Pursuant to 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, 44/2018 and 19/2025) and Section 52 of the Decision on the Management of Interest Rate Risk in the Non-Trading Book (RS Official Gazette, No 13/2025), the Executive Board of the National Bank of Serbia hereby issues

G U I D E L I N E S
FOR IMPLEMENTATION OF THE STANDARDISED APPROACH AND THE SIMPLIFIED STANDARDISED APPROACH FOR THE MEASUREMENT OF EXPOSURE TO INTEREST RATE RISK IN THE NON-TRADING BOOK

C h a p t e r I
INTRODUCTORY PROVISIONS

1. These Guidelines shall prescribe detailed conditions and manner of implementation of the standardised approach and simplified standardised approach for the measurement of exposure to interest rate risk in the non-trading book (hereinafter: standardised approaches).

Key assumptions for the implementation of standardised approaches

2. When measuring exposure to interest rate risk arising from banking i.e. non-trading book activities (hereinafter: IRRBB risk) by applying standardised approaches, banks shall cover interest rate-sensitive instruments from Section 2, paragraph 1, item 6) of the Decision on the Management of Interest Rate Risk in the Non-Trading Book (hereinafter: interest rate-sensitive instruments), specifically:

1) financial derivatives in the non-trading book in the form of interest rate contracts within the meaning of the decision governing capital adequacy of banks;
2) other financial derivatives in the non-trading book that are not covered by item 1) of this Section, whose cash flows are fully or partially dependent on the specific interest rate;
3) asset positions in the non-trading book sensitive to interest rate changes, 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 (hereinafter interest rate-sensitive assets);
4) liability positions in the non-trading book sensitive to interest rate

changes (hereinafter: interest rate-sensitive liabilities);

5) off-balance sheet positions in the non-trading book sensitive to interest rate changes that are not covered by items 1) and 2) of this Section (the amount of contingent commitments);

6) trading book positions that meet the conditions for exemption from capital requirements for price risk under the decision governing capital adequacy of banks (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.

3. Banks shall calculate the measure of economic value of equity by discounting the expected cash flows based on a run-off balance sheet assumption, and the net interest income measure based on projected interest income and expenses over a one-year period, assuming a constant balance sheet in accordance with Section 50 of the Decision on the Management of Interest Rate Risk in the Non-Trading Book (hereinafter: Decision).

Banks shall discount the expected cash flows from paragraph 1 of this Section by applying interest rates derived based on the risk-free yield curve for the relevant significant currency, where the risk-free yield curve shall mean yield curve which does not include instrument- or issuer-specific credit spreads or liquidity spreads.

For other non-significant currencies, for which IRRBB exposure is measured for all currencies combined in accordance with Section 42 of the Decision, banks shall apply risk-free yield curve for the dinar currency.

4. Banks shall determine measures from Section 3, paragraph 1 of these Guidelines, within the standardised approaches, under the baseline scenario and interest rate shock scenarios when calculating impact on the economic value of equity, or under interest rate shock scenarios when calculating impact on net interest income, in accordance with Section 43 of the Decision.

5. Banks shall calculate under standardised approaches the economic value of equity and net interest income measure separately in each significant currency and for all other currencies combined, in accordance with Section 42 of the Decision.

C h a p t e r II
STANDARDISED APPROACH

Part 1

Calculation of the standardised economic value of equity measure

1. Allocation of expected cash flows into predefined time buckets for the purpose of determining economic value of equity

6. The expected cash flows from interest rate-sensitive instruments shall be allocated by predefined time buckets shown in Table 1:

Table 1

No	Time bucket (*k*) (m-month, y-year)	Midpoint of the time bucket (t_k) (in years)	Length of the time bucket (in years)
1.	Overnight (O/N)	0.0028	0
2.	> O/N ≤ 1m	0.0417	1/12
3.	> 1m ≤ 3m	0.1667	2/12
4.	> 3m ≤ 6m	0.375	3/12
5.	> 6m ≤ 9m	0.625	3/12
6.	> 9m ≤ 12m	0.875	3/12
7.	> 12m ≤ 18m	1.25	6/12
8.	> 18m ≤ 2y	1.75	6/12
9.	> 2y ≤ 3y	2.5	1
10.	> 3y ≤ 4y	3.5	1
11.	> 4y ≤ 5y	4.5	1
12.	> 5y ≤ 6y	5.5	1
13.	> 6y ≤ 7y	6.5	1
14.	> 7y ≤ 8y	7.5	1
15.	> 8y ≤ 9y	8.5	1
16.	> 9y ≤ 10y	9.5	1
17.	> 10y ≤ 15y	12.5	5
18.	> 15y ≤ 20y	17.5	5
19.	> 20y	25	10

7. The expected cash flows shall be allocated to predefined time buckets according to the remaining time to contractual maturity of the instrument or the next repricing date, calculated from the reporting date.

8. When allocating expected cash flows into predefined time buckets, the bank shall rely on the assumption of a run-off balance sheet, where the existing positions in the non-trading book mature and are not replaced.

9. In the case of fixed rate interest rate-sensitive instruments, the expected cash flows arising from the underlying receivable and/or liability (loan principal, deposit amount etc.) and interest – shall be allocated to predefined time buckets according to the remaining time to contractual maturity, calculated from the reporting date.

10. In the case of floating rate interest sensitive-instruments, the expected cash flows shall be allocated as follows, calculated from the reporting date:

1) cash flows deriving from the variable interest rate component (e.g. benchmark rate) and the outstanding amount of the underlying receivable and/or liability (loan principal, deposit amount etc.) which are contracted to mature by the next repricing date – shall be allocated by predefined time buckets according to the remaining time to contractual maturity;
2) cash flows deriving from the outstanding amount of the underlying receivable and/or liability which are contracted to mature after the next repricing date – shall be allocated within the relevant repricing time bucket;
3) cash flows deriving from the fixed interest rate component (margin) shall be allocated to predefined time buckets according to the time remaining to contractual maturity.

11. When allocating the expected cash flows pursuant to Section 6 of these Guidelines, banks shall:

1) take into account the impact of behavioural options on allocated cash flows;
2) disregard the impact of automatic options on allocated cash flows.

12. Banks shall separate cash flows arising from financial derivatives without optionality in two transactions – a paying and a receiving leg. Banks shall treat the receiving leg of a derivative instrument without optionality as an incoming cash flow and the paying leg as an outgoing cash flow.

Banks shall treat the interest income and expenses cash flows of derivative instruments referred to in paragraph 1 hereof used for hedging separately from the interest income and expenses cash flows deriving from the hedged positions.

13. Banks which according to the data from the Report on the Structure of Non-performing Loans prescribed under the decision on reporting requirements for banks have a non-performing exposure ratio of 2% or more – shall allocate the expected cash flows of their non-performing exposures (after deduction for allowances for impairment) to the time buckets defined in Table 1 from Section 6 of these Guidelines, according to the expected amounts and repayment dynamics.

2. Behavioural assumptions

14. Non-maturity deposits, except for deposits from Section 23 of these Guidelines, retail fixed rate loans subject to the risk of early repayment, retail fixed rate term deposits subject to the risk of early redemption and retail fixed rate contingent commitments, in accordance with Sections 15 to 38 of these Guidelines, shall be considered interest rate-sensitive instruments with behavioural options.

a) Non-maturity deposits

15. Depending on a counterparty, banks shall allocate non-maturity deposits in accordance with the following classification:

1) deposits of natural persons, i.e. retail deposits which are further broken down into:
– retail transactional deposits within the meaning of Section 39, paragraph 1, item 2), indent 1 of the Decision,
– other retail deposits within the meaning of Section 39, paragraph 1, item 2), indent 2 of the Decision (hereinafter: non-transactional retail deposits);
2) deposits of large clients, i.e. wholesale deposits which are further broken down into:
– wholesale financial deposits or deposits of financial sector entities defined under Section 2, paragraph 1, item 18) of the Decision,
– wholesale deposits within the meaning of Section 39, paragraph 1, item 2), indent 3 of the Decision.

16. For all deposits referred to in Section 15 of these Guidelines, except deposits of financial customers, banks shall distinguish the stable from the non-stable part of the deposit (hereinafter: stable and non-stable deposits), using historical data relevant for the bank's operations about the changes in deposit amounts caused by fluctuations in risk-free interest rates for the period of minimum ten past years.

By way of derogation from paragraph 1 hereof, if the share of non-transactional retail deposits in total retail non-maturity deposits is less than 5% – the bank may divide the whole amount of retail non-maturity deposits to stable and non-stable deposits.

By way of derogation from paragraph 1 hereof, the bank may use historical data for a period of less than ten years if there are justified reasons for that, which it shall explain at the request of the National Bank of Serbia.

17. Banks shall distinguish the core and the non-core component of stable deposits from Section 16 of these Guidelines.

18. To determine the amount of the non-core component, banks shall multiply the total amount of stable deposits by the pass-through rate, which it shall establish considering:

1) the current level of interest rates, including the spread between the bank's offer rate and market rates, rates offered by other market participants and other relevant data on bank's clients;
2) the unlikely repricing of the core component of the stable part of the non-maturity deposits (hereinafter: core component), even under significant changes in market interest rates.

19. In scenarios envisaging an increase of short-term interest rates as referred to in Section 43, paragraph 1, item 1), indents 1, 4 and 5 of the Decision, banks shall multiply the core component by 0.8.

20. In scenarios envisaging a decrease of short-term interest rates as referred to in Section 43, paragraph 1, item 1), indents 2, 3 and 6 of the Decision, banks shall multiply the core component by 1.2.

21. Banks shall apply the following caps when determining the core component in individual scenarios:

1) 90% for retail transactional deposits;
2) 70% for retail non-transactional deposits;
3) 50% for wholesale deposits.

If a bank determines the amount of stable deposits in accordance with Section 16, paragraph 2 of these Guidelines, maximum 90% of total retail deposits (transactional and non-transactional) shall be made up of core component.

22. Banks shall allocate expected cash flows arising from non-maturity deposits to the predefined time buckets subject to the following repricing maturity restrictions calculated on a weighted average basis:

1) 5 years for retail transactional deposits;
2) 4.5 years for retail non-transactional deposits;
3) 4 years for wholesale non-maturity deposits.

Banks shall apply restrictions from paragraph 1 hereof to the total deposit amount (core and non-core, as well as non-stable part) in each

significant currency and all other currencies combined, across each individual scenario.

If a bank determines the amount of stable deposits in accordance with Section 16, paragraph 2 of these Guidelines, the weighted average repricing maturity for transactional and non-transactional deposits shall be five years.

23. Banks shall not set behavioural assumptions for non-maturity deposits of financial customers and shall allocate these deposits in the predefined time bucket titled “Overnight (O/N)”.

24. Banks shall allocate non-stable deposits and non-core deposits to a predefined time bucket titled “Overnight (O/N)”.

25. Banks shall treat all non-maturity deposits as non-core deposits, if the share of the total amount of these deposits in total interest rate-sensitive liabilities of the bank is less than 2%.

b) Fixed rate retail loans that are subject to the risk of early repayment

26. For the purpose of implementation of these Guidelines, fixed rate retail loans entailing the right of full or partial early repayment shall be considered loans subject to early repayment.

27. For the purpose of the baseline scenario, banks shall set the conditional prepayment rate per each significant currency, and for all other currencies combined.

The conditional prepayment rate from paragraph 1 of this Section shall reflect annual expected prepayments relative to the outstanding amount of loan for each individual homogeneous loan type, drawing upon historical data on loan prepayments.

28. Banks may set the conditional rate from Section 27 of these Guidelines at 0% if the total amount of loans from Section 26 of these Guidelines is less than 5% of total interest rate-sensitive assets of the bank or if the bank, based on historical data on loan prepayments referred to in Section 26 of these Guidelines, establishes that the annual prepayment rate for these loans is less than 5%.

29. Banks shall adjust the conditional prepayment rates from Section 27 of these Guidelines to interest rate shock scenarios, by multiplying those rates with the coefficients reflecting the expectations about the changes in prepayment rates in periods of short-term rate increase or decrease.

In short rates shock up scenarios from Section 43, paragraph 1, item 1), indents 1,4 and 5 of the Decision – conditional rates from paragraph 1 of this Section shall be multiplied by coefficient 0.8.

In short rates shock down scenarios from Section 43, paragraph 1, item 1), indents 2, 3 and 6 of the Decision – conditional rates from paragraph 1 of this Section shall be multiplied by coefficient 1.2.

30. For each predefined time bucket as referred to in Table 1 from Section 6 of these Guidelines, banks shall calculate the expected amount of prepaid loans as the product of the following two elements:

1) cash flows arising from loan principal and interest maturing in the respective period, while not taking into account the amount of cash flows that had matured or been early repaid in prior periods;
2) the relevant time-weighted conditional prepayment rate, determined by multiplying the conditional rate from Section 27 of these Guidelines (for the appropriate homogeneous loan type and the appropriate currency) and the length of the applicable pre-defined time bucket referred to in Table 1 from Section 6 of these Guidelines and adjusted in accordance with Section 29 of these Guidelines.

31. Banks shall allocate the expected prepaid amount of the loan determined in accordance with Section 30 of these Guidelines to the appropriate time buckets defined in Table 1 from Section 6 of these Guidelines preceding the time bucket for which the amount was determined.

Banks shall allocate other cash flows of the loans from Section 26 of these Guidelines that they do not expect to be prepaid to the relevant time buckets referred to in Table 1 from paragraph 1 of this Section based on the remaining time until the contractual maturity of the instrument.

c) Fixed rate retail term deposits that are subject to the risk of early redemption

32. For the purpose of implementation of these Guidelines, fixed rate retail deposits giving the depositor the right and/or option to redeem the deposit before the contractual maturity date, shall be considered term deposits subject to early redemption.

33. Banks shall estimate the baseline cumulative term deposit early redemption rate for fixed rate term deposits referred to in Section 32 of these Guidelines for each significant currency and all other currencies combined, as

well as for each portfolio of homogeneous deposits, where this rate should reflect cumulative expected early deposit withdrawal during the contractual deposit term and is determined based on historical data on early deposit withdrawals.

34. Banks may apply 0% term deposit redemption rate from Section 33 of these Guidelines if the total amount of term deposits from Section 32 of the Guidelines is less than 5% of total interest rate-sensitive liabilities of the bank, or if the bank determined, based on historical data on early deposit withdrawals from Section 32 of these Guidelines, that the cumulative term deposit redemption rate is less than 5%.

35. Banks shall adjust the term deposit early redemption rates from Section 33 of these Guidelines to interest rate shock scenarios by multiplying those rates by the coefficients reflecting the expectations about the changes in rates of early redemption of term deposits in periods of increase or decrease of the short-term interest rates.

In scenarios that envisage an increase of the short-term interest rates as referred to in Section 43, paragraph 1, item 1), indents 1, 4 and 5 of the Decision, banks shall multiply the early redemption rates by 1.2.

In scenarios that envisage a decrease of the short-term interest rates as referred to in Section 43, paragraph 1, item 1), indents 2, 3 and 6 of the Decision, banks shall multiply the early redemption rates by 0.8.

36. The expected amount of early redeemed deposits is calculated by multiplying the following two elements:

1) the amount of term deposits from Section 32 of these Guidelines;
2) the relevant term deposit redemption rate from Section 33 of these Guidelines (for the appropriate homogenous deposit type and appropriate currency), adjusted in accordance with Section 35 of these Guidelines.

37. Banks shall allocate the expected amount of early redeemed deposits established in accordance with Section 36 of these Guidelines in the predefined time bucket in Table 1 referred to in Section 6 of these Guidelines under the title “Overnight (O/N)”.

Banks shall allocate other cash flows arising from deposits referred to in Section 32 of these Guidelines that they do not expect to be redeemed early to the relevant predefined time buckets in Table 1 referred to in Section 6 of these Guidelines according to the time remaining until the contractual maturity of the instrument.

ғ) Contingent fixed-rate commitments to retail counterparties

38. Where the sum of contingent fixed rate commitments to retail counterparties (under lines of credit, credit card limits or current account overdrafts) exceeds 2% of total interest rate-sensitive assets, banks shall estimate the drawn amount by individual scenario (both in the baseline scenario and interest rates shock scenarios) based on historical data on the funds use in similar conditions. Banks shall allocate the estimated drawn amount to predefined time buckets in Table 1 referred to in Section 6 of these Guidelines in accordance with the expected timeframe of drawing the funds.

3. Automatic options

39. In case of embedded options of interest rate-sensitive instruments, such as fixed-rate wholesale loans subject to early repayment (fully or partially), fixed-rate wholesale term deposits subject to early redemption, contingent fixed-rate commitments to wholesale counterparties, as well as loans to which interest rate cap is applied, banks shall separate the amount of embedded automatic option from the amount of underlying instrument.

Cash flows arising from interest rate-sensitive instruments from paragraph 1 of this Section, except for fixed-rate contingent commitments to wholesale counterparties – shall be allocated to predefined time buckets in Table 1 referred to in Section 6 of these Guidelines, while automatic options shall be valued separately.

40. Banks shall value automatic options in accordance with the internal methodology for each individual scenario and currency.

The change in the value of automatic options shall be determined as the difference between the sum of the changes in the values of all bought automatic options in each individual currency and each individual scenario and the sum of changes in values of all sold automatic options in that currency and that scenario.

To determine the change in the value of options by individual scenario and currency, banks shall subtract from the calculated values of automatic options for each individual scenario the value of options in the baseline scenario.

4. Interest rate shock scenarios

41. Banks shall determine interest rate shock scenarios in accordance with Section 43, paragraph 1, item 1) of the Decision based on currency-specific interest rate shocks listed in the following table (Table 2), applying the provisions of Sections 44–46 of these Guidelines:

Table 2

No	Currency		Type of interest rate shock		
	Currency code	Official name of the currency	Parallel shock	Short interest rate shock	Long interest rate shock
1.	ARS	Argentine peso	400	500	300
2.	AUD	Australian dollar	300	450	200
3.	BGN	Bulgarian lev	250	350	150
4.	BRL	Brazilian real	400	500	300
5.	CAD	Canadian dollar	200	300	150
6.	CHF	Swiss franc	100	150	100
7.	CNY	Chinese yuan renminbi	250	300	150
8.	CZK	Czech koruna	200	250	100
9.	DKK	Danish krone	200	250	150
10.	EUR	Euro	200	250	100
11.	GBP	Pound sterling	250	300	150
12.	HKD	Hong Kong dollar	200	250	100
13.	HUF	Hungarian forint	300	450	200
14.	IDR	Indonesian rupiah	400	500	350
15.	INR	Indian rupee	400	500	300
16.	JPY	Japanese yen	100	100	100
17.	KRW	South Korean won	300	400	200
18.	MXN	Mexican peso	400	500	300
19.	PLN	Poland zloty	250	350	150
20.	RON	Romanian leu	350	500	250
21.	RSD	Serbian dinar	250	350	150
22.	RUB	Russian rouble	400	500	300
23.	SAR	Saudi riyal	200	300	150
24.	SEK	Swedish krona	200	300	150
25.	SGD	Singapore dollar	150	200	100
26.	TRY	Turkish lira	400	500	300
27.	USD	United States dollar	200	300	150
28.	ZAR	South African rand	400	500	300

42. In case of a currency for which interest rate shocks are not specified in Table 2 referred to in Section 41 of these Guidelines, banks shall determine currency-specific interest rate shocks in the following manner:

1) banks shall first calculate the daily average interest rate by collecting a 16-year or the longest available time series of daily 'risk-free' interest rates, without instrument-specific or entity-specific credit spreads or liquidity spreads, for each currency for the maturities 3M, 6M, 1Y, 2Y, 5Y, 7Y, 10Y, 15Y and 20Y and then calculate the arithmetic average interest rate for each currency across all observations in the time series and for all maturities. The result shall be a single measure per currency;

2) where the average interest rate calculated in accordance with item 1) of this Section for the first seven years in a 16-year time series is greater than 700 basis points, the data from the most recent 10 years shall be used, subject to data availability. Where the average interest rate calculated in accordance with item 1) of this Section for the first seven years is equal to or less than 700 basis points, the full 16-year time series of data shall be used;

3) the parallel, short and long interest rate shock by currency shall be derived from applying the relevant global shock parameter from Table 3 below to the average interest rate per currency calculated in accordance with items 1) and 2) of this Section:

Table 3

Type of shock	Global shock parameter
Parallel shock	60%
Short interest rate shock	85%
Long interest rate shock	40%

4) Banks shall apply a floor of 100 basis points as well as variable caps of 500 basis points for the short-term shock, 400 basis points for the parallel shock and 300 basis points for the long-term shock, respectively;

5) The values of parallel shock, short-term rate shock and long-term rate shock shall then be rounded to the nearest 50 basis points.

43. When determining interest rate shock scenario for all other currencies combined, banks shall apply interest rate shocks applicable to the dinar currency specified in Table 2 referred to in Section 41 of these Guidelines.

5. Parameterisations of interest rate shock scenarios

44. Given, for each currency c, the specified size of the parallel shock ($\bar{R}_{parallel,c}$), short rate shock ($\bar{R}_{short,c}$) and long rate shock ($\bar{R}_{long,c}$) – the

following parameterisations of the six interest rate shock scenarios shall be applied:

1) Parallel shock for currency *c*: A constant parallel shock up or down of a risk-free yield curve of equal intensity for all maturities:

$$\Delta R_{parallel,c}(t_k) = \pm \bar{R}_{parallel,c;}$$

2) Short rate shock for currency *c*:

$$\Delta R_{short,c}(t_k) = \pm \bar{R}_{short,c} * e^{\frac{-t_k}{4}},$$

Where t_k is the midpoint (in time) of the k^{th} time bucket;

3) Long rate shock for currency *c*:

$$\Delta R_{long,c}(t_k) = \pm \bar{R}_{long,c} * \left(1 - e^{\frac{-t_k}{4}}\right);$$

4) Rotation shocks for the yield curve – steepener shock and flattener shock for currency *c:*

$$\Delta R_{steepener,c}(t_k) = -0{,}65 * \left|\Delta R_{short,c}(t_k)\right| + 0{,}9 * \left|\Delta R_{long,c}(t_k)\right|,$$

$$\Delta R_{flattener,c}(t_k) = 0{,}8 * \left|\Delta R_{short,c}(t_k)\right| - 0{,}6 * \left|\Delta R_{long,c}(t_k)\right|.$$

45. Interest rates from the risk-free yield curve shall be adjusted for the calculated values of individual shocks referred to in Section 44 of these Guidelines, in order to determine interest rate $R_{i,c}$, for the appertaining scenario *i* and currency *c*, to be applied for discounting cash flows by the relevant predefined time buckets, in accordance with Sections 49 and 50 of these Guidelines.

46. Banks shall carry out parameterisation of interest rate shock scenarios for all other currencies combined by applying Sections 44 and 45 of these Guidelines for the dinar currency.

6. A post-shock interest rate floor

47. A post-shock interest rate floor shall be applied for each currency, depending on maturity *k*, starting with -150 basis points for maturities up to 12 months (maturities under 1 to 6 from Table 1 in Section 6 of these Guidelines). That floor shall increase by 3 basis points per year, eventually reaching 0% for

maturities of 50 years and more.

By way of derogation from paragraph 1 of this Section, a post-shock interest rate floor for the dinar currency shall be 0%.

48. If interest rates from the risk-free yield curve are lower from the floor referred to in Section 47 of these Guidelines, banks shall apply the lower of the two rates.

7. Determining net discounted position by scenario

49. Banks shall determine the net interest rate-sensitive position by individual time buckets defined in Table 1 from Section 6 of these Guidelines, as follows:

1) incoming cash flows shall have a positive sign and outgoing cash flows shall have a negative sign;
2) all positive and negative cash flows within a time bucket shall be netted, forming a net long or net short position for each time bucket.

50. Banks shall discount net long position or net short position by individual time buckets *k* defined in Table 1 from Section 6 of these Guidelines towards a present value by using a discount factor $DF_{i,c}(t_k)$, which is calculated by multiplying the risk-free interest rate $R_{i,c}(t_k)$ at the bucket midpoint for the respective scenario *i* and currency *c* multiplied by the bucket midpoint t_k as follows:

$$DF_{i,c}(t_k) = e^{-R_{i,c}(t_k)*t_k}.$$

51. Banks shall sum up the discounted net positions across all time buckets within the same scenario, to determine the economic value of equity for the baseline scenario and interest rate shock scenarios, for each significant currency individually and for all other currencies combined.

8. Determining total change in economic value of equity

52. Banks shall calculate the change in the economic value of equity in each significant currency individually and for all other currencies combined, by subtracting the economic value of equity in the baseline scenario from the economic value of equity in the interest rate shock scenario and by adjusting the difference for the change in the value of automatic options calculated pursuant to Sections 39 and 40 of these Guidelines.

53. Banks shall calculate the change in the economic value of equity for each interest rate shock scenario as a sum of all negative and positive changes

in economic value of equity determined for each significant currency and all other currencies combined, while positive changes shall be multiplied by a factor of 50%.

54. When running the supervisory outlier test referred to in Section 53 of the Decision, banks shall take into account the results of the interest rate shock scenario that has the largest negative impact on the economic value of equity, determined in accordance with Section 53 of these Guidelines.

Part 2

Calculation of the net interest income measure under the standardised approach

55. Banks shall determine net interest income they expect to generate from interest rate-sensitive instruments within one year from the reporting date, taking into account the following components:

1) net interest income they expect to generate by the instruments' contractual maturity date or the next repricing date (fixed cash flows whose amount shall not change due to interest rate changes), which is set in accordance with Sections 62 to 64 of these Guidelines;
2) net income based on the projected movement of risk-free yield curve from the instruments' contractual maturity date or repricing date until the end of the observed period (one year from the reporting date), in accordance with the assumption of constant balance sheet, determined in accordance with Sections 65 to 69 of these Guidelines;
3) net income from projected margin from the moment when it becomes possible to reset a margin (most often upon maturity) until the end of the period observed (one year from the reporting date), assuming a constant balance sheet, which is determined in accordance with Sections 70 to 76 of these Guidelines, where the projected margins need to rely on margins in recent comparable portfolios, and not on historical/original margins.

In calculating the net interest income measure, banks shall take into account, apart from net interest income from paragraph 1 of this Section, the impact of automatic options in accordance with Section 61 of these Guidelines and shall calculate the add-on in accordance with Sections 77 to 85 of these Guidelines.

When measuring exposure to IRRBB risk, banks shall also take into account the risks impacting net interest income due to the accounting treatment of instruments and determine the effects of interest rate changes on the fair value amount of instruments, as prescribed in detail in Sections 90 to 93 of these Guidelines. These effects shall be determined separately from

determining the total change in net interest income pursuant to Sections 86 to 89 of these Guidelines.

1. Allocating expected cash flows to predefined time buckets for the purpose of determining net interest income

56. Expected cash flows from interest rate-sensitive instruments shall be allocated into a matrix, by columns, in accordance with Table 4 and by rows, in accordance with Table 5, as follows:

Table 4

No	Time bucket (*k*) (m-month, y-year)	Midpoint of the time bucket (t_k) (in years)	Remaining time of observation of net interest income (in years)
1.	Overnight (O/N)	0.0028	0.9972
2.	> O/N ≤ 1m	0.0417	0.9583
3.	> 1m ≤ 3m	0.1667	0.8333
4.	> 3m ≤ 6m	0.375	0.625
5.	> 6m ≤ 9m	0.625	0.375
6.	> 9m ≤ 12m	0.875	0.125

Table 5

No	Time bucket (*j*) (m-month, y-year)	Midpoint of reference term time bucket j (REF_j) (in years)
1.	> O/N ≤ 12m	1
2.	> 12м ≤ 1.5y	1.25
3.	> 1.5y ≤ 2y	1.75
4.	> 2y ≤ 3y	2.5
5.	> 3y ≤ 4y	3.5
6.	> 4y ≤ 5y	4.5
7.	> 5y ≤ 6y	5.5
8.	> 6y ≤ 7y	6.5
9.	> 7y ≤ 8y	7.5
10.	> 8y ≤ 9y	8.5
11.	> 9y ≤ 10y	9.5
12.	> 10y ≤ 15y	12.5
13.	> 15y ≤ 20y	17.5
14.	> 20y	25

57. Cash flows shall be allocated to time buckets by columns in Table 4 from Section 56 of these Guidelines, in accordance with Sections 9 to 38 of these Guidelines.

58. Apart from allocating expected cash flows in accordance with Section 57 of these Guidelines, banks shall also allocate them by rows in Table 5 from Section 56 of the Guidelines, depending on contractual maturity of those instruments, while also taking into account the impact of behavioural options on the allocated cash flows.

59. Banks shall allocate expected cash flows arising from floating rate instruments and non-maturity deposits into time bucket 1 in Table 5 from Section 56 of these Guidelines and/or in the predefined time bucket "> O/N ≤ 12m".

60. Fixed leg of a financial derivative shall be allocated as in the case of instruments from Section 58 of these Guidelines and the floating leg as in the case of instruments from Section 59 of the Guidelines.

2. Automatic options

61. When determining net interest income measure, banks shall take into account automatic options embedded in interest rate-sensitive instruments from Sections 39 and 40 of these Guidelines, while:

1) taking into account only options that may be exercised within one year from the reporting date;
2) calculating the values of sold and bought options in accordance with Sections 39 and 40 of these Guidelines in the baseline and interest rate shock scenarios.

3. Determining expected cash flows based on interest by contractual maturity date or the next repricing date

62. Banks shall determine the expected net interest income up to the contractual maturity date or the next repricing date of the instrument (including that date). Banks shall allocate such cash flows to the appropriate time buckets defined in Table 4 from Section 56 of these Guidelines if the following conditions are met:

1) the amount of cash flows is known and fixed, with no possibility for the change in amount due to a movement in interest rates;
2) cash flows are expected within a one-year time horizon.

63. In case of floating rate instruments, for the purpose of applying Section 62 of these Guidelines, the expected cash flows arising from interest after the repricing date shall comprise only the portion of cash flows referring to the margin.

64. The amount of cash flows with no possibility for the payment to change due to a movement in interest rates shall be the same in the baseline and interest rate shock scenarios, except in the case of application of behavioural assumptions.

4. Determining net income based on projected risk-free component of interest rate

65. Banks shall, for each significant currency and all other currencies combined, calculate net income arising from the risk-free component of interest rate per each scenario.

Banks shall determine net income from the risk-free component of interest rate under the assumption that the expected cash flows allocated to time buckets defined in Tables 4 and 5 from Section 56 of these Guidelines will be reinvested in new instruments (hereinafter: rolled-over instruments), in accordance with Section 66 of these Guidelines.

66. Risk-free component of interest rate from Section 65 of these Guidelines shall represent a forward rate which is expected to be applied on instruments rolled over at midpoint of time bucket *k* in Table 4 from Section 56 of these Guidelines with the contractual maturity date at midpoint of time bucket *j* defined in Table 5 from that Section.

67. Banks shall determine the forward rate referred to in Section 66 of these Guidelines according to the following formula:

$$FWD_{i,c} = -\frac{ln\left(\frac{DF_{i,c}(t_k + REF_j)}{DF_{i,c}(t_k)}\right)}{REF_j},$$

where:
t_k – is the midpoint of time bucket *k* in Table 4 from Section 56 of these Guidelines,
REF_j – is the midpoint of time bucket *j* in Table 5 from Section 56 of these Guidelines,
$FWD_{i,c}$ – is the forward rate for the respective scenario *i* and for currency *c* for a risk-free loan starting at the moment t_k and with contracted maturity at the

moment REF_j,
$DF_{i,c}(t_k)$ – discounting factor for the respective scenario *i* and for currency *c* at the midpoint of time bucket *k* – t_k, determined in accordance with Section 50 of these Guidelines.

68. Banks shall calculate the risk-free interest rate component for each combination of the *k* time bucket midpoint and *j* time bucket midpoint by multiplying the forward rate from Section 67 of these Guidelines with the remaining time horizon of observing net interest income defined in Table 4 from Section 56 of these Guidelines.

69. Banks shall determine net interest income to be generated from the risk-free component of interest rate by multiplying cash flows that are allocated in accordance with Sections 56 to 60 of these Guidelines with the applicable risk-free component of interest rate from Section 68 of these Guidelines.

5. Determining net income deriving from projected margin

70. Banks shall calculate net income deriving from projected margins for all rolled-over instruments, by allocating cash flows in accordance with Section 71 of these Guidelines and applying the margin rate determined in accordance with Section 73 of the Guidelines.

71. Banks shall allocate cash flows in accordance with Sections 56 to 60 of these Guidelines, except for cash flows deriving from underlying receivable and/or liability of floating rate instruments (loan principal, deposit amount etc.), which are shown within the predefined time buckets by the remaining time until the contractual maturity date for the purpose of implementing Sections 70 to 76 of these Guidelines.

72. To determine net interest income deriving from projected margins for all rolled-over instruments, banks shall allocate interest-sensitive instruments by the following types of products and currencies:

1) interest rate-sensitive assets:
   – debt securities,
   – loans and other receivables – non-financial corporates,
   – loans and other receivables – households (housing loans),
   – loans and other receivables – households (credit – non-housing),
   – loans and other receivables – other counterparties,
   – other interest rate-sensitive assets;
2) interest rate-sensitive liabilities:
   – deposits – non-financial corporates,

– deposits – households,
– deposits – other counterparties,
– debt securities,
– other interest rate-sensitive liabilities.

73. To determine margin rates referred to in Section 70 of these Guidelines, banks shall:

1) in the case of instruments traded in deep and active liquid markets, banks shall determine the margin rate as the difference between the market-based rate for those instruments and the risk-free interest rate;
2) in the case of other instruments, banks shall determine the margin rate as the weighted average of margins received or paid in transactions during the preceding twelve months, having regard to the product type from Section 72 of these Guidelines, and the currency denomination. In the absence of such transactions for some products or currencies over the past year, banks shall determine the margin rate on the basis of margins received or paid in comparable portfolios.

74. The applicable margin rate in the baseline scenario, estimated in accordance with Section 73 of these Guidelines, shall also apply in interest rate shock scenarios.

75. The margin rate determined in accordance with Section 73 of these Guidelines shall be multiplied with by the remaining time of observing the net interest income specified in Table 4 in Section 56 of these Guidelines.

76. Banks shall determine net interest based on projected margin by multiplying cash flows that are allocated in accordance with Section 71 of these Guidelines with the margin rate referred to in Section 75 of the Guidelines.

6. Net interest income add-on for basis risk

77. Where the sum of cash flows arising from floating rate instruments, in a certain significant currency, other than those in the reference term ‘overnight’ in accordance with Section 78 of these Guidelines, exceeds 5% of total interest rate-sensitive assets in the same currency, banks shall calculate net interest income add-on for basis risk for that respective currency.

For other currencies that are observed combined, banks shall not determine net interest income add-on for basis risk.

78. When calculating the add-on from Section 77 of these Guidelines, in case of floating rate instruments, cash flows that were previously allocated to

time buckets defined in Table 4 from Section 56 of these Guidelines by each significant currency – shall be additionally allocated, depending on the maturity to which the interest rate of the instrument refers, to the following reference terms:

1) overnight (O/N);
2) 1 month;
3) 3 months;
4) 6 months;
5) 12 months.

79. In case that the instrument's interest rate does not have a corresponding reference term in Section 78 of these Guidelines, banks shall allocate cash flows to either of the following categories:

1) central bank benchmark rate (where the floating rate instrument refers to a central bank benchmark rate);
2) other (where the floating rate instrument refers to any other official floating benchmark).

80. Banks shall assign a positive sign to incoming cash flows and a negative sign to outgoing cash flows, while not taking into account automatic options.

81. Banks shall, for each significant currency, on the basis of historical data on movements in the interest rates of the instruments, estimate tightening shocks and widening shocks for each interest rate from Sections 78 and 79 of these Guidelines.

82. Banks shall estimate the tightening and widening shocks referred to in Section 81 of these Guidelines by comparing interest rates from Section 78, item 1) of these Guidelines with interest rates from items 2) to 5) of that Section and Section 79 of the Guidelines.

83. Banks shall, for each significant currency, apply the shocks referred to in Section 82 of these Guidelines multiplied by the remaining time of observation of net interest income referred to in Table 4 from Section 56 of these Guidelines.

84. Banks shall aggregate, but separately for the tightening and widening shocks referred to in Section 81 of these Guidelines, the results from the calculations referred to in Section 83 of these Guidelines.

85. The net interest income add-on for basis risk in each significant

currency shall be the lower result calculated in accordance with Sections 77 to 84 of these Guidelines for the tightening and widening shock scenarios.

7. Calculation of total change in the net interest income

86. Banks shall calculate net interest income over a time horizon of 1 year, without taking into account automatic options, as a sum of the following amounts:

1) cash flows arising from interest until the contractual maturity date or the next repricing date, established in accordance with Sections 62 to 64 of these Guidelines;
2) cash flows arising from projected risk-free component of interest rate, established in accordance with Sections 65 to 69 of these Guidelines;
3) cash flows arising from projected margin, established in accordance with Sections 70 to 76 of these Guidelines.

For the purpose of the calculation referred to in paragraph 1 of this Section, banks shall assign a positive sign to incoming cash flows and a negative sign to outgoing cash flows.

87. Banks shall calculate the impact of interest rate shock scenario on the change in net interest income by adding all of the following:

1) the difference between the net interest income determined in accordance with Section 86 of these Guidelines by applying the appropriate interest rate shock scenario and the baseline scenario;
2) change in the value of automatic options determined in accordance with Section 61 of these Guidelines;
3) the net interest income add-on for basis risk determined in accordance with Sections 77 to 85 of these Guidelines.

When carrying out the calculation from paragraph 1, items 1) and 2) of this Section, banks shall apply the same interest rate shock scenario, while when carrying out the calculation in accordance with item 3) of that paragraph, the bank shall apply the results for the benchmark rate tightening or widening shocks – depending which of the two has a greater negative impact on net interest income.

88. Banks shall determine the change in net interest income for every interest rate shock scenario as a sum of all negative and positive changes in net interest income determined for each significant currency and for all other currencies combined, while positive changes shall be multiplied by a factor of 50%.

89. When carrying out the supervisory outlier test referred to in Section 53 of the Decision, banks shall take into account the results of interest rate shock scenarios with the greater negative impact on net interest income, determined in accordance with Section 88 of these Guidelines.

8. Market value changes for instruments measured at fair value and maturing beyond the net interest income observation time horizon

90. To determine the market value changes for instruments measured at fair value and maturing beyond the net interest income observation time horizon, banks shall allocate cash flows arising from those instruments.

Banks shall allocate cash flows from paragraph 1 of this Section so that incoming cash flows shall have a positive sign and outgoing cash flows shall have a negative sign, where all positive and negative cash flows within a defined time bucket shall be netted, forming a net long or net short position for each respective time bucket.

91. When allocating cash flows in accordance with Section 90 of these Guidelines, banks shall exclude cash flows related to instruments not measured at fair value, as well as cash flows from instruments which are measured at fair value but are being replaced/mature during the net interest income observation time horizon (are set to zero in the maturing time bucket).

92. To determine the value of automatic options for instruments measured at fair value and maturing beyond the net interest income observation time horizon, banks shall apply Sections 39 and 40 of these Guidelines.

93. To determine the market value changes for instruments measured at fair value and maturing beyond the net interest income observation time horizon, banks shall apply Sections 50 to 53 of these Guidelines, using in the calculation two interest rate shock scenarios for the calculation of the impact on net interest income from Section 43, paragraph 1, item 2) of the Decision.

C h a p t e r III

SIMPLIFIED STANDARDISED APPROACH

Part 1

Simplified standardised approach for the calculation of the economic value of equity measure

94. For the calculation of the economic value of equity and the changes in the economic value of equity under the simplified standardised approach, banks shall apply the following derogations from the standardised approach:

1) in the baseline scenario:

– by way of derogation from Sections 16 to 21 of these Guidelines, core deposits are set at 69.23% of total retail transactional deposits referred to in Section 15, item 1), indent 1 of these Guidelines, 53.85% of total retail non-transactional deposits and 38.46% of total wholesale non-maturity deposits referred to in Section 15, item 2), indent 2 of these Guidelines,

– by way of derogation from Section 22 of these Guidelines, core deposits shall be allocated to predefined time buckets in the manner shown in Table 6:

Table 6

No	Time bucket (m-month, y-year)	Retail transactional deposits	Retail non-transactional deposits	Wholesale deposits
1.	Overnight (O/N)	30.77%	46.15%	61.54%
2.	> O/N ≤ 1m	1.15%	1.00%	0.80%
3.	> 1m ≤ 3m	2.31%	2.00%	1.60%
4.	> 3m ≤ 6m	3.46%	2.99%	2.40%
5.	> 6m ≤ 9m	3.46%	2.99%	2.40%
6.	> 9m ≤ 12m	3.46%	2.99%	2.40%
7.	> 12m ≤ 18m	6.92%	5.98%	4.81%
8.	> 18m ≤ 2y	6.92%	5.98%	4.81%
9.	> 2y ≤ 3y	13.85%	11.97%	9.62%
10.	> 3y ≤ 4y	13.85%	11.97%	9.62%
11.	> 4y ≤ 5y	13.85%	5.98%	-

2) In scenarios envisaging a decrease of short-term interest rates:

– by way of derogation from Sections 16 to 21 of these Guidelines, core deposits are set at 90% of total retail transactional deposits referred to in Section 15, item 1), indent 1 of these Guidelines, 70% of total retail non-transactional deposits and 50% of total wholesale non-maturity deposits referred to in Section 15, item 2), indent 2 of these Guidelines,

– by way of derogation from Section 22 of these Guidelines, core

deposits are allocated to predefined time buckets in the manner shown in Table 7:

Table 7

No	Time bucket (m-month, y-year)	Retail transactional deposits	Retail non-transactional deposits	Wholesale deposits
1.	Overnight (O/N)	10.00%	30.00%	50.00%
2.	> O/N ≤ 1m	1.50%	1.30%	1.04%
3.	> 1m ≤ 3m	3.00%	2.59%	2.08%
4.	> 3m ≤ 6m	4.50%	3.89%	3.12%
5.	> 6m ≤ 9m	4.50%	3.89%	3.12%
6.	> 9m ≤ 12m	4.50%	3.89%	3.12%
7.	> 12m ≤ 18m	9.00%	7.78%	6.25%
8.	> 18m ≤ 2y	9.00%	7.78%	6.25%
9.	> 2y ≤ 3y	18.00%	15.55%	12.51%
10.	> 3y ≤ 4y	18.00%	15.55%	12.51%
11.	> 4y ≤ 5y	18.00%	7.78%	-

3) In scenarios envisaging an increase of short-term interest rates:

– by way of derogation from Sections 16 to 21 of these Guidelines, core deposits are set at 48.46% of total retail transactional deposits referred to in Section 15, item 1), indent 1 of these Guidelines, 37.69% of total retail non-transactional deposits and 26.92% of total wholesale non-maturity deposits referred to in Section 15, item 2), indent 2 of these Guidelines,

– by way of derogation from Section 22 of these Guidelines, core deposits are allocated to predefined time buckets in the manner shown in Table 8:

Table 8

No	Time bucket (m-month, y-year)	Retail transactional deposits	Retail non-transactional deposits	Wholesale deposits
1.	Overnight (O/N)	51.54%	62.31%	73.08%

No	Time bucket (m-month, y-year)	Retail transactional deposits	Retail non-transactional deposits	Wholesale deposits
2.	> O/N ≤ 1m	0.81%	0.70%	0.56%
3.	> 1m ≤ 3m	1.62%	1.39%	1.12%
4.	> 3m ≤ 6m	2.42%	2.09%	1.68%
5.	> 6m ≤ 9m	2.42%	2.09%	1.68%
6.	> 9m ≤ 12m	2.42%	2.09%	1.68%
7.	> 12m ≤ 18m	4.85%	4.19%	3.37%
8.	> 18m ≤ 2y	4.85%	4.19%	3.37%
9.	> 2y ≤ 3y	9.69%	8.38%	6.73%
10.	> 3y ≤ 4y	9.69%	8.38%	6.73%
11.	> 4y ≤ 5y	9.69%	4.19%	-

Part 2

Simplified standardised approach for the calculation of the net interest income measure

95. For the calculation of the net interest income and the changes in the net interest income under the simplified standardised approach, banks shall apply the following derogations from the standardised approach:

1) derogations from Sections 16 to 22 of these Guidelines prescribed by Section 94 of these Guidelines;

2) cash flows of fixed rate instruments shall not be allocated according to Section 58 of these Guidelines, but for all interest rate-sensitive fixed rate instruments banks shall calculate average contractual maturity per product type from Section 72 of these Guidelines;

3) for the purpose of calculation in accordance with Sections 65 to 69 of these Guidelines, banks shall apply the calculated average contractual maturity instead of the midpoint of time bucket *j*;

4) for the purpose of calculation in accordance with Sections 62 to 64 of these Guidelines, banks shall determine cash flows based on interest

expected by the contractual maturity date or the next repricing date as the product of the following elements:

– the outstanding amount of the underlying receivable, and/or liability of all interest rate-sensitive instruments,

– the average interest rate (established based on the bank's estimate) for all interest rate-sensitive asset and liability instruments,

– net interest income observation time horizon or the midpoint of time bucket applicable to that instrument in the case that instrument is maturing or repricing takes place before the expiration of the net interest income observation time horizon.

C h a p t e r IV

TRANSITIONAL AND FINAL PROVISION

96. Banks shall align their internal regulations with the provisions of these Guidelines and adjust their information systems accordingly by 1 January 2026.

97. These Guidelines shall come into force on the eighth day following their publication in the RS Official Gazette and shall apply as of 1 January 2026.

NBS Executive Board No 33
12 June 2025

B e l g r a d e

President
of the Executive Board
of the National Bank of Serbia
G o v e r n o r
National Bank of Serbia

Dr Jorgovanka Tabaković, sign.