**Annex 1**

**METHODOLOGY FOR CALCULATING REGULAR ANNUAL CONTRIBUTIONS OF BANKS TO THE BANK RESOLUTION FUND**

1. **Calculation of main indicators**

1. The main risk indicators shall be calculated in accordance with the following:

|  |  |  |
| --- | --- | --- |
| **Risk pillar** | **Risk indicator** | **Calculation of the indicator** |
| **Risk exposure** | **funds in excess of MREL** | **(own funds + eligible liabilities – MREL) / (total liabilities + own funds)**  Own funds determined in accordance with the decision regulating capital adequacy  Eligible liabilities determined in accordance with Article 128q, paragraph 3 of the Law on Banks  MREL is the minimum requirement for own funds and eligible liabilities determined in accordance with the decision regulating the minimum requirement for own funds and eligible liabilities  Derivative liabilities are included in the total liabilities on the basis that full recognition is given to counterparty netting rights |
| **leverage** | Leverage ratio determined in accordance with the decision regulating capital adequacy |
| **CET1 ratio** | Common Equity Tier 1 capital ratio determined in accordance with the decision regulating capital adequacy |
| **TRE / total assets** | |  | | --- | | Risk exposure amount determined in accordance with the decision regulating capital adequacy / Total balance sheet assets | |
| **Stability of sources of funding** | **NSFR** | Net stable funding ratio determined in accordance with the decision regulating liquidity risk management by banks |
| **LCR** | Liquidity coverage ratio determined in accordance with the decision regulating liquidity risk management by banks |
| **Importance of a bank to financial stability** | **share of the bank in interbank loans and deposits** | Share of the bank in interbank loans and deposits of all banks in the Republic of Serbia |
| **Additional risk indicators** | **share of the trading portfolio in total assets** | Total portfolio of financial instruments measured at fair value through the income statement and those available for sale / Total assets |
| **share of off-balance sheet exposures in total assets** | Total nominal value of irrevocable commitments, financial guarantees and other commitments |
| **share of derivative business in total assets** | Total nominal value of derivatives held for trading and derivatives held for internal hedging / Total assets |
| **share of gross NPLs in total loans** | Non-performing loans determined in accordance with the decision regulating the classification of balance sheet and off-balance sheet assets of banks |
| **share of net NPLs in core capital** | Core capital determined in accordance with the decision regulating capital adequacy |
| **ROA (after tax)** | Annual rate of return on total assets after tax |
| **extent of previous extraordinary financial support** |  |

1. **Discretization of the indicators**

2. For each main indicator set out in Section 1 of this Annex (***xij***), the number of bins (***kij****)* shall be calculated as the nearest integer to:



where:

***n*** – index of the individual bank;

***i*** – index of the risk indicator;

***j*** – index of the risk pillar;

**N** – number of banks contributing to the Fund, for which the following indicators are calculated:





3. For each of the main indicators, the same number of banks is assigned to each bin, starting by assigning banks with the lowest values of the given indicator to the first bin. In case the number of banks cannot be exactly divided by the number of bins (the result is not a whole number), each of the first ***r*** bins, starting from the bin containing the banks with the lowest values of the main indicator, where ***r*** is the remainder of the division of the number of banks (***N***) by the number of bins (**k**ij), is assigned one additional bank.

4. For each indicator, each bank contained in a given bin shall be assigned the value of the order of the bin, counting from the left to the right (from the lowest to the highest ordinal number), so that the value of the discretized indicator is defined as **Iij,n = 1,…,kij**.

5. The discretization procedure set out in Sections 2 to 4 of this Annex shall also apply to the additional risk indicators determined by the National Bank of Serbia, only if it establishes that these indicators are continuous variables.

The ’Extent of previous extraordinary financial support’ indicator shall not be considered a continuous variable.

1. **Rescaling of the indicators**

6. Each of the discretized indicators (***Iij***) calculated in accordance with Section 2 of this Annex shall be rescaled over the range 1 – 1000 by applying the following formula:



where the arguments of the minimum and the maximum functions shall be the values of all banks contributing to the Fund, for which the indicator is calculated.

1. **Inclusion of the assigned sign**

7. For the needs of transformation, some indicators shall be assigned the following signs:

|  |  |  |
| --- | --- | --- |
| **Risk pillar** | **Risk indicator** | **Sign** |
| **Risk exposure** | **funds in excess of MREL** | **-** |
| **leverage** | **-** |
| **СЕТ1 ratio** | **-** |
| **TRE / total assets** | **+** |
| **Stability of sources of funding** | **NSFR** | **-** |
| **LCR** | **-** |
| **Importance of a bank to financial stability** | **share of the bank in interbank loans and deposits** | **+** |
| **Additional risk indicators** | **share of the trading portfolio in total assets** | **+** |
| **share of off-balance sheet exposures in total assets** | **+** |
| **share of derivative business in total assets** | **+** |
| **share of gross NPLs in total loans** | **+** |
| **share of net NPLs in core capital** | **+** |
| **ROA (after tax)** | **-** |

For indicators with a positive sign, higher values correspond to higher riskiness of a bank. For indicators with a negative sign, higher values correspond to lower riskiness of a bank.

The following transformation shall be applied to each indicator calculated in accordance with Section 3 of this Annex (***RIij,n***):



1. **Calculation of the composite indicator**

8. The risk indicators (***i***)within each risk pillar (***j***) shall be aggregated through a weighted arithmetic average by applying the following formula:



where:

***wij*** – is the weight of indicator *i* in pillar *j*, defined by Sections 20 to 23 of this Decision;

***Nj*** – number of indicators within pillar *j*.

9. In order to compute the composite indicator, risk pillars *ј* shall be aggregated through a weighted geometric average by applying the following formula:



where:

Wj – is the weight of the risk pillar, as defined by Section 19 of this Decision and

J – is the number of risk pillars.

10. In order for the final composite indicator to be defined as taking higher values for institutions with higher risk profiles, the following transformation shall apply:



1. **Calculation of the annual contributions**

11. The final composite indicator (***FCIn***), calculated in accordance with Section 5 of this Annex, shall be rescaled by applying the following formula:



where the arguments of the minimum and the maximum functions shall be the values of all banks contributing to the Fund, for which the final composite indicator is calculated.

12. The National Bank of Serbia shall compute the regular annual contribution of each bank (***n***), except in respect of banks for which the regular annual contribution is computed in accordance with Section 25, paragraph 2 of this Decision and except for the fixed portion of the contribution of banks to which Section 28 of this Decision applies, as:

where:

***p***,***q*** – index banks,

***GCI*** – annual target level referred to in Section 2, paragraph 2 of this Decision, minus the sum of annual contributions calculated in accordance with Section 25, paragraph 2 of this Decision and minus the sum of fixed contributions calculated in accordance with Section 28 of this Decision, and

***Bn*** – the amount of the basic annual contribution of bank *n*, as adjusted in accordance with Sections 6 to 8 of this Decision, without prejudice to the application of Section 28 of this Decision.