

Pursuant to Article 28, paragraph 7 and Article 36 of the Law on Banks (RS Official Gazette, Nos 107/2005, 91/2010 and 14/2015) and Article 15, paragraph 1 of the Law on the National Bank of Serbia (RS Official Gazette, Nos 72/2003, 55/2004, 85/2005 – other law, 44/2010, 76/2012, 106/2012, 14/2015, 40/2015 – CC decision and 44/2018), the Executive Board of the National Bank of Serbia issues the following

DECISION ON THE MANAGEMENT OF INTEREST RATE RISK IN THE NON-TRADING BOOK

Chapter I INTRODUCTORY PROVISIONS

1. This Decision lays down the detailed conditions and methods for the identification, measurement and mitigation of interest rate risk in the non-trading book, as well as the management of such risk, and the identification, assessment and calculation of internal capital requirements based on the bank's exposure to this risk, as well as the identification, assessment and monitoring of credit spread risk in the non-trading book.

2. For the purposes of this Decision, the following terms shall have the following meanings:

1) *interest rate risk in the banking book* (IRRBB) means the risk of potential adverse effects on the financial results and capital of the bank arising from positions in the non-trading book due to changes in interest rates. IRRBB includes gap risk, basis risk, and option risk;

2) *gap risk* means the risk arising from the maturity structure of interest rate-sensitive instruments, and/or from differences in the periods of changes in their interest rates. This includes changes in interest rate levels that occur consistently across the yield curve (parallel risk) or differently across periods (non-parallel risk);

3) *basis risk* means the risk arising from the application of different benchmark interest rates for interest rate-sensitive instruments with similar maturities or similar times to the next interest rate change, and/or from the imperfect correlation of benchmark interest rates applied to these interest rate-sensitive instruments;

4) *option risk* means the risk arising from options (embedded and explicit), where the bank or another contracting party may alter the level and dynamics of cash flows, and/or the risk arising from interest rate-sensitive instruments where the option holder is almost certain to exercise the option if it is in their financial interest (embedded and explicit automatic options), as well as the risk arising from flexibility embedded in interest rate-sensitive

instruments or in the contractual terms of these instruments, such that changes in interest rates may influence the behaviour of the other contracting party (behavioural options);

5) *credit spread risk in the banking book (CSRBB)* means the risk arising from changes in the market price of credit risk (market credit spread), changes in the liquidity of the market for a specific instrument (market liquidity spread), and other potential characteristics of the instrument that give rise to credit risk, which is not already covered by other risk (e.g. the risk of sudden default). CSRBB is assessed under the assumption of the same level of creditworthiness (same credit rating or same probability of default);

6) *interest rate-sensitive instruments* means positions in assets and liabilities, as well as off-balance sheet items in the non-trading book that are sensitive to changes in interest rates (excluding assets representing deductions from Common Equity Tier 1 capital, except for deductions applied in cases of excessive credit exposure, excessive contractual maturity, excessive percentage of dinar loans indexed by an FX clause and FX loans in total loans granted to non-financial and non-governmental sector borrowers). Interest rate-sensitive instruments also include financial derivatives in the form of interest rate contracts within the meaning of the decision regulating the capital adequacy of banks, other financial derivatives whose value is sensitive to changes in interest rates, and trading book positions that meet the conditions for exemption from capital requirements for price risk under that decision (due to the participation of trading book positions in the total value of the bank's operations), unless the interest rate risk for these positions is already covered by another risk;

7) *credit spread-sensitive instruments* means positions in assets and liabilities, as well as off-balance sheet items in the non-trading book that are sensitive to changes in credit spreads (excluding assets representing deductions from Common Equity Tier 1 capital);

8) *net interest income measures* means measures of changes in expected future profitability over a specific period arising from changes in interest rates (in the case of IRRBB) or changes in credit spreads (in the case of CSRBB), including interest income and interest expenses;

9) *economic value measures* means measures of changes in the net present value of interest rate-sensitive instruments over their remaining life due to changes in interest rates (in the case of IRRBB), or changes in the net present value of credit spread-sensitive instruments over their remaining life due to changes in credit spreads (in the case of CSRBB);

10) *economic value of equity measures* means a specific form of economic value measures where capital is excluded from cash flows;

11) *IRRBB measures* means economic value measures and net interest income measures applied in the context of sensitivity to changes in interest rates;

12) *CSRBB measures* means economic value measures and net interest income measures applied in the context of sensitivity to changes in market credit spreads and/or market liquidity spreads;

13) *run-off balance sheet* means a balance sheet, including off-balance sheet items, where existing positions in the non-trading book are amortised (mature) and are not replaced by new positions;

14) *dynamic balance sheet* means a balance sheet, including off-balance sheet items, that incorporates future business expectations adjusted to an appropriate scenario;

15) *constant balance sheet* means a balance sheet, including off-balance sheet items, where the total amount and structure of the balance sheet are maintained by replacing cash flows that mature or have their interest rates changed with new cash flows of comparable characteristics in terms of the amount, margin, and time to maturity or time to the next interest rate reset;

16) *natural person* means a natural person, including a farmer and entrepreneur, and/or a small or medium-sized enterprise that meets the conditions for classification in the exposure class for natural persons under the decision regulating the capital adequacy of banks, provided that the total amount of deposits at the bank, at the group level to which the enterprise belongs, does not exceed RSD 120,000,000;

17) *large client* means a person that is not a natural person as defined in subparagraph 16) of this paragraph;

18) *financial sector entity* means a bank, investment company, securitisation company, open-end investment fund, closed-end investment fund, insurance undertaking, reinsurance undertaking, financial holding company, mixed financial holding company, and other legal person primarily engaged in financial activity domestically or abroad;

19) *significant currency* means a currency in which the total amount of assets in the non-trading book (excluding the amount relating to real estate, plant and equipment, as well as investment properties) or liabilities in the non-trading book in that currency constitutes:

– 5% or more of the total amount of assets or liabilities of the bank recorded in the non-trading book, or

– less than 5% of the total amount of assets or liabilities in the non-trading book if the sum of assets or liabilities in all currencies under the first subparagraph of this provision is less than 90% of the total assets or liabilities of the bank recorded in the non-trading book.

Any currency under paragraph 1, subparagraph 19), second indent, of this Section shall be considered a significant currency until the sum of assets or the sum of liabilities in all significant currencies reaches at least 90% of the total assets or total liabilities of the bank recorded in the non-trading book.

The bank may consider another currency that does not meet the conditions under paragraph 1, subparagraph 19) of this Section as significant.

Positions in dinars indexed to an FX clause shall, for the purposes of applying paragraph 1, subparagraph 19) of this Section, be treated as positions in the currency of indexation.

Chapter II MANAGEMENT OF IRRBB

3. The bank shall identify all forms and sources of IRRBB, ensure their monitoring, measurement, and control, manage risks arising from the bank's exposure to IRRBB that affect the bank's net interest income and the net present value of interest rate-sensitive instruments over their remaining life, and, where necessary, mitigate these risks.

4. The bank shall establish a comprehensive and reliable system for managing IRRBB that corresponds to the nature, scope, and complexity of the bank's operations, as well as its business model and risk profile.

Within the meaning of paragraph 1 of this Section, the system for managing IRRBB shall be considered comprehensive and reliable if the bank:

1) has adopted and consistently applies appropriate strategies, policies, and procedures for managing IRRBB, including its identification, measurement, and mitigation, as well as reporting on this risk (the strategy for managing IRRBB may be part of the overall risk management strategy of the bank);

2) has established an appropriate internal organisation, and/or an organisational structure with a clear division of tasks and duties among employees, preventing conflicts of interest and ensuring functional and organisational separation of the tasks of identifying, measuring, monitoring, and managing IRRBB from the tasks of taking on this risk;

3) has established and applies a system of limits that maintains an appropriate level of exposure to IRRBB in accordance with the bank's defined appetite and tolerance for this risk;

4) has established an appropriate information system;

5) has established a comprehensive and reliable system for reporting on this risk;

6) has established an adequate system of internal controls over the IRRBB management process.

5. The bank, and/or the banking holding company, shall ensure the establishment of systems and processes for managing IRRBB at the banking

group level, by means of appropriate application of the provisions of this Decision and in accordance with the decision regulating the consolidated supervision of banking groups.

1. IRRBB appetite and tolerance

6. The bank shall define its appetite for taking on IRRBB in its risk management strategy, reflecting the level of this risk that the bank intends to take on to achieve its strategies and policies, and shall determine its tolerance for IRRBB as the maximum acceptable level of this risk, taking into account, in particular, the impact of changes in interest rates on its net interest income and the economic value of its equity.

2. System of limits for IRRBB exposure

7. The bank shall establish and implement a system of limits to restrict exposure to IRRBB in accordance with the bank's defined appetite and tolerance for this risk, as well as the applied approach for measuring this risk, and shall, in particular, ensure:

1) limits that correspond to the nature, scope, and complexity of the bank's operations, the adequacy of its capital, and its ability to measure and manage the risks to which it is or may be exposed;

2) limits at the level of the banking group subject to consolidated supervision by the National Bank of Serbia, which clearly define the acceptable level of IRRBB applied on a consolidated basis, and, where applicable, at the level of individual members of the banking group;

3) a reporting system that ensures that information on limit breaches and the reasons for such breaches are promptly communicated to the appropriate level of management within the bank. In the case of breaches of the defined tolerance for IRRBB, the appropriate level of management must include the bank's management bodies.

Depending on the nature of its activities and business model, the bank may also establish sub-limits for individual business units, portfolios, types of instruments, specific instruments, or for materially significant forms of IRRBB, such as gap risk, basis risk, and option risk.

3. Policies and procedures for managing IRRBB

8. The bank shall adopt and implement comprehensive policies based on its IRRBB management strategy, which shall include, in particular:

- 1) clearly and comprehensively defined authorities and responsibilities of the bank's management bodies, the asset and liability management committee, other committees of the bank, and organisational units responsible for managing IRRBB, as well as employees tasked with managing this risk;
- 2) establishment of a clear boundary between the non-trading book and the trading book;
- 3) methods and techniques for measuring and assessing IRRBB, including the method for determining the internal capital requirement for IRRBB;
- 4) the frequency of updating assumptions for measuring and assessing IRRBB;
- 5) measures for mitigating IRRBB and rules for applying these measures (permitted hedging strategies and hedging instruments);
- 6) the method for establishing the system of IRRBB limits, as well as the decision-making process and actions in the event of breaches of established limits;
- 7) the framework and frequency of stress testing for IRRBB, as well as actions to be taken in the event of adverse stress test results;
- 8) the frequency and method of reporting on IRRBB;
- 9) principles of the functioning of the system of internal controls over the IRRBB management process.

9. The bank shall adopt and implement procedures for identifying, measuring, and/or assessing IRRBB, as well as for managing this risk, based on its strategy and policies for managing IRRBB. These procedures shall include, in particular:

- 1) positions in assets, liabilities, and off-balance sheet items that the bank considers to be interest rate-sensitive instruments;
- 2) assumptions for converting interest rate-sensitive instruments into cash flows and other assumptions used by the bank for measuring exposure to IRRBB;
- 3) periods over which cash flows from interest rate-sensitive instruments are allocated;
- 4) criteria for assessing the materiality of products with embedded options;
- 5) the intensity and form of different interest rate shocks applied for measuring exposure to IRRBB;
- 6) the definition and method for determining margins, as well as the treatment of margins in the calculation of IRRBB measures;
- 7) the procedure for calculating IRRBB measures.

10. The bank shall review the policies and procedures outlined in Sections 8 and 9 of this Decision at least once a year and amend them as necessary.

11. Internal audit shall regularly assess the adequacy of procedures for identifying, measuring, and monitoring IRRBB, as well as the adequacy of managing this risk, at least once every three years.

4. Information system and data quality

12. The bank shall establish an information system that ensures timely and accurate data necessary for identifying and measuring IRRBB, managing this risk, and reporting on it.

The bank must ensure that the information system referred to in paragraph 1 of this Section:

1) contains information on the date (or dates) of the next interest rate change for a given instrument, the type of interest rate, and the benchmark interest rate, as well as options, if any;

2) provides sufficient flexibility to incorporate a reasonable number of interest rate shock scenarios for the continuous management of IRRBB, as well as for stress testing;

3) enables appropriate measurement and monitoring of the contribution of individual transactions that significantly affect the overall level of IRRBB;

4) ensures the calculation of IRRBB measures within the framework of continuous risk management and stress testing, including the calculation of these measures based on shocks and interest rate scenarios prescribed by the National Bank of Serbia;

5) provides sufficient flexibility to incorporate restrictions prescribed by the National Bank of Serbia, as well as internally defined restrictions related to assumptions used by the bank in the process of measuring exposure to IRRBB;

6) provides sufficient flexibility when introducing new products.

13. The bank shall ensure that the calculation of IRRBB measures is based on reliable market and internal data and that such data are updated in a timely manner.

14. The bank shall ensure that the criteria for allocating cash flows according to defined periods are consistent, to enable the comparison of IRRBB measures across different periods.

15. The bank shall establish an appropriate internal control system for the information system that:

1) ensures the quality and reliability of input data used for measuring exposure to IRRBB;

2) minimises the likelihood of errors in the data processing process;

3) enables early identification of errors in data processing and ensures their prompt correction.

5. Reporting system for IRRBB

16. The bank shall establish a reporting system for IRRBB that provides timely, accurate, and sufficiently detailed information to the bank's management bodies, the asset and liability management committee, and other bank's committees responsible for managing IRRBB, and/or employees tasked with managing this risk. This information is necessary for making business decisions and effectively managing IRRBB.

17. Reports on the bank's exposure to IRRBB shall be submitted to the bank's management bodies at least once every three months and shall include, in particular:

1) information on the bank's exposure to IRRBB, including exposure to gap risk, basis risk, and option risk, with an indication of the interest rate-sensitive instruments that most significantly affect the level of IRRBB exposure;

2) an explanation of significant changes in the level of the bank's exposure to IRRBB;

3) information on the alignment of the bank's risk profile with its defined appetite and tolerance for IRRBB, as well as with other limits for exposure to this risk;

4) results of stress testing as outlined in Sections 46 and 47 of this Decision (if such testing was conducted during the reporting period), as well as results of the supervisory outlier test as defined in Section 53 of this Decision;

5) information on the effects of changes in interest rates on the market value of instruments measured at fair value;

6) results of the review of the model for measuring exposure to IRRBB (if such a review was conducted during the reporting period), including a comparison of previous assessments of IRRBB exposure and actual results, to identify potential shortcomings in the model;

7) conclusions from the review of the strategy, policies, and procedures for identifying, measuring, and managing IRRBB, including conclusions from external and internal audits on the adequacy of the IRRBB management system (if such reviews and audits were conducted during the reporting period).

Chapter III MEASUREMENT OF IRRBB EXPOSURE

18. The bank shall establish a reliable system for measuring exposure to IRRBB that covers all forms and sources of this risk to which the bank is or may be exposed.

19. The bank shall apply the standardised approach for measuring exposure to IRRBB in the manner prescribed by Chapter IV of this Decision.

20. Notwithstanding Section 19 of this Decision, the bank may apply the simplified standardised approach for measuring exposure to IRRBB in the manner prescribed by Chapter IV of this Decision, provided it has obtained prior approval from the National Bank of Serbia.

The National Bank of Serbia may grant prior approval under paragraph 1 of this Section provided that the measurement of the bank's exposure to IRRBB using the simplified standardised approach can be considered appropriate, taking into account the size of the bank, as well as the nature, scope and complexity of its business activities, and/or its risk profile.

When submitting the request for approval under paragraph 1 of this Section, the bank shall provide the National Bank of Serbia with appropriate data and documentation demonstrating compliance with the conditions set out in paragraph 2 of this Section. The National Bank of Serbia may request additional data and documentation it deems necessary to assess compliance with these conditions.

The National Bank of Serbia shall decide on the request for prior approval to apply the simplified standardised approach under paragraph 3 of this Section within 60 days of receiving a complete request.

The National Bank of Serbia may revoke the approval to apply the simplified standardised approach if it determines that the bank no longer meets the conditions set out in paragraph 2 of this Section.

The National Bank of Serbia may require the bank to apply the simplified standardised approach if it determines that the bank is not adequately applying the standardised approach.

21. Independently of the application of the standardised approach and/or the simplified standardised approach, the bank may also apply internal models for measuring exposure to IRRBB (hereinafter: the internal approach).

22. The bank shall document the process of measuring exposure to IRRBB in a manner that clearly identifies all elements of the measurement process and, in particular, it must maintain:

- 1) analytical data (at the level of receivables and/or payables items) related to the allocation of cash flows from interest rate-sensitive instruments;
- 2) documentation on the process of determining assumptions for allocating cash flows from interest rate-sensitive instruments;

- 3) documentation on the calculation of changes in the economic value of equity and net interest income in accordance with the supervisory outlier test as defined in Section 53 of this Decision;
- 4) documentation on the calculation of IRRBB measures in accordance with the bank's internal approach;
- 5) documentation related to the stress testing of IRRBB.

23. The bank shall apply the standardised approach and/or the simplified standardised approach, as prescribed by Chapter IV of this Decision, for reporting to the National Bank of Serbia in accordance with the decision regulating bank reporting.

1. Methods for measuring IRRBB exposure

24. For measuring IRRBB exposure, the bank shall use at least one measure of net interest income and at least one economic value measure.

25. The bank shall incorporate the supervisory outlier test from Section 53 of this Decision into the IRRBB management system and use this test as one of the measures of IRRBB exposure.

26. The bank shall manage various forms of IRRBB, particularly gap risk, basis risk, and option risk.

27. When measuring IRRBB exposure, the bank shall include all interest rate-sensitive instruments and establish assumptions for converting them into cash flows.

Cash flows from interest rate-sensitive instruments classified as non-performing loans under the decision regulating the classification of balance sheet assets and off-balance sheet items of the bank shall be included by the bank in the amount reduced by the amount of the corresponding value adjustments and provisions for off-balance sheet losses. The bank shall allocate cash flows from these instruments in the amount and in accordance with the expected repayment dynamics.

Notwithstanding paragraph 2 of this Section, if the share of non-performing loans in total loans is less than 2%, as per the bank's reporting on the structure of non-performing loans under the decision regulating bank reporting, the bank may exclude cash flows from these loans from the calculation of IRRBB measures.

28. When measuring IRRBB exposure, the bank shall consider risks affecting net interest income due to the accounting treatment of instruments. This impact is not limited to interest income and expenses but the bank should

also separately consider the effects of changes in interest rates on the market value of instruments measured at fair value, which, depending on the accounting treatment, are reflected in the income statement or directly in equity (through other comprehensive income).

2. Management of models for measuring IRRBB exposure

29. For measuring IRRBB exposure using the internal approach, the bank may use models based on data relevant to the bank's operations.

30. The bank shall define, through internal acts adopted by its competent management body, the process for validating models for measuring IRRBB exposure, as well as the process for assessing the risks of these models. These acts shall particularly regulate:

1) organisational units responsible for the development, validation, documentation, implementation, and use of models;

2) authorities and responsibilities for conducting initial and regular model validation, the frequency and procedure for such validations, the assessment of validation results, the model version approval and control, and exceptions, modifications, and withdrawals of models.

31. The model validation process for measuring IRRBB exposure shall particularly include:

1) assessment of conceptual and methodological reliability, including the evaluation of development documentation and accompanying analyses;

2) continuous monitoring of the model, including process verification and comparison of results with benchmark values;

3) analysis of results, including testing of key internal parameters (deposit stability, prepayment rates for loans, early withdrawal rates for deposits, instrument valuation, etc.) based on historical data (back-testing);

4) detailed assessment of expert opinions and conclusions used in the model development and application process;

5) validation of diversification assumptions, and/or assessing whether internal parameters are determined for significant segments in line with the bank's business model.

32. The bank shall ensure that the process of validation and control of the model for measuring IRRBB exposure is conducted independently of the model development process.

33. Before commencing the use of the model for measuring IRRBB exposure, the bank shall conduct an independent control and validation of the process for determining input data, assumptions, modelling methodologies,

and model results. The results of the control and validation process, as well as recommendations regarding the model's application, must be approved by the bank's competent management body.

34. The bank shall ensure regular control, process confirmation, and validation of the model for measuring IRRBB exposure after its implementation, in accordance with the frequency determined by the bank's internal acts and the level of risk associated with the model.

The bank shall establish quantitative and qualitative criteria obliging those responsible for model validation to promptly inform the competent management body during the regular control process, so that appropriate corrective measures can be taken and limitations on the model's use can be determined.

3. Assumptions for measuring IRRBB exposure

35. The bank shall fully understand and document all assumptions used in measuring IRRBB exposure, which must be consistent with the bank's business policy and strategy.

The bank shall review and align the assumptions under paragraph 1 of this Section at least once a year, or more frequently if necessary, particularly during periods of sudden changes in market conditions.

36. When measuring IRRBB exposure, in scenarios of interest rate shocks for continuous IRRBB management and in interest rate stress scenarios, the bank shall consider at least the following assumptions affecting the level and dynamics of cash flows:

- 1) assumptions regarding the exercise of automatic options by the bank or the other contracting party for interest rate-sensitive instruments;
- 2) assumptions regarding the exercise of behavioural options by the other contracting party for interest rate-sensitive instruments (treatment of term deposits with early withdrawal risk, treatment of loans with prepayment risk, treatment of deposits without a contractual maturity date, and treatment of other interest rate-sensitive instruments without a defined interest rate reset date) (hereinafter: behavioural assumptions).

The bank shall determine the assumptions under paragraph 1 of this Section for significant segments, in line with its business model and risk profile in the context of IRRBB.

When determining behavioural assumptions, the bank may consider the materiality of the positions to which these assumptions apply. When applying

the standardised approach and/or the simplified standardised approach, the bank shall consider the prescribed criteria for determining materiality.

4. Behavioural assumptions for contracts with embedded client options

37. When assessing behavioural assumptions for contracts with embedded client options, the bank shall particularly consider:

- 1) the impact of different interest rate change scenarios on prepayment rates for loans and early withdrawal rates for deposits;
- 2) the elasticity of adjusting the bank's product interest rates to changes in market interest rates;
- 3) transitions between different types of bank products as a result of changes in their characteristics and conditions.

38. The bank shall establish, within the IRRBB management system and in accordance with its policies and procedures, an adequate process for determining the key behavioural assumptions for the treatment of balance sheet positions and off-balance sheet items with embedded options. In particular, the bank must:

- 1) identify all materially significant products with embedded options that may affect expected cash flows based on interest or the interest rate reset date;
- 2) establish adequate measures for managing embedded options and mitigating option risk (e.g. using derivatives);
- 3) ensure that models for determining behavioural assumptions are based on relevant historical data;
- 4) demonstrate, based on back-testing results, that the models for determining behavioural assumptions are adequate.

5. Behavioural assumptions for contracts on deposits without a contractual maturity date

39. When assessing behavioural assumptions for contracts on deposits without a contractual maturity date, the bank shall:

- 1) determine the amount of core deposits, which are considered stable and unlikely to be subject to interest rate reset, even in the event of significant changes in market interest rates;
- 2) ensure that the assumptions used in models for determining core deposits reflect the characteristics of depositors (natural persons/large clients) and the characteristics of deposit accounts (transaction/other deposits without a contractual maturity date), taking into account the following:
 - transaction deposits of natural persons are deposits without a contractual maturity date held in accounts used for regular transactions (e.g. salary

payments) or non-interest-bearing deposits of natural persons in a high-interest-rate environment (including non-interest-bearing and other deposits of natural persons where interest is not a significant factor in the client's decision to hold funds in the account);

– other deposits of natural persons without a contractual maturity date are deposits not considered transaction deposits under the first indent of this provision, including deposits of these persons where interest is a significant factor in the client's decision to hold funds in the account;

– deposits of large clients include deposits of legal persons and other entities considered large clients under this Decision, excluding deposits of financial sector entities and other fully price-sensitive deposits;

3) consider limitations on the interest rate reset for deposits of natural persons in low-interest-rate environments and the effects such limitations may have on deposit stability under different interest rate change scenarios;

4) use quantitative methods to determine the interest rate reset date and the allocation of cash flows for deposits without a contractual maturity date, supplemented, if necessary, by expert opinions from various organisational units of the bank.

Notwithstanding paragraph 1, subparagraph 2), third indent, of this Section, the bank may, under the internal approach, use deposits of financial sector entities in models for determining core deposits of large clients only if these deposits are considered operational deposits under the decision regulating liquidity risk management by banks.

40. The weighted average time to interest rate reset for deposits without a contractual maturity date shall not exceed five years. This limitation applies to the total amount of such deposits (core and remaining deposit amounts) in each significant currency, as well as in other currencies combined.

6. Interest rate shock scenarios for continuous IRRBB management

41. The bank shall regularly, at least once every three months, or more frequently in periods of increased interest rate volatility or heightened IRRBB levels, measure its IRRBB exposure through changes in economic value measures and net interest income measures under different interest rate shock scenarios. Potential shocks include changes in the level and shape of the risk-free yield curve and changes in the relationships between different benchmark interest rates (basis risk).

42. The bank shall, under the standardised approach and/or the simplified standardised approach, measure IRRBB exposure separately for each significant currency, as well as for all other currencies combined.

43. The bank shall, under the standardised approach and/or the simplified standardised approach, consider the following interest rate shock scenarios:

1) six scenarios for calculating the impact on the economic value of the bank's capital:

- parallel shock up, with a parallel upward shift in interest rates across all maturities of the risk-free yield curve;
- parallel shock down, with a parallel downward shift in interest rates across all maturities of the risk-free yield curve;
- steeper shock, with a decrease in interest rates for shorter maturities and an increase in interest rates for longer maturities of the risk-free yield curve;
- flattener shock, with an increase in interest rates for shorter maturities and a decrease in interest rates for longer maturities of the risk-free yield curve;
- short-term interest rate shock up, with a greater increase in interest rates for shorter maturities of the risk-free yield curve to achieve convergence with the part of the curve of interest rates for longer maturities;
- short-term interest rate shock down, with a greater decrease in interest rates for shorter maturities of the risk-free yield curve to achieve convergence with the part of the curve of interest rates for longer maturities;

2) two scenarios for calculating the impact on net interest income:

- parallel shock up, with a parallel upward shift in interest rates across all maturities of the risk-free yield curve;
- parallel shock down, with a parallel downward shift in interest rates across all maturities of the risk-free yield curve.

In addition to the interest rate shock scenarios under paragraph 1 of this Section, the National Bank of Serbia may require the bank to apply additional interest rate shock scenarios.

44. If the bank applies the internal approach, when selecting interest rate shock scenarios for continuous IRRBB management, it shall ensure that:

1) the internally developed scenarios are proportionate to the nature, scope, and complexity of the bank's operations, and/or its risk profile, taking into account sudden and gradual parallel and non-parallel shifts and changes in yield curves.

2) internally developed scenarios are based on historical movements and behaviour of interest rates, as well as simulations of future interest rates;

3) scenarios reflect changes in the relationships between key market interest rates to capture basis risk.

45. The bank shall use the results of applying interest rate shock scenarios in making business decisions and risk management decisions. The bank shall

take into account these results when defining and reviewing policies for managing IRRBB and exposure limits to this risk.

7. Stress testing

46. The bank shall use more rigorous assumptions in stress testing of IRRBB compared to those used in interest rate shock scenarios for continuous IRRBB management, to measure the impact of adverse market movements on changes in the economic value of equity and net interest income. When conducting stress testing of IRRBB, the bank shall consider risks affecting net interest income due to the accounting treatment of instruments. In addition to more rigorous interest rate shocks, the use of adverse market movement assumptions includes assessing the impact of market movements on changes in behavioural assumptions.

47. The bank shall conduct reverse stress testing to identify:

- 1) interest rate shock scenarios that would have a significantly adverse impact on changes in the economic value of equity and net interest income;
- 2) weaknesses in the bank arising from its risk mitigation strategies and potential changes in behavioural assumptions.

The bank shall use a greater number of assumptions and more rigorous assumptions in reverse stress testing compared to those used for continuous IRRBB management. In particular, the bank must consider:

- 1) significant changes in the relationships between benchmark interest rates (basis risk);
- 2) sudden and significant changes in the shape of the yield curve (parallel and non-parallel shifts);
- 3) changes in key behavioural assumptions;
- 4) significant changes in current market and macroeconomic conditions;
- 5) assumptions related to key aspects of the bank's business model and risk profile.

48. The bank shall conduct stress testing of IRRBB, including reverse stress testing, regularly, at least once a year. In the event of increased interest rate volatility, the bank should consider conducting more frequent stress testing of IRRBB.

Chapter IV STANDARDISED APPROACHES AND SUPERVISORY OUTLIER TEST

1. Standardised approaches for measuring the bank's IRRBB exposure

49. The bank shall measure IRRBB exposure using the standardised approach and/or the simplified standardised approach.

50. The bank shall, under the approach from Section 49 of this Decision, determine the following IRRBB measures:

- 1) the measure of economic value of equity, calculated by discounting expected cash flows based on a run-off balance sheet assumption;
- 2) the net interest income measure, calculated based on projected interest income and expenses over a one-year period, assuming a constant balance sheet.

51. The bank shall calculate the effect of applying:

- 1) interest rate shocks on the measure of economic value of equity using the scenarios in Section 43, paragraph 1, subparagraph 1) of this Decision;
- 2) interest rate shocks on the net interest income measure, and/or net interest income over a one-year period, using the scenarios under Section 43, paragraph 1, subparagraph 2) of this Decision.

52. The National Bank of Serbia shall prescribe in the form of guidelines the detailed conditions and manner of applying the standardised approach and the simplified standardised approach for measuring IRRBB exposure.

2. *Supervisory outlier test*

53. The bank shall, using the standardised approach and/or the simplified standardised approach, determine whether there has been a significant decline in the economic value of equity, as well as a significant decline in net interest income (supervisory outlier test).

54. If the decline in the economic value of equity, calculated using the approach in Section 53 of this Decision, exceeds 15% of the bank's Tier 1 capital, it shall be considered that there has been a significant decline in the economic value of the bank's capital.

If the decline in net interest income over a one-year period, calculated using the approach under Section 53 of this Decision, exceeds 5% of the bank's Tier 1 capital, it shall be considered that there has been a significant decline in net interest income.

55. If the bank determines that there has been a significant decline under Section 54, paragraph 1 and/or paragraph 2 of this Decision, it shall immediately inform the National Bank of Serbia thereof, specifying the reasons

that led to the significant decline in the economic value of equity and/or net interest income over a one-year period.

In the case referred to in paragraph 1 of this Section, the bank shall submit to the National Bank of Serbia, as soon as possible, an action plan to reduce IRRBB exposure, ensuring that the significant decline under Section 54, paragraph 1 and/or paragraph 2 of this Decision is remedied within the shortest possible timeframe.

If the National Bank of Serbia assesses that the action plan under paragraph 2 of this Section is inadequate or does not ensure the timely remediation of the significant decline under Section 54, paragraph 1 and/or paragraph 2 of this Decision, it shall require the bank to submit a revised action plan.

Until the significant decline under Section 54, paragraph 1 and/or paragraph 2 of this Decision is remedied, the bank shall report monthly to the National Bank of Serbia on the extent of the decline in the economic value of equity and the decline in net interest income, using the forms prescribed by the decision regulating bank reporting. The report shall reflect the status as of the last calendar day of the previous month and shall be submitted no later than the 20th of the current month.

The bank shall immediately inform the National Bank of Serbia once the action plan under paragraph 2 of this Section has been implemented.

If the bank fails to submit the action plan under paragraph 2 of this Section, submits an inadequate revised action plan, or fails to act in accordance with the submitted action plan within the specified timeframe, the National Bank of Serbia may take measures prescribed by law.

Chapter V

IDENTIFICATION, ASSESSMENT AND CALCULATION OF INTERNAL CAPITAL REQUIREMENTS FOR IRRBB

56. The bank shall incorporate IRRBB into its internal capital adequacy assessment process.

57. When assessing the materiality of IRRBB, as well as when calculating the internal capital requirement for this risk, the bank shall calculate the effects of changes in interest rates on the economic value of equity and net interest income.

When assessing the materiality of IRRBB and/or calculating the internal capital requirement for this risk, the bank shall not aggregate the effects of

changes in interest rates on the change in the economic value of equity and the effects of changes in interest rates on net interest income.

58. The bank shall ensure that the methodology for calculating the internal capital requirement for IRRBB is aligned with the bank's risk appetite and risk profile concerning IRRBB.

For the calculation referred to in paragraph 1 of this Section, the bank may use one of the standardised approaches in accordance with the provisions of Chapter IV of this Decision or develop an internal approach.

59. The bank shall, in addition to calculating the internal capital requirement for IRRBB, if it assesses that this risk is material, conduct stress testing as part of the internal capital adequacy assessment process, using assumptions that are more rigorous than those used for the calculation of the internal capital requirement.

Chapter VI IDENTIFICATION, ASSESSMENT AND MONITORING OF CSRBB

60. The bank shall assess its exposure to CSRBB within its risk management framework and as part of the internal capital adequacy assessment process.

61. The bank shall define, through an internal act adopted by the competent management body, the criteria for identifying credit spread-sensitive instruments.

The bank shall assess CSRBB for all credit spread-sensitive instruments.

62. If the bank assesses that its exposure to CSRBB is material, it shall define its appetite and tolerance for this risk and establish a comprehensive and reliable system for its identification, assessment and monitoring, which is commensurate with the nature, scope and complexity of the bank's operations, its business model and risk profile (CSRBB management system).

When defining its appetite and tolerance for CSRBB, the bank shall take into account the impact of changes in credit spreads on its net interest income and the economic value of its equity.

63. The CSRBB management system under Section 62, paragraph 1 of this Decision shall be considered comprehensive and reliable if the bank:

1) has adopted and consistently applies appropriate strategies, policies, and procedures for managing CSRBB, including its identification, measurement, mitigation and reporting (where the CSRBB management strategy may form part of the overall risk management strategy of the bank);

2) has established an appropriate internal organisation, and/or organisational structure with clearly defined tasks and duties, to prevent conflicts of interest and ensure functional and organisational separation of the tasks of identification, measurement, monitoring, and management of CSRBB and the taking on of such risk;

3) has established and applies a system of limits to maintain an appropriate level of exposure to CSRBB in line with the bank's defined appetite and tolerance for this risk;

4) has established an appropriate information system;

5) has established a comprehensive and reliable reporting system for this risk;

6) has established an adequate system of internal controls over the CSRBB management process.

64. When assessing the materiality of CSRBB, as well as when calculating the internal capital requirement for this risk, the bank shall calculate the effects of changes in credit spreads on changes in net interest income and on the economic value of equity.

When assessing the materiality of CSRBB and/or calculating the internal capital requirement for this risk, the bank shall not aggregate the effects of changes in interest rates on the change in net interest income and the effects of changes in interest rates on changes in the economic value of equity.

65. The bank shall ensure that the methodology for calculating the internal capital requirement for CSRBB is aligned with the bank's appetite and profile concerning CSRBB.

66. The bank shall, in addition to calculating the internal capital requirement for CSRBB, if it assesses that this risk is material, conduct stress testing as part of the internal capital adequacy assessment process, using assumptions that are more rigorous than those used for the calculation of the internal capital requirement.

Chapter VII TRANSITIONAL AND FINAL PROVISIONS

67. The bank shall test the application of the provisions of Chapter IV of this Decision to ensure readiness to fully align its operations with these provisions. The bank shall inform the National Bank of Serbia of the results of

this testing by submitting reports prescribed by the decision regulating bank reporting, with data as at 31 December 2025, no later than 5 March 2026.

68. This Decision enters into force on the eighth day following its publication in the Official Gazette of the Republic of Serbia and applies from 1 January 2026.

NBS EB 1
13 February 2025

Belgrade

Chairperson
Executive Board of the National Bank of
Serbia
Governor

National Bank of Serbia

Dr Jorgovanka Tabaković