Pursuant to Articles 81 and 130 of the Banking Law („Official Gazette of the Federation of BiH“, number 27/17) and Articles 5(1)(h) and 19(1)(c) of the Law on the Banking Agency of the Federation of Bosnia and Herzegovina („Official Gazette of the Federation of BiH“, number 75/17), Article 12(1)(d) of the Statute of the Banking Agency of the Federation of Bosnia and Herzegovina („Official Gazette of the Federation of BiH“, number 3/18), the Management Board of the Banking Agency of the Federation of Bosnia and Herzegovina adopted, at its session that was held on December 15th, 2023, the following

DECISION
ON THE MANAGEMENT OF INTEREST RATE RISK IN THE BANKING BOOK

I. GENERAL PROVISIONS

Article 1
Subject Matter of the Decision

(1) This Decision lays down the minimum requirements for managing interest rate risk in the banking book (hereinafter: IRRBB) and requirements for measuring and setting internal capital requirements for IRRBB, taking into account the prescribed standards on risk management in a bank and the sources of IRRBB.

(2) All banks headquartered in the Federation of Bosnia and Herzegovina and licensed by the Banking Agency of the Federation of Bosnia and Herzegovina (hereinafter: Agency) shall apply the provisions of this Decision.

(3) The provisions of this Decision shall be applied on an individual and consolidated basis.

(4) The matters related to the IRRBB management that are not defined by this Decision, but are defined by law or other bylaws, shall be subject to the provisions of that law or other bylaw.

Article 2
Definitions

Terms used in this Decision shall have the following meanings:

a) **IRRBB** is, according to Article 81(6) of the Banking Law, the risk of possible negative effects on the financial result and capital of the bank stemming from positions in the banking book as a result of changes in interest rates. IRRBB includes gap risk, basis risk and option risk.

b) **Interest rate sensitive instruments** are financial instruments which are sensitive to interest rate changes, including financial assets, liabilities and off-balance-sheet items in the banking book and excluding assets deducted from Common Equity Tier 1 capital. Interest rate sensitive instruments also include non-performing exposures, interest rate financial derivatives referred to in Annex II of the Decision on Calculation of Bank Capital, and trading book business referred to in Article 39 of the Decision on Calculation of Bank Capital, unless the interest rate risk for the instruments concerned is captured in another risk.

c) **Non-performing exposures** are exposures defined in Article 2(1)(b) of the Decision on Credit Risk Management and Determination of Expected Credit Losses, which are included after impairment for expected credit losses, i.e. provisions for the coverage of expected credit losses for off-balance-sheet exposures. The cash flows from those exposures should reflect expected cash flows by amount and maturity.

d) **Gap risk** is risk resulting from the term structure of interest rate sensitive instruments, i.e. differences in the timing of their interest rate changes, covering changes to the term structure of interest rates occurring consistently across the yield curve (parallel risk) or differently by period (non-parallel risk).

e) **Basis risk** is risk arising from the application of different reference interest rates for instruments with similar tenors or time remaining until the next interest rate reset, i.e. from the imperfect correlation of the reference interest rates for interest rate sensitive instruments.

f) **Option risk** is risk arising from options (embedded and explicit), where the bank or its customer can alter the level or timing of the cash flows from the interest rate sensitive instruments. For the purposes of this Decision, the option risk is considered separately for options where the holder will almost certainly exercise option if it is in their financial interest to do so (automatic options), and the risk arising from flexibility of embedded options where changes in interest rates may affect a change in the behaviour of the client (behavioural options).

g) **Material currency** is any currency if the assets or liabilities denominated in that currency amount to 5% or more of the total banking book financial assets or liabilities. Material currency is also considered to be a currency amounting to less than 5% of the total banking book financial assets or liabilities if the sum of financial assets or liabilities by all currencies included in the calculation is lower than 90% of the total interest rate sensitive banking book financial assets or liabilities.

h) **Risk-free yield curve** is a yield curve that does not include instrument-specific or issuer-specific credit risk spreads or liquidity risk spreads.

i) **Net interest income measure** is a measure of changes in expected future profitability within a given time horizon resulting from interest rate changes.

j) **Net interest income measure after market value changes** is a net interest income change after the market value changes of fair valued interest rate sensitive instruments have also been taken into account.

k) **Economic value measure** is a measure of changes in the net present value of interest rate sensitive instruments over their remaining life resulting from interest rate changes. Economic value measure reflects changes in value over the remaining life to maturity of the interest rate sensitive instruments.

l) **Economic value of equity measure** is a specific form of economic value measure where changes in the net present value of interest rate sensitive instruments, which are a result of interest rate changes, are reflected in the economic value of equity of the bank.

m) **Unconditional cash flow modelling** is cash flow modelling under the assumption that the timing and amount of cash flows are independent of the specific interest rate change scenarios.

n) **Conditional cash flow modelling** is cash flow modelling under the assumption that the timing and amount of cash flows are dependent on the interest rate scenarios.

o) **Run-off balance sheet** is a balance sheet, including also off-balance-sheet items, where existing banking book positions amortise, i.e. run off, and are not replaced by any new positions.

p) **Dynamic balance sheet** is a balance sheet, including also off-balance-sheet items, incorporating altered composition of positions depending on business expectations, adjusted for the relevant scenario in a consistent manner.

q) **Constant balance sheet** is a balance sheet, including also off-balance-sheet items, in which the total size and composition of the balance sheet are maintained by replacing maturing or repricing cash flows with new cash flows that have comparable amount, spread and period to maturity or interest rate repricing.

r) **Retail** is considered to be a natural person or a micro, small and medium company, where the micro, small and medium company qualifies for the retail exposure class where the bank applies the Standardised Approach for calculating credit risk in accordance with the Decision on Calculation of Bank Capital and where the aggregate deposits by that company on a group basis do not exceed BAM 250 thousand.
s) **Wholesale customer** is any customer not qualifying to be classified in the retail category as defined in point (r) of this paragraph.
t) **Non-maturity deposits** are deposits without a contractual maturity date, in which the depositor is free to withdraw the deposit at any point in time.
u) **Transactional deposits and accounts** are non-interest-bearing and other retail accounts without a maturity date whose interest is not relevant in the client's decision to hold money in the account, even in a high market interest rate environment (e.g. retail non-maturity accounts where regular transactions are carried out, such as salary payments).
v) **Non-transactional deposits** are retail accounts whose interest is relevant in the client's decision to hold money in the account. Non-transactional deposits are retail non-maturity deposits.
w) **Stable non-maturity deposits** means the total amount of the part of the non-maturity deposit that is highly likely to remain undrawn, under the current level of market interest rates.
x) **Core component of non-maturity deposits** is the total amount of the part of the stable deposits that is highly unlikely to reprice even under significant changes in the level of market interest rates.
y) **Non-core component of non-maturity deposits** is the total amount of the part of the stable deposits that do not qualify to be classified as core deposits.
z) **Pass-through rate** is the percentage of change of the market interest rate that the bank will pass through to the clients to maintain the level of stable deposits.
aa) **Parallel shock up** is the same positive interest rate shock for all time buckets.
bb) **Parallel shock down** is the same negative interest rate shock for all time buckets.
cc) **Flattener shock** is a non-parallel (rotational) shock, i.e. negative interest rate shock for long-term maturities and positive interest rate shock for short-term maturities.
dd) **Steepener shock** is a non-parallel (rotational) shock, i.e. positive interest rate shock for long-term maturities and negative interest rate shock for short-term maturities.
ee) **Short rates shock up** is a non-parallel shock, i.e. larger positive interest rate shock for short-term maturities.
ff) **Short rates shock down** is a non-parallel shock, i.e. larger negative interest rate shock for short-term maturities.

II. IRRBB MANAGEMENT

Article 3
Minimum IRRBB Management Requirements

(1) A bank shall put in place and implement a comprehensive, reliable and efficient IRRBB management system that is proportionate to the bank's size and internal organisation and to the nature, scale and complexity of its activities, i.e. the bank's business model, risk profile and defined risk appetite, in accordance with the provisions of the Decision on the Internal Governance Systems in Banks and additional requirements defined in this Decision.
(2) The requirements referred to in paragraph (1) of this Article relate to the requirement for a bank to put in place and implement appropriate IRRBB identification, measurement,

monitoring and management strategies, policies, procedures, processes and systems, as well as relevant limits to ensure that the bank maintains an adequate IRRBB exposure level in accordance with its defined risk appetite.

(3) A bank shall manage risks which arise from its IRRBB exposure and affect the net interest income and economic value.

(4) A parent bank shall ensure that IRRBB management systems and processes are consistently and properly integrated on an individual and consolidated basis.

Article 4
IRRBB Appetite

(1) A bank shall define its IRRBB appetite as acceptable effect of interest rate changes on the net interest income measure after market value changes and on the economic value measure.

(2) Where a bank has defined its stated IRRBB appetite in its business objectives, strategy and policy, the bank's supervisory board and management board shall ensure a proportionately reliable and efficient IRRBB management system in accordance with the provisions of this Decision.

(3) A bank that is materially exposed to gap risk, basis risk or option risk shall define its IRRBB appetite in relation to each of those material IRRBB subcategories and shall in that case set the limits for each of those subcategories.

(4) A bank shall clearly define the powers and responsibility over the IRRBB management, instruments and hedging strategy, as well as the IRRBB taking authorities.

(5) In defining its IRRBB appetite, a bank shall take account of risks affecting the net interest income as a consequence of the accounting treatment of transactions in the banking book. The net interest income effect shall not be limited only to the interest income and expenses, but also to the effect of interest rate changes on the market value of instruments that, depending on the accounting treatment, are reflected either through the profit and loss account or directly in equity (via other comprehensive income). The bank shall also take into account the net interest income impact related to embedded options in fair value instruments under ongoing interest rate shocks and stress scenarios, as well as the potential impact of interest rate financial derivatives if their efficiency was hampered by interest rate changes.

(6) A bank that uses interest rate financial derivatives in managing its IRRBB shall fully understand and document the use of hedging in the form of interest rate financial derivatives.

(7) Where a bank uses models of customer behaviour for the measurement of its IRRBB exposure, it shall fully understand the methodology and outputs of the model and document the assumptions used.

Article 5
System of IRRBB Exposure Limits

A bank shall set limits that limit IRRBB exposure consistent with its IRRBB appetite and with its approach for measuring IRRBB, in particular the following:

a) the limits policy that is appropriate to the nature, size, complexity and capital adequacy of the bank, as well as its ability to measure and manage its own risks,

b) the banking group level limits that define clearly that the acceptable level of IRRBB should be applied on a consolidated basis and, where applicable, also at the level of individual companies - banking group members,

c) the reporting systems to ensure that information on positions that exceed, or are likely to exceed, limits set is provided to relevant management level without delay, which will escalate it to a higher management level in accordance with the bank's established policy and where necessary, depending on the amount of deviation from the limits set. A clear policy on who will be informed, how the communication will take place and the actions which will be taken should be in place,

d) the reporting of IRRBB management measures to the management board and to the supervisory board should have at least a quarterly frequency and should compare current exposures with the limits set.

Article 6
IRRBB Management Policies, Procedures and Processes

(1) A bank shall, based on its risk-taking and management strategy, adopt and implement comprehensive IRRBB management policies, procedures, processes and systems which should ensure that:
   a) procedures for the measurement and assessment of IRRBB are set up,
   b) the lines of authority and responsibility of the bank's IRRBB management organisational unit and employees are defined in a clear and detailed manner,
   c) the measurement approach and the corresponding assumptions for measuring and assessing IRRBB, including the method of identifying internal capital for IRRBB, are appropriate and proportional,
   d) the assumptions of the models used are regularly reviewed and, if necessary, amended,
   e) standards for the evaluation of positions and the measuring of their efficiency are defined,
   f) appropriate documentation and control over permissible hedging strategies and hedging instruments exist.

(2) The policies should be adequate, comprehensive and documented and should address all IRRBB components that are important to the bank and include the following:
   a) the internal definitions and establishing the clear boundary between banking book and trading book;
   b) the detailed definition of economic value measure and its consistency with the method used to value assets and liabilities (e.g. based on the discounted value of future cash flows, and on the discounted value of net interest income) adopted for internal use,
   c) the detailed definition of net interest income measure with net interest income after market value change of instrument and its consistency with the bank's approach to developing financial plans and financial forecasts adopted for internal use,
   d) the size and the form of the different interest rate shocks to be used for internal IRRBB calculations, if applicable,
   e) the use conditional or unconditional cash flow modelling approaches,
   f) the treatment of pipeline transactions, including any related hedging,
   g) the aggregation of multicurrency interest rate exposures (e.g. inter-currency interest rate swap), if applicable,
   h) the measurement and management of basis risk resulting from different reference interest rates,
   i) capital used in IRRBB calculations for the purposes of the Internal Capital Adequacy Assessment Process (hereinafter: ICAAP),
   j) the behavioural treatment of current and savings accounts (e.g. the maturity assumed for liabilities with short contractual maturity but long behavioural maturity),
   k) the measurement of IRRBB arising from behavioural and automatic options in assets and liabilities,
   l) the degree of granularity employed in internal IRRBB calculations, if applicable,

m) the internal definition of commercial margin and adequate methodology for internal treatment of commercial margins.

(3) A bank shall review IRRBB policies at least annually and revise them as needed.

Article 7
Responsibilities of the Supervisory Board and of the Management Board of a Bank

(1) The supervisory board of a bank shall:

a) approve the IRRBB management strategy that may form an integral part of the bank's risk management strategy and the IRRBB management policies, including also the clearly defined IRRBB appetite, and ensure their application,

b) approve the adequate organisational structure with the precisely established and delineated lines of authority, which allows the independence of the IRRBB management functions from the IRRBB taking functions to be ensured,

c) approve the IRRBB measurement system regulations that include the methodology, material sources of interest rate risk and assumptions used which have to be adequate, documented and stable over time, as well as the inputs for the IRRBB measurement system (e.g. interest rates, maturities) which will adequately reflect the effect on the change to the bank's economic value and net interest income,

d) approve the regulation on the system of internal controls over the IRRBB management process,

e) prescribe the contents and frequency of the IRRBB reporting and ensure the comprehensive and reliable IRRBB reporting system.

(2) The management board of a bank shall:

a) propose the IRRBB taking and management strategy and policy, including also the clearly defined IRRBB appetite, as well as approve other internal IRRBB management regulations (operational procedures, instructions, etc.) and ensure their consistent application,

b) propose the adequate organisational structure, ensuring that the IRRBB identification, measurement, monitoring and control functions have clearly defined responsibilities and are independent from the IRRBB taking function,

c) propose the IRRBB measurement system regulations (methodologies, assumptions, inputs, etc.),

d) propose the regulation on the system of internal controls over the IRRBB management process,

e) ensure timeliness, reliability and usefulness of the IRRBB reports,

f) ensure the conduct of periodic validation of the IRRBB measurement methods and models and model risk assessment,

g) ensure also that IRRBB stress testing is undertaken and apply its results in IRRBB-related decision-making and policy revisions, internal regulations and limits,

h) implement the defined IRRBB appetite,

i) implement the IRRBB hedging strategy framework.

III. IRRBB MEASUREMENT

Article 8
General Provisions for Measurement of IRRBB

(1) For measuring IRRBB, a bank shall use at least one measure that is based on the net interest income after the market value changes of instruments and at least one economic value measurement method that, in combination, capture all components of IRRBB.

(2) In measuring IRRBB, a bank shall use the Standardised Approach, which it shall also use for the purpose of reporting to the Agency. Depending on the size, complexity of its activities and risk profile, a bank may, for the purposes of internal governance and internal capital calculation process, use its own calculations and assumptions, i.e. its own internal models.

(3) Where the Agency assesses that the Standardised Approach referred to in paragraph (2) of this Article has not been adequately used, it may order the bank to use the Simplified Standardised Approach.

(4) A bank shall set up reliable measurement systems that capture all components and sources of IRRBB which are relevant for its business model.

(5) A bank shall measure its exposure to IRRBB in terms of potential changes to both the economic value measure and net interest income measure after the market value changes of instruments. The bank shall use complementary features of both measures to capture the complex nature of IRRBB over the short-term and long-term time horizons. In particular, the bank shall measure and monitor:
   a) the overall effect of key modelling assumptions on the measurement of IRRBB in terms of both the economic value measure and net interest income measure,
   b) the IRRBB of its interest rate financial derivatives provided for in Annex II of the Decision on Calculation of Bank Capital, if relevant for its business model.

(6) A bank shall fully integrate the supervisory outlier test referred to in Article 16 of this Decision into the internal IRRBB management system and use it as a tool for measuring exposure to IRRBB.

Article 9
Methods for Measuring IRRBB

(1) A bank shall identify and measure all components of IRRBB specified in Article 2(1)(d) to (f) of this Decision and in order to identify them, the bank shall at least consider the following:
   a) for gap risk – monitoring the volume (dispersion and concentration) of mismatches in different time bands,
   b) for basis risk – monitoring instrument groups depending on reference interest rate,
   c) for option risk – monitoring instruments with automatic and behavioural options by volume.

(2) Depending on the size of a bank and the complexity of its activities and risk profile, the bank should use the range of quantitative tools that correspond to its risk profile. The bank should fully understand the limitations of each quantitative tool used, as well as the consequences of different accounting treatments of transactions in the banking book.

Article 10
IRRBB Model Governance

(1) With regard to the use of own models referred to in Article 8(2) of this Decision, a bank may use models that it developed itself or models developed by a third party, while using the bank’s internally available data which are relevant for its business model and IRRBB profile.

(2) Prior to receiving internal approval for usage of the model that the bank developed itself, the organisational unit or function independent of the development of the model should review and validate the process for determining model inputs, assumptions, modelling methodology and outputs. The same requirements also apply where the model is developed by a third party with regard to the requirements for the bank to ensure that its staff fully

understand the model used and are able to explain in detail the process for determining model inputs, assumptions, modelling methodology and outputs to the Agency during supervision and to document them.

(3) A bank shall ensure that the IRRBB measurement model validation and model risk assessment are integrated within the governance processes and policies independently of their development.

(4) A bank should specify the following in its model validation policy:
  a) the persons and/or organisational units responsible for the development, validation, documentation, implementation and use of models,
  b) the model control responsibilities and policies including at least initial and ongoing validation procedures, evaluation of results, model approval, version control, exception, information escalation, modification and decommission processes.

(5) The model validation framework should include the following five key elements:
  a) evaluation of conceptual and methodological reliability, including developmental evidence,
  b) ongoing monitoring, including process verification and outcomes benchmarking,
  c) outcomes analysis, including back-testing of key internal parameters (e.g. stability of deposits, loan prepayment rates, early redemptions of deposits, pricing of instruments),
  d) thorough assessment of any expert opinions and conclusions used in the development and use of models,
  e) validation of the diversification assumptions (key internal parameters should be calculated in a sufficiently granular manner by segments according to the bank's specific business model).

(6) The management board of a bank shall, prior to granting its approval for usage of the model, review the initial model validation results as well as any recommendations provided. Upon approval, the bank shall ensure that the model is subject to ongoing review, process verification and validation at a frequency determined by the bank's management board consistent with the level of model risk.

(7) In the ongoing review process, a bank shall establish quantitative and qualitative criteria that obligate the persons responsible for model validation to notify the bank's management board in a timely fashion, in order to determine corrective actions and restrictions on model usage. As part of the ongoing model review, there should be a clear control process for model versions and related authorisations.

(8) A bank may outsource the development and/or validation of the IRRBB management models, conducting the procedure in accordance with the Decision on Outsourcing Management in a Bank. The bank shall ensure adequate documentation of its use of models developed and/or validated by a third party and of any specific customisation. In doing so, the bank should fully understand the analytics, assumptions and methodology of the model used and ensure that they are adequately integrated into the bank's overall risk management systems and processes.

Article 11
IRRBB Measurement Assumptions

(1) When measuring IRRBB, a bank shall fully understand and document key behavioural and model assumptions, which should be aligned with its business strategy and should be tested and adjusted at least annually.

(2) When measuring IRRBB, a bank shall take into account assumptions in relation to at least the following:
  a) the exercise of interest rate options (automatic or behavioural) by both the bank and its customer under specific interest stress scenarios,

b) the treatment of non-maturity deposits,
c) the treatment of fixed term deposits in terms of risk of early redemption,
d) the treatment of fixed rate loans and fixed rate loan commitments in terms of prepayment risk.

Article 12
Behavioural Assumptions for Accounts with Embedded Customer Optionality

(1) In assessing the effect of instruments with embedded option, a bank shall take into account:
a) the potential impact on current and future loan prepayment speeds arising from the interest rate scenario, underlying economic environment and contractual features,
b) the elasticity of adjustment of instrument interest rates to changes in market interest rates,
c) the migration of balances between different instrument types as a result of changes in their features, terms and conditions.

(2) A bank shall have policies in place governing the setting of, and the regular assessment of, the key assumptions for the behaviour of on- and off-balance-sheet instruments that have embedded options. In doing so, the bank shall:
a) identify all material instruments that could affect either the expected interest cash flow or the behavioural repricing date,
b) have appropriate pricing and hedging strategies (e.g. use of financial derivatives or management of prepayment fee levels as an offset to the potential break costs),
c) ensure that modelling of key behavioural assumptions is based on the bank's historical data and on prudent hypotheses.

Article 13
Behavioural Assumptions for Customer Accounts without Specific Repricing Dates

(1) In making behavioural assumptions about accounts without specific repricing dates for the purposes of IRRBB management, a bank shall:
a) identify core deposits, i.e. components of deposits that are stable and unlikely to reprice even under the impact of significant changes in interest rates,
b) allow modelling assumptions for these deposits to reflect depositor characteristics (e.g. retail/wholesale) and account characteristics (e.g. transactional/non-transactional) in such a way that:
   i. retail transactional deposits include non-interest-bearing and other retail accounts whose interest is not relevant in the client's decision to hold money in the account,
   ii. retail non-transactional deposits include retail accounts whose interests and remuneration received by the client for holding money in the account are relevant in the client's decision to hold money in the account,
   iii. wholesale deposits do not include deposits from financial customers or other fully price-sensitive accounts,
c) assess the potential migration between deposits without specific repricing dates and other deposits that could modify, under different interest rate scenarios, key behavioural model assumptions,
d) consider potential constraints on the repricing of retail deposits in low or negative interest rate environments and effect that those constraints could have on deposit stability under different interest rate change scenarios,
e) ensure that assumptions about the decay of core deposit and other balances are prudent and appropriate from the aspect of balancing the benefits to net interest income against the additional economic value risk entailed in the potential forgone profit on the assets financed by these balances under a rising interest rate environment,

f) rely on statistical or quantitative methods to determine the behavioural repricing dates and the cash flow profile of non-maturity deposits, with the additional contribution of different experts within the bank,
g) understand the effect of the assumptions used on the IRRBB measures, as well as on the bank’s decisions on capital allocation for the coverage of internal capital requirements for IRRBB (e.g. by calculating economic value measure and net interest income measure using contractual terms rather than behavioural assumptions to isolate the effect of assumptions on both types of measures),
h) undertake stress testing to understand the sensitivity of the IRRBB measures to changes in key assumptions, taking the results of such tests into account in making decisions on allocation of internal capital requirements for IRRBB.

(2) Deposits without contractual maturity date from financial customers shall not be subject to modelling of behavioural assumptions, save for operational deposits defined in Article 12(1) of the Instruction on the Manner of Application of the Provisions of the Decision on Liquidity Risk Management in Banks on LCR Calculation and Maintenance.

Article 14
Interest Rate Shock Scenarios for Ongoing IRRBB Management

(1) A bank shall regularly measure its exposure to IRRBB in terms of changes in economic value measure and net interest income measure under various interest rate shock scenarios, where potential shocks include changes in the level and shape of the risk-free yield curve and changes in the relationships between different reference interest rates (basis risk). The bank shall undertake the measurement at least quarterly and more frequently in times of increased interest rate volatility or increased IRRBB.

(2) For the purposes of internal measurement and taking into account the principle of proportionality, a bank may apply a conditional or unconditional cash flow modelling approach.

(3) A bank shall assess its exposure to IRRBB in each material currency, while the scenarios should be adapted to the specificities and underlying economic characteristics of that currency.

(4) For the purposes of ongoing IRRBB management, a bank shall consider the six interest rate shock scenarios as required by the Agency:
a) parallel shock up,
b) parallel shock down,
c) flattener shock,
d) steepener shock,
e) short rates shock up,
f) short rates shock down.

(5) The calculation method for the interest rate shock scenarios referred to in paragraph (4) of this Article is prescribed in more detail in the Instruction on the Application of the Standardised and Simplified Standardised Approaches to the Measurement of Interest Rate Risk in the Banking Book (hereinafter: Instruction).

(6) The Agency may require a bank to carry out additional scenarios besides those prescribed in paragraph (4) of this Article.

(7) A bank shall use the results of the application of interest rate shock scenarios for decision-making at appropriate management level, which includes, among others, strategic or business decisions, risk management decisions, and when establishing and reviewing the policies and limits for IRRBB.

Article 15
Stress Testing for ICAAP

(1) A bank shall undertake IRRBB stress testing for the ICAAP purposes at least annually.

(2) In undertaking the stress testing referred to in paragraph (1) of this Article, a bank shall consider the results of reverse stress testing in order to:
   a) identify interest rate scenarios that could severely threaten its capital, economic value measure and net interest income measure after the market value changes of instruments,
   b) reveal weaknesses arising from its hedging strategies and the potential behavioural reactions of its customers.

(3) In testing for the purposes of paragraph (1) of this Article, a bank shall use larger and more extreme shifts and changes in interest rates than those used for the purposes of ongoing management, including at least the following:
   a) substantial changes in the relationships between key reference interest rates (basis risk),
   b) sudden and substantial shifts in the risk-free yield curve (both parallel and non-parallel),
   c) breakdowns of key assumptions about the behaviour of interest rate sensitive instruments,
   d) significant changes to current market and macro conditions,
   e) specific scenarios that relate to the business model and risk profile of the bank.

(4) A bank shall use the results of IRRBB stress testing for the decision-making at the appropriate management levels as well as for the allocation of the bank's capital for the coverage of internal capital requirements for IRRBB.

IV. STANDARDISED APPROACH AND SUPERVISORY OUTLIER TEST

Article 16
Standardised Approach and Supervisory Outlier Test

(1) A bank shall measure IRRBB in accordance with the Standardised Approach or in accordance with the Simplified Standardised Approach where the Agency assesses that the bank's Standardised Approach is not appropriate.

(2) A bank shall regularly, at least quarterly, calculate the effect of:
   a) interest rate shocks on the economic value of equity measure with the application of scenarios provided for in points (a) to (f) of Article 14(4) of this Decision,
   b) parallel shocks on the net interest income measure, i.e. one-year net interest income (two scenarios provided for in Article 14(4)(a) and (b) of this Decision).

(3) Where the decline in the economic value of equity measure referred to in paragraph (2)(a) of this Article is greater than 15% of the bank's Tier 1 capital, the bank shall immediately inform the Agency thereof.

(4) Where the decline in the bank's one-year net interest income measure referred to in paragraph (2)(b) of this Article is greater than 2.5% of the bank's Tier 1 capital, the bank shall immediately inform the Agency thereof.

(5) The Agency will prescribe more closely the manner of application of the Standardised and Simplified Standardised Approaches through an Instruction, while it will prescribe more closely the supervisory outlier test reporting templates and reporting deadlines through a special Decision.

V. SETTING INTERNAL CAPITAL REQUIREMENTS FOR IRRBB

Article 17

Identification, Calculation and Coverage of Internal Capital Requirements

(1) A bank should consider the overall impact of IRRBB when setting the internal capital requirements based on its internal measurements systems outputs, taking account of its risk appetite and key assumptions and risk limits.

(2) In its assessment of the amount of internal capital requirement for IRRBB, a bank shall consider the following:
   a) internal capital requirement arising from the impact of adverse movements in interest rates on the economic value measure,
   b) interna capital requirement arising from the impact of interest rate changes on the net interest income measure after the market value changes of instruments.

(3) A bank should not only rely on the supervisory assessment of capital adequacy for IRRBB or on the outcome of the supervisory outlier test, but shall develop and use its own methodologies for capital allocation, based on its risk appetite, level of risk and risk strategy. In determining the appropriate level of internal capital, both its amount and quality should be considered.

(4) In assessing the adequacy of the internal capital requirement set for IRRBB, a bank shall take into account the following:
   a) the amount and time horizon of internal limits on IRRBB exposures, and whether or not these limits are reached at the point of calculation of internal capital requirements,
   b) the expected cost of hedging of open positions,
   c) the sensitivity of the internal measures of IRRBB to key or imperfect modelling assumptions,
   d) the impact of shocks and stress scenarios on positions based on different reference interest rates (basis risk),
   e) the impact of mismatched positions in different currencies on the economic value measure and the net interest income measure after the market value changes of instruments,
   f) the distribution of capital relative to risks across all members of the banking group included in the prudential consolidation, in addition to the adequacy of overall internal capital requirement on a consolidated basis,
   g) the sources of IRRBB,
   h) the circumstances under which the risk may materialise.

(5) In determining the amount of internal capital requirement to be held for IRRBB, a bank shall use measurement systems and a range of different interest rate shocks and scenarios, which are adapted to the risk profile of the bank in order to quantify the potential scale of any IRRBB effects under adverse conditions.

VI. DATA QUALITY AND INTERNAL CONTROLS

Article 18

IRRBB Information System and Data Quality

(1) A bank shall ensure that the information system and applications that support the management of IRRBB provide timely and accurate data the bank uses to:
   a) carry out, process and record operations,
   b) identify, measure and aggregate IRRBB exposures,
   c) generate reports on IRRBB.

(2) The system referred to in paragraph (1) of this Article should enable:

a) capturing interest rate risk data on the all the bank's IRRBB exposures including exposures to gap, basis and option risk, as well as the measurement system referred to in Article 8 of this Decision to identify, measure and aggregate the major sources of IRRBB exposures,
b) recording fully and clearly all transactions, taking into account their IRRBB characteristics,
c) sufficient flexibility to incorporate a reasonable number of shocks and stress scenarios and any additional scenarios used by the bank for its internal IRRBB management,
d) measurement, assessment and monitoring of the contribution of individual transactions to their overall IRRBB exposure,
e) computation of economic value measure and net interest income measure after the market value changes, as well as computation of measures based on the interest rate shocks and stress scenarios prescribed by the Agency,
f) incorporation of additional constraints that the Agency may require for assumptions used to compute internal risk parameters.

(3) The system referred to in paragraph (1) of this Article should be tailored to the complexity and number of transactions creating IRRBB.

(4) The information system should enable gathering of detailed information on the repricing date(s) of a given transaction, interest rate type and reference interest rate, any options (including early repayment and redemption) and the fees relating to the exercise of these options.

(5) A bank shall have in place adequate organisational controls of the information system to prevent the loss of data used by IRRBB applications, as well as controls of changes to the codes in those applications, so as to ensure, in particular, the following:
a) the reliability of inputs and parameters, and the credibility of data processing systems for IRRBB models,
b) that the likelihood of errors occurring in the information system is minimised,
c) that adequate measures are taken if market disruptions occur.

(6) A bank shall implement appropriate processes that ensure that the data entered into the information system is correct and shall establish appropriate mechanisms to verify the correctness of the aggregation process and the reliability of model results.

(7) To reduce the possibility of errors, data inputs should be automated as much as possible, and data mapping should be periodically reviewed and tested to ensure that it matches an approved model version.

(8) A bank shall identify potential reasons for discrepancies and irregularities that may arise at the time of data processing and shall have procedures in place to handle those discrepancies and irregularities, including procedures for the mutual reconciliation of positions to enable these discrepancies and irregularities to be eliminated.

(9) The parent bank in a banking group shall ensure that the data used to feed models measuring the IRRBB across the group is consistent with the data used for financial planning.

Article 19
Internal Controls

(1) A bank shall undertake regular reviews and evaluations of its internal controls systems and IRRBB management processes to ensure compliance with established risk management policies and procedures.

(2) The reviews and evaluations referred to in paragraph (1) of this Article shall be conducted regularly by employees or organisational units that are independent of the function under review.

(3) A bank shall have in place a regular review, at least within a three-year cycle, of its IRRBB identification, measurement, monitoring and control processes by the internal audit function, where the internal audit function may rely on third parties for audits of specific areas that require specialist knowledge.

Article 20
Internal Reporting

(1) The internal reports shall be provided to the supervisory board and the management board of a bank at least quarterly.
(2) The reports referred to in paragraph (1) of this Article should contain information at relevant levels of aggregation (by consolidation level and currency) and a level of information adapted to the particular management level and to the specific situation of the bank and the environment. The reports should include at least the following:
   a) summaries of the aggregate IRRBB exposures, including information on exposures to gap, basis and option risk. The reports should include explanations of all material asset, liability, cash flow and strategy positions that are driving the level and direction of IRRBB,
   b) compliance with policies and limits,
   c) key model assumptions, such as characteristics of non-maturity deposits, prepayments on fixed rate loans, early withdrawals of fixed term deposits, drawing of commitments, currency aggregation and treatment of commercial margins,
   d) data on the impact of key model assumptions on the measurement of IRRBB in terms of both economic value measure and net interest income measure, including changes in assumptions under various interest rate scenarios,
   e) data on the impact of interest rate financial derivatives referred to in Annex II of the Decision on Calculation of Bank Capital on the measurement of IRRBB,
   f) data on the impact of fair value instruments on the measurement of IRRBB, including fair value hierarchy Level 3 assets and liabilities, as defined in International Financial Reporting Standard 13 Fair Value Measurement,
   g) results of stress testing referred to in Article 15 of this Decision, the interest rate shock scenarios referred to in Article 14 of this Decision, the supervisory outlier test referred to in Article 16 of this Decision and assessments of sensitivity to key assumptions and parameters,
   h) summaries of the reviews of IRRBB policies, procedures, processes and adequacy of the measurement systems, including any findings of internal and external auditors or consultants.
(3) The reports referred to in paragraph (1) of this Article should include the results of the model reliability reviews and audits as well as comparisons of past forecasts or risk estimates with actual results to inform about potential modelling shortcomings, such as:
   a) the modelled prepayment loss estimates against historical realised losses and
   b) the identification of portfolios that are exposed to significant market value changes.

VII. TRANSITIONAL AND FINAL PROVISIONS

Article 21
Transitional and Final Provisions

(1) The Decision on the Management of Interest Rate Risk in the Banking Book („Official Gazette of the Federation of BiH“, number 41/20) shall cease to apply as of the date of the start of application of this Decision.
(2) Banks shall comply with the requirements from this Decision by 30 June 2025.

(3) The Director of the Agency will issue the Instruction within 60 (sixty) days from the date of entry into force of this Decision.

Article 22

This Decision shall enter into force on the eighth day from the date of its gazetting in the „Official Gazette of the Federation of BiH“ and it shall apply as of 30 June 2025.

Number: U.O.-17-05/23	**CHAIRWOMAN OF**
Date: December 15th, 2023	**THE MANAGEMENT BOARD**
	Ivanka Galic, BSc (Econ.), sgd