

Methodology for calculating and publishing UZONIA (Uzbek Overnight Index Average) of the interbank money market¹

I. Introduction

The current methodology defines the procedure for calculating and publishing UZONIA interest rate and UZONIA index based on overnight operations in the secured interbank money market in national currency.

UZONIA interest rate reflects the average level of overnight interest rates in the interbank money market at which commercial banks in Uzbekistan provide and attract liquidity in national currency under conditions of minimal credit, liquidity, and other risks. UZONIA may also serve as a reference rate for floating-rate financial instruments denominated in national currency.

UZONIA interest rate is calculated and published by the Central Bank of the Republic of Uzbekistan (hereinafter – the Central Bank) in accordance with current methodology.

II. Key definitions

1. The following definitions are used in current methodology:

UZONIA (Uzbek Overnight Index Average) – the volume-weighted average interest rate on overnight repo transactions conducted in national currency between commercial banks in the secured interbank money market using government securities;

UZONIA Index – an indicator calculated by compounding the daily UZONIA interest rates for a unit amount (1 soum) starting from a defined base date;

Compounded UZONIA interest rates – interest indicators reflecting the return on funds invested at UZONIA interest rate for a defined period;

¹ *DISCLAIMER: The English version is a translation of the original in Uzbek. In case of discrepancy, the Uzbek original will prevail.*

Money Market Working Group – a group established in cooperation with the European Bank for Reconstruction and Development to develop the money market, consisting of representatives from the Central Bank and all commercial banks.

III. Method for calculating UZONIA interest rate and UZONIA index

2. UZONIA interest rate is calculated based on overnight repo transactions conducted between commercial banks using government securities on “The trading platform of the Uzbekistan Republican Currency Exchange”, with settlement on the same day (T_0 mode).

3. When calculating the UZONIA interest rate the operations with the highest and the lowest interest rates are eliminated to maintain representativeness in the data and reflect the percentages in the middle of the distribution.

Based on international practice, transactions corresponding to the top 10% and bottom 10% by volume-weighted interest rates are excluded from the calculation base, and UZONIA interest rate is computed as the volume-weighted average of the remaining 80%.

4. UZONIA interest rate is calculated using the following steps:

a) All eligible transactions are sorted in ascending order of interest rate (R);

b) For each unique interest rate level (R_i), the transaction volumes are aggregated to calculate the composite weight (V_i), where $i \in \{1, \dots, n\}$ and n is the number of unique interest rate levels.

d) The sum of the composite weights (F) is calculated:

$$F = \sum_{i=1}^n V_i,$$

e) Composite weights corresponding to the top 10% and bottom 10% of the total composite weight (F) are excluded from the calculation base;

f) UZONIA interest rate is calculated as the volume-weighted average interest rate based on the remaining 80% trimmed composite weight, using the following formula:

$$UZONIA = \frac{\sum_{i=1}^k (R_i * V_i)}{\sum_{i=1}^k (V_i)},$$

where:

k – the number of unique interest rate levels in the trimmed composite weight used for the calculation base ($k \leq n$).

5. For UZONIA interest rate to be valid, there must be **at least 5** overnight repo transactions and a total volume of **no less than 500 billion soums** during the trading day.

6. If the number and volume of transactions conducted in the interbank repo market on a given business day do not meet the conditions specified in paragraph 5 of current methodology, UZONIA interest rate calculation base will be determined as follows:

- The “80 percent trimmed” composite weight of overnight deposit transactions conducted in the interbank money market on that business day will be included in UZONIA interest rate calculation base;

- If the total volume of interbank repo and deposit transactions included in the calculation base is less than 500 billion soums, a composite weight equal to 10 percent of the Central Bank’s overnight deposit operations for the business day will be added to UZONIA interest rate calculation base. In this case, the interest rate for the Central Bank’s overnight deposit operations is determined by adding the average spread between UZONIA interest rates published over the last 5 business days and the Central Bank’s policy rate to the current policy rate.

7. If, after applying the sequence of steps outlined in paragraph 6, the total volume in the calculation base still remains below 500 billion soums, UZONIA interest rate shall be calculated using the following formula, based on the average spread between UZONIA interest rates published over the last 5 business days and the Central Bank’s policy rate:

$$UZONIA_t = P_t + \frac{\sum_{i=t-5}^{t-1} (UZONIA_i - P_i)}{5},$$

where:

t – the current business day ($t-1$ – the previous business day),

P_t – the Central Bank’s policy rate on day t ,

$UZONIA_i$ – UZONIA interest rate on day i ,

P_i – the Central Bank’s policy rate on day i .

If this method is used for 5 consecutive days, UZONIA interest rate will be set equal to the Central Bank policy rate from the next business day onward.

8. For weekends and holidays, the mosts recent business day's UZONIA interest rate applies.

9. The base date for calculating UZONIA index is set as January 5, 2022. The value of UZONIA index on this date is set to 100, and subsequent values are calculated for each calendar day in a compounded manner using the following formula, based on a 365-day annual convention (actual/365 day-count method):

$$UZONIA\ index_t = UZONIA\ index_{t-1} * \left(1 + \frac{UZONIA_t * n_i}{365}\right)$$

where:

UZONIA index_t – the value of UZONIA index on the calculation day *t*;

UZONIA index_{t-1} – the value of UZONIA index on the calendar day preceding the calculation day;

UZONIA_t – UZONIA interest rate on the index calculation day;

n_i - the number of calendar days for which UZONIA_t is effective (typically 1 day; 3 days over weekends; and may vary on holidays).

10. For the convenience of money market participants, the Central Bank also publishes compounded UZONIA interest rates in addition to daily UZONIA interest rate.

Compounded UZONIA interest rates are calculated for 7, 30, 90, and 180 calendar day periods. This set of tenors may be adjusted in the future based on the needs of market participants.

Compounded UZONIA interest rates are calculated as the compounded product of daily UZONIA interest rates for each calendar day using the following formula:

$$\text{Compounded UZONIA} = \left[\prod_{i=t-0}^{t-d-1} \left(1 + \frac{UZONIA_i * n_i}{365} \right) - 1 \right] * \frac{365}{T},$$

where:

UZONIA_i – UZONIA interest rate calculated for bank business day *i*;

n_i - the number of calendar days for which UZONIA_i is effective (typically 1 day; 3 days over weekends; and may vary on holidays);

d – the number of bank business days within the period;

T – the number of calendar days in the period (7, 30, 90, or 180 days).

11. Compounded UZONIA interest rate for any tenor is calculated using:

Compounded UZONIA_{period}

$$= \left[\frac{UZONIA\ index_{end\ of\ the\ period}}{UZONIA\ index_{beginning\ of\ the\ period}} - 1 \right] * \frac{365}{T}$$

where:

UZONIA index_{end of the period} – UZONIA index on the day Compounded UZONIA interest rate is being calculated;

UZONIA index_{beginning of the period} – UZONIA index calculated T calendar days prior to the day Compounded UZONIA interest rate is being calculated;

T – the number of calendar days in Compounded UZONIA period.

IV. Publication of UZONIA interest rates and index

12. UZONIA interest rates and UZONIA index are calculated by the Central Bank after each trading day and published by 10:00 AM the next business day on the official website, Telegram channel, and other social media platforms.

13. UZONIA interest rates and the index are published with 4 decimal places to improve accuracy and usability.

14. Once officially published, the indicators are considered final and cannot be amended. If a calculation error exceeding 0.05 percentage points is detected, the corrected values will be published the following business day.

15. The Monetary Operations Department is responsible for calculating and publishing UZONIA interest rates and the index. The Department may also ensure dissemination via platforms like LSEG Workspace, Bloomberg, or others as needed.

V. The procedure for making changes and additions to current methodology

16. To ensure UZONIA continues to reflect actual interbank market conditions and remains useful to market participants, the Central Bank reviews current methodology regularly and at least once a year.

Proposed changes are discussed in the Money Market Working Group and submitted to the Credit Committee of the Central Bank.

17. Amendments to current methodology are approved by the Board of the Central Bank and become effective from the date specified in the corresponding resolution.