
THE RULES OF WIRON INTEREST RATE INDEX

The Rules of WIRON Interest Rate Index, adopted by the Resolution of the Management Board of the GPW Benchmark 85/2002 of 30 November 2022

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Resolution	change	entry into force
94/2022 of 7.12.2022	Editorial corrections and additions: • definitions: improved alphabetical order • points 1.1.1(g), 1.1.2, 1.1.3, 1.2.2, 1.3.1, 1.4.1 – editorial corrections • point 2.3.1 (categories of Data Providers) - removal of redundant repetitions • points 2.3.9, 2.4.2, 2.4.3 – editorial corrections • point 3.1 - editorial corrections • points 4.2.1, 4.2.2. - editorial corrections • Annex 1, points 2 and 3 – editorial corrections	8.12.2022

DEFINITIONS

Benchmarks Regulation	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 596/2014
Business Day	the calendar day, with the exception of Saturdays, Sundays and statutory holidays, on which Data Contributors operate on the Polish money market
Code of Conduct	the Transaction-based Benchmarks Family Code of Conduct, together with the annexes which are an integral part thereof, including any changes and supplements
Data Delivery Procedure	the procedure specifying the rules for the contribution of data, including the Input Data, to the administrator, provided as Annex 9 to the Code of Conduct
Data Contributor	the entity which has received confirmation from the administrator that it has been granted the status of the Data Contributor and has not consequently lost that status pursuant to the rules set out in the Code of Conduct
Deposit Transaction	a transaction of the Data Contributor in which the Data Contributor accepts or places (in relation to transactions with Credit Institutions, Credit Institutions – loro and Financial Institutions – a foreign bank) cash at fixed rate in PLN for a determined period, on which interest is charged for the period the cash was accepted or placed (in relation to transactions with Credit Institutions, Credit Institutions– loro and Financial Institutions– foreign banks), without establishing collateral to secure fulfillment 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
Error	an event which does not qualify as Suspicious Input Data, yet has attributes of an unintentional defect, occurring at the stage of compiling Data in the accounting or transaction systems of Data Contributors or when contributing Data to the administrator
Input Data	the data contributed by the Data Contributor to the administrator, indicated in point 6 of the Code of Conduct, which constitute the input data within the meaning of Article 3(1)(14) of the Benchmarks Regulation
Index Date	the date of the Deposit Transactions which are the Input Data for determination of the WIRON value
Licence Agreement	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
Index Method/ Method	the principles of the Input Data preparation and WIRON value determination
Eligible Transactions Pool	the Input Data after carrying out the activities specified in point 2.5.1 of these Rules
User	an entity entitled to use and apply the WIRON
WIRON 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 WIRON value

1. GENERAL PROVISIONS

1.1. The Rules of WIRON (*Warsaw Interest Rate Overnight*)

1.1.1. The Rules specify the WIRON Index Method, including:

- a) the definition of WIRON and description of the reference market, the measurement of which is the purpose of providing WIRON,
- b) the rules for publication and distribution of WIRON values,
- c) a description of the types of Input Data and the rules of priority of their use under the WIRON Index Method,
- d) the procedure of the administrator in case of the need to re-determine and re-distribute the corrected WIRON values,
- e) the mechanisms to recognize circumstances in which the Input Data is insufficient or their quality ceases to meet the standards necessary for accurate and reliable determination of the WIRON,
- f) the procedure in case of the circumstances referred to in point (e),
- g) the list of Key Elements of the Index Method and a 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 WIRON shall be set out in a separate Procedure for the Review and Change of the Methods of Interest Rate Benchmarks, published in accordance with point 1.2.1 of the Rules.

1.1.3. The rules of permanent oversight over the provision of WIRON by GPW Benchmark S.A. (the administrator), carried out by the Oversight Committee, shall be defined in separate regulations of the Oversight Committee published in accordance with point 1.2.1.

1.1.4. Undefined terms written in capital letters in these 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 placing them on gpwbenchmark.pl website.

1.2.2. The Users of WIRON shall communicate with the administrator using the contact details provided at gpwbenchmark.pl or in the manner indicated in the concluded Licence Agreements.

1.3. Right to use the WIRON

1.3.1. The right to use and apply WIRON results from the Application 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 shall be published in accordance with point 1.2.1, in the WIRON documentation section.

1.4.2. Complaints shall be dealt with by the administrator immediately, in a fair manner, without the participation of persons directly involved in the WIRON determination process.

2. THE WIRON DEFINITION AND METHOD

2.1. Definition

- 2.1.1. WIRON is an index provided on the basis of data on Deposit Transactions and presents the average level of the volume-weighted interest rate, where „volume” is understood as the nominal value, of O/N maturity Deposit Transactions concluded by Data Contributors with credit institutions, financial institutions and large enterprises on the reference market. described in point 2.2.
- 2.1.2. WIRON 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 WIRON 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, liquidity risk, credit risk.
- 2.1.4. The WIRON value is determined and published with an accuracy of 3 decimal places¹.
- 2.1.5. The WIRON value is determined in accordance with the ACT/365 interest rate convention.
- 2.1.6. The WIRON value is expressed as a percentage (% , 1/100) of the nominal value.
- 2.1.7. The WIRON value is determined and published the next Business Day after the Index Date.

2.2. Reference market

- 2.2.1. The reference market subject to measurement by the WIRON is the wholesale money market in the segment of O/N Deposit Transactions in Polish zloty, i.e. which begins on the transaction date and ends on the next Business Day following transaction date (overnight).

2.3. Input Data

- 2.3.1. The Input Data for WIRON is the data on O/N Deposit Transactions, concluded by Data Contributors with:
 - a) Credit Institutions²,
 - b) Credit Institutions – loro,
 - c) Financial Institutions – foreign banks,
 - d) Non-monetary Financial Institutions,
 - e) Mortgage Banks,
 - f) Cooperative Banks,
 - g) Cooperative Savings and Credit Unions,
 - h) Other Non-monetary Financial Institutions and
 - i) Large Enterprises.

¹ The rounding applies to the value expressed in %, so an example of WIRON rounded to 3 decimal places is 5.123%

² 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 Contribution Procedure

- 2.3.2. The WIRON 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) fully verifiable data.
- 2.3.3. The Index Method does not provide for an exercise of discretion in relation to the 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 WIRON, specified in point 2.6.
- 2.3.5. The administrator shall have procedures in place to verify the WIRON's ability to ensure representativeness of the Input Data for the reference market, which the WIRON intends to measure.
- 2.3.6. The WIRON 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 excerpt from the Technical Standards in accordance with point 1.2.1.
- 2.3.10. In cases where the Data Contributor submits information about an Error 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 WIRON 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 together with annexes.
 - 2.4.3. The composition of the Data Contributors panel shall be published by the administrator in accordance with point 1.2.1.
- 2.5. The WIRON 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, 3.1.10 corresponding to point 2.3.1(h) of the Rules, 3.1.14 corresponding to point 2.3.1(i) of the Rules as well as elimination of Deposit Transactions of Small and Medium-sized Enterprises, the data on which are reported under the DDP 3.1.14 group, and which, in accordance with the WIRON definition set out in point 2.3.1, are not taken into account in determining the WIRON value;
- b) in WIRON value determination, the O/N maturity 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 CDP and the Technical Standards. In case of sets 3.1.1, 3.1.4, 3.1.5, 3.1.10, information on the time of conclusion of the Deposit Transaction is an element of verifying the completeness of the information contributed; in case of 3.1.14 there is no such requirement;
- c) the administrator applies the Minimum Volume Threshold of a Single Transaction of PLN 1 million; Deposit Transactions with a volume below this threshold are not eligible for the Eligible Transactions Pool on the basis of which the WIRON value is determined;
- 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 Maximum Volume Threshold of a Single Transaction, the level of which is subject to change on an annual basis, determined as follows:
 - (i) for two sets:
 - DDP groups 3.1.1, 3.1.4, 3.1.5, 3.1.10,
 - DDP groups 3.1.1, 3.1.4, 3.1.5, 3.1.10, 3.1.14,value of a 3-year average is calculated from the quantiles of 99.99% 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. The level of the Maximum Volume Threshold of a Single Transaction is defined as the maximum of two values determined that way.
 - (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;
- f) rules for contribution of data on Deposit Transactions by Data Contributors ensure selection of Input Data with O/N maturity;

- g) the administrator applies a filter of outliers, according to which the Eligible Transaction Pool on which the determination of the WIRON 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:

$$< \text{daily median O/N rates} - (|\text{daily median O/N rates}| + 8 \text{ pps}); \text{daily median O/N rates} + (|\text{daily median O/N rates}| + 8 \text{ pps}) >$$

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 WIRON value on a given Business Day:
- (i) the Maximum Threshold of Single Data Contributor Share in the volume of a 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 WIRON.
- 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) For the purposes of this Procedure two datasets for analysis were defined:
 - i. the dataset of Deposit Transactions of financial institutions (3.1.5 of PPD) and other financial institutions (3.1.10 of PPD),
 - ii. the dataset of Deposit Transactions of large enterprises (subgroup within 3.1.14 PPD).
 - 2) In the event that the share of one of the above datasets in the Eligible Transactions Pool exceeds 50%, the verification is carried out whether there is such a Data Contributor, which would have a share in the volume of this dataset exceeding 50% ("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.

2.5.3. Main Adjustment and the WIRON 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 WIRON 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) WIRON 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 WIRON determination

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

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

where:

NBP_RATE_t – NBP reference rate applicable on day t ³

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

³ Expressed in %

$WIRON_{t-k}$ - WIRON 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 WIRON.

- 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 WIRON Method.

3. PUBLICATION AND DISTRIBUTION OF THE WIRON VALUE

- 3.1. The WIRON shall be published on the administrator's website on each Business Day on which it is determined, from December 2, 2022 to December 31, 2022 at 9:30 a.m. or shortly after. From January 1, 2023, WIRON shall be published on the administrator's website on each Business Day at 1:30 p.m. or shortly after.
- 3.2. The administrator shall distribute the WIRON in real time, i.e. at 9:30 a.m. or shortly after from December 2, 2022, through data distributors and under the conditions specified by the latter.

4. THE RE-DETERMINATION AND RE-DISTRIBUTION PROCEDURE

- 4.1. The WIRON Re-determination and Re-distribution Procedure shall be applied, if:
 - 4.1.1. the Data Contributor reports an Error in the Input Data between 9:30 a.m. and 11:30 a.m. on a Business Day, or
 - 4.1.2. the administrator finds out that the WIRON determination was incorrect for reasons other than those indicated in point 4.1.1.
- 4.2. The WIRON Re-determination and Re-distribution Procedure shall consist in:
 - 4.2.1. comparison of the result of repeated calculation of the WIRON value with the WIRON value distributed in accordance with point 3.2, re-determination of the new value, and
 - 4.2.2. the re-distribution of the WIRON, should the difference resulting from the comparison referred to in point 4.2.1 be not less than 2 basis points.
- 4.3. Re-distribution referred to in point 4.2.2 takes place at 12:00 p.m.

5. UNDETERMINED VALUE OF THE WIRON

- 5.1. WIRON 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 case referred to in point 5.1, the publication referred to in point 3.1 shall not take place.

6. FINAL PROVISIONS

- 6.1. Amendments to the Rules
 - 6.1.1. The administrator, upon obtaining a positive opinion of the Oversight Committee, may amend the Rules.
 - 6.1.2. The administrator shall publish the announcement on changes to the Rules and the dates of their entry into force in accordance with point 1.2.1.

- 6.1.3. Amendments to the Rules shall come into force on the day indicated in the announcement concerning the amendment to the Rules, but not earlier than 30 days after the text of the amended Rules is published on the website.
- 6.1.4. The administrator may decide on entry into force of the amendment to the Rules after a shorter period of time than indicated in point 6.1.3, if the amendment adapts the Rules to legal provisions in force, stems from supervisory activities of the Polish Financial Supervision Authority, or for Users' safety reasons.

7. ENTRY INTO FORCE

- 7.1. The Rules shall enter into force on 1 December, 2022.

Annex 1. The „material change” to the WIRON Method

1. The material change to the Method is a change to a Key Element of the Method which would impact the Index performance and exceed two of three materiality thresholds indicated in point 4.
2. For the purposes of definition of a material change to the WIRON Method, the Administrator has defined the following Key Elements of the Method:
 - 1. Segment of the money market**, the measurement of which is intended – the segment of Deposit Transactions (material scope of the market)
 - 2. The scope of the entities' segments from which the Deposit Transactions** are the Input Data for WIRON in accordance with its definition
 - 3. Level of the Minimum Volume Threshold of a Single Transaction**
 - 4. Principles of the Main Adjustment**
 - 5. Method of determining the WIRON value** - volume-weighted average
 - 6. Conditions that trigger the Fallback Procedure** (applied after the preparation of the Transaction Pool):
 - (i) the Level of the Maximum Volume Share Threshold of a single Data Contributor,
 - (ii) the Minimum Number of Data Contributors,
 - (iii) the Minimum Total Volume Level
 - 7. Accuracy of rounding of the WIRON value** - to 3 decimal places.
3. Within the process of examining the materiality of a change in the WIRON Method, the administrator introduces materiality thresholds used to verify the scale and scope of the consequences of changing a given Key Element of the Method, which define the limits beyond which a change in the measurement method will be treated as a material change. The verification is carried out on the basis of a counterfactual test of the WIRON model index, taking into account the planned change of the Method and the historical performance of WIRON in the reference period.
4. The “materiality thresholds” apply to the following parameters: average change in WIRON value, average daily volatility, average daily WIRON value.