

# RULES OF THE POLSTR INTEREST RATE INDEX

Rules of the POLSTR Interest Rate Index, adopted by the Resolution of the Management Board of the GPW Benchmark S.A. No. 61/2025 of 23.05.2025

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In force from: 2.06.2025 for Index Date 30.05.2025

## **DEFINITIONS**

Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds and amending Directives 2008/48/EC and 2014/17/EU and Regulation (EU) 596/2014
a calendar day other than a Saturday, a Sunday or a public holiday, on which Data Contributors operate on the Polish money market
the Transaction-based Benchmarks Family Code of Conduct, together with the annexes which are an integral part thereof, including any changes and additions
an entity which has received confirmation of being granted the Data Contributor status from the administrator and has not lost this status in accordance with the rules set out in the Code of Conduct
a procedure of the administrator which defines the rules for the delivery of data, including the Input Data, to the administrator, provided as Annex No. 9 to the Code of Conduct
a transaction of a Data Contributor where the Data Contributor accepts or places cash at fixed rate in PLN for a fixed period, on which interest is charged for the period the cash was accepted or placed without any collateral to secure fulfilling of obligations resulting from that transaction, excluding non-negotiated transactions, i.e. those that are not concluded upon individual agreement of transaction terms, but instead are concluded according to predefined rules
the Input Data after carrying out the activities specified in point 2.5.1 of the Rules
an event which does not constitute Suspicious Input Data, yet has attributes of an unintentional defect, occurring at the stage of compilation of the Data in the accounting or transaction systems of Data Contributors or when contributing the Data to the Administrator
the date of the Deposit Transactions which are the Input Data used for determination of the POLSTR value
the data contributed by the Data Contributor to the administrator, indicated in point 6 of the Code of Conduct, which are the input data within the meaning of Article 3(1)(14) of the Benchmarks Regulation
an agreement under which the administrator grants a licence to use and apply benchmarks and indices

Oversight Committee	the Oversight Committee of Interest Rate Benchmarks, performing the oversight function as defined in Art. 5 of the Benchmarks Regulation
POLSTR Method/Method	the principles of the Input Data preparation and POLSTR value determination
POLSTR Re-determination and Re-distribution Procedure	the procedure specifying the premises and actions to be taken in case of the need to re-determine and re-distribute (i.e. publish in real time through the data distributors) the POLSTR value
Transaction Cancellation	an event which does not constitute an Error and consists in the cancellation or other change of a transaction by a client between the transaction date and the value date
User	an entity entitled to use and apply the POLSTR Index

#### 1. GENERAL PROVISIONS

- 1.1. The Rules of the Polish Short Term Rate (POLSTR)
  - 1.1.1. The Rules of POLSTR Interest Rate Index (hereinafter: "the Rules") specify the POLSTR Method, including:
    - a) the definition of POLSTR and description of the Reference Market, the measurement of which is the purpose of determining POLSTR,
    - b) the rules for publication and distribution of POLSTR values,
    - c) the description the types of Input Data and the rules of priority of their use under the POLSTR Method,
    - d) the procedure of the administrator in case of the need to re-determine and re-distribute adjusted POLSTR values,
    - e) the mechanisms to recognize circumstances where the Input Data is insufficient or their quality ceases to meet the standards necessary for accurate and reliable POLSTR determination,
    - f) the procedure in case of the circumstances referred to in point (e)
    - g) the list of Key Elements of the POLSTR Method and the definition of its material change.
  - 1.1.2. The rules for the cyclical review of the definition and the Method, consultations on the proposed material change of the Method and the cessation of provision of the POLSTR Index are set out in a separate Procedure of Review and Change of the Methods of Interest Rate Benchmarks Methods, an excerpt of which is published in accordance with point 1.2.1 of the Rules.
  - 1.1.3. The rules of permanent oversight over the provision of POLSTR by GPW Benchmark S.A. (the administrator), carried out by the Oversight Committee, is defined in separate Regulations of the Oversight Committee on Interest Rate Benchmarks published in accordance with point 1.2.1.
  - 1.1.4. Undefined terms written in capital letters in the Rules have the meaning given in the Code of Conduct.
- 1.2. Exchange of information between the administrator and the Users
  - 1.2.1. The administrator shall provide Users with announcements and relevant documents by posting them on <a href="mailto:apwbenchmark.pl">apwbenchmark.pl</a> website.
  - 1.2.2. POLSTR Users communicate with the administrator by using the contact details published in accordance with point 1.2.1 or in the manner indicated in the concluded Licence Agreements.

## 1.3. Right to POLSTR use

1.3.1. The right to use and apply POLSTR results from the Licence Agreement, the template of which is published in accordance with point 1.2.1.

#### 1.4. Complaints

- 1.4.1. The principles for submitting and dealing with complaints to the administrator are published in accordance with point 1.2.1, in the POLSTR documentation section.
- 1.4.2. Complaints are dealt with by the administrator immediately, in a fair manner, without the participation of persons directly involved in the POLSTR determination process.

#### 2. THE POLSTR DEFINITION AND METHOD

#### 2.1. Definition

- 2.1.1. The POLSTR presents the average level of the volume-weighted interest rate, where "volume" is understood as the nominal value, of O/N maturity Deposit Transactions in PLN (Polish zloty) concluded in the wholesale money market.
- 2.1.2. The POLSTR is intended to be used as an interest rate benchmark within the meaning of Art. 3(1)(22) of the Benchmarks Regulation.
- 2.1.3. The administrator defines the POLSTR as an interest rate index that is close to a risk-free rate, i.e. the interest rate measured upon assumption of reduced market risk, including the risk of market expectations regarding future interest rates, as well as liquidity risk, credit risk.
- 2.1.4. POLSTR value is determined and published with an accuracy of 3 decimal places.<sup>1</sup>
- 2.1.5. The POLSTR value is determined in accordance with the ACT/365 interest rate convention.
- 2.1.6. The POLSTR value is expressed as a percentage (%, 1/100) of the nominal value.
- 2.1.7. The POLSTR value is determined and published on the next Business Day after the Index Date.

#### 2.2. The POLSTR Reference Market and measurement principles

- 2.2.1. POLSTR intends to measure wholesale money market, which is defined as the market of credit and financial institutions.
- 2.2.2. POLSTR is based on Input Data from Data Contributors who are parties to the Transaction-based Benchmarks Family Code of Conduct, i.e.:
  - a) Powszechna Kasa Oszczędności Bank Polski S.A.,
  - b) Santander Bank Polska S.A.,
  - c) Bank Polska Kasa Opieki S.A.,
  - d) Bank Gospodarstwa Krajowego,
  - e) Bank BNP Paribas Polska S.A.,
  - f) Bank Handlowy w Warszawie S.A.,
  - g) mBank S.A.,
  - h) ING Bank Śląski S.A.,
  - i) Bank Millennium S.A.

#### 2.3. Input Data

- 2.3.1. The Input Data for POLSTR are the data on O/N Deposit Transactions, i.e. transactions whose maturity starts on the transaction date and ends on the next Business Day (overnight), concluded by Data Contributors<sup>2</sup> with:
  - a) Credit Institutions,
  - b) Credit Institutions loro,

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<sup>&</sup>lt;sup>1</sup>The rounding applies to the value expressed in %, so an example of POLSTR rounded to 3 decimal places is 5.123%

<sup>&</sup>lt;sup>2</sup>Terms written in capital letters in this point correspond to the categories specified in the description of the mechanism for reporting and collecting transaction data, i.e. the Data Delivery Procedure.

- c) Financial Institutions foreign banks,
- d) Non-monetary Financial Institutions,
- e) Mortgage Banks,
- f) Cooperative Banks,
- g) Cooperative Savings and Credit Unions.
- 2.3.2. The POLSTR is based on transactional data from a representative panel of Data Contributors that the administrator considers as:
  - a) data sufficient to accurately and reliably reflect the reference market indicated in point 2.2 of the Rules,
  - b) are fully verifiable.
- 2.3.3. The POLSTR Method does not provide for the exercise of discretion in relation to Input Data by the administrator or the Data Contributors.
- 2.3.4. In absence of sufficient Input Data, the administrator shall apply the Fallback Procedure for determining POLSTR, specified in point 2.6.
- 2.3.5. The administrator shall have procedures in place to verify the POLSTR's ability to ensure representativeness of the Input Data for the reference market, which the POLSTR intends to measure.
- 2.3.6. The POLSTR Method does not provide for the use of extrapolation models or methods by the administrator.
- 2.3.7. The Administrator uses the Input Data contributed within the meaning of art. 3(1) (8) of the Benchmarks Regulation; the Input Data is the data on Deposit Transactions, contributed daily by the Data Contributors on the basis of the rules specified in the Code of Conduct and annexes thereto, i.e.:
  - a) the Data Delivery Procedure (or DDP), which specifies the type and scope of the data to be contributed, and
  - b) the Technical Standards, i.e. a set of defined detailed conditions for data contribution, including their format and specification.
- 2.3.8. The Data Contribution Procedure and the Technical Standards shall define the minimum quality standards of the Input Data, including the format accepted by the administrator, types of data, the required scope of the specified attributes of the Input Data and the timeframes applicable to the Data Contributors as regards the contribution thereof.
- 2.3.9. The Administrator shall publish the contents of the Data Delivery Procedure and an extract from the Technical Standards in accordance with point 1.2.1.
- 2.3.10. In cases where the Data Contributor reports an Error or Transaction Cancellation after the deadline specified in point 3.4 of the Data Delivery Procedure, but before the time of distribution in accordance with point 3.2 of the Rules, the administrator shall take steps to ensure that only the correct Input Data are taken into account in determining the POLSTR value.
- 2.4. Data Contributor qualification criteria
  - 2.4.1. The criteria for qualifying an entity as a Data Contributor shall be set out in the Code of Conduct.
  - 2.4.2. The selection of the panel of Data Contributors shall take into account the assessment of activity on the Reference Market, the potential to conclude

transactions on the Reference Market and the ability to fulfil the obligations arising from the Code of Conduct.

#### 2.5. POLSTR Method

## 2.5.1. Preparation of the Eligible Transactions Pool

- a) The rules for the Data contribution by Data Contributors ensure the selection of Input Data by the administrator in accordance with the classification resulting from the DDP, including the selection of DDP data sets: 3.1.1 corresponding to point 2.3.1 lit. a) of the Rules, 3.1.4 corresponding to point 2.3.1(a) of the Rules, 3.1.5 corresponding to point 2.3.1(b) (g) of the Rules,
- b) The rules for the contribution of Data on Deposit Transactions by Data Contributors ensure the selection of Input Data on O/N maturity;
- c) In POLSTR value determination, the Deposit Transactions concluded during the entire given Business Day, are taken into account. The administrator carries out the verification of information on conclusion time of a Deposit Transaction, which is an element of qualitative verification of the Input Data, ensuring compliance with the rules set out in the DDP and the Technical Standards. In case of sets 3.1.1, 3.1.4, 3.1.5, information on the time of conclusion of the Deposit Transaction is an element of verifying the completeness of the information contributed;
- d) the administrator applies the Input Data Matching Procedure, which consists in identifying the Input Data provided by the Data Contributors, which describe the same Deposit Transaction, if both parties have the status of a Data Contributor. Pursuant to the Procedure, the administrator verifies within a given set: the name and category of the counterparty, the date of conclusion, the value date, the maturity date, the volume and the interest rate level of the Deposit Transaction, with the rounding precision at the level of 4 decimal places;
- e) the administrator applies the Minimum Volume Threshold of a Single Transaction of PLN 50 million; Deposit Transactions with a volume below this threshold are not eligible for the Eligible Transactions Pool on the basis of which the POLSTR value is determined;
- f) the administrator applies the Maximum Volume Threshold of a Single Transaction. For Deposit Transactions of a volume above that threshold, before qualifying them to the Eligible Transaction Pool on which the determination of the POLSTR value is subsequently based, the value of volume is adjusted down to the level of that threshold, which is subject to change on an annual basis, and is determined as follows:
  - (i) for the set of:

DDP groups 3.1.1, 3.1.4, 3.1.5.

value of a 3-year average is calculated from the quantiles of 99.99%<sup>3</sup> order of the quarterly distribution of the transaction volume, after exclusion of the extreme values from these quantiles, increased by the standard deviation on this set of quantiles.

<sup>&</sup>lt;sup>3</sup>A quantile of 99.99% of the empirical distribution of a variable (e.g. volume) in a sample is a value of a variable that divides the sample into two parts in such a way that at least 99.99% of the units in the sample have a value of this variable equal to or lower than the value of the quantile and at least 0.01% of the units in the sample have a value of this variable equal to or higher than the value of the quantile.

- (ii) for the determined level of the Maximum Volume Threshold of a Single Transaction, rounding is applied to the nearest PLN 50 million.
- (iii) level of the Maximum Volume Threshold of a Single Transaction is valid throughout the calendar year, commencing 6 months after the end of a three-year period of analysis;
- (iv) Maximum Volume Threshold of a Single Transaction shall be set on the full set of Input Data within the range specified in point (i);<sup>4</sup>
- g) the administrator applies a filter of outliers, according to which the Eligible Transaction Pool on which the determination of the POLSTR value is based on a given Business Day does not include Deposit Transactions classified as "extreme observations." Extreme observations are defined as Deposit Transactions at an interest rate farther from the median for interest rates of Deposit Transactions on a given Business Day by more than the absolute value of the median of interest rates of Deposit Transactions on a given Business Day plus 8 pps, i.e. outside the range defined below:
  - < daily median O/N rates (|daily median O/N rates| + 8 pps); daily median O/N rates + (|daily median O/N rates| + 8 pps) >

#### 2.5.2. Conditions and procedures concerning the quality of the Eligible Transactions Pool

- a) the administrator defines the following verifiable conditions that must be met by the Eligible Transactions Pool, achieved in consequence of the preliminary preparation of the Eligible Transactions Pool (point 2.5.1), in order to be able to carry out the Main Adjustment and to determine the POLSTR value on a given Business Day:
- (i) the Maximum Threshold of Single Data Contributor Share in the volume of the Eligible Transaction Pool is 75%,
- (ii) the Minimum Number of Data Contributors is 3,
- (iii) the Minimum Total Volume Level is PLN 1 billion.
- b) in the event that any of the conditions set out in point a) is not met, the Fallback Procedure set out in point 2.6 is used to determine the PFRON.
- c) the administrator applies the Volume Scaling-down Procedure in case of a concentration in a given transaction set, according to which the volumes of Deposit Transactions of a Data Contributor meeting the criteria of a dominant entity ("dominator") in a given set of Deposit Transactions are scaled down.
  - 1) One dataset of Deposit Transactions of financial institutions has been defined for the purposes of this Procedure (point 3.1.5 of DDP):
  - 2) In the event that the share of the above dataset in the Eligible Transactions Pool exceeds 65%, it is verified whether there is such a Data Contributor who holds a share higher than 50% in the volume of this dataset ("dominator").
  - 3) If there is a dominator in a given dataset, the volumes of its Deposit Transactions from this set are scaled down by multiplying them by the proportion determined as the quotient of 50% of the total volume of this set and the volume of Deposit Transactions of the dominator in this dataset.

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<sup>&</sup>lt;sup>4</sup>The impact of the Minimum Volume Threshold for a Single Transaction is not taken into account when determining the Maximum Volume Threshold.

- 2.5.3. Main Adjustment and the POLSTR determination method
  - a) Upon completing the processes set out in 2.5.2, the administrator applies the algorithm reducing the scope of the Eligible Transactions Pool, on the basis of which the POLSTR is determined (the Main Adjustment), to these Input Data interest rate of which is relatively close to the average of the observed interest rate levels on a given day. Input Data of a statistically less typical nature are cut off symmetrically.
  - b) Under the Main Adjustment, the administrator:
    - (i) accumulates Deposit Transactions into aggregates (sets) bringing together Deposit Transactions with the same interest rate, where the volume of the aggregate is the sum of the volumes of Deposit Transactions included therein,
    - (ii) arranges aggregates according to their interest rate in ascending order,
    - (iii) determines the value of the volume to be cut off from the bottom and the volume to be cut off from the top of an ordered series of aggregates as 25% of the total volume of the Pool,
    - (iv) cuts off the maximum number of aggregates from an ordered series of aggregates, both from the bottom and from the top, the total volume of which does not exceed the value of the cut-off volume,
    - (v) if the total volume of cut-off aggregates, either from the bottom or from the top, does not equal the volume to be cut off, the administrator cuts off that part of the volume from the next aggregate in the series (i.e. the first or last in an ordered series of untrimmed aggregates, respectively) which, together with the total volume of cut-off aggregates is equal to the volume to be cut off,
  - c) POLSTR is determined as the volume-weighted average interest rate from the aggregates remaining after the Main Adjustment, rounded to 3 decimal places, in accordance with the formula:

$$\frac{\sum_i (r_i * v_i)}{\sum_i v_i}$$

where:

 $r_i$  - interest rate of aggregate i,

 $v_i$  - volume of aggregate i.

- 2.6. The Fallback Procedure for POLSTR determination
  - 2.6.1. The Fallback Procedure is applied if it is not possible to determine the POLSTR in the manner specified in point 2.5.3.
  - 2.6.2. The POLSTR value for day t is determined on the basis of the Fallback Procedure according to the following formula:

$$NBP_RATE_t * \frac{365}{360} + \frac{1}{5} \sum_{k=1}^{5} \left( POLSTR_{t-k} - NBP_RATE_{t-k} * \frac{365}{360} \right)$$

where:

 $NBP_RATE_t$  - NBP reference rate applicable on day  $t^5$ 

 $NBP\_RATE_t * \frac{365}{360}$  - rounded according to the accuracy specified for POLSTR, the NBP reference rate applicable on day t, converted from ACT/360 to ACT/365 convention

 $POLSTR_{t-k}$  - POLSTR determined on Business Days preceding day t (regardless of whether it was determined in a standard manner or as a result of the Fallback Procedure), rounded with the accuracy specified for POLSTR.

- 2.6.3. No time limits to the use of the Fallback Procedure, i.e. the maximum number of days for the Fallback Procedure application, are introduced.
- 2.6.4. If the need to apply the Fallback Procedure is frequent, the administrator shall carry out a review of the POLSTR Method.

#### 3. PUBLICATION AND DISTRIBUTION OF THE POLSTR VALUE

- 3.1. The POLSTR shall be published on the administrator's website on each Business Day on which it is determined at 12:55 p.m. or shortly after.
- 3.2. The administrator shall make the POLSTR available in real time, i.e. at 8:55 a.m. or shortly after, through data distributors and under conditions specified by the latter.

## 4. THE POLSTR RE-DETERMINATION AND RE-DISTRIBUTION PROCEDURE

- 4.1. The POLSTR Re-determination and Re-distribution Procedure shall be applied, if on a given Business Day:
  - 4.1.1. a Data Contributor reports an Error or a Transaction Cancellation in the Input Data between 8.55 a.m. and 11.30 a.m.,
  - 4.1.2. a Data Contributor delivers Input Data between 8.15 a.m. and 11.30 a.m.,
  - 4.1.3. the administrator determines that POLSTR determination was incorrect for reasons other than those indicated in point 4.1.1 or 4.1.2.
- 4.2. The POLSTR Re-determination and Re-distribution Procedure shall consist in:
  - 4.2.1. comparing the POLSTR value published in accordance with point 3.2 with the value resulting from POLSTR re-calculation,
  - 4.2.2. the re-determination and re-distribution of POLSTR, should the difference resulting from the comparison referred to in point 4.2.1 be not less than 2 basis points.
- 4.3. The re-distribution referred to in point 4.2.2 shall take place at 12:00 p.m. or shortly after.

## 5. UNDETERMINED VALUE OF THE POLSTR

- 5.1. The POLSTR shall be deemed undetermined on a given Business Day if its value was not distributed by 12:00 p.m. or shortly after.
- 5.2. In the circumstances referred to in point 5.1, the publication referred to in point 3.1 shall not take place.

<sup>&</sup>lt;sup>5</sup> Expressed in %.

#### 6. FINAL PROVISIONS

#### 6.1. Amendments to the Rules

- 6.1.1. The Administrator, upon obtaining a positive opinion from the Oversight Committee, may amend the Rules.
- 6.1.2. The administrator shall publish the announcements on any changes to the Rules and the dates of their entry into force in accordance with point 1.2.1.
- 6.1.3. The amended Rules will become effective as of the date indicated in the information on the amendment to the Rules, yet not sooner than 30 days after the amended Rules are made available on the website.
- 6.1.4. The administrator may decide on entry into force of an amendment to the Rules after a shorter period of time than indicated in point 6.1.3, if the amendment adapts the Rules to binding legal provisions, stems from supervisory activities of the Polish Financial Supervision Authority, or for User safety reasons.

## 7. ENTRY INTO FORCE

7.1. The Rules shall enter into force on 2 June 2025 for the Index Date of 30 May 2025.

#### Annex 1. "Material change" to the POLSTR Method

- 1. A material change to the Method is defined as a change to at least one Key Element of the Method which would impact the POLSTR performance in a way that would imply Method change materiality in compliance with the Method change materiality evaluation principles in reference to the average POLSTR value as well as at least one of the two POLSTR volatility measures indicated in point 3.
- 2. For the purposes of defining a material change to the POLSTR Method, the Administrator has defined the following Key Elements of the POLSTR Method:
  - 1. The scope of market segments included in the wholesale money market
  - 2. Level of the Minimum Volume Threshold of a Single Transaction
  - 3. Principles of the Main Adjustment
  - 4. Method of determining the POLSTR value
  - 5. **Conditions that trigger the Fallback Procedure** (applied after the preparation of the Eligible Transactions Pool):
    - (i) the Maximum Volume Share Threshold of a single Data Contributor,
    - (ii) the Minimum Number of Data Contributors,
    - (iii) the Minimum Total Volume Level
  - 6. Accuracy of rounding of the POLSTR value
- 3. As part of the process of evaluating the materiality of a change to the POLSTR Method, the Administrator shall introduce materiality evaluation principles that verify the scale and scope of consequences of a change to the Key Elements of the Method by defining the limits beyond which the change of the Method will be treated as a material change. Evaluation of the materiality of a change to the POLSTR Method consists in conducting a simulation of counterfactual POLSTR index performance within a reference period that takes into account the planned change to the POLSTR Method (the so-called model POLSTR performance), and comparing it to actual historical POLSTR performance (the so-called historical POLSTR performance) in the same period by means of the following 3 statistical measures:
  - (i) the arithmetic mean of POLSTR values (measure of average value),
  - (ii) average of the POLSTR absolute first differences (measure of volatility),
  - (iii) standard deviation of the POLSTR first differences (measure of volatility).

For each of the above measures, a statistical test with the significance level of 5% is performed to verify whether the values of a given measure for the model and the historical POLSTR performance differ from each other in a statistically significant manner.