

BENCHMARK STATEMENT WIRON COMPOUND INDICES FAMILY

Benchmark Statement on the WIRON Compound Indices, adopted by the resolution of the Management
Board of GPW Benchmark No. 102/2022 of 30 December 2022

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This document is a benchmark statement referred to in Article 27 of the Regulation (EU) 2016/1011 of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds ("Benchmarks Regulation", "BMR") issued by GPW Benchmark S.A. ("Administrator") as the entity having control over the provision of the WIRON Interest Rate Index ("WIRON") authorised by KNF i.e. the Polish Financial Supervision Authority, to perform the function of the administrator of benchmarks.

This statement summarises the key elements of the methodology for the provision of WIRON ("method") and the key related procedures. The Method and procedures are described in detail in the documentation of transaction-based benchmarks, published on qpwbenchmark.pl.

The definitions of terms used for describing the WIRON provision Method are included in a separate WIRON and WIRON Compound Indices List of Key Terms.

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Key terms [BMR 27 (2) (a)]¹

Definitions of key terms related to WIRON are provided in the WIRON and WIRON Compound Indices - List of Key Terms, available on the website in the documentation section of the transaction-based indices. The market to be measured and its geographical boundaries are described below.

ISIN codes [RTS 1 (1) (b)]

Index	ISIN code
WIRON 1M Compound Rate - index for a predefined period of 1 month	PL9999996595
WIRON 3M Compound Rate - index for a predefined period of 3 months	PL9999996587
WIRON 6M Compound Rate - index for a predefined period of 6 months	PL9999996579
WIRON CI – WIRON Compound Index with the start date set for January 2, 2019	PL9999996561

Use of contributions of input data [BMR 27 (2) (c), RTS 1 (1) (c)]

The WIRON Compound Indices derive from the historical values of the WIRON Interest Rate Index and reflect the behaviour of the WIRON reference market over time.

The WIRON Interest Rate Index is determined based on the input data (i.e. O/N maturity deposit transactions) provided by data contributors i.e. participants of a panel which includes the banks listed on the Administrator's website in the section on transaction-based indices.

Reference market [BMR 27 (1) (a), RTS 1 (2) (a) to (c)]

¹ In square brackets, references are made to the requirements as regards the content of the benchmark statement contained in the BMR and Commission Delegated Regulation (EU) 2018/1643 of 13 July 2018 supplementing Regulation (EU) 2016/1011 with regard to RTS specifying further the contents of, and cases where updates are required to, the benchmark statement [...] ("RTS")

The reference market measured by the WIRON Interest Rate Index and therefore also by the WIRON Compound Indices is the wholesale money market in the segment of O/N deposit transactions in PLN (Polish zloty) i.e. transactions with maturity that begins on the transaction date and ends on the next business day (overnight).

The reference market of each of the WIRON Compound Indices consists of transactions of data contributors with other credit institutions and financial institutions, as well as with large enterprises. Potential participants in the panel of WIRON data contributors may also include other entities that meet the criteria set out in the Transaction-based Benchmarks Family Code of Conduct ("Code of Conduct"), i.e. the entities that:

- √ have the status of a credit institution, as well as
- ✓ are not subject to administration or a decision of the Bank Guarantee Fund to initiate resolution, write-down or conversion of equity instruments.

The data specifying the size of the WIRON reference market, on the basis of which the WIRON Compound Indices are determined, including the number of data contributors, the number and the volume (sum of nominal values) of transactions for a given day, are published by the Administrator on a daily basis on the Administrator's website, in the section on the value and statistics of transaction-based indices.

Circumstances in which market measurement may become unreliable

The Administrator identifies potential limitations to the reliability of measurement of the market which WIRON intends to measure should the input data sources become:

- √ insufficient,
- √ inaccurate, or
- ✓ unreliable.

Ad. 1 Insufficient input data

The WIRON Compound Indices shall be deemed not to be determined on a given business day if the WIRON value is not distributed by 12:00 pm or immediately after.

Ad. 2 Inaccurate input data

Inaccurate input data are input data containing error. In the case of WIRON Compound Indices, the input value is the WIRON value, so "inaccurate input data" refer to the case where WIRON is affected by an error. If it is found by 12:00 pm on a given day that the WIRON value on that day has been incorrectly determined, the procedure for re-determining and re-distributing the WIRON Compound Indices shall be applied and the values of the WIRON Compound Indices shall be adjusted (corrected accordingly) at 12:00 pm on that day or immediately after.

Ad. 3 Unreliable input data

The Administrator does not foresee a situation in which the WIRON values as input data could be considered unreliable. The WIRON index is calculated by GPW Benchmark and is subject to the monitoring of the reliability of the input data.

Factors independent of the Administrator that may necessitate changes to, or the cessation of, the benchmark $[BMR\ 27\ (1)\ (c)]$

Unforeseen circumstances and factors, i.e. external events beyond the Administrator's control, may result in permanent disturbances in the market under measurement, i.e. market disturbances resulting in a

permanent lack of transactions as the input data for the purposes of determining the WIRON value and the need to permanently use the fallback procedure.

Over that period, the WIRON value determined on the basis of the WIRON fallback procedure shall be taken into account for the determination of the WIRON Compound Indices. No time limitations are foreseen in this regard.

Impact of change in the method of calculation or cessation of provision of the benchmark on users [BMR 27 (1) (d)]

Changes in the Method of determination of WIRON and the WIRON Compound Indices or a potential cessation of WIRON provision by the Administrator may significantly impact their users, including:

- a) any financial contracts or financial instruments that reference WIRON or WIRON Compound Indices,
- b) the method of measuring the performance of investment funds by their managers.

The WIRON users and the WIRON Compound Indices users are required, in accordance with the rules of BMR, to adopt robust plans setting out the actions that they would take in relation to their counterparties in the event a benchmark materially changes or ceases to be provided. Where possible and justified, such plans should designate one or several alternative benchmarks that could be referenced to substitute the benchmarks no longer provided.

The Indices methodology [BMR 27 (2) (b) to (c)]

WIRON *Compound Rates (CR)* for predefined interest periods of 1 month (1M), 3 months (3M) and 6 months (6M), are interest rates calculated at the end of the selected reference period (calculated "in arrears", i.e. with a value known only at the end of the defined period) by applying the compounded interest approach i.e. compounding the WIRON interest rates for each business day of a given period preceding the date of calculation and publication of a given Compound Rate.

The WIRON Compound Rate is determined for a given index date of the WIRON Compound Rate as an interest rate being the result of compounding of interest rates resulting from a series of WIRON values, the index dates of which are business days of a reference period (excluding the end date thereof) for which:

- ✓ the end date is the index date of the WIRON Compound Rate, and
- ✓ the start date is the business day resulting from the shift of the reference period end date back by a given backward-predefined maturity period in months (i.e. 1, 3 or 6 months) in accordance with the reference period start date determination convention described in the Rules of the WIRON Compound Indices Family.

The WIRON Compound Index is a cumulative value, expressed in index points, of an investment, with a specified start value on a start date, which is renewing, with interest capitalization included, on each subsequent WIRON index date starting from the start date at the interest rate equal to the WIRON value on that index date.

For the WIRON Compound Index the start date was set for January 2, 2019, and the start value for 100. The index date of the WIRON Compound Index is the same as the date of its publication.

The rationale for the adopted determination methodology [BMR 27 (2) (b)]

The choice of the methodology (or "method") of the WIRON Compound Indices resulted from the market need to create benchmarks based on the domestic money market, for interest periods longer than overnight (O/N), for predefined for specified backward-looking maturities i.e. 1M, 3M and 6M.

The adopted Method is in line with the requirements of the Benchmarks Regulation which introduced into the European legal order the global standards for development of benchmarks for financial markets,

adopted by the International Organization of Securities Commissions (IOSCO) in the document *Principles* for Financial Benchmarks².

The methods of indices compounded on the basis of indices referred to as risk-free rates, such as the WIRON, are, generally, standard on financial markets and are used, among others, in:

- ✓ the euro area (Compounded €STR average rates and compounded index³)
- ✓ Sweden (SWESTR average rates and index)
- ✓ UK (SONIA compounded index).

In order to adequately reflect the Polish financial market in the Method of the WIRON Index and WIRON Compound Indices, the Administrator analysed the reference market on the basis of transaction data for 2016-Q2'2022 submitted by 9 banks belonging to the WIRON data contributors panel. The results of two rounds of public consultation on specific elements of the methodology were also taken into account. In defining the WIRON Method, the Administrator took into account the specific characteristics of the money market in Poland, such as size and regular liquidity, standard levels of concentration of transactions and its dynamics so as to ensure a reliable reflection of the market that the WIRON intends to measure.

In the course of the analyses, it was found that the wholesale money market of *overnight* deposit transactions in Poland is an active and liquid market and that the designed Method ensures stability and the possibility of validation through historical verification on the basis of transaction data available to the Administrator. Detailed explanations regarding individual elements of the Method are provided in the analytical documents, available on the Administrator's website in the materials and analyses section.

Change of the methodology and cessation of provision of the benchmark; outline of public consultation procedures concerning material changes to the methodology [BMR 27 (2) (a), RTS (1) (5)]

The Administrator adopted a definition of a "material change" of the Method and presented it in Annex 1 to the Rules of the WIRON Interest Rate Index. According to it, a material change to the Method is a change to one of the key elements of the method, which would result in an observable change in the WIRON historical values. This approach reflects the assumption that the Method will be stable and none of the key elements of the Method will be changed by the Administrator without prior public consultations with the financial markets.

In the event of a planned material change, the Administrator agrees on the scope and content of the consultation document with an independent Oversight Committee, which is a body established by the Administrator in accordance with the requirements of BMR, supervising all aspects of the WIRON provision.

The Administrator will publish a consultation document describing the proposed change on its website and will send it individually to the following stakeholders:

- √ data contributors,
- ✓ users, i.e. entities authorized to apply and use the WIRON index on the basis of an agreement concluded with GPW Benchmark,
- ✓ the National Bank of Poland.

The Administrator has set a period of 8 weeks for submitting comments as a standard duration of one round of public consultations. The duration of a round of public consultations may be shortened upon consent of the Oversight Committee if it is an additional consultation round or if it is necessary for the Administrator to react during periods of market stress.

² See: <u>IOSCO Principles for Financial Benchmarks</u>, <u>IOSCO 2013</u>

³ See the ECB press release: <u>ECB starts publishing compounded euro short-term rate (€STR) average rates on 15 April 2021</u>

The Administrator's Management Board has the right to make the final decision on the adoption of or resignation from a material change of the Method following the publication of the results of public consultations and subject to the approval of the change by the Oversight Committee.

Rationale for the adopted procedures for the review and the approval of the methodology [BMR 27 (2) (b)]

In order to consider in detail the consequences of a potential material change in the Method used and to justify such a change, proposals for material changes shall be subject to public consultation as well as supervision and approval by the Oversight Committee.

The above-mentioned principles of reviewing and changing the method, available on the Administrator's website in the documentation section of transaction-based indices, allow:

- √ the Administrator to inform stakeholders in good time of a possible material change,
- ✓ the stakeholders to conduct an analysis,
- ✓ the stakeholders to submit comments on the impact of the changes proposed,
- √ the Administrator to respond to the comments submitted; and
- ✓ to make a reasoned decision, which has been consulted with the Oversight Committee, to introduce or not to introduce the change.

Input data characteristics [BMR 27 (2) (c)]

For the purpose of determining the WIRON Compound Indices on a given business day, the historical values of the WIRON Index for the defined period are used.

The WIRON Compound Indices Method does not provide for assigning priority to any type of input data, nor for the possibility of using models or methods of extrapolation of data from other markets.

Exercise of expert judgement and discretion; controls and evaluation measures [BMR 27 (1) (b), 27 (2) (d)]

The WIRON Compound Indices Method does not provide for the exercise of any discretion (based on expert judgement) with regard to input data by the Administrator or by the data contributors. WIRON Compound Indices are determined based on historical WIRON index values.

Procedures to be applied in stress periods or in periods in which transaction data sources may be insufficient, inaccurate or unreliable [BMR 27 (2) (e), RTS 1 (3)]

The determination of WIRON Compound Indices depends on the availability of the WIRON historical values.

A situation may occur in which data contributors radically limit O/N maturity deposit transactions in PLN or unsecured deposit transactions, switching to secured deposits. This may be the case, for example, in the event of a financial crisis, a loss of confidence in the financial market or in the event of persistent negative nominal interest rates. In such an event, until the stress conditions resulting in the lack of sufficient data come to an end, or until the WIRON Method is changed, the fallback procedure for determining WIRON shall be applied. In addition, there is a certain probability of an unpredictable, exceptional event with a significant impact on the wide financial market, as a result of which all activity in the reference market would temporarily cease.

In the above-described situations, when the sources of transaction data may not be sufficient to meet the minimum conditions set by the Administrator for determining the WIRON, a fallback procedure for

determining WIRON shall be used, and the WIRON Compound Indices shall still be determined in accordance with the described standard method.

If exceptional market events make it impossible to determine and distribute the WIRON value by 12:00 pm on a given business day, the WIRON value shall not be determined, distributed or published on that day. Consequently, the value of the WIRON Compound Indices will not be determined, distributed or published either.

In the case of technical problems, e.g. related to cyberterrorism, the Administrator will resume WIRON determination and inform the public about it as soon as possible, in accordance with the adopted emergency response procedures. If the above described events make it impossible to distribute the WIRON value by 12:00 pm on a given business day, the WIRON value shall not be determined, distributed in real time or published on that day.

Procedures for dealing with errors in input data or in the determination of the benchmark, including the case in which re-determination of the benchmark is required [BMR 27 (2) (f)]

The Administrator adopted a procedure under which, if the WIRON Index is re-determined and re-distributed, the WIRON Compound Indices shall also be re-determined and re-distributed accordingly on a given business day, and also in the case when the Administrator finds an irregularity in the determination of the WIRON Compound Indices based on any other reasons.

If it is necessary to re-distribute the values of the WIRON Compound Indices, it shall take place at 12:00 pm or immediately after.

Potential limitations of the benchmarks, including their operation in illiquid or fragmented markets and in the case of a possible concentration of input data [BMR 27 (2) (g)]

In the event the measured market becomes inactive, i.e. the eligible transactions pool becomes permanently insufficient to enable the Administrator to determine WIRON using the standard method, the Administrator immediately performs a review of the assumptions of both the WIRON Index Method and the WIRON Compound Indices method.

The result of the review may be a decision to change the Method of or cease the provision of an index, adopted upon the agreement of the Oversight Committee, as set out in the internal procedure for reviewing and amending the definitions and methods of interest rate benchmarks. If the provision of WIRON is ceased, the provision of the WIRON Compound Indices will also be ceased.

Interest rate benchmark – specific requirements [RTS 1 (1) (d), RTS 3]

The WIRON Compound Indices are intended to be used as interest rate benchmarks within the meaning of Article 3 (1) (22) of the BMR.

As such, they are subject to the requirements set out in Annex I to the BMR, i.e.:

- ✓ a requirement to rely on accurate and sufficient data, which is fulfilled by the Administrator through
 the use of rigorous and precise methods of preparing the eligible transactions pool for the base
 index, WIRON, procedures regarding the quality of the transactions pool for WIRON, the main
 adjustment procedure and the application of an appropriate, verifiable algorithm (formula) for
 determining WIRON, and then, by using appropriate formulas, for determining the Compound
 Rates and the Compound Index;
- ✓ a requirement to have an independent oversight unit, which is fulfilled by the Administrator through the establishment and permanent operation of the independent Oversight Committee which supervises all aspects of the WIRON Index and WIRON Compound Indices determination;

- ✓ the requirement to undergo an external audit within 6 months after the Transaction-based Benchmarks Family Code of Conduct enters into force and every 2 years after;
- ✓ the requirement to introduce control systems and measures at the level of the contributors of the
 data used for determining the base index WIRON, which is fulfilled by the Administrator through
 the adoption of the Code of Conduct, imposing an obligation on each data contributor to strictly
 comply with its provisions and enforcing the Code of Conduct in the manner specified therein.

Reviews and updates of the benchmark statement [BMR 27 (1)]

The statement will be reviewed regularly, at least every two years, or whenever there is any change in the WIRON method.

Regulated data benchmarks [RTS 1 (1) (d)]

The WIRON Compound Indices do not qualify as regulated data benchmarks.

Significant and non-significant benchmarks [RTS 1(1)(d)]

Each of the WIRON Compound Indices is intended to be used as an interest rate benchmark within the meaning of the BMR.

At the time of publication of this statement, neither the WIRON Interest Rate Index nor the Indices compounded on its basis are yet used by financial market entities, which means that they do not constitute benchmarks within the meaning of the BMR.

WIRON was designated by the Steering Committee of the National Working Group on Interest Rate Benchmark Reform as a recommended index to replace the existing critical benchmark i.e. the WIBOR. The designation may also include WIRON Compound Indices depending on how the benchmark is used.

Commodity benchmarks [RTS 1 (1) (d)]

Interest rate indices do not qualify as commodity benchmarks.

Critical benchmarks [RTS 1 (1) (d)]

Currently, none of the WIRON Compound Indices is a critical benchmark within the meaning of the BMR i.e. a benchmark the provision of which is subject to a special regime of European supervision and limitation of the possibility of an autonomous decision of the Administrator to cease to provide that benchmark.

EU Climate Transition Benchmarks and EU Paris-aligned Benchmarks [BMR 27 (2a)]

The interest rate benchmarks do not qualify as EU Climate Transition Benchmarks or EU Paris-aligned Benchmarks.

Environmental, social policy and corporate governance factors [BMR 27 (2a)]

The interest rate benchmarks provision methods do not take into account the ESG factors.

Degree of overall alignment with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement [BMR 27 (2a)]

The interest rate benchmarks provision methods do not take account of achievement of the objectives of the reduction of carbon dioxide emissions or the achievement of the objectives of the Paris Agreement.

This benchmark statement supplements the documentation of transaction-based indices, published on apwbenchmark.pl

- ✓ The Rules of WIRON Interest Rate Index
- ✓ The Rules of WIRON Compound Indices Family
- ✓ Transaction-based Benchmarks Family Code of Conduct
- ✓ Data Delivery Procedure
- ✓ GPW Benchmark Conflict of Interest Management Policy
- ✓ Review and Change Procedure for Method Interest Rate Benchmarks Methods (extract)
- ✓ complaints' handling procedure (outline)
- ✓ WIRON and WIRON Compound Indices List of Key Terms