Romania is published on the NCMO website (<https://www.cnsmro.ro/en/politica-macroprudentiala/lista-recomandarilor-2022/>).

⁴⁰ NBR Order No. 8/2022 on the buffer for credit institutions authorised in Romania and identified by the National Bank of Romania as other systemically important institutions (O-SIIs) was published in *Monitorul Oficial al României*, Part I, No. 1187 of 12 December 2022.

- ➔ B) one institution, i.e. EXIM BANCA ROMÂNESCĂ S.A., was identified in the second assessment stage, consisting in the calculation of additional indicators according to the following criteria: A – “The contribution of the credit institution to finance the real economy” (calculated based on the volume of loans to non-financial corporations and the substitutability of non-financial corporations’ lending activity), B – “The contribution of the credit institution to financial intermediation, calculated based on the volume of deposits from households and non-financial corporations”, C – “The activity of the credit institution on the interbank market and quantifying the contagion effects” and D – “Assessment of systemically important institutions in the ReGIS payment system”. It scored above the 2.75 percent threshold set forth by the methodology to identify systemically important banks.

The assessment was reviewed during the NCMO meeting of 19 October 2023, when the General Board decided to issue NCMO Recommendation No. R/4/2023 on the capital buffer for other systemically important institutions in Romania⁴¹, whereby the National Bank of Romania is recommended to implement, starting 1 January 2024, a capital buffer for other systemically important institutions (O-SII buffer), on an individual or consolidated basis, as applicable, calculated based on the total risk exposure amount for all the credit institutions identified as having a systemic nature based on the data reported as at 31 December 2022, as follows: (i) 2 percent for Banca Transilvania S.A. (consolidated level), (ii) 1.5 percent for UniCredit Bank S.A. (consolidated level), Banca Comercială Română S.A. (consolidated level), BRD – Groupe Société Générale S.A. (consolidated level), (iii) 1 percent for Raiffeisen Bank S.A. (consolidated level), CEC Bank S.A. (individual level) and (iv) 0.5 percent for OTP Bank România S.A. (consolidated level), Alpha Bank România S.A. (individual level), and EXIM BANCA ROMÂNESCĂ S.A. (individual level). The systemically important institutions identified in 2024, the scores recorded during the latest assessment round and the applicable O-SII buffer rate as of 1 January 2024 are presented in Table 3.4.

Table 3.4. O-SIIs identified in 2024

Credit institution	Score based on mandatory/ additional indicators	O-SII requirement (% of the total risk exposure amount)	Applicability of O-SII buffer
A. Credit institutions in the first assessment stage, having recorded a score above the threshold of 275 basis points, based on the mandatory indicators recommended by the EBA for the reference date of 31 December 2022			
Banca Transilvania S.A.	1,681 b.p.	2.0	consolidated basis
BRD – Groupe Société Générale S.A.	1,297 b.p.	1.5	consolidated basis

⁴¹ NCMO Recommendation No. R/4/2023 on the capital buffer for other systemically important institutions in Romania is published on the NCMO website (https://www.cnsrmro.ro/res/ups/Recomandare-CNSM-nr.4_2023-amortizor-O-SII-aplicabil-in-2024_EN.pdf).

Credit institution	Score based on mandatory/ additional indicators	O-SII requirement (% of the total risk exposure amount)	Applicability of O-SII buffer
Banca Comercială Română S.A.	1,250 b.p.	1.5	consolidated basis
UniCredit Bank S.A.	1,237 b.p.	1.5	consolidated basis
Raiffeisen Bank	834 b.p.	1.0	consolidated basis
CEC Bank S.A.	516 b.p.	1.0	individual basis
OTP Bank Romania S.A.	492 b.p.	0.5	consolidated basis
Alpha Bank Romania S.A.	343 b.p.	0.5	individual basis
B. Credit institutions identified in the second assessment stage, implying the calculation of additional indicators – the threshold from which credit institutions are classified as O-SIIs is 2.75 percent			
EXIM BANCA ROMÂNEASCĂ S.A.	<p>A – The contribution of the credit institution to finance the real economy, calculated based on the volume of loans granted to non-financial corporations and the substitutability of non-financial corporations' lending activity: the bank is systemically important in the four quarters under review (2022 Q4 – 5.81 percent, 2022 Q3 – 5.04 percent, 2023 Q1 – 4.37 percent and 2023 Q2 – 5.22 percent).</p> <p>B – The contribution of the credit institution to financial intermediation, calculated based on the volume of deposits from households and non-financial corporations: the bank is systemically important in 2023 Q1 (2.96 percent) and 2023 Q2 (2.88 percent).</p> <p>C – The activity of the credit institution on the interbank market and quantifying the contagion effects: the bank is systemically important in the three quarters under review, starting with 2022 Q4.</p> <p>D – Assessment of systemically important institutions in the ReGIS payment system: the bank is systemically important in 2023 Q2 (3.60 percent).</p>	0.5	Individual basis

Source: NCMO

In compliance with the European regulatory framework, the recalibration of the O-SII buffer was subject to prior notification of the ESRB.

Three out of the nine banks identified as having systemic importance in 2024 have domestic capital (CEC Bank and EXIM BANCA ROMÂNESCĂ S.A.) or majority domestic capital (Banca Transilvania). The remaining six credit institutions are subsidiaries of foreign banks in other Member States (Austria – BCR, Raiffeisen; Italy – UniCredit; Greece – Alpha Bank; France – BRD; Hungary – OTP Bank), which are O-SIIs in their home countries. Specifically, in 2024, parent banks with subsidiaries in Romania shall meet the following additional capital requirements: UniCredit SpA (Italy): G-SII buffer of 1 percent, O-SII buffer of 1 percent⁴²; Erste Group Bank (Austria): O-SII buffer of 1.5 percent; Société Générale Group (France) – G-SII buffer of 1 percent, O-SII buffer of 1 percent; Raiffeisen Bank International AG (Austria): O-SII buffer of 1.5 percent; Alpha Bank (Greece): O-SII buffer of 1 percent; OTP Bank Nyrt. (Hungary) – O-SII buffer of 2 percent (the source of information is the data published on the ESRB website). In this context, for the Romanian subsidiaries of EU institutions, in the process of setting the O-SII buffer rate, the G-SII or O-SII buffer rate applicable to the parent institution was taken into consideration, according to NCMO Regulation No. 2/2017 on the methodology and procedures used for setting capital buffers and the scope of these instruments, as subsequently amended and supplemented⁴³.

The NBR implemented NCMO Recommendation No. R/4/2023 on the capital buffer for other systemically important institutions in Romania by issuing Order No. 9/2023 on the buffer for credit institutions authorised in Romania and identified as other systemically important institutions (O-SIIs)⁴⁴.

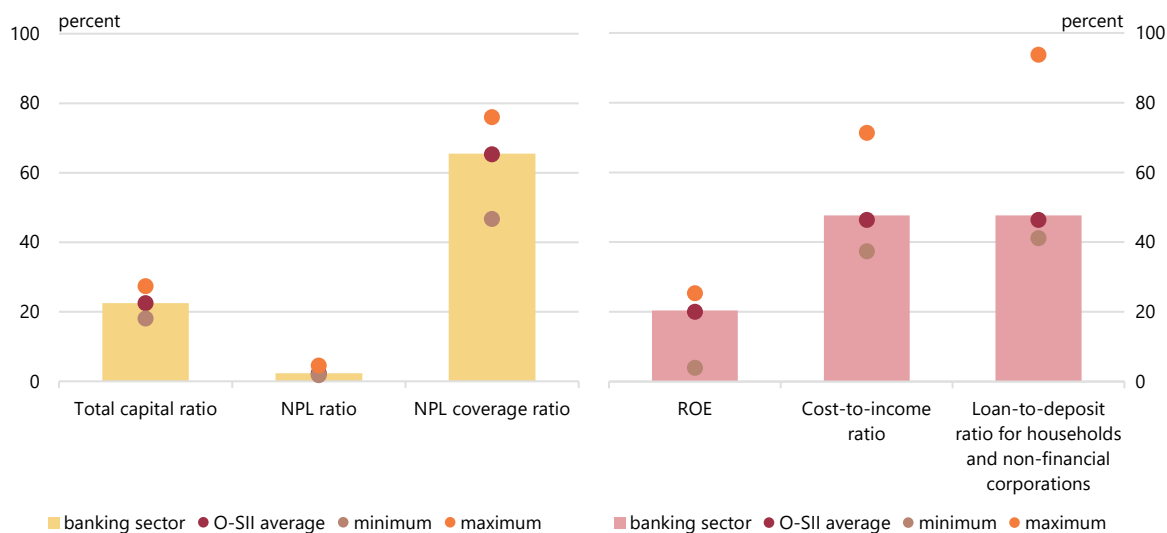
The O-SIIs identified in 2024 play a decisive role for the Romanian banking sector, as shown by the following indicators: (i) they held 79.5 percent of bank assets as at 31 December 2022; (ii) they provide a significant part of financial services to the real economy, i.e. 79.2 percent

⁴² According to CRD IV/CRD V, the capital requirements consisting in G-SII and O-SII buffers are not cumulative, the higher of the G-SII or O-SII buffer rate being applicable.

⁴³ Art. 23² para. (2) of NCMO Regulation No. 1/2020 amending and supplementing NCMO Regulation No. 2/2017 on the methodology and procedures used for setting capital buffers and the scope of these instruments set forth the following: (2) In the process of setting the O-SII buffer rate that the Committee recommends, it shall take into account that where an O-SII is a subsidiary of either a G-SII or an O-SII which is either an institution or a group headed by an EU parent institution, and subject to an O-SII buffer on a consolidated basis, the O-SII buffer rate recommended that applies at individual or subconsolidated level shall not exceed the lower of: (a) the sum of the higher of the G-SII or O-SII buffer rate applicable to the group on a consolidated basis and 1 percent of the total risk exposure amount calculated in accordance with Article 92(3) of Regulation (EU) No 575/2013; and (b) 3 percent of the total risk exposure amount calculated in accordance with Article 92(3) of Regulation (EU) No 575/2013, or the rate the Commission has authorised to be applied to the group on a consolidated basis, according to Art. 23¹ para. (4) of this Regulation and has been recommended by the NCMO according to Art. 23¹ para. (1) of this Regulation. NCMO Regulation No. 2/2017 on the methodology and procedures used for setting capital buffers and the scope of these instruments, as subsequently amended and supplemented, is published on the NCMO website (<https://www.cnsmro.ro/en/despre/cadru-juridic/>).

⁴⁴ NBR Order No. 9/2023 on the buffer for credit institutions authorised in Romania and identified by the National Bank of Romania as other systemically important institutions (O-SIIs) was published in *Monitorul Oficial al României*, Part I, No. 1177 of 27 December 2023.

Chart 3.11. Prudential and efficiency indicators of systemically important institutions (December 2023)



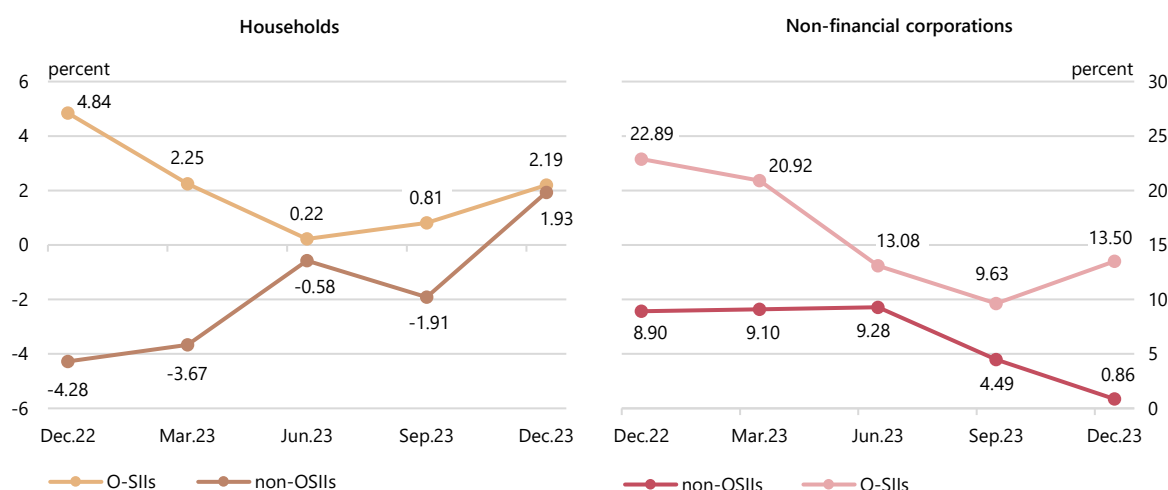
Source: NBR, prudential reports

of loans in stock, 79.1 percent of deposits taken, and 64.1 percent of payments made; (iii) in terms of complexity, they conduct 90 percent of transactions in OTC derivatives, they place 77.3 percent of cross-border assets and raise 75.3 percent of foreign liabilities, while (iv) in terms of interconnectedness with the other undertakings conducting financial activities, they provide 70.0 percent of intra-financial assets, they use 73.2 percent of intra-financial liabilities and hold 98.1 percent of bonds issued.

The analysis of credit institutions from a macroprudential perspective shows that the capitalisation of systemically important banks improved from the year before (22.48 percent versus 21.78 percent), in line with the capitalisation of the banking sector (22.51 percent in December 2023). Asset quality (indicated by the NPL ratio) saw an improvement in the banking sector as a whole, as well as at the level of O-SIIs. The NPL ratio of systemically important banks hit an all-time low of 2.32 percent, on a decline from a year ago (2.67 percent), thus confirming its strengthening position in the green “best bucket” of the EBA classification (NPL ratio below 3 percent). The NPL coverage by provisions remained relatively unchanged from 2022 (66 percent) in the banking sector as a whole and at the level of O-SIIs. This figure significantly exceeded the EU average of 42.6 percent as at 30 September 2023.

O-SIIs fared well in terms of profitability and efficiency: return on equity (ROE) stood at 20.05 percent in December 2023 versus 16.8 percent at end-2022 and the cost-to-income ratio was 46.34 percent as compared to 50.1 percent at end-2022. These indicators are in the green “best bucket” of the EBA methodology and are better than the EU average (ROE: 10.9 percent, cost-to-income ratio: 55.1 percent, at the reference date of 30 September 2023). The analysis of the loan-to-deposit ratio for households and non-financial corporations shows a decline in this indicator at the level of O-SIIs, i.e. from 63.8 percent in December 2022 to 59.43 percent in December 2023. The same trend is visible in the banking sector as well, where the loan-to-deposit ratio dropped by 5.4 percentage

Chart 3.12. Annual growth rate of loans and advances granted to households and non-financial corporations by O-SIIs and non-O-SIIs



Source: NBR, prudential reports

points, i.e. from 66.5 percent in December 2022 to 61.1 percent in December 2023. These developments may be ascribed to the higher interest rate macroeconomic environment, a context in which both households and non-financial corporations chose to adopt investment strategies based on deposit placements, the loan-to-deposit ratio narrowing as a result of the denominator effect. The loan-to-deposit ratio of banks in Romania is in the best bucket, according to the EBA-defined thresholds (below 100 percent – green area), while also reflecting the need to improve strategies to increase financial intermediation and inclusion.

As for lending to the real sector, in 2023 the growth rates of loans went down in both segments (households and companies) in the banking sector as a whole and at the level of O-SIIs. As compared to the year before, when systemically important banks contributed primarily to the advance in loans to the real economy, in 2023, the loans granted by O-SIIs and non-O-SIIs posted similar rates of increase, especially in the segment of households (annual rises of 2.2 percent for O-SIIs and 1.9 percent for non-O-SIIs). In the segment of non-financial corporations, the growth rate of loans decreased in the first part of the year for O-SIIs (from 22.9 percent in December 2022 to 9.6 percent in September 2023, the differential between O-SIIs and non-O-SIIs (that maintained a relatively steady growth pace of lending during 2023 H1, at around 9 percent, which then declined to 0.9 percent in December 2023) touching a low in June (3.7 percentage points). In 2023 Q4, the rate of increase of corporate loans granted by O-SIIs picked up to 13.5 percent (December 2023), this component becoming again the main driver of lending. In 2023, foreign currency loans played a major role in supporting lending dynamics, particularly in the corporate segment, given the significant interest rate differential seen at the beginning of the year. This trend is seen to fade out, along with the tightening of monetary conditions in the euro area. The persistently higher growth pace of loans granted by large O-SIIs as compared to that of bank loans on the aggregate leads to further bank concentration and the widening gap between O-SIIs and non-O-SIIs.

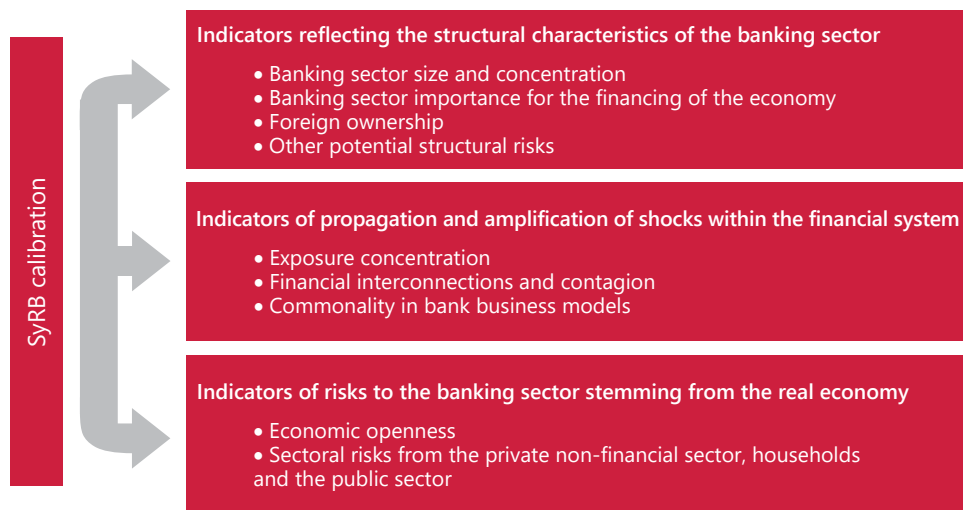
3.1.3. The systemic risk buffer

Implementation framework of the macroprudential instrument

The systemic risk buffer (SyRB) is the instrument available to macroprudential authorities in order to prevent and mitigate structural systemic risks, as well as to achieve the intermediate objective of macroprudential policy, i.e. enhancing the resilience to financial infrastructure shocks. It has the advantage of being the most flexible of the four buffers laid down in the European regulatory framework and can be calibrated depending on the specificities of the national banking sector. The SyRB rate can apply to all exposures or to a subset of exposures and to all institutions or one or more subsets of those institutions, where the latter have similar risk profiles in their business models.

The ESRB recommends designated authorities three sets of indicators⁴⁵ for the calibration of the systemic risk buffer (Figure 3.4).

Figure 3.4. Indicators used for SyRB calibration



Source: ESRB

The adoption of the CRD V legislative package has brought about several changes to the implementation framework of macroprudential policy. Specifically, it has consolidated the SyRB flexibility in addressing systemic risks that can be related directly to sectoral exposures. This framework allows for the application of cumulative requirements, as the buffer may apply to total exposures, to some sectoral exposures, third-country exposures and to all exposures or sectoral exposures in other Member States. Another important amendment provides for the obligation to apply the cumulated value of the O-SII buffer and the SyRB, by clearly defining the different roles of the two buffers. Where the sum of the O-SII buffer rate and the SyRB rate is higher than 5 percent, the national authorities shall request the European Commission's approval before the measure becomes effective.

⁴⁵ The ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector

A particularly important amendment in terms of calibrating the instrument to achieve the intermediate objectives of macroprudential policy refers to introducing the provision that the SyRB may be applied to several types of exposures or to total exposures. The buffer value is determined as the sum of individual requirements (Article 133(2) of CRD V):

$$B_{SR} = r_T \cdot E_T + \sum_i r_i \cdot E_i$$

where B_{SR} is the combined buffer requirement applicable to an institution, $r_T \cdot E_T$ is the requirement applied to total exposures (calculated as the product of the buffer rate and the total exposure amount), while $r_i \cdot E_i$ is the requirement applied to a set/subset of exposures i (calculated similarly to the requirement for total exposures).

The methodology for the sectoral implementation of the systemic risk buffer has been set at European level via Guidelines of the European Banking Authority on the appropriate subsets of sectoral exposures to which competent or designated authorities may apply a systemic risk buffer in accordance with Article 133(5)(f) of Directive 2013/36/EU – EBA/GL/2020/13. They set forth the manner of implementation, underlying principles and categories of eligible exposures.

The experience at European level

At end-2023, the majority of Member States either applied or announced the application of a SyRB rate higher than zero, the latter category including Finland and Malta, which were to apply a positive rate as of 1 April 2024, and Hungary starting July 2024.

As regards the SyRB, following the entry into force of the amendments set forth in the CRD V regulatory framework, several countries decided to implement a sectoral systemic risk buffer (sSyRB). Through the CRD V, macroprudential authorities can address multiple risks occurring simultaneously across various layers of the financial system, by applying the SyRB at a sectoral level.

Thus, by end-2023, eight Member States had adopted/announced their decision to implement a sectoral systemic risk buffer (Table 3.5). During 2023, four Member States decided to introduce a new SyRB. Malta applied a 1 percent rate to all retail exposures secured by residential property, from 30 September 2023 to 31 March 2024, which then increased to 1.5 percent, according to the phase-in decision. Moreover, France decided to apply a 3 percent sSyRB rate, starting August 2023. The buffer is applied on the seven systemic banks (O-SIs) in France only under two cumulative conditions: (i) the total amount of the final exposures of the group of connected clients (non-financial institutions) at the highest level of consolidation, as defined in the CRR large exposures framework, exceeds 5 percent of its Tier 1 capital, and (ii) the non-financial institutions' group total debt-to-EBITDA ratio is negative or above 6. At the same time, Hungary announced in June 2023 that it would reactivate the systemic risk buffer as of July 2024, with the aim of addressing vulnerabilities related to the commercial real estate market. Furthermore, Belgium decided to reduce the applied sSyRB rate from 9 percent to 6 percent starting April 2024.

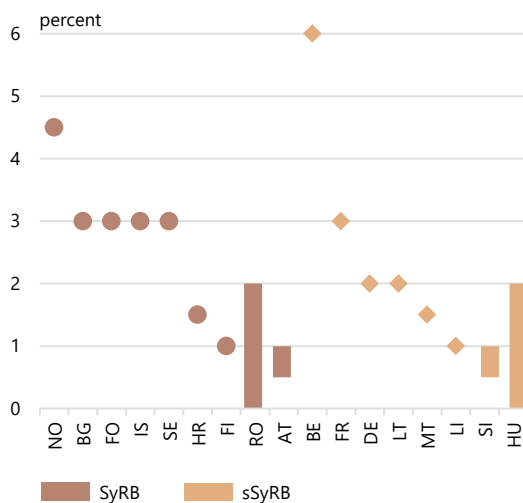
Table 3.5. Key aspects of sSyRB calibration – end of 2023

Country	sSyRB rate (%)	Exposures to which it applies	Rationale	Indicators used for calibration
Belgium	6	All retail exposures that are secured by residential property	Vulnerabilities associated with retail exposures secured by residential property	The main indicators are: house prices (including indicators for price valuation), household debt ratio, mortgage loan growth, credit standards (LTVs, DSTIs, mortgage loan maturity, banks' interest rate margins)
Germany	2	All exposures secured by residential property	Vulnerabilities associated with exposures secured by residential property	Several indicators, among which the overvaluation of residential real estate, continuing high rates of price increases, mortgage loan growth, household debt ratio
Liechtenstein	1	All retail exposures to natural persons secured by residential property and exposures to legal persons secured by commercial immovable property	Vulnerabilities associated with both residential and commercial real estate markets	Several indicators, including mortgage loan volume, mortgage loan growth, household debt ratio, price dynamics of residential real estate, building activity
Lithuania	2	Retail exposures secured by residential property	Vulnerabilities associated with the real estate market, retail exposures secured by residential property	Several indicators pertaining to: (1) the structural characteristics of the banking sector, (2) the financial system, (3) specific sectors of the real economy that would affect the banking sector
Slovenia	1 or 0.5	Retail exposures secured by residential property or other exposures to natural persons	Vulnerabilities associated with the residential real estate market	Several indicators, among which: the overvaluation indicator of residential real estate, price dynamics of residential real estate, mortgage loan growth, household debt, the ratio between real estate prices and disposable income, exposure of banks to the real estate market, distribution of LTV for new housing loans
France	3	Exposures to French non-financial corporations	Vulnerabilities linked to risk concentration to highly indebted non-financial corporations in the financial system	The main indicators are: (i) credit growth (total and for large firms): loans and debt securities, (ii) indebtedness (total and for large firms): gross debt/EBITDA, and (iii) concentration of banks' exposures to

Country	sSyRB rate (%)	Exposures to which it applies	Rationale	Indicators used for calibration
				a selection of large non-financial corporations measured via the share of the final exposure in percentage of Tier 1 capital.
Malta	1.5	Retail exposures that are secured by residential property	Vulnerabilities associated with exposures secured by residential property	The main indicators are: annual growth in resident mortgage lending, share of resident mortgage lending on overall resident loans, household debt-to-financial assets, household debt-to-GDP, household debt-to-disposable income, annual growth in property prices, advertised property price-to-per capita income ratio, house price misalignment index
Hungary	0-2	Exposures secured by commercial real estate	Vulnerabilities associated with the commercial real estate market	Several indicators, among which the volume of commercial real estate loans, growth rate of non-performing commercial real estate exposures, developments in commercial real estate loans by purpose

Source: ESRB, websites of national macroprudential authorities

Chart 3.13. Current and pending SyRB and sSyRB rates across the EEA as at end-2023

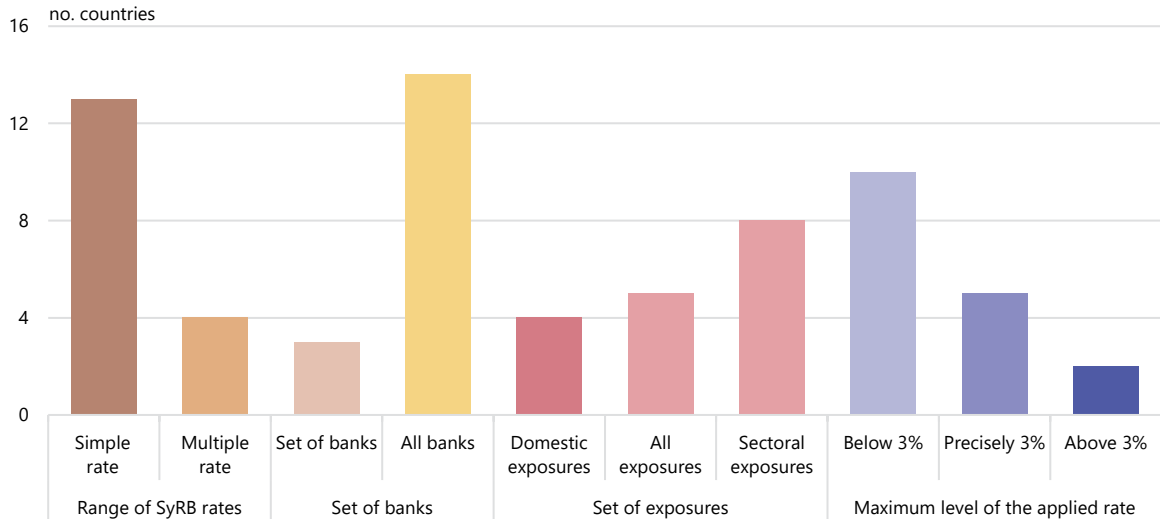


Source: ESRB, websites of national macroprudential authorities

Aside from the changes following the introduction of the sSyRB by some Member States, another country (Finland) decided to activate a new SyRB due to the structural vulnerabilities characterising the Finnish banking sector. Specifically, the values of the indicators underlying this decision showed that the banking sector was particularly vulnerable due to its size relative to GDP, cross-border connections, and the risk exposures linked to mortgage and real estate lending. Therefore, the Finnish Financial Supervisory Authority decided on the activation of a 1 percent SyRB applicable to all banks for total exposures, starting April 2024 (Chart 3.13).

The experience accumulated so far at European level points to Member States' keen interest in using the SyRB, given the high degree of flexibility in its implementation and calibration. Heterogeneity was high across Member

Chart 3.14. Breakdown of EEA countries by the specifics of implementing the SyRB, end-2023



Source: ESRB, websites of national macroprudential authorities

States in what concerns the SyRB rate (Chart 3.14) and the risk-based calibration decisions, considering the specificities of each national financial system. However, national authorities use the systemic risk buffer primarily for addressing the vulnerabilities generated by the structural characteristics of the banking sector and the risks stemming from the real economy. The latter category of risk is flagged by the majority of CEE countries, given that the higher domestic macroeconomic volatility or the occurrence of external shocks may have a significant impact on banking sectors in this region.

Looking at the manner of implementation, of the 17 states that announced/activated the SyRB, five apply it to all exposures, four to domestic exposures, and the remaining eight to sectoral exposures. Also worth mentioning is that the buffer applies to all credit institutions in 14 states and only to a subset of banks in three countries (Chart 3.14). The SyRB flexibility owes to the fact that its configuration can rely on a series of specific indicators, as each country may decide on the aspects to be considered when determining the buffer rate.

Implementation of the systemic risk buffer in Romania

In Romania⁴⁶, the SyRB in its current setup has been applied since 30 June 2018, based on NCMO recommendations, aiming to: (i) ensure adequate management of credit risk from a macroprudential perspective and (ii) safeguard financial stability, amid the tensions surrounding domestic macroeconomic equilibria and the potentially lingering regional and global uncertainties.

In terms of calibration methodology, the buffer-related capital requirement is determined based on the quality review indicators for the assets in banks' balance sheets, i.e. the NPL ratio and the NPL coverage by provisions. Thus, depending on the average recorded by the two indicators over a 12-month period prior to application, the SyRB rate is set at 0 percent, 1 percent or 2 percent, in relation to the reference thresholds illustrated in Table 3.6.

⁴⁶ NCMO Recommendation No. 9/2017 on the systemic risk buffer in Romania

Table 3.6. Calculation methodology of the systemic risk buffer

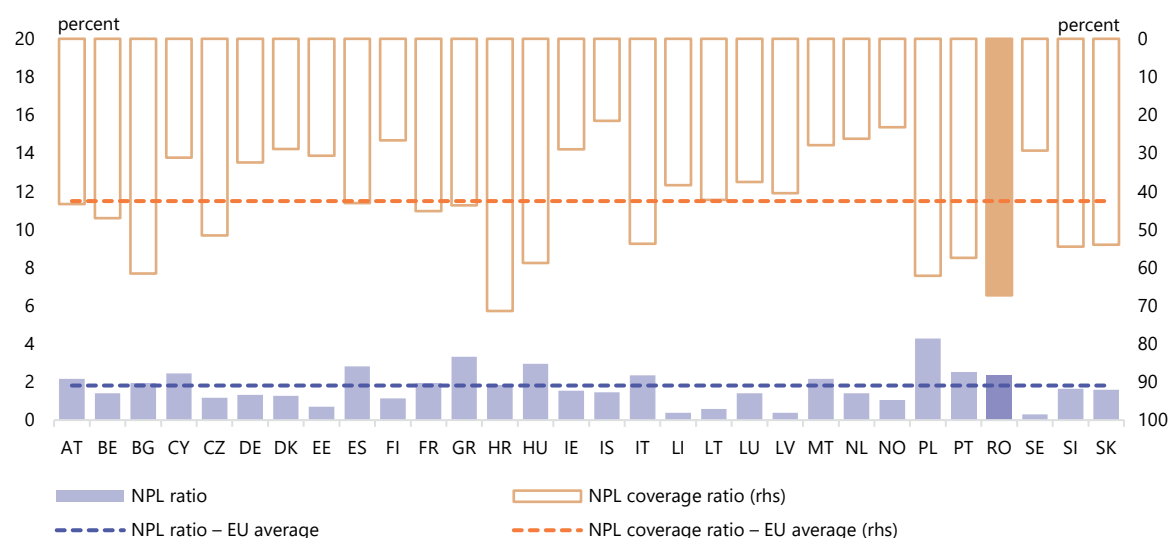
NPL ratio	NPL coverage by provisions	Buffer rate ⁴⁷
<5%	>55%	0
>5%	>55%	1
<5%	<55%	1
>5%	<55%	2

Source: NCMO

Moreover, according to NCMO recommendations, the NBR reassesses the SyRB level on a half-yearly basis, in the context of real-time monitoring of banks' progress in addressing credit risk.

In spite of credit institutions' sustained efforts to clean up their balance sheets and of the positive dynamics recorded by the NPL ratio (starting 2022, the NPL ratio calculated for the banking sector in Romania has stayed in the low-risk bucket, according to the EBA-defined thresholds, i.e. below 3 percent), Romania still stands above the EU average (Chart 3.15). Conversely, it ranks among the best performing EU countries in terms of NPL coverage by provisions. In December 2023, the coverage ratio reached 67.3 percent (according to EBA data using a narrow sample of banks for Romania), well above the average value in the EU, where coverage by provisions stands at 42.2 percent. It should be noted that the indicator calculated for the banking sector in Romania stood at 65.4 percent on the same reference date (December 2023), close to the level reported by the EBA for the top three banks by size within the sector and well above the EU average, reflecting the effectiveness of the macroprudential tool implemented in Romania.

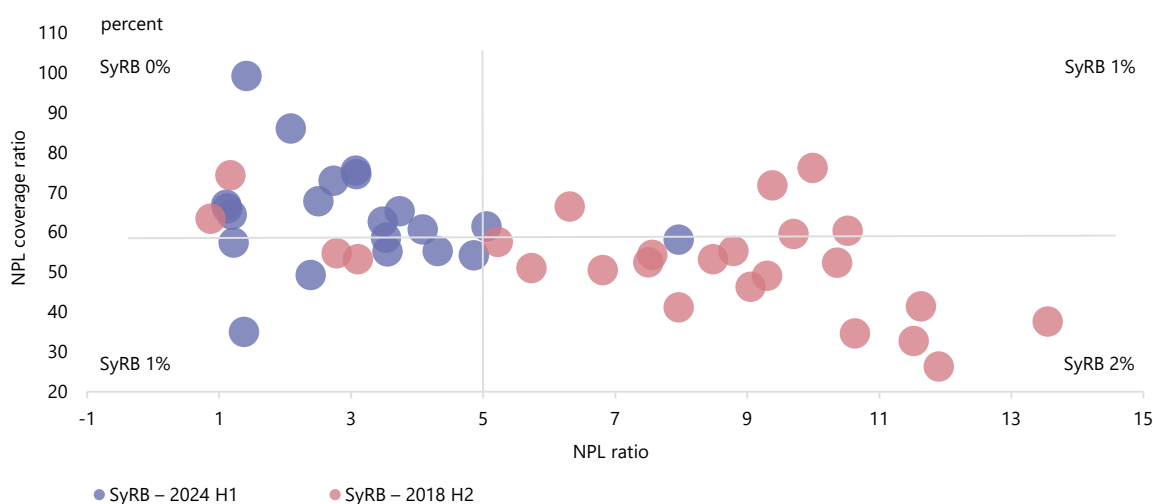
Chart 3.15. NPL ratio and NPL coverage ratio in EU countries (December 2023)



Source: EBA

⁴⁷ The buffer rates are applied to all exposures of the credit institution, at the highest consolidation level.

Chart 3.16. Breakdown of credit institutions from the perspective of the two indicators used to determine the SyRB rate in Romania



Source: NBR

The breakdown of credit institutions by SyRB rate is also indicative of an improvement that extended into 2023, pointing to their migration towards categories with lower buffer rates. However, mention should be made that, although developments across the entire banking sector are positive in terms of curbing the NPL ratio and increasing the coverage ratio, at an individual level there is still room for further efforts in the credit institutions' balance sheet clean-up process, especially in the case of banks to which a 1 percent SyRB rate is applicable. As a matter of fact, in the first half of 2024, no credit institution applies the maximum buffer rate of 2 percent, following the progress in managing credit risk. At the same time, compared with the rates applied in 2018 H2 (when the SyRB was first introduced), credit institutions have migrated from a buffer rate of 2 percent to a 0 percent rate. Thus, the number of institutions to which a 0 percent SyRB rate applies has risen from two in 2018 H2 to 16 in 2024 H1 (Chart 3.16).

3.2. Other instruments with an impact on financial stability

The instruments presented below are implemented by the NBR at the recommendation of the NCMO and are applicable to the banking sector. They provide important information in the implementation of measures, but are not macroprudential tools per se. Moreover, they help enhance financial system resilience via other channels than the previously-described instruments.

3.2.1. Implementation through voluntary reciprocity of macroprudential policy measures taken by other Member States

The implementation of macroprudential policy measures can improve the stability of the financial system as a whole, and thus reduce the likelihood and severity of financial crises.

The EU's financial system shows strong interconnectedness and cross-border financial intermediation is high. As a result, the adoption of macroprudential measures at national level can also exert negative cross-border financial effects. Thus, a case in point are the macroprudential measures that may be circumvented via banks that are not targeted by the relevant measure. In order to ensure a level playing field, the concept of voluntary reciprocity was introduced in the EU's macroprudential framework with a view to increasing the efficiency of the measures taken, via Recommendation ESRB/2015/2 on the assessment of cross-border effects of and voluntary reciprocity for macroprudential policy measures. At the same time, reciprocation implies extending the applicability of macroprudential measures also to the exposures of non-resident banks in that Member State so as to mitigate the risk of cross-border externalities and regulatory arbitrage.

At end-2023, the list of active measures recommended by the ESRB for reciprocation was as follows:

Table 3.7. Measures recommended for reciprocation in Recommendation ESRB/2015/2

Country	Measure	Materiality threshold ⁴⁸	Reciprocating countries
Belgium	A 6 percent systemic risk buffer rate on all IRB retail exposures to natural persons secured by residential immovable property for which the collateral is located in Belgium.	• EUR 2 billion, at credit institution level	By the end of 2023, no country had expressed its intention to reciprocate the macroprudential measure implemented by Belgium
Sweden	(i) An exposure-weighted average risk weight floor of 35 percent for certain corporate exposures secured by commercial properties located in Sweden; the floor is credit institution-specific and is applied at the portfolio level of credit institutions that use the IRB approach for calculating regulatory capital requirements; (ii) An exposure-weighted average risk weight floor of 25 percent for certain corporate exposures secured by residential properties located in Sweden; the floor is credit institution-specific and is applied at the portfolio level of credit institutions that use the IRB approach for calculating regulatory capital requirements.	• SEK 5 billion, at credit institution level	By the end of 2023, no country had expressed its intention to reciprocate the macroprudential measures implemented by Sweden

⁴⁸ As proposed by the designated national authority requesting the measure. If the NCMO reciprocates a measure, it may set a lower threshold for credit institutions in Romania, depending on the materiality of exposures.

Country	Measure	Materiality threshold	Reciprocating countries
Norway	<p>(i) A 4.5 percent systemic risk buffer rate for all exposures located in Norway, as applicable to all credit institutions authorised in Norway;</p> <p>(ii) A 20 percent floor for (exposure-weighted) average risk weights for exposures to residential real estate located in Norway, as applicable to credit institutions authorised in Norway using the IRB approach for calculating regulatory capital requirements;</p> <p>(iii) A 35 percent floor for (exposure-weighted) average risk weights for exposures to commercial real estate located in Norway, as applicable to credit institutions authorised in Norway using the IRB approach for calculating regulatory capital requirements.</p>	<p>(i) NOK 5 billion, at credit institution level</p> <p>(ii) NOK 32.3 billion</p> <p>(iii) NOK 7.6 billion</p>	Finland and Sweden
Germany	A 2 percent systemic risk buffer (SyRB) rate on all exposures to natural and legal persons secured by residential real estate located in Germany.	• EUR 10 billion, at credit institution level	France, Italy, Lithuania, the Netherlands and Norway
Belgium	A 9 percent sectoral systemic risk buffer (sSyRB) rate on all retail exposures secured by residential immovable property for which the collateral is located in Belgium to be applied to all credit institutions using the IRB approach.	• EUR 2 billion, at credit institution level	France, Lithuania, the Netherlands and Norway
Lithuania	A 2 percent sectoral systemic risk buffer (sSyRB) rate on all retail exposures secured by residential immovable property.	• EUR 50 million, for the amount of exposures arising from loans granted to borrowers in Lithuania	Belgium, France, Norway and Sweden
The Netherlands	A minimum average risk weight of 12 percent applied in relation to exposures to natural persons secured by residential property located in the Netherlands that is assigned to the portion of the loan not exceeding 55 percent of the market value of the property that serves to secure the loan and a 45 percent minimum average risk weight that is assigned to the remaining portion of the loan.	• EUR 5 billion, at credit institution level	France, Germany, Lithuania and Norway
Luxembourg	<p>Legally binding loan-to-value (LTV) limits for new mortgage loans on residential real estate located in Luxembourg, with different LTV limits applicable to different categories of borrowers:</p> <p>(i) LTV limit of 100 percent for first-time buyers acquiring their primary residence;</p> <p>(ii) LTV limit of 90 percent for other buyers, i.e. non first-time buyers acquiring their primary residence;</p> <p>(iii) LTV limit of 80 percent for other mortgage loans (including the buy-to-let segment).</p>	<p>• EUR 350 million (1 percent of the total residential real estate mortgage market in Luxembourg)</p> <p>or</p> <p>• EUR 35 million (institution-specific materiality threshold for the total cross-border mortgage lending to Luxembourg)</p>	Belgium, France, Germany, Lithuania, Norway and Portugal

Country	Measure	Materiality threshold	Reciprocating countries
France	A tightening of the large exposure limit applicable to exposures to highly-indebted large non-financial corporations having their registered office in France to 5 percent of Tier 1 capital, applied to global systemically important institutions (G-SIIs) and other systemically important institutions (O-SIIs) at the highest level of consolidation of their banking prudential perimeter.	<ul style="list-style-type: none"> • EUR 2 billion for the total original exposures of domestically authorised G-SIIs and O-SIIs at the highest level of consolidation of the banking prudential perimeter to the French non-financial corporations sector or <ul style="list-style-type: none"> • EUR 300 million applicable to G-SIIs and O-SIIs, for exposures meeting certain conditions or <ul style="list-style-type: none"> • a threshold of 5 percent of the G-SII's or O-SII's Tier 1 capital at the highest level of consolidation, for exposures identified in the previous point 	Belgium, Denmark, Ireland, Lithuania, Norway and Sweden
Sweden	A 25 percent floor for the exposure-weighted average of the risk weights applied to the portfolio of retail exposures to obligors residing in Sweden secured by immovable property.	<ul style="list-style-type: none"> • SEK 5 billion, at credit institution level 	Belgium, Denmark, Finland, France, Lithuania, Norway and Portugal

Source: ESRB

In 2023, the NCMO examined, at national level, the macroprudential policy measures taken by Norway, Sweden and Belgium in order to assess the appropriateness of reciprocating them on a voluntary basis (the other measures included in Table 3.7 were discussed in the previous years)⁴⁹.

During the meeting of 20 June 2023, the NCMO issued Decision No. D/3/2023 on not applying through voluntary reciprocity the macroprudential measures of Norway, given that the exposures of credit institutions, Romanian legal entities, to this country are immaterial. The measures referred to: (i) a 4.5 percent systemic risk buffer rate for all exposures located in Norway, as applicable to all credit institutions authorised in Norway; (ii) a 20 percent floor for (exposure-weighted) average risk weights for exposures to residential real estate located in Norway, as applicable to credit institutions authorised in Norway using the internal ratings-based (IRB) approach for calculating regulatory capital requirements

⁴⁹ See the dedicated sections on reciprocation measures in the previous NCMO *Annual Reports*, as well as the specific section on the NCMO website. Measures recommended for reciprocity in Recommendation ESRB/2015/2 between 2017-2023 | National Committee for Macroprudential Oversight (cnsmro.ro)

and (iii) a 35 percent floor for (exposure-weighted) average risk weights for exposures to commercial real estate located in Norway, as applicable to credit institutions authorised in Norway using the IRB approach for calculating regulatory capital requirements. Thus, based on the data available as at 30 April 2023, 11 credit institutions, Romanian legal entities, had total exposures to Norway worth approximately lei 63 million (EUR 12.8 million), accounting for around 3 percent of the materiality threshold associated with the first measure (NOK 5 billion) and 0.46 percent of the materiality threshold related to the second measure (NOK 32.3 billion). As far as the real sector is concerned, no such exposures were recorded as at the reference date.

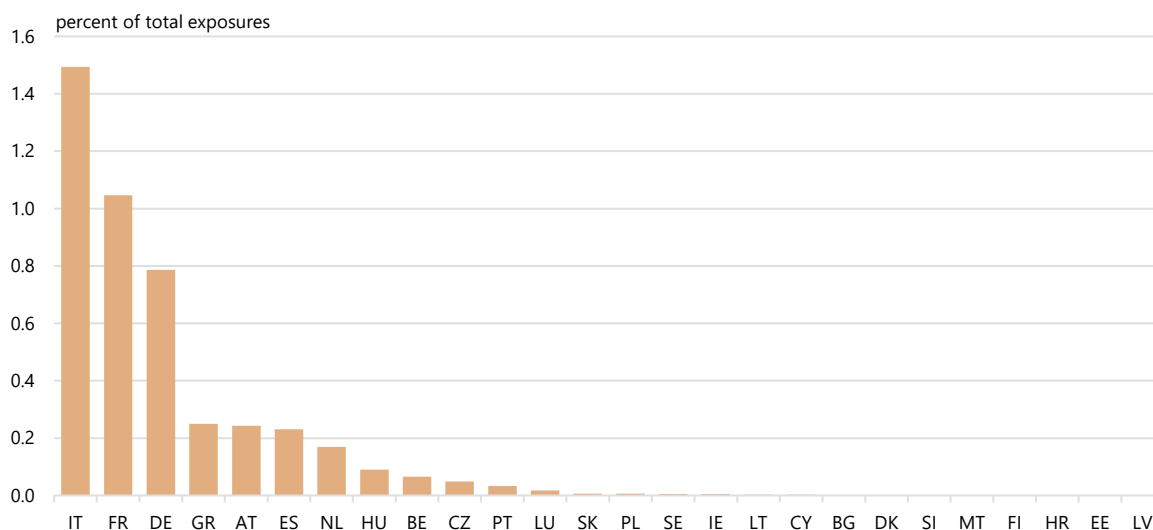
In the same meeting, the NCMO also analysed the developments in the exposures covered by the measures proposed for reciprocation by Member States in 2021-2023 and assessed the cross-border effects of the macroprudential measures taken by Romania (for further details, see Box E).

During the meeting of 19 October 2023, the NCMO General Board issued NCMO Decision No. D/5/2023 on not applying through voluntary reciprocity the macroprudential measures of Sweden, which set forth two distinct measures: (i) an exposure-weighted average risk weight floor of 35 percent for certain corporate exposures secured by commercial properties located in Sweden; the floor is credit institution-specific and is applied at the portfolio level of credit institutions that use the IRB approach for calculating regulatory capital requirements; (ii) an exposure-weighted average risk weight floor of 25 percent for certain corporate exposures secured by residential properties located in Sweden; the floor is credit institution-specific and is applied at the portfolio level of credit institutions that use the IRB approach for calculating regulatory capital requirements. Based on the data available as at 30 June 2023, 12 credit institutions, Romanian legal entities, had total exposures to Sweden worth approximately lei 298 million (SEK 707.4 million), accounting for around 14.15 percent of the materiality threshold set for a single credit institution. The measure refers solely to those exposures secured by commercial or residential properties located in Sweden to non-financial corporations, in which case the relevant exposure level is zero.

In addition, during the meeting of 14 December 2023, the NCMO General Board decided not to voluntarily reciprocate the macroprudential measure of Belgium, given that the exposures of the local banking sector to this country are immaterial.

The competent authorities in Belgium decided to change the SyRB rate from 9 percent to 6 percent as of 1 April 2024 on all retail exposures to natural persons secured by residential immovable property for which the collateral is located in Belgium to be applied to all credit institutions using the IRB approach for calculating regulatory capital requirements. Based on the data available as at 30 September 2023, the relevant exposures, namely those secured by residential immovable property, amounted to lei 6.7 million (approximately EUR 1.3 million), whereas those of credit institutions using the IRB approach concurrently with the standardised approach totalled lei 1.3 million (around EUR 0.3 million), accounting for about 0.01 percent of the materiality threshold associated with the measure.

Chart 3.17. Share of Romanian banks' exposures to EU Member States



Source: Monetary balance sheet data, NBR

Based on monetary balance sheet data as at 31 December 2023 (reference date), the total exposures of credit institutions, Romanian legal entities, equalled lei 619.9 billion (EUR 124.7 billion). Out of them, domestic exposures accounted for 95.5 percent, while in terms of European exposures, the largest were those to Italy, France, Germany, Greece and Austria (Chart 3.17). Thus, it can be observed that the share of exposures of the Romanian banking sector to EU Member States (Chart 3.17) is not likely to pose contagion risks via the external credit channel. The NCMO monitors the related exposures on a regular basis and will take the necessary measures should they become material.

Box E. Developments in exposures subject to the measures proposed for reciprocity by EU Member States in 2021-2023 and assessment of the cross-border effects of the macroprudential measures adopted in Romania

In compliance with Recommendation ESRB/2015/2, the national competent macroprudential authorities are requested to report to the ESRB every two years on the cross-border effects of macroprudential measures from two perspectives: (i) the implications for the domestic banking sector of the macroprudential measures of other Member States for which they requested reciprocity and (ii) the implications for other Member States of the domestic macroprudential measures. Apart from the aforementioned regular assessments, an individual analysis is made, based on which the General Board of the NCMO (in its capacity as national macroprudential authority) can take a decision on reciprocating or not a macroprudential measure proposed by another EU Member State. The analysis assesses the exposure of the Romanian banking sector to the said country, for which the ESRB issued a reciprocity recommendation to EU Member States.

Since the issuance date of Recommendation ESRB/2015/2 and until June 2023, the ESRB issued 10 recommendations (two of which ceased to apply⁵⁰) whereby it requested the

⁵⁰ The measures of Estonia and Finland were deactivated as of 2020.

reciprocation of other Member States' macroprudential policy measures should certain conditions be met (e.g. exposures were below the materiality threshold). Mention should be made that, in the case of NCMO decisions on not reciprocating the proposed macroprudential measures as requested by the ESRB, Romania committed itself to monitoring the relevant exposures covered by those measures and, should they become material, given the *de minimis* principle, to ensuring the reciprocity of the said measures. This principle is, in fact, applied by all EU Member States.

The NCMO decided not to voluntarily reciprocate any of the measures listed in Table E.1, given the immaterial exposures (below the materiality threshold proposed by the responsible authorities); the new assessment of the dynamics of exposures, made upon submitting the report to the ESRB in June 2023, did not change the initial decisions.

Table E.1. Materiality thresholds proposed for the measures recommended for reciprocity in Recommendation ESRB/2015/2 in 2017-2023 and total exposures of the Romanian banking sector

Country	Materiality threshold	Total exposures of the Romanian banking sector to this country as at 31 December 2022 (EUR equivalent)	Relevant exposures of the Romanian banking sector to this country as at 31 December 2022 (EUR equivalent)
Norway ⁵¹	<ul style="list-style-type: none"> • NOK 5 billion • NOK 32.3 billion • NOK 7.6 billion 		
Germany	• EUR 10 billion, at credit institution level	599,657,790	6,842,315 (total exposures secured by immovable property to natural and legal persons)
Belgium	• EUR 2 billion, at credit institution level	88,804,430	1,453,861 (total exposures secured by immovable property to natural persons) 21,436 (total exposures secured by immovable property to natural persons – credit institutions using the IRB approach)

⁵¹ The measure mentioned in the table refers to the revised materiality threshold for the SyRB buffer (NOK 5 billion). The former measure set a materiality threshold of NOK 32 billion for the SyRB buffer, being reciprocated by five countries: Belgium, France, Lithuania, Portugal and Sweden. The measure setting a 20 percent floor for (exposure-weighted) average risk weights for exposures to residential real estate located in Norway was reciprocated by five EU Member States (Belgium, Denmark, Finland, Lithuania and Sweden), whereas the measure setting a 35 percent floor for (exposure-weighted) average risk weights for exposures to commercial real estate located in Norway was reciprocated by six EU Member States (Belgium, Denmark, France, Finland, Lithuania and Sweden).

Country	Materiality threshold	Total exposures of the Romanian banking sector to this country as at 31 December 2022 (EUR equivalent)	Relevant exposures of the Romanian banking sector to this country as at 31 December 2022 (EUR equivalent)
Lithuania	<ul style="list-style-type: none"> EUR 50 million, for the amount of exposures arising from loans granted to borrowers in Lithuania 	1,767,950	0 (total exposures secured by immovable property to natural persons)
The Netherlands	<ul style="list-style-type: none"> EUR 5 billion, at credit institution level 	82,614,656	1,086,348 (total exposures secured by immovable property to natural persons)
Luxembourg	<ul style="list-style-type: none"> EUR 350 million (1 percent of the total residential real estate mortgage market in Luxembourg) EUR 35 million (institution-specific materiality threshold for the total cross-border mortgage lending to Luxembourg) 	28,177,915	133,669 (total exposures secured by immovable property to natural and legal persons)
France	<ul style="list-style-type: none"> EUR 2 billion for the total original exposures of domestically authorised G-SIIs and O-SIIs EUR 300 million applicable to G-SIIs and O-SIIs, for exposures meeting certain conditions a threshold of 5 percent of the G-SII's or O-SII's Tier 1 capital, for exposures identified in the measure 	964,147,228	373,000 (total exposures to non-financial corporations)
Sweden ⁵²	<ul style="list-style-type: none"> SEK 5 billion, at credit institution level 	54,499	5,362 (total exposures secured by immovable property to natural persons)

Source: ESRB, NBR, NBR calculations

The need to assess the macroprudential measures taken by EU Member States stems from the high interconnectedness of financial systems, with substantial cross-border financial intermediation activities, so that domestic macroprudential policy decisions can

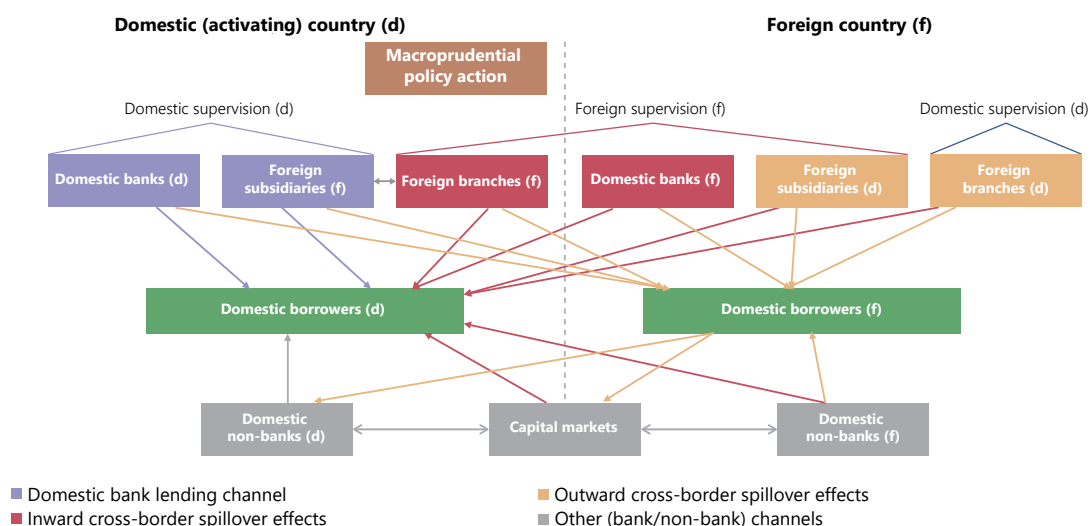
⁵² Exposures are expressed in SEK equivalent.

have negative cross-border financial effects. A case in point may be the circumvention of macroprudential policy measures via credit institutions not targeted by the respective measure.

The ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector⁵³ helped develop the first theoretical framework for the assessment of the cross-border effects of macroprudential measures. Over the course of time, other papers analysing the manner of transmission of these effects to the financial system have been prepared too. Such a study is that of the ECB⁵⁴, which presents the national approaches in the EU to assessing cross-border effects. Moreover, concurrently with the above-mentioned paper an operational framework⁵⁵ has been established as well. It is meant to be used by the EU competent authorities when assessing the cross-border effects of the enacted measures, representing actually an extension of the ESRB Handbook, as it also includes new indicators and their computation.

Domestic macroprudential policies may interact with foreign economies and institutions through two cross-border transmission channels: (i) an “inward” transmission channel and (ii) an “outward” transmission channel. Inward spillovers may affect the domestic financial market via the foreign institutions operating in it, while outward spillovers may affect the foreign financial market via domestic financial institutions. Figure E.1 provides a schematic representation of the framework for the assessment of the cross-border spillover effects of macroprudential policies.

Figure E.1. The main transmission channels of cross-border spillover effects



Source: adapted from the ESRB

⁵³ The ESRB Handbook on Operationalising Macroprudential Policy in the Banking Sector, March 2014

⁵⁴ “Cross-border spillover effects of macroprudential policies: a conceptual framework”, *Occasional Paper Series*, No. 242, June 2020

⁵⁵ Framework to assess cross-border spillover effects of macroprudential policies, April 2020

The ESRB identified five transmission channels of cross-border spillover effects, their relevance being differentiated depending on the specific characteristics of each financial system and the type of instruments used: (i) cross-border risk adjustments – especially relevant for instruments such as capital requirements, (ii) network formation and potential for contagion – relevant for instruments such as capital requirements, (iii) regulatory arbitrage – important for all types of macroprudential instruments, (iv) altering the effects on credit conditions – more important for euro area countries and may amplify the effects of any type of macroprudential measure, and (v) trade effects.

The indicators developed in the aforementioned ECB paper were used for measuring cross-border spillovers. The said occasional paper proposes a list of 34 indicators to monitor the effects of macroprudential measures such as capital buffers and 23 indicators for instruments with a direct impact on borrowers (borrower-based measures). The use of 31 indicators in the analysis was warranted by the fact that the two lists overlapped somewhat, which subsequently led to the removal of some indicators.

Looking at the indicators presented in Table E.2, as regards inward spillovers that activated macroprudential instruments may have on foreign banks, there is no significant evidence that these effects may occur due to the following:

- Foreign banks play an important part in the Romanian banking sector, particularly via subsidiaries. According to end-2022 data, foreign bank subsidiaries and branches hold 66.25 percent of loans to the real sector, 62.83 percent of assets, 64.58 percent of assets and off-balance sheet exposures and 63.82 percent of capital. In addition, these institutions take 55.57 percent of government securities and 28.27 percent of the capital instruments of non-financial corporations. Foreign banks account for 70.64 percent of foreign currency-denominated loans to the real sector, the share of these loans in their portfolio increasing substantially from 28.19 percent in 2021 to 39.62 percent in 2022.
- Lending by foreign bank subsidiaries and branches to the real sector declined from 78.26 percent in 2017 to 66.25 percent in 2022.
- Foreign subsidiaries play a declining role in the Romanian banking market, which may be explained through domestic banks having acquired some foreign banks, thus increasing their systemic footprint.
- There is no evidence of “branchification”, as no foreign subsidiary was changed into a branch.
- In the period under review, foreign branches became slightly more important in the Romanian banking sector. These institutions hold 11.79 percent of the total loans to the real sector and 17.8 percent of the loans granted by foreign entities operating

in the domestic market. They take 12.34 percent of the total assets of the Romanian banking sector and 12.01 percent of total assets and off-balance sheet exposures.

- ➔ Non-bank financial institutions witnessed no significant developments, but they reported however an upward trend in lending and assets. In 2022, loans to non-financial corporations and households rose by approximately 7 percent as compared with 2021, while the share of NBFIs assets in total asset holdings of banks and NBFIs widened by 7 percent versus 2021.

Looking at the indicators exploring the possibility of outward spillovers occurring, there are currently no relevant signs of this effect materialising, given that:

- ➔ The cross-border activity of Romanian banks is further low, with no significant changes in the period under review. Cross-border loans to the real sector in other countries account for less than 1 percent of total loans. Cross-border assets posted fluctuating dynamics, their share in total assets declining from a peak of 7 percent in 2020 to 5.15 percent in 2022, similarly to the developments in cross-border assets and off-balance sheet exposures.
- ➔ 2022 witnessed a shift in Romanian banks' focus towards the debt securities and capital instruments of foreign private entities after three years in which their share had plummeted. Moreover, holdings of foreign government securities increased as well, accounting for 5 percent of total securities holdings.
- ➔ By contrast, the share of cross-border interbank loans in total interbank loans stayed on the downtrend it had embarked on in 2020, reaching 48.6 percent in 2022 from a high of 82.9 percent in 2019, which indicates that the Romanian banking sector considers raising funds from the domestic market to be more advantageous than from the foreign market.
- ➔ The external activity of NBFIs remains at very low levels.

Table E.2. Indicators for the spillover effects of macroprudential measures

Indicator	2017	2018	2019	2020	2021	2022	Standard deviation
Inward spillover			percent				pp
External debt and securitisations of non-financial corporations and households (% of total loans to non-financial corporations and households)	31.56	23.82	23.60	22.16	18.69	16.07	4.85

– continued –

Indicator	2017	2018	2019	2020	2021	2022	Standard deviation
Loans to non-financial corporations and households granted by foreign bank subsidiaries and branches (% of total loans to non-financial corporations and households)	78.26	75.33	73.40	70.29	68.62	66.25	4.07
Foreign currency loans to non-financial corporations and households granted by foreign bank subsidiaries and branches (% of total loans to non-financial corporations and households granted by foreign bank subsidiaries and branches)	43.13	36.80	34.66	32.80	28.19	39.62	4.79
Foreign currency loans to non-financial corporations and households granted by foreign bank subsidiaries and branches (% of total foreign currency loans to non-financial corporations and households)	87.86	82.02	80.22	74.21	73.28	70.64	5.90
Loans to non-financial corporations and households secured by immovable property granted by foreign bank subsidiaries and branches (% of total loans to non-financial corporations and households secured by immovable property)	72.18	68.82	71.77	66.04	65.16	63.51	3.28
Assets of foreign bank subsidiaries and branches (% of total assets)	75.45	72.57	69.67	66.67	63.88	62.83	4.53
Assets and off-balance sheet exposures of foreign bank subsidiaries and branches (% of total assets and off-balance sheet exposures)	76.33	73.21	70.65	67.96	65.18	64.58	4.22
Debt securities and capital instruments of non-financial corporations held by foreign bank subsidiaries and branches (% of total holdings of debt securities and capital instruments of non-financial corporations)	85.82	47.08	49.87	53.23	33.98	28.27	18.40
Government securities held by foreign bank subsidiaries and branches (% of total holdings of government securities)	65.59	66.01	66.25	61.38	58.28	55.57	4.13

– continued –

Indicator	2017	2018	2019	2020	2021	2022	Standard deviation
Own funds of foreign bank subsidiaries (% of total own funds)	74.49	69.80	66.99	64.98	61.95	63.82	4.15
Loans to non-financial corporations and households granted by foreign bank branches (% of total loans to non-financial corporations and households)	10.79	11.71	11.65	11.49	11.53	11.79	0.33
Loans to non-financial corporations and households granted by foreign bank branches (% of total loans to non-financial corporations and households granted by foreign bank subsidiaries and branches)	13.79	15.55	15.88	16.35	16.80	17.80	1.23
Loans to non-financial corporations and households secured by immovable property granted by foreign bank branches (% of total loans to non-financial corporations and households secured by immovable property)	5.12	6.37	6.50	6.64	8.12	9.17	1.31
Assets of foreign bank branches (% of total assets)	10.73	11.01	11.85	12.25	11.92	12.34	0.61
Assets and off-balance sheet exposures of foreign bank branches (% of total assets and off-balance sheet exposures)	10.77	10.86	11.46	11.44	11.12	12.01	0.42
Contribution of foreign entities to the solvency ratio of Romanian banking groups	-0.15	-0.38	1.13	1.30	1.92	1.92	0.91
Number of foreign bank subsidiaries and branches operating in Romania	27	26	23	24	22	22	191.49
Assets held by NBFIs (% of total assets of banks and NBFIs)	8.41	8.52	7.75	7.56	7.17	7.70	0.47
Loans to non-financial corporations and households granted by NBFIs (% of total loans to non-financial corporations and households granted by banks and NBFIs)	12.62	12.33	12.81	12.83	11.91	12.73	0.33

– continued –

Indicator	2017	2018	2019	2020	2021	2022	Standard deviation
Loans to non-financial corporations and households secured by immovable property granted by NBFIs (% of total loans to non-financial corporations and households secured by immovable property granted by banks and NBFIs)	0.10	0.10	0.08	0.06	0.06	0.07	0.02
Outward spillover							
Cross-border loans to foreign non-financial corporations and households (% of total loans to non-financial corporations and households)	0.97	0.53	0.53	0.51	0.78	0.95	0.20
Cross-border foreign currency loans to foreign non-financial corporations and households (% of total loans to non-financial corporations and households)	0.69	0.39	0.35	0.35	0.25	0.32	0.14
Loans to foreign non-financial corporations and households secured by immovable property granted by domestic banks (% of total loans to non-financial corporations and households secured by immovable property)	0.19	0.25	0.27	0.23	0.71	0.87	0.27
Cross-border assets (% of total assets)	3.81	5.13	5.30	7.02	5.63	5.15	0.94
Cross-border assets and off-balance sheet exposures (% of total assets and off-balance sheet exposures)	4.43	5.60	5.94	7.20	5.61	5.15	0.84
Debt securities and capital instruments of foreign non-financial corporations held by domestic banks (% of total holdings of debt securities and capital instruments of non-financial corporations)	-	46.31	15.87	8.29	4.20	31.78	15.66
Foreign government securities held by domestic banks (% of total holdings of government securities)	0.15	0.45	1.25	1.66	1.68	5.00	1.59

– continued –

Indicator	2017	2018	2019	2020	2021	2022	Standard deviation
Cross-border interbank loans (% of total interbank loans)	76.10	82.06	82.93	72.57	60.90	48.57	12.23
Number of subsidiaries and branches of domestic banks abroad	3	4	5	5	3	3	89.75
Cross-border exposures potentially subject to a CCyB (% of total exposures potentially subject to a CCyB)	-	8.05	9.76	6.09	3.85	3.28	2.45
Loans to foreign non-financial corporations and households granted by NBFIs (% of total loans to non-financial corporations and households granted by banks and NBFIs)	0.01	0.02	0.02	0.02	0.04	0.05	0.01

Source: NBR calculations

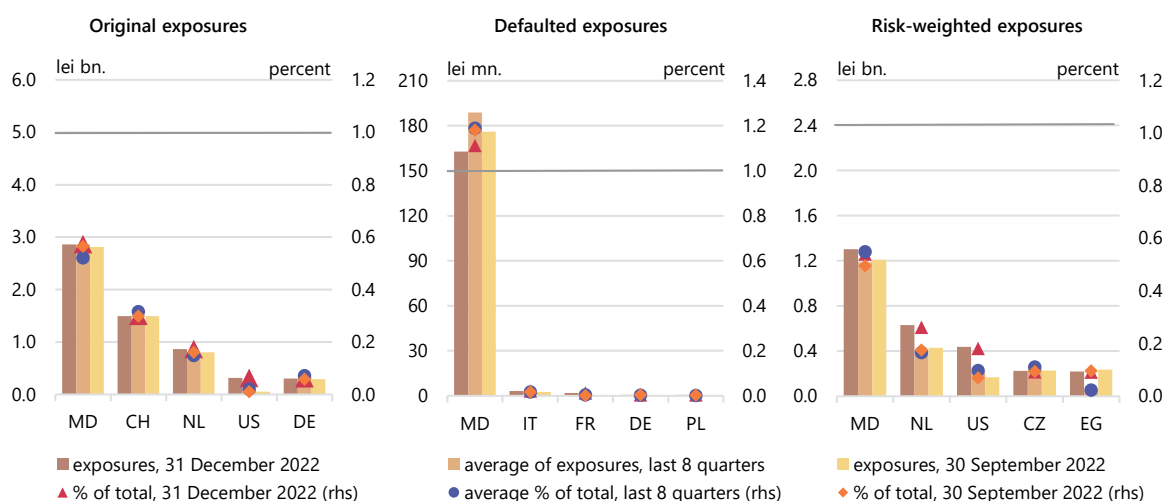
3.2.2. Assessment of materiality of third countries for the Romanian banking sector in relation to the recognition and setting of countercyclical buffer rates

With a view to safeguarding domestic banking sectors from the risks associated with excessive credit growth in third countries, article 139 of the CRD IV allows designated authorities to set, under specific circumstances, a countercyclical buffer rate for exposures to a third country. Thus, besides setting on a quarterly basis the buffer rate pertaining to domestic exposures, the NCMO can adopt recommendations on the recognition through voluntary reciprocity of the measures taken by other Member States or can set a CCyB rate for third-country exposures.

The assessments carried out by the NBR pursuant to NCMO Recommendation No. R/2/2017⁵⁶ led to the adoption of NCMO Decision No. D/2/2023, according to which for 2023 the Republic of Moldova was identified as a material third country for the banking sector in Romania in terms of recognising and setting countercyclical buffer rates. Hence, Moldova's material third country status implies a closer monitoring of its economic and financial developments, exploring the possibility of setting a countercyclical capital buffer only in relation to exposures to this country, aimed at safeguarding banks in Romania from adverse cross-border developments.

⁵⁶ Whereby the NBR is recommended to assess on a regular basis material third countries for the banking sector in Romania in terms of recognising and setting countercyclical buffer rates and to propose the necessary measures should these exposures become material.

Chart 3.18. Exposures to the top five countries according to the standardised methodology as at December 2022 and the last 8-quarter average



Source: COREP, NBR calculations

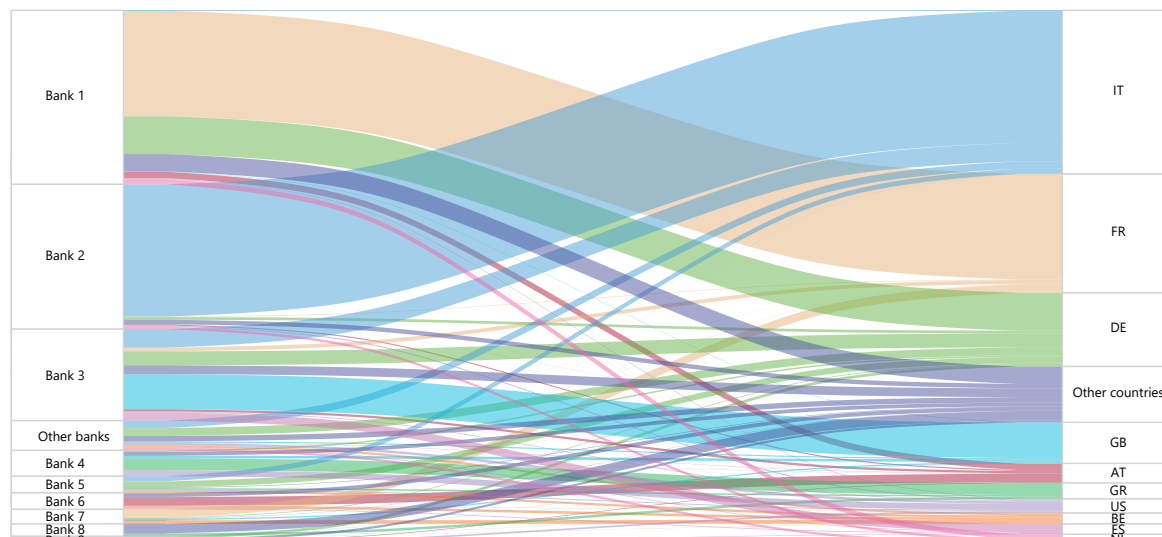
The analysis conducted based on the data available for end-2022 shows that the banking sector in Romania has continued to target mainly the financing of the domestic economy, non-domestic exposures in the form of credit to the real sector being further of low importance. Moreover, exposures to third countries are of marginal significance in the Romanian banking sector, accounting for 1.06 percent of original exposures, 1.13 percent of defaulted exposures and 0.9 percent of risk-weighted exposures as at 31 December. A detailed analysis of these types of exposures is depicted in Chart 3.18, which captures the status of exposures to the top five partner countries. The novelty of this analysis compared to the previous ones consists in the possibility of calculating the mean for the past eight quarters, meaning that the ESRB methodology is thus fully applied. Pursuant to the ESRB methodology, transposed into the NCMO methodology as well, a third country is deemed material according to standardised indicators if two criteria are cumulatively met: (i) the exposures for at least one of the three metrics were at least 1 percent over two consecutive quarters and (ii) the mean of exposures for at least one of the three metrics was at least 1 percent for the past eight quarters of analysis.

Banks in Romania have had the most significant connections with the Republic of Moldova, for all three types of exposures under scrutiny. It is noteworthy that most of the exposures vis-à-vis this country emerge indirectly, via the loans granted by the branches and subsidiaries that Romanian banking groups have in Moldova. As regards defaulted exposures, Moldova accounts for the largest share, while those in relation to other countries are close to zero in terms of percentage in total.

Given that the exposures related to defaulted loans vis-à-vis the Republic of Moldova exceeded the 1 percent minimum threshold, both for the 31 December 2022 reference date and for the end of the preceding quarter, and that the mean over the past eight quarters has surpassed the limit, Moldova has been designated as a material third country for 2023.

Other two slightly significant third countries for banks in Romania are Switzerland, especially for original exposures and also for defaulted ones, and the United States, particularly for

Chart 3.19. Connection between banks in Romania and other countries via on-balance-sheet loans



Source: NBR, credit institutions' monetary balance sheet data

risk-weighted exposures. Czechia, Netherlands and Germany are the European countries in relation to whose residents banks in Romania have recorded the largest original exposures, yet the amounts do not exceed lei 1.5 billion in any of the three cases, also observable for the past eight-quarter mean.

Aside from the ESRB approach, the procedure developed at national level includes several additional indicators and alternative data sources to ensure the robustness of findings and have a more comprehensive picture of cross-border exposures. For instance, the reporting specific to the monetary balance sheet of credit institutions is a major source of data for Romanian banks' direct exposures at individual level. This provides additional information on the connections of the domestic banking sector with other countries, as regards both real sector financing and the relationships with financial or government sectors. The key gain is that there is no limit depending on which foreign exposures are reported.

The reporting for end-2022 indicates that domestic loans account for the prevailing share (93.9 percent) of the banking sector's portfolio in Romania. The breakdown of Romanian banks' foreign loans (Chart 3.19) shows that the most important non-domestic exposures are vis-à-vis Italy, France, Germany, Austria, Greece, Belgium, Spain and Netherlands. The non-EU countries with the largest exposures are the United Kingdom, the United States and Switzerland, but each of them accounts for less than 0.3 percent of the total loans granted. Moreover, monetary balance sheet reporting does not record any credit granted directly to the real sector in third countries.

There is generally a close connection between credit institutions, subsidiaries of foreign groups, with the countries where parent banks operate. Compared with the earlier analysis, detailed in the previous *Report*, an increased diversification of cross-border exposures is noticeable for most banks, whereas back in 2021 there were banks with investments in a small number of countries. Two types of behaviours are further manifest, differentiating the exposures vis-à-vis other states as follows: (i) states in which most exposures come from

the investments of a limited number of banks (France, UK, Greece, Spain) and (ii) countries with exposures from a higher number of institutions (Italy, Germany, Austria, US, Belgium and the Netherlands).

Box F. The ESRB methodology to identify and monitor material third countries for the European banking sector

Articles 138 and 139 of the CRD⁵⁷ give the ESRB a specific mandate to address the risks to the European banking sector arising from excessive credit growth in third countries and to achieve coherence across Member States for the buffer settings for third countries. Specifically, when the actions taken by a third-country authority are deemed insufficient, the ESRB may step in to protect the EU banking sector from the risks of excessive credit growth in that third country. Hence, the ESRB may issue a recommendation providing guidance to designated authorities in the EU on the adequate CCyB rate for exposures to a third country where a CCyB rate has not been set or where the rate that has been set is not sufficient to protect Union institutions. To this end, a framework has been established for identifying and monitoring material third countries in terms of EU credit institutions' exposures, which implies the cooperation among the ESRB (from the perspective of risks to the EU overall), the ECB and the designated national authorities, depending on their specific field of competence.

Thus, the European and national authorities conduct annual exercises to identify and, where applicable, monitor material third countries. It is at the Member States' discretion to develop their own methodologies, with the majority using an approach based on ESRB-designed procedures.

With a view to identifying material third countries, the ESRB uses supervisory data at aggregate level collected by the European Banking Authority (EBA) as regards own funds requirements and reporting. The calculation of indicators uses COREP data (Templates C 09.01 and C 09.02) on exposures to the real sector, broken down by debtor residence. Material third countries are identified on the basis of three exposure metrics: (i) original exposure; (ii) defaulted exposures; (iii) risk-weighted assets.

The ESRB defines a third country as material and adds it to the list of material third countries when it cumulatively fulfils the following criteria: (i) exposures of the EEA's banking system to that third country are at least 1 percent for at least one of the three metrics in each of the two quarters preceding the reference date and (ii) the arithmetic mean of exposures to the third country in the eight quarters preceding the reference date was at least 1 percent for at least one of the three metrics. At the same time, the methodology specifies that a country shall be deleted from the list of material third countries where (i) the arithmetic mean of exposures to that country in twelve

⁵⁷ Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC

quarters preceding the reference date was less than 1 percent for all three metrics and (ii) the exposures in each of the two quarters preceding the reference date were below 1 percent for all the metrics.

Following the latest exercise to identify third countries conducted in 2022, the ESRB published a list of ten material third countries for the EEA, which is the same as in the previous year (Table F.1).

Table F.1. Third countries identified by the ESRB as material for the EU banking sector

Date/Country	Brazil	China	Hong Kong	Russia	Türkiye	USA	Singapore	Switzerland	Mexico	UK
December 2015	•	•	•	•	•	•				
June 2017	•	•	•	•	•	•	•	•		
June 2018	•	•	•	•	•	•	•	•		
June 2019	•	•	•	•	•	•	•	•		
June 2020	•	•	•	•	•	•	•	•	•	
June 2021	•	•	•	•	•	•	•	•	•	•
June 2022	•	•	•	•	•	•	•	•	•	•

Source: ESRB

In order to monitor the identified third countries, the ESRB uses a complex methodology, consisting of a quantitative and a qualitative assessment, the findings being communicated to Member States on an annual basis. First, the framework comprises an indicator-based overview of the respective countries' macroeconomic and financial picture (Table F.2).

Table F.2. Macroeconomic and credit indicators used for the assessment

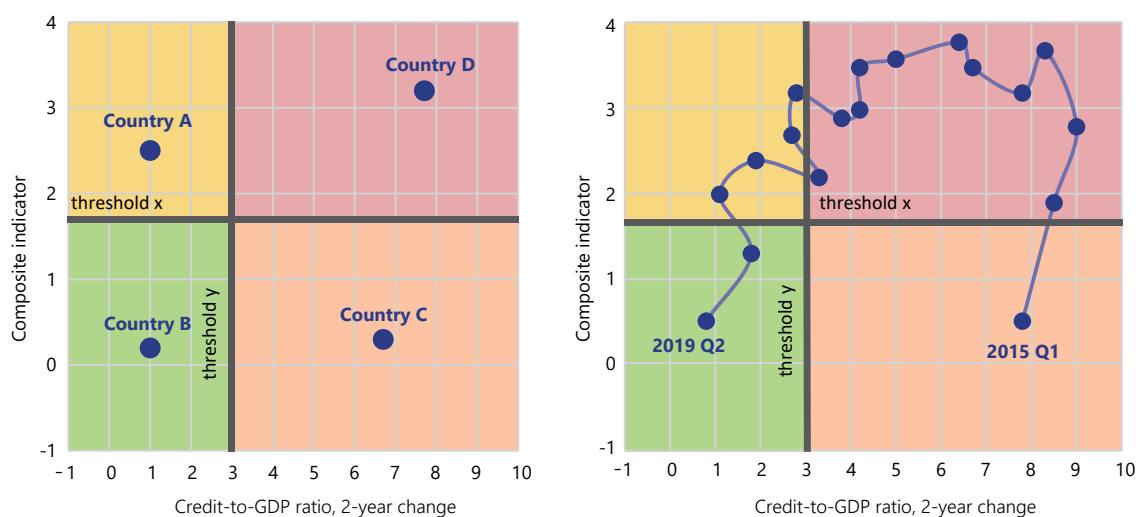
Category	Indicators
Credit dynamics	Year-on-year nominal credit growth Basel gap Broad credit to private sector as a percentage of GDP (1Y change) Bank credit to private sector as a percentage of GDP (1Y change) Credit to non-financial corporations as a percentage of GDP (1Y change) Household credit as a percentage of GDP (1Y change)
Macroeconomic environment	Real GDP (year-on-year growth) Inflation rate Unemployment rate Real effective exchange rate (year-on-year growth)
Financial market	Nominal equity price index (year-on-year growth) Nominal long-term interest rate
Real estate market	Nominal residential real estate price (year-on-year growth) Nominal commercial real estate price (year-on-year growth)
Banking sector	Leverage ratio, CET1 ratio, liquid assets to short-term liabilities, return on assets, deposit-to-loan ratio
Private sector indebtedness	Household debt as a percentage of GDP Non-financial corporate debt as a percentage of GDP Public sector debt as a percentage of GDP

Source: ESRB

The analysis is extended by using two standardised methodologies: (i) an excess credit growth metric (the assessment including, besides the Basel gap, other indicators on credit developments as well) and (ii) an early-warning composite indicator signalling the emergence of risk elements that increase the likelihood of a recession setting in. Following these analyses, the ESRB may recommend the setting-up of a working group that may propose the implementation of a countercyclical capital buffer at European level to protect from exposures to the third country with a heightened risk situation. By the date of this analysis, the ESRB had not deemed it necessary to activate such a working group.

This two-dimensional approach is represented in the form of a colour-coded risk matrix, with the heat map identifying four zones based on whether excessive credit growth and/or abnormal macro-financial vulnerabilities are detected (Chart F.1).

Chart F.1. Methodology for colour-coded risk matrices and hypothetical examples



Note: While the green area reflects situations where no significant excess credit or macro-financial imbalances have been detected, a country placed in the other coloured regions is deemed as warranted for closer qualitative analysis to assess the risks for the EEA or even the activation of the assessment team (in scenarios involving orange or red areas).

Source: ESRB

Table F.3. Components of the composite indicator

Advanced economies	Emerging economies
<ul style="list-style-type: none"> • a real equity price index • the residential real estate price to income ratio • the debt service coverage ratio • the current account to GDP ratio 	<ul style="list-style-type: none"> • the sovereign debt-to-GDP ratio • the current account to GDP ratio • an equity price index • a residential property price index • the real effective exchange rate

Source: ESRB

The composite indicator of the standardised risk assessment methodology, as well as the thresholds delimiting the four colour-coded heat maps differ between advanced and

emerging economies to take into account the potential differences of the risk channels at play (Table F.3).

The final stage of the analysis is a country-specific qualitative assessment. This provides a broader picture of the economic situation in each third country and underpins the standardised quantitative assessment.

3.2.3. Assessment of the impact of credit institutions' funding plans on the flow of credit to the real economy

The annual assessment of the impact of credit institutions' funding plans on the flow of credit to the real economy was presented in the NCMO meeting of 19 October 2023. The assessment was made under Subrecommendation A3 of Recommendation of the European Systemic Risk Board of 20 December 2012 on funding of credit institutions (ESRB/2012/2) setting forth that national supervisory authorities and other authorities with a macroprudential mandate are recommended "to assess the impact of credit institutions' funding plans on the flow of credit to the real economy". In light of the ESRB recommendation, the NCMO issued, at a national level, NCMO Recommendation No. 10/2017 on the impact of credit institutions' funding plans on the flow of credit to the real economy, whereby the National Bank of Romania was recommended to assess that impact on a regular basis.

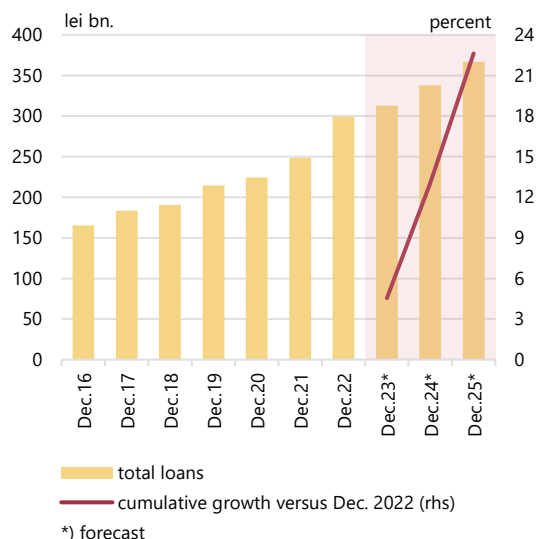
The assessment is useful for the macroprudential policy, having the advantage that the data submitted by credit institutions can be used to extract forward-looking information on lending developments or to identify early the vulnerabilities and the evolution of potential risks to financial stability, thereby creating the conditions for the timely activation/deactivation of macroprudential instruments, thus increasing their efficiency and effectiveness. On the other hand, the annual monitoring of credit institutions' funding plans: (i) provides an overview of the lending growth outlook, in general and by component, as well of potential structural changes in credit institutions' activity, (ii) serves as a backtesting measure by comparing the achieved and projected levels of credit institutions to determine the reliability of data, and (iii) allows for the identification of changes in credit institutions' risk appetite. Furthermore, as these data are based on forecasts, they can also be used together with other analyses, such as the *Bank Lending Survey*, the *Systemic Risk Survey*, stress tests, etc., in order to provide important signals on how macroprudential policy instruments should be implemented.

The annual reporting of credit institutions' funding plans takes place in the first quarter of the year and includes reports over a three-year horizon.

Nine reporting banks⁵⁸, all of them being systemically important banks, participated in this annual assessment. As at 31 December 2022, the credit institutions that had submitted

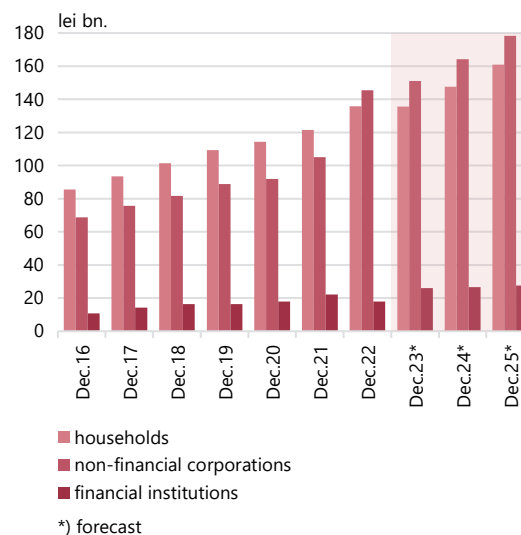
⁵⁸ Reports on funding plans were submitted, at a consolidated level, by Banca Transilvania, Banca Comercială Română, BRD – Groupe Société Générale, Raiffeisen, UniCredit, and OTP Bank, and at an individual level, by Alpha Bank, CEC Bank, and EXIM BANCA ROMÂNEASCĂ.

Chart 3.20. Lending developments



Source: NBR, credit institutions' reports on funding plans

Chart 3.21. Breakdown of credit by component



Source: NBR, credit institutions' reports on funding plans

reports jointly accounted for approximately 80 percent of total assets and 79 percent of loans to the private sector, which ensures a good representativeness of the sample for the Romanian banking sector.

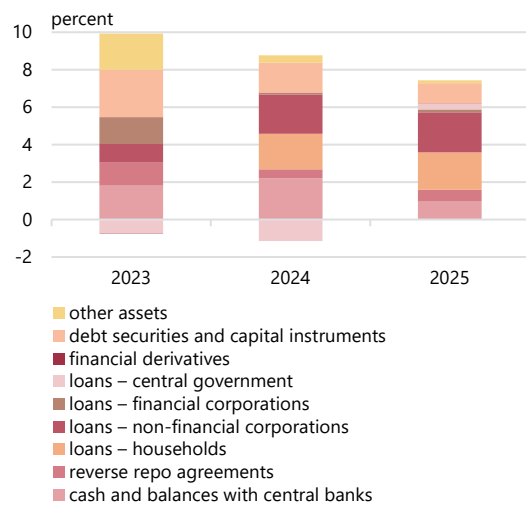
The assessment of the funding plans of reporting institutions showed a three-year cumulative rise of 20.6 percent in credit to the private sector. The growth rate is mainly supported by the advance in lending to non-financial corporations (+22.6 percent), while the dynamics of loans to households are anticipated to come in at 18.4 percent (Charts 3.20 and 3.21).

The strong increase in corporate lending in recent years, fuelled by government incentive programmes, led to a reversal of the gap between household and corporate loans as a share in total assets in 2022, in favour of the latter, whose share in total assets was 1.7 percentage point larger than that of the former. For comparison, in 2021, household loans had a 3.3 percentage point lead in total assets compared to loans to non-financial corporations. According to the reported data, the gap is expected to persist (corporate lending expanding at a faster pace than loans to households as a share in total assets) and peak at 2.5 percentage points in 2023, before stagnating at around 2.4 percentage points in 2024 and 2025.

The growth rate of housing loans to residents is expected to slow down over the next years and post a cumulative rise of 21.8 percent, i.e. a steep decline in flow as compared to the 2019-2022 dynamics of 35.4 percent for the banking system as a whole. The share of housing loans in total household credit is projected to widen from 64.5 percent in December 2022 to 66.3 percent at end-2025.

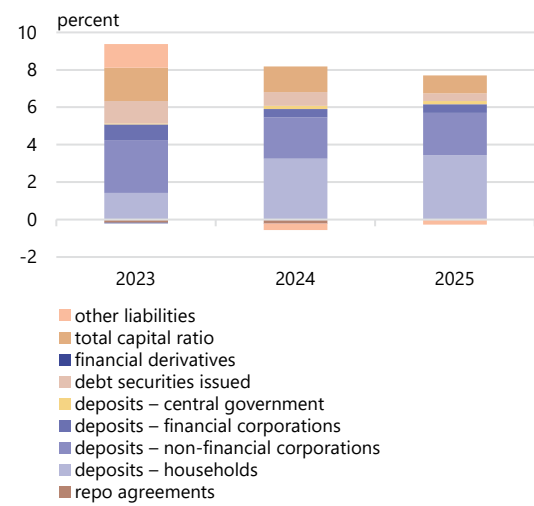
The nine reporting banks forecasted a cumulative growth of 26.2 percent in assets between 2023 and 2025 versus December 2022. The breakdown by balance sheet component shows that the main assets contributing to the balance sheet increase are loans to the real sector, debt securities, capital instruments and cash (Chart 3.22). Loans to non-financial corporations and debt securities contribute by 5.8 percentage points and 5.6 percentage points respectively to the rise in total assets, while loans to households

Chart 3.22. Contribution of assets to the annual increase (forecast)



Source: NBR, credit institutions' reports on funding plans

Chart 3.23. Contribution of liabilities to the annual increase (forecast)



Source: NBR, credit institutions' reports on funding plans

make a 4.4 percentage point contribution. As compared to the previous reporting, a change in order for the first three asset classes can be noticed, along with the higher importance of debt securities to the detriment of loans to households. This may be ascribed, on the one hand, to the rise in yields on government securities, as a result of greater government financing needs. On the other hand, this may also be due to an increased burden on households, translating into a higher level of risk aversion as a consequence of entering an economic paradigm characterised by higher interest rates. Currency also makes an important contribution to asset growth (5.4 percentage points versus 5 percentage points in 2022). This may indicate a shift in banks' focus towards safe and liquid assets, given the uncertain economic environment.

The in-depth analysis of banks' forecasts on the advance in credit to the real sector shows enhanced heterogeneity over the 2023-2025 forecast interval, which may be ascribed to the size of credit institutions and their degree of risk aversion, coupled with the uncertainty caused by the geopolitical conflict in Ukraine and the high inflation rate, which has led to tighter monetary policy. It is worth noting that, for 2023, only two banks anticipated a contraction in their loan portfolios compared to 2022, followed by sustained growth in 2024 and 2025. Forecasts for the coming years indicate that the top three positions in the ranking of banks' loan portfolios will remain the same, but the order of these credit institutions may change.

As far as the projected annual growth of liabilities is concerned, the most important contributors were deposits of households (1.42 percent – 3.42 percent) and non-financial corporations (2.2 percent – 2.8 percent), as shown in Chart 3.23. Thus, in the period from 2023 to 2025, deposits will further be the main source of funding, their share in liabilities remaining unchanged at approximately 83 percent. The share of deposits covered by a guarantee scheme will stay at around 55 percent over the 2023-2025 reporting horizon. Looking at the profit and loss account, banks' expectations may be summarised as follows: (i) the profit of banks will grow in the period under review due to a faster-paced rise in operating income than in operating expenses, as well as to a reversal of provisions built

in the previous years, (ii) ROA and ROE will decrease slightly over the next years, (iii) the cost-to-income ratio (indicator of operational efficiency) will remain close to 50 percent for this group of banks, and (iv) the NPL ratio will increase in the coming years, especially for non-financial corporations.

3.3. Assessment of macroprudential instruments

During its meeting of 14 December 2023, the National Bank of Romania informed the NCMO General Board on the results of the assessment of macroprudential instruments since their implementation in the national legislation to end-2023, as part of the macroprudential policy decision-making process in Romania.

The macroprudential policy conduct implemented at a national level was assessed considering two key features: the effectiveness and the efficiency of each of the three buffers (the countercyclical capital buffer – CCyB, the capital buffer for other systemically important institutions – O-SII buffer and the systemic risk buffer – SyRB)⁵⁹ within the scope and responsibility of the NCMO, in its capacity as the designated national authority for the banking sector. At the same time, these assessments were made in a European context, taking into account the experience of other Member States and the best practices in the field recommended by EU institutions.

The overall conclusions of the assessment revealed that capital buffers helped improve credit institutions' prudential indicators and increase banking sector resilience, in line with the European approaches.

Keeping the CCyB rate at zero percent in the pre-pandemic period was substantiated by the absence of excessive credit growth which could have entailed cyclical risks, as well as by Romania's lowest financial intermediation among EU countries. Although the CCyB was not increased during that period, in order to prevent an excessive rise in indebtedness and the deterioration of the loan portfolio quality, the National Bank of Romania adopted other prudential measures, such as those targeting borrowers, i.e. caps on LTV and DSTI.

A paradigm shift in CCyB usability was triggered by the outbreak of the COVID-19 pandemic. In order to prevent banks' pro-cyclical behaviour, in 2020 H1 most Member States that had activated the CCyB at rates above zero took measures to release it partially or fully, while other Member States cancelled the buffer increase scheduled for that year. In line with EU policies, the NCMO maintained the buffer rate at zero percent and the NBR encouraged banks to make use of the flexible legal framework for capital buffers⁶⁰.

⁵⁹ The capital conservation buffer was not independently included in the assessment, as it is applied evenly in the EU at a rate of 2.5 percent as of 1 January 2019, according to the EU regulatory framework CRD IV/V.

⁶⁰ The decision was made public via the NBR Supervisory Committee's press release of 24 March 2020.

The discussions at European level emphasize more and more the need for the authorities to act in a precautionary manner, by setting up capital reserves in advance. In this respect, the strengthening of the macroprudential policy in Romania via CCyB rate increases, initially to 0.5 percent as of 17 October 2022 and, subsequently, to 1 percent starting 23 October 2023, took into account the two objectives of the buffer: the slowdown in the fast-paced credit growth and the build-up of additional capital buffers in a period of upturn for the banking sector. However, since the implementation of measures to raise the CCyB rate, no shocks have been manifest to make necessary the reduction or release of the buffer. Therefore, it is difficult to assess the effectiveness of this macroprudential instrument.

The O-SII buffer was introduced in Romania in 2016, having the following main objectives: (i) enhance the loss-absorption capacity of systemically important institutions with a view to mitigating the systemic risk generated by the size of these institutions in relation to the domestic banking market, (ii) lower the likelihood of financial difficulties for systemic banks, (iii) soften the potential impact that systemic banks might face in the event of financial stress episodes, (iv) build up capital reserves which help the continued financial intermediation during the downturn of business and financial cycles and (v) correct the advantages of “too big to fail” institutions as a result of implicit government guarantees, which will ensure a level playing field in the market for all credit institutions. After the CRD V was fully transposed into national legislation in 2022, a new methodology for calibrating the O-SII buffer was implemented, based on the systemic importance of each credit institution (the score determined after calculating the mandatory indicators recommended by the EBA guidelines)⁶¹. This new calibration methodology ensures greater predictability of capital planning.

As regards the efficiency and effectiveness of imposing an O-SII buffer, the effects are rather difficult to assess over a short time horizon, but designating credit institutions as systemically important may have an indirect impact on issues such as: increased attention to microprudential supervision and the establishment of resolution framework requirements, improved perception by the general public as well as by other international institutions or bodies, with potential effects on business conduct, etc. In addition, the analysis of indicators relevant to criteria such as (i) solvency, (ii) credit risk and asset quality, (iii) profitability and (iv) financing and liquidity, as compared to the EBA-recommended prudential ranges, shows a steady migration trend to the green area of these ranges for both banks and systemically important institutions. This indicates a correct stance of the macroprudential and supervision policies pursued (Table 3.8).

The systemic risk buffer (SyRB) was introduced in the EU legislation as a flexible instrument, in order to address risks that are not covered by other capital buffers. Setting a systemic risk buffer to address the financial stability risk stemming from non-performing loans was

⁶¹ The scores obtained by credit institutions are divided into six equal 500-basis point buckets, each area being assigned O-SII buffer values in ascending order based on systemic importance, in equal increments of 0.5 percentage points (from 0.5 percent to 3 percent).

a one-off event in the European context, the other Member States that chose to apply this instrument selecting different indicators and risks for SyRB calibration, in line with the vulnerabilities identified in their national financial sectors.

Table 3.8. Indicators on the financial and prudential performance of O-SIIs and their classification in the EBA-defined prudential ranges

Criterion	Indicator	O-SII/ Sector	O-SII/ Sector							EBA-defined prudential range
			Dec.17	Dec.18	Dec.19	Dec.20	Dec.21	Dec.22	Dec.23	
Solvency	Tier 1 capital ratio	O-SII average	17.6%	18.3%	19.9%	23.5%	19.7%	20.4%	20.1%	> 15%
		Banking sector	18.0%	18.6%	20.0%	23.2%	20.9%	20.5%	19.6%	[12%-15%] <12%
	Common Equity Tier 1 capital ratio	O-SII average	17.6%	18.3%	19.8%	23.4%	19.6%	19.8%	18.8%	> 14%
		Banking sector	18.0%	18.6%	19.9%	23.1%	20.8%	20.0%	19.1%	[11%-14%] <11%
Credit risk and asset quality	Non-performing loan ratio	O-SII average	6.3%	4.8%	4.0%	3.8%	3.4%	2.7%	2.3%	<3%
		Banking sector	6.4%	5.0%	4.1%	3.8%	3.4%	2.7%	2.3%	[3%-8%] >8%
	Non-performing loan coverage by provisions	O-SII average	60.0%	60.7%	62.7%	64.5%	66.6%	65.7%	65.4%	>55%
		Banking sector	57.7%	58.5%	60.7%	63.3%	66.1%	65.5%	65.5%	[40%-55%] <40%
Profitability	ROE	O-SII average	13.3%	15.5%	12.2%	9.8%	13.1%	16.1%	20.0%	> 10%
		Banking sector	12.5%	14.6%	12.2%	8.7%	13.3%	16.4%	20.4%	[6%-10%] <6%
	Cost-to-income ratio	O-SII average	51.8%	50.3%	51.8%	51.2%	52.3%	51.3%	46.3%	<50%
		Banking sector	55.1%	53.2%	54.3%	53.8%	53.9%	52.1%	47.6%	[50%-60%] >60%
Financing and liquidity	Loan-to-deposit ratio for households and non-financial corporations	O-SII average	70.9%	69.9%	67.2%	60.2%	61.7%	63.8%	59.4%	<100%
		Banking sector	73.2%	71.9%	69.5%	63.6%	64.0%	65.7%	61.1%	[100%-150%] >150%

Source: NBR, prudential data

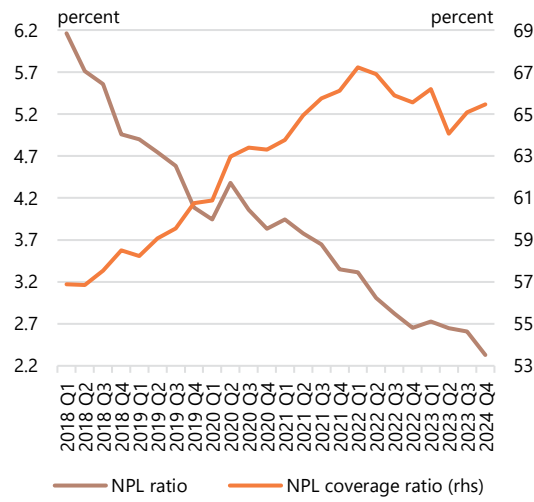
The SyRB effectiveness in relation to non-performing loans (NPLs) can be gauged by assessing the extent to which the objectives envisaged in SyRB calibration were achieved, by approaching the issue of non-performing loans in balance sheets of credit institutions in Romania and by strengthening the resilience of the domestic banking sector, as a result of the build-up of additional capital reserves likely to support further financial intermediation should the identified risks and vulnerabilities materialise.

The systemic risk buffer is a coercive factor for the Romanian banks as it establishes a higher capital requirement for the banks with a larger share of non-performing loans or a small coverage ratio. Six years after its first application, the evolution of the two indicators used to determine the SyRB rate was seen as positive. The non-performing loan ratio has remained on a downward trend, dropping 3.8 percentage points in December 2023, compared to the fall recorded in March 2018. As for the NPL coverage by provisions,

it followed an upward trend until 2022 Q1, reaching a 67.22 percent peak before seeing a slight trend reversal and, thus, standing at 65.45 percent in 2023 Q4 (Chart 3.24).

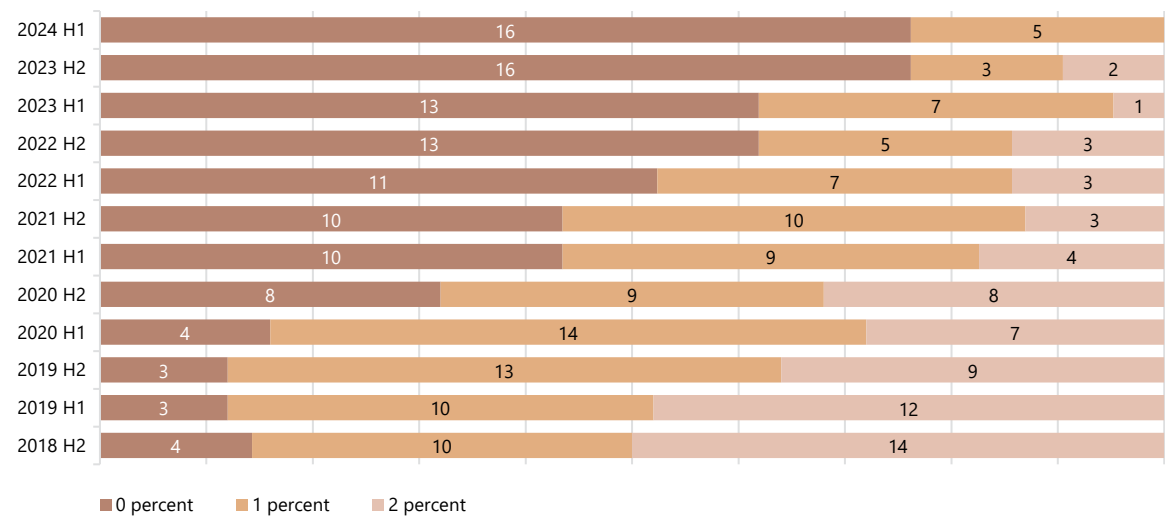
Due to the gradual improvement of the two indicators, starting in 2024 H1 there were no longer any credit institutions in Romania to apply a SyRB rate of 2 percent, their number declining steadily from 14 banks in 2018 H2. (Chart 3.25). This shows the effectiveness of this macroprudential measure implemented in Romania.

Chart 3.24. Developments in the NPL ratio and the NPL coverage ratio in Romania



Source: NBR

Chart 3.25. Breakdown of credit institutions by SyRB rate



Source: NBR

4. Implementation of macroprudential policy

In accordance with the provisions of Art. 1 para. (2) of Law No. 12/2017 on the macroprudential oversight of the national financial system, the National Committee for Macroprudential Oversight is mandated to ensure coordination in the field of macroprudential oversight of the national financial system by setting the macroprudential policy and the appropriate instruments for its implementation. In order to implement the measures necessary for preventing and mitigating systemic risks at a national level, pursuant to the provisions of Art. 4 para. (1) letters a) and b) of Law No. 12/2017, the NCMO is empowered to: (a) issue recommendations and warnings to the National Bank of Romania and the Financial Supervisory Authority, in their capacity of national financial supervisory authorities at a sectoral level; (b) issue recommendations to the Government for the purpose of safeguarding financial stability.

In Romania, the NCMO was established as an interinstitutional cooperation structure without legal personality and, in this context, the recommendations issued by its General Board are implemented by member authorities (National Bank of Romania, Financial Supervisory Authority, the Government), which are the recipients of the NCMO recommendations. In accordance with the provisions of Art. 4 para. (2) of Law No. 12/2017, the recipients of the NCMO recommendations or warnings may adopt the appropriate measures, including the issuance of regulations in order to observe the recommendations or, where appropriate, may take action to mitigate the risks they were warned about. The recipients shall inform the NCMO of the measures adopted or, in cases where they have not taken such measures, they should provide adequate justification for any inaction. The NCMO General Board has the power to monitor the measures taken by the recipients following the warnings and recommendations issued by the NCMO, based on the information provided by authorities. The analyses regarding the manner of implementation of NCMO recommendations are carried out on a yearly basis.

In the period from January to December 2023, the NCMO issued five recommendations, as follows:

- in its meeting of 23 March 2023 – NCMO Recommendation No. R/1/2023 on the countercyclical capital buffer in Romania;
- in its meeting of 20 June 2023 – NCMO Recommendation No. R/2/2023 on the countercyclical capital buffer in Romania;
- in its meeting of 19 October 2023 – NCMO Recommendation No. R/3/2023 on the countercyclical capital buffer in Romania; NCMO Recommendation No. R/4/2023 on the capital buffer for other systemically important institutions in Romania;

- ➔ in its meeting of 14 December 2023 – NCMO Recommendation No. R/5/2023 on the countercyclical capital buffer in Romania.

The implementation progress made by the recipients of NCMO recommendations issued from January to December 2023, as well as in the previous period, which were not completed or which are applicable on a permanent basis, is as follows:

- (i) six recommendations were implemented by the recipient authorities: NCMO Recommendation No. R/5/2021 for the implementation of Recommendation ESRB/2020/12 on identifying legal entities; NCMO Recommendation No. R/1/2023 on the countercyclical capital buffer in Romania; NCMO Recommendation No. R/2/2023 on the countercyclical capital buffer in Romania; NCMO Recommendation No. R/3/2023 on the countercyclical capital buffer in Romania; NCMO Recommendation No. R/4/2023 on the capital buffer for other systemically important institutions in Romania; NCMO Recommendation No. R/5/2023 on the countercyclical capital buffer in Romania;
- (ii) four recommendations are currently being implemented:
 - a) NCMO Recommendation No. 3 of 14 June 2017 on enhancing statistical information required for the analyses on the real estate market – the ESRB issued Recommendation of 21 March 2019 amending Recommendation ESRB/2016/14 on closing real estate data gaps (ESRB/2019/3), which sets forth new deadlines for submitting to the ESRB the reports on the availability of indicators. Thus, the national macroprudential authorities shall deliver their final reports regarding subrecommendation D by 31 December 2025 (if the information referred to in point (a) of recommendation D(2) is not available by 31 December 2021). In December 2022, Recommendation ESRB/2022/9 on vulnerabilities in the commercial real estate sector in the European Economic Area was issued, comprising four subrecommendations (A-D), with the scope and frequency of monitoring adjusted so that recipients have more time to implement recommendations, as follows: (i) Recommendation A on improving the monitoring of systemic risks stemming from the CRE market – deadline: 31 March 2024 and 31 March 2026; (ii) Recommendation B on ensuring sound CRE financing practices – deadline: 31 March 2026; (iii) Recommendation C on increasing resilience of financial institutions – deadline: 31 March 2026; (iv) Recommendation D on the development of activity-based tools for CRE in the Union – deadline: 31 December 2026;
 - b) NCMO Recommendation No. R/6/2020 on addressing vulnerabilities from the widening of the agri-food trade deficit – most of the measures which are the government’s responsibility, namely those for implementing a strategy in agriculture have an implementation period of 1-3 years, whereas the measure regarding the implementation of an industrial policy for the food sector that should lead to the better fulfilment of the government’s role in underpinning the agri-food sector has an implementation period of 3-5 years. Moreover, the NBR’s responsibilities to review, at least once every two years, the methodology for identifying the firms that could be viewed as potential national champions in

- the agri-food sector and to disseminate additional statistical data for improving agri-food firms' access to finance have a regular implementation period starting December 2020. Thus, the tasks deriving from the aforementioned subrecommendations become permanent;
- c) NCMO Recommendation No. R/6/2021 on supporting green finance – some of the subrecommendations were completed, while the rest are in different stages of implementation;
 - d) NCMO Recommendation No. R/3/2022 on the sustainable increase in financial intermediation – some of the subrecommendations were completed, while the rest are in different stages of implementation;
- (iii) three recommendations are applicable on a permanent basis, requiring recipients to carry out analyses on a regular basis. All three recommendations in this category (NCMO Recommendation No. 2 of 14 June 2017 on material third countries for the Romanian banking sector in terms of recognising and setting countercyclical buffer rates, NCMO Recommendation No. 10 of 18 December 2017 on the impact of credit institutions' funding plans on the flow of credit to the real economy, NCMO Recommendation No. R/4/2018 on implementing macroprudential instruments for achieving the intermediate objectives included in the Overall Macroprudential Strategy Framework of the National Committee for Macroprudential Oversight) were implemented by the recipients via the analyses made in 2017, 2018, 2019, 2020, 2021, 2022 and 2023, which were reviewed by the NCMO General Board.

As for the NCMO recommendations that are currently being implemented, it should be noted that the implementation deadlines for some subrecommendations are overdue, which prompts the recipient authorities to make greater efforts to complete their implementation.

Further details on the measures adopted by recipients to implement the NCMO recommendations issued in 2023, as well as those that are applicable on a permanent basis and those whose implementation is completed are disclosed in the Annex.

As regards the recommendations that are currently under implementation, the details concerning the measures adopted so far by the recipient authorities are published on the NCMO website, in the section entitled Macroprudential Policy/Actions taken by recipients in order to implement the NCMO recommendations/Stages of implementation of NCMO recommendations – 2023.

At the same time, in order to fulfil the tasks under Art. 3, para. (4) of Law No. 12/2017 on the macroprudential oversight of the national financial system, the NCMO shall monitor the compliance and, where appropriate, the adoption of necessary measures for the implementation of recommendations issued by European macroprudential authorities. Further details on the assessment of compliance with ESRB recommendations at national level in comparison with other European states are presented in Box G.

Box G. Assessment of the implementation of the recommendation

According to its tasks, the ESRB may issue recommendations to EU Member States in response to identified risks and vulnerabilities. Thus, since its establishment, the ESRB has issued a number of recommendations addressing different systemic risks, ranging from vulnerabilities in the real estate sector to cyber risks. These recommendations may be addressed to the European Union as a whole or to individual Member States, the European Commission, the European Supervisory Authorities or national authorities. Recipients of recommendations shall report to the ESRB and the European Council the actions taken in response to the recommendation or shall provide adequate justification for any inaction via the “act or explain” mechanism.

The data processed from the compliance reports published by the ESRB show that the vast majority of countries comply with ESRB recommendations. Moreover, Romania has the highest assessment grade (fully compliant) on all recommendations.

At European level, the Recommendation of the European Systemic Risk Board amending Recommendation ESRB/2016/14 on closing real estate data gaps (15 countries) has the most fully compliant grades. This recommendation aims to help monitor and compare developments in the real estate sector by collecting, distributing and harmonising country data regarding the real estate market. The European real estate sector remains one of the most important sources of potential systemic risk, particularly for Western European economies. However, only four countries were assessed as partially compliant, whereas the vast majority were either fully compliant or largely compliant.

Table G.1. Compliance grades of Member States and recipient authorities – part I

Country	Recommendation							
	ESRB/2020/15		ESRB/2020/8		ESRB/2020/6			Subrecommendation D(1)
	The first implementation deadline of the Recommendation	The second implementation deadline of the Recommendation	Recommendation A	Recommendation B	Subrecommendations addressed to central counterparties	Subrecommendations addressed to clearing members	Subrecommendations addressed to counterparties	
Austria	MA+Ot	MA			MA	MA	MA	MA
Belgium	CB+Ot	CB			CB+Ot	CB+Ot	CB+Ot	CB+Ot
Bulgaria	CB+Ot	CB+Ot			Ot	CB+Ot	CB+Ot	CB+Ot
Czechia	CB	CB			CB	CB	CB	CB
Cyprus	Ot+CB+Ot	Ot+CB+Ot			Ot	Ot+Ot+Ot+Ot	Ot+Ot+Ot+Ot	Ot+Ot+CB
Croatia	CB+Ot	CB+Ot			CB	CB+Ot	Ot+CB	CB+Ot

Country	Recommendation							
	ESRB/2020/15		ESRB/2020/8		ESRB/2020/6			Subrecommendation D(1)
	The first implementation deadline of the Recommendation	The second implementation deadline of the Recommendation	Recommendation A	Recommendation B	Subrecommendations addressed to central counterparties	Subrecommendations addressed to clearing members	Subrecommendations addressed to counterparties	
Denmark	MA+Ot	Ot+MA			MA	MA	MA	MA
Estonia	CB+Ot	Ot			Ot	Ot	Ot	CB
Finland	MA	MA			MA+Ot	MA+Ot	MA+Ot	MA+Ot
France	MA+Ot	Ot			Ot+Ot+Ot	Ot+Ot	Ot+Ot	Ot+Ot+Ot
Germany	MA+Ot	MA			MA	MA+Ot	MA+Ot	MA+Ot
Greece	CB+Ot	CB+Ot			Ot	CB+Ot	CB+Ot	CB+Ot
Italy	Ot+CB+Ot	CB+Ot			CB+Ot	CB+Ot+ +Ot+Ot	Ot+CB+ +Ot+Ot	CB+Ot+ +Ot+Ot
Ireland	CB	CB			CB	CB+Ot	CB+Ot	CB+Ot
Island	CB	CB			Ot	CB+Ot	CB+Ot	Ot
Latvia	CB+MA	CB+MA			MA	Ot	Ot	MA
Liechtenstein	MA+Ot	MA			MA	MA	MA	MA
Lithuania	CB	CB			CB	CB	CB	CB
Luxembourg	MA+Ot+Ot	MA+Ot+Ot			MA+Ot	MA+Ot	MA+Ot	MA+Ot
Malta	CB+Ot	Ot			Ot	Ot	Ot	Ot
Norway	MA+CB+Ot	MA+Ot			Ot	Ot	Ot	MA
Netherlands	CB	CB			CB+Ot	CB+Ot	CB+Ot	CB+Ot
Poland	MA+Ot	MA			MA	MA	MA	MA
Portugal	CB+Ot+Ot	CB+Ot			Ot	CB+Ot+ +Ot+Ot	CB+Ot+ +Ot+Ot	CB+Ot+Ot
Romania	CB+MA+Ot	CB+MA+Ot			Ot	CB+Ot	CB+Ot	CB+Ot
Slovenia	Ot+CB+Ot	CB			Ot	Ot+CB+Ot	CB+Ot+Ot	Ot+CB+Ot
Slovakia	CB	CB			CB	CB	CB	CB+Ot
Sweden	MA	MA			MA	MA+Ot	MA+Ot	MA+Ot
Spain	CB+MA+ +Ot+Ot	CB+MA+ +Ot+Ot			Ot	CB+Ot+Ot	Ot+CB+Ot	CB+MA
Hungary	CB	CB			CB	CB	CB	CB

Source: ESRB

Legend

CB = central bank
MA = macroprudential authority
Ot = others

Fully compliant
 Largely compliant
 Partially compliant
 Sufficiently explained
 Non-compliant

- Recommendation ESRB/2020/15 amending Recommendation ESRB/2020/7 on restriction of distributions during the COVID-19 pandemic
- Recommendation ESRB/2020/8 on monitoring the financial stability implications of debt moratoria, and public guarantee schemes and other measures of a fiscal nature taken to protect the real economy in response to the COVID-19 pandemic
- Recommendation ESRB/2020/6 on liquidity risks arising from margin calls

Annex

The status of recommendations issued in 2023 by the National Committee for Macroprudential Oversight and of those that are applicable on a permanent basis and fully implemented

NCMO recommendation	Recipient	Manner of implementation of the recommendation*
<p>NCMO Recommendation No. R/2 of 14 June 2017 on material third countries for the Romanian banking sector in terms of recognising and setting countercyclical buffer rates (permanent basis)</p>	<p>NBR</p>	<p>The recommendation was implemented based on the NBR's regular assessments that were reviewed and decided upon by the NCMO General Board, resulting in the adoption of the following: (i) NCMO Decision No. D/8/2018 on identifying material third countries for the Romanian banking sector in terms of recognising and setting countercyclical buffer rates; (ii) NCMO Decision No. D/2/2019 on identifying material third countries for the Romanian banking sector in terms of recognising and setting countercyclical buffer rates; (iii) NCMO Decision No. D/3/2020 on the assessment of materiality of third countries for the Romanian banking sector in relation to the recognition and setting of countercyclical buffer rates; (iv) NCMO Decision No. D/5/2021 on the assessment of materiality of third countries for the Romanian banking sector in relation to the recognition and setting of countercyclical buffer rates; (v) NCMO Decision No. D/5/2022 on the assessment of materiality of third countries for the Romanian banking sector in relation to the recognition and setting of countercyclical buffer rates. According to the above-mentioned decisions, for 2018, 2019, 2020, 2021 and 2022, no material third countries were identified for the banking sector in Romania in terms of recognising and setting countercyclical buffer rates. In 2023, based on the assessment carried out by the NBR, NCMO Decision No. D/2/2023 on the assessment of materiality of third countries for the Romanian banking sector in relation to the recognition and setting of countercyclical buffer rates was issued, stating that for 2023 the Republic of Moldova is a material third country for the banking sector in Romania in terms of recognising and setting countercyclical buffer rates.</p>
<p>NCMO Recommendation No. R/10 of 18 December 2017 on the impact of credit institutions' funding plans on the flow of credit to the real economy (permanent basis)</p>	<p>NBR</p>	<p>The recommendation was implemented through the assessments made in 2018 (based on the reports with the reference date of 31 December 2017), in 2019 (based on the reports with the reference date of 31 December 2018), in 2020 (based on the reports with the reference date of 31 December 2019), in 2021 (based on the reports with the reference date of 31 December 2020), in 2022 (based on the reports with the reference date of 31 December 2021), and in 2023 (based on the reports with the reference date of 31 December 2022) on the impact of credit institutions' funding plans on the flow of credit to the real sector, also in terms of macroprudential policy, which were submitted in the course of the NCMO General Board meetings. The analyses showed the projected developments in credit to the real sector (for both non-financial corporations and households) and the level of financial intermediation, the total debt-to-GDP ratio, the dynamics of the funding and liquidity profile of credit institutions, and the impact of credit institutions' funding plans on solvency and profitability ratios.</p>

NCMO recommendation	Recipient	Manner of implementation of the recommendation*
<p>NCMO Recommendation No. R/4/2018 on implementing macroprudential instruments for achieving the intermediate objectives included in the Overall Macroprudential Strategy Framework of the National Committee for Macroprudential Oversight (permanent basis)</p>	<p>NBR, FSA</p>	<p>The NBR makes regular assessments of the risks and vulnerabilities in the financial system and the real economy, as well as of the appropriateness of implementing/recalibrating/deactivating macroprudential instruments, which are presented to the NCMO General Board for review and decision. To date, the NBR has implemented the following macroprudential instruments: the capital conservation buffer; the countercyclical capital buffer (CCyB); the buffer for other systemically important institutions (O-SII buffer); the systemic risk buffer (SyRB); requirements for the loan-to-value ratio (LTV); requirements for the debt service-to-income ratio (DSTI). The FSA makes regular assessments of the risks and vulnerabilities identified in the three non-bank financial markets under its supervision, as well as of the appropriateness of implementing the existing macroprudential instruments. To date, the following macroprudential policy measures have been implemented:</p> <ul style="list-style-type: none"> (i) for insurance companies: the liquidity indicator of insurance companies; the recovery plan; the Insurance Guarantee Fund; (ii) for the private pension market, in 2017-2022 the FSA kept in place the macroprudential instrument setting limits to significant exposures; (iii) for private pension fund managers: limit the exposure to an issuer to 5 percent of net assets; the exposure to a group of issuers and their affiliates may not exceed 10 percent of the private pension fund's assets; (iv) for all entities under its supervision, the FSA applies IT system security requirements. <p>The prudential regime set forth by the IFD/IFR legislative package (Regulation (EU) 2019/2033 and Directive (EU) 2019/2034) no longer imposes capital buffers for investment firms. Capital buffers apply only to companies subject to supervision, according to the provisions of Directive 2013/36/EU, and which meet the following conditions:</p> <ul style="list-style-type: none"> (a) the total value of the consolidated assets of the investment firm is equal to or exceeds EUR 15 billion, calculated as an average of the preceding 12 months, less the individual assets of any non-EU subsidiary carrying out any of the activities referred to in this paragraph; (b) the total value of the consolidated assets of the investment firm is less than EUR 15 billion, and the investment firm is part of a group in which the total value of the consolidated assets of all undertakings in the group that individually have assets of less than EUR 15 billion and carry out any of the activities referred to in points (3) and (6) of Section A of Annex I to Directive 2014/65/EU is equal to or exceeds EUR 15 billion, all calculated as an average of the preceding 12 months, less the individual assets of any non-EU subsidiary carrying out any of the activities referred to in this paragraph; or (c) the investment firm is subject to a decision of the competent authority in accordance with Article 5 of Directive (EU) 2019/2034.

NCMO recommendation	Recipient	Manner of implementation of the recommendation*
<p>NCMO Recommendation No. R/5/2021 for the implementation of Recommendation ESRB/2020/12 on identifying legal entities</p>	<p>NBR, FSA</p>	<p>According to the most recent assessment, no financial investment services companies were identified that meet any of the three above-mentioned criteria.</p> <p>The recommendation was implemented by the recipients. National Bank of Romania (NBR) In order for the NBR to implement NCMO Recommendation No. R/5/2021 for the implementation of Recommendation ESRB/2020/12 on identifying legal entities, the NBR Board approved the guidelines for implementing each point of the ESRB and NCMO recommendations at NBR level. The NBR adopted the following measures:</p> <ol style="list-style-type: none"> 1) On 30 August 2021, the NBR published on its website a Communication regarding Recommendation No. R/5/2021 for the implementation of the Recommendation ESRB/2020/12 on identifying legal entities https://www.bnro.ro/page.aspx?prid=19817, pointing out that, in view of the benefits related to ensuring financial stability, monitoring systemic risks and contagion phenomena, preventing and combating money laundering, which can help strengthen the prerequisites for preserving a healthy and robust financial-banking system, the National Bank of Romania recommends institutions under its supervisory remit (credit institutions, electronic money institutions, payment institutions and non-bank financial institutions) to adopt a LEI code, which can be a very useful tool for carrying out the aforementioned activities, by integrating existing databases or developing new databases. In the case of credit institutions set up in the form of credit cooperative organisations, the recommendation is addressed in particular to the central body. 2) The NBR finalised and published in the October 2022 edition of <i>Monitorul Oficial al României</i> two regulations amending some legal acts, in order to include in their provisions/the reporting templates the LEI of the reporting entity, if applicable, and, respectively, the LEI of any other legal entity on which information shall be reported and which has a LEI code, as follows: <ol style="list-style-type: none"> (i) NBR Regulation No. 11/2022 amending and supplementing some legal acts issued by the National Bank of Romania, published in <i>Monitorul Oficial al României</i>, Part I, No. 1036 of 25 October 2022, aimed at including the LEI among the data for identifying legal entities, whereby the following are amended: NBR Order No. 9/2017, NBR Order No. 10/2017, NBR Order No. 18/2007, NBR Regulation No. 4/2019, NBR Regulation No. 5/2019, NBR Regulation No. 20/2009, NBR Regulation No. 2/2019; NBR Regulation No. 17/2012, NBR Regulation No. 5/2013, NBR Regulation No. 12/2020, NBR Order No. 8/2014, NBR Order No. 9/2014, NBR Order No. 2/2014, and NBR Order No. 2/2022; (ii) NBR Order No. 5/2022 amending and supplementing some legal acts issued by the National Bank of Romania, published in <i>Monitorul Oficial al României</i>, Part I, No. 1005

NCMO recommendation	Recipient	Manner of implementation of the recommendation*
		<p>of 18 October 2022, aimed at including the LEI among the data for identifying legal entities, whereby the following are amended: NBR Order No. 27/2010, NBR Order No. 6/2015, NBR Order No. 10/2012, and NBR Order No. 2/2020.</p> <p>3) The LEI was included in the reports to be submitted by the reporting institutions to the Central Credit Register (CCR). The measure was implemented via the entry into force of NBR Regulation No. 7/12 April 2022 amending and supplementing NBR Regulation No. 2/2012 on the organisation and functioning of the Central Credit Register operated by the National Bank of Romania (published in Monitorul Oficial al României, Part I, No. 390/21 April 2022), which provides for: (i) the communication of the LEI by the reporting institutions to the CCR, (ii) the introduction of indicators required by NCMO Recommendation No. R/6/2021 on supporting green finance, alongside (iii) the real estate market indicators set forth in Recommendations ESRB/2016/14 and ESRB/2019/3. The CCR's software application was amended and adapted in line with the new reporting requirements.</p> <p>4) The NBR took steps to amend the public registers (Credit Institutions Register, Payment Institutions Register, Register of Electronic Money Institutions, Register of Non-Bank Financial Institutions – the General Register and the Special Register) that list the financial institutions monitored or prudentially supervised by the central bank, by adding information on the LEI (if available). Public registers were updated by including a LEI column and released as follows: Credit Institutions Register in October 2022, Payment Institutions Register and the Register of Electronic Money Institutions in January 2023, and the General Register and the Special Register of Non-Bank Financial Institutions in May 2023.</p> <p>Moreover, the references in Regulation No. 2/2019 on anti-money laundering and countering the financing of terrorism to the new legislative framework were updated (according to the recommendation made by the Legal Department via Letter No. XX/1/3/6074/5 October 2021) and the structure of NBFIs registers (the General Register, the Special Register and the Entry Register) was laid down in Regulation No. 20/2009, in order to ensure a regulatory framework that is consistent with that in place for the other financial institutions within the central bank's remit.</p> <p>The NBR submitted to the ESRB, within the required deadline, the Form on the implementation of Recommendation B – Use of the legal entity identifier until the possible introduction of Union legislation as included in Recommendation ESRB/2020/12 on identifying legal entities, filled in accordingly by the Regulation and Licensing Department.</p> <p>Financial Supervisory Authority (FSA)</p> <p>The Financial Supervisory Authority has supported supervised entities in extensively using these standardised codes ever since their introduction. In the capital market, all European legislative packages that impose reporting obligations, such as MAR, MiFID II,</p>

NCMO recommendation	Recipient	Manner of implementation of the recommendation*
		<p>MiFIR, EMIR, SFTR, MMFR, AIFMD, UCITS, etc., require using the LEI as an identifier.</p> <p>In the insurance market, all insurance companies use the LEI.</p> <p>In the private pension system, both managers and private pension funds are registered with LEI codes. The Romanian entity in charge of issuing LEI is the Central Depository.</p> <p>The FSA submitted to the ESRB, within the required deadline, the Form on the implementation of Recommendation B – Use of the legal entity identifier until the possible introduction of Union legislation as included in Recommendation ESRB/2020/12 on identifying legal entities.</p>
<p>NCMO Recommendation No. R/1/2023 on the countercyclical capital buffer in Romania</p>	<p>NBR</p>	<p>The NBR implemented NCMO recommendation on maintaining the countercyclical capital buffer (CCyB) rate at 1 percent as of 23 October 2023 by issuing NBR Order No. 7/2022 amending NBR Order No. 12/2015 on the capital conservation buffer and the countercyclical capital buffer (published in <i>Monitorul Oficial al României</i>, Part I, No. 1187/12 December 2022).</p>
<p>NCMO Recommendation No. R/2/2023 on the countercyclical capital buffer in Romania</p>	<p>NBR</p>	<p>The NBR implemented NCMO recommendation on maintaining the countercyclical capital buffer (CCyB) rate at 1 percent as of 23 October 2023 by issuing NBR Order No. 7/2022 amending NBR Order No. 12/2015 on the capital conservation buffer and the countercyclical capital buffer (published in <i>Monitorul Oficial al României</i>, Part I, No. 1187/12 December 2022).</p>
<p>NCMO Recommendation No. R/3/2023 on the countercyclical capital buffer in Romania</p>	<p>NBR</p>	<p>The NBR implemented NCMO recommendation on maintaining the countercyclical capital buffer (CCyB) rate at 1 percent as of 23 October 2023 by issuing NBR Order No. 7/2022 amending NBR Order No. 12/2015 on the capital conservation buffer and the countercyclical capital buffer (published in <i>Monitorul Oficial al României</i>, Part I, No. 1187/12 December 2022).</p>
<p>Recommendation NCMO No. R/4/2023 on the capital buffer for other systemically important institutions in Romania</p>	<p>NBR</p>	<p>The NBR implemented NCMO recommendation by issuing Order No. 9/2023 on the buffer for credit institutions authorised in Romania and identified as other systemically important institutions (O-SIIs), published in <i>Monitorul Oficial al României</i>, Part I, No. 1177/27 December 2022.</p>
<p>NCMO Recommendation No. R/5/2023 on the countercyclical capital buffer in Romania</p>	<p>NBR</p>	<p>The NBR implemented NCMO recommendation on maintaining the countercyclical buffer (CCyB) rate at 1 percent as of 23 October 2023 by issuing NBR Order No. 7/2022 amending NBR Order No. 12/2015 on the capital conservation buffer and the countercyclical capital buffer (published in <i>Monitorul Oficial al României</i>, Part I, No. 1187 of 12 December 2022).</p>

*) The "Manner of implementation of the recommendation" section includes the contributions submitted by the recipient authorities in accordance with the NCMO recommendations.

Abbreviations

BSE	Bucharest Stock Exchange
CCoB	Capital Conservation Buffer
CCR	Central Credit Register
CCyB	Contercyclical Capital Buffer
CLIFS	Country-Level Index of Financial Stress
COREP	Common Reporting Framework
CRD	Capital Requirements Directive
CRR	Capital Requirements Regulation
DSTI	debt-service-to-income
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
EEA	European Economic Area
ESRB	European Systemic Risk Board
EU	European Union
Eurostat	Statistical Office of the European Communities
FDI	Foreign direct investment
FSA	Financial Supervisory Authority
GDP	Gross domestic product
GEO	Government Emergency Ordinance
G-SII	Global Systemically Important Institutions
IFRS	International Financial Reporting Standards
IMF	International Monetary Fund
IRB	Internal Rating Based approach
LCR	Liquidity coverage ratio
LTV	Loan to value
MF	Ministry of Finance
NBFI	Non-bank financial institution
NBR	National Bank of Romania
NCMO	National Committee for Macroprudential Oversight
NIS	National Institute of Statistics
NPL	non-performing loans
O-SII	Other Systemically Important Institutions
ROA	return on assets
ROBOR	Romanian Interbank Offered Rate
ROE	return on equity
SMEs	Small and medium-sized enterprises
SyRB	Systemic Risk Buffer

List of tables

Box A

Table A.1	Improvements to the GaR approach	11
Table A.2	Improvements to the indicator-based approach	12
Table 2.1	Capital market yields	36
Table 3.1	Summary of macroprudential measures taken in 2023	43
Table 3.2	CCyB rates applicable in EEA countries at end-2023 and CCyB rates announced for 2024	49
Table 3.3	O-SII buffer calibration methodology based on the bucketing approach	64
Table 3.4	O-SIIs identified in 2024	65
Table 3.5	Key aspects of sSyRB calibration – end of 2023	72
Table 3.6	Calculation methodology of the systemic risk buffer	75
Table 3.7	Measures recommended for reciprocation in Recommendation ESRB/2015/2	77

Box E

Table E.1	Materiality thresholds proposed for the measures recommended for reciprocity in Recommendation ESRB/2015/2 in 2017-2023 and total exposures of the Romanian banking sector	82
Table E.2	Indicators for the spillover effects of macroprudential measures	86

Box F

Table F.1	Third countries identified by the ESRB as material for the EU banking sector	94
Table F.2	Macroeconomic and credit indicators used for the assessment	94
Table F.3	Components of the composite indicator	95
Table 3.8	Indicators on the financial and prudential performance of O-SIIs and their classification in the EBA-defined prudential ranges	101

Box G

Table G.1	Compliance grades of Member States and recipient authorities – part I	106
Table G.2	Compliance grades of Member States and recipient authorities – part II	108

List of figures

Figure 3.1	Variables recommended by the ESRB for calibrating the CCyB rate	45
Figure 3.2	Mechanism for setting and releasing the countercyclical capital buffer	46
Box C		
Figure C.1	Main arguments underpinning the decisions taken by national authorities to recalibrate the CCyB rate in 2023	52
Figure 3.3	Calendar for implementing the measures to raise the CCyB rate	53
Figure 3.4	Indicators used for SyRB calibration	70
Box E		
Figure E.1	The main transmission channels of cross-border spillover effects	84

List of charts

Chart 2.1	Risk aversion indicator (VSTOXX)	19
Chart 2.2	Economic growth worldwide, in the EU and emerging economies in Europe	19
Chart 2.3	Global public debt	20
Chart 2.4	Budget deficit	22
Chart 2.5	Current account deficit	22
Chart 2.6	Private sector indebtedness	23
Chart 2.7	Distribution of bank loans by firms' level of indebtedness	24
Chart 2.8	NPL ratio by currency and the median of the level of indebtedness for outstanding loans	25
Chart 2.9	Distribution of the level of indebtedness at origination for housing loans and NPL ratio, 2023	25
Chart 2.10	Total capital ratio and capital requirements	27
Chart 2.11	Results of the macroprudential stress test exercise (2023-2025)	27
Chart 2.12	Profitability, operational efficiency and capitalisation indicators	28
Chart 2.13	Deposits – composition and funding costs	30
Chart 2.14	Developments in excess deposits compared to loans and advances, and in liquidity indicators	31
Chart 2.15	Asset quality indicators	34

Chart 2.16	Country-Level Index of Financial Stress (CLIFS) in Austria, Bulgaria, Poland, Romania, Hungary	35
Chart 2.17	Volatility of BSE indices, GARCH model (1,1), Student-t distribution	37
Chart 2.18	Volume of gross premiums written in 2019-2023	39
Chart 2.19	Total assets of the private pension system	41
Chart 3.1	Number of countries applying a CCyB rate higher than 0 percent	48
Chart 3.2	CCyB rates in EEA countries at end-2016	48
Chart 3.3	CCyB rates in EEA countries announced for 2024-2025	48
Chart 3.4	Measures to increase the CCyB rate during 2023	49
Chart 3.5	Credit-to-GDP gap in Member States (2023 Q3)	50
Box C		
Chart C.1	Positive-cycle neutral CCyB rates in EEA countries at end-2023	51
Chart 3.6	Analysis of the countercyclical capital buffer in Romania (2000 Q4 – 2023 Q4), assuming a long financial cycle (Basel indicator)	54
Chart 3.7	Analysis of the countercyclical capital buffer in Romania (2000 Q4 – 2023 Q4), assuming a short financial cycle (alternative indicator)	54
Chart 3.8	Nominal annual growth in lending	55
Chart 3.9	Number of O-SIIs in EEA countries in 2023	59
Chart 3.10	Maximum O-SII buffer rate in EEA countries in 2023	59
Chart 3.11	Prudential and efficiency indicators of systemically important institutions (December 2023)	68
Chart 3.12	Annual growth rate of loans and advances granted to households and non-financial corporations by O-SIIs and non-O-SIIs	69
Chart 3.13	Current and pending SyRB and sSyRB rates across the EEA as at end-2023	73
Chart 3.14	Breakdown of EEA countries by the specifics of implementing the SyRB, end-2023	74
Chart 3.15	NPL ratio and NPL coverage ratio in EU countries (December 2023)	75
Chart 3.16	Breakdown of credit institutions from the perspective of the two indicators used to determine the SyRB rate in Romania	76
Chart 3.17	Share of Romanian banks' exposures to EU Member States	81

Chart 3.18	Exposures to the top five countries according to the standardised methodology as at December 2022 and the last 8-quarter average	91
Chart 3.19	Connection between banks in Romania and other countries via on-balance-sheet loans	92
Box F		
Chart F.1	Methodology for colour-coded risk matrices and hypothetical examples	95
Chart 3.20	Lending developments	97
Chart 3.21	Breakdown of credit by component	97
Chart 3.22	Contribution of assets to the annual increase (forecast)	98
Chart 3.23	Contribution of liabilities to the annual increase (forecast)	98
Chart 3.24	Developments in the NPL ratio and the NPL coverage ratio in Romania	102
Chart 3.25	Breakdown of credit institutions by SyRB rate	102

