
REGULATIONS FOR THE WIBID AND WIBOR REFERENCE RATES



3rd March 2020

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1. INTRODUCTION

In order to maintain the reliability and representativeness of the WIBID and WIBOR Reference Rates, as well as the transparency of their provision, the Administrator presents these Regulations which specify the rules of provision and publication of the Reference Rates, the role of the Administrator and the Oversight Committee of Interest Rate Benchmarks there and the rules of use of the Reference Rates by the Reference Rates' Users.

2. THE ADMINISTRATOR

- 2.1. The Administrator has control over provision of the WIBID and WIBOR Reference Rates through:
 - 2.1.1. administering the arrangements for determining the Reference Rates,
 - 2.1.2. collecting, analysing or processing the Input Data for the purpose of determining the Reference Rates,
 - 2.1.3. determining the Reference Rates in accordance with the Method of Determining the Reference Rates.

3. OVERSIGHT COMMITTEE OF INTEREST RATE BENCHMARKS

- 3.1. The Administrator establishes and maintains the Oversight Committee of Interest Rate Benchmarks, which is a permanent oversight function over interest rate benchmarks within the meaning of the Benchmarks Regulation, for the purpose of ensuring oversight of all aspects of the provision of interest rate benchmarks within the meaning of the Benchmarks Regulation, in particular the Reference Rates.
- 3.2. The Administrator provides support to the Oversight Committee of Interest Rate Benchmarks and access to documents, information and materials necessary to carry out the tasks of the Oversight Committee of Interest Rate Benchmarks.
- 3.3. The rules of procedure of the Oversight Committee of Interest Rate Benchmarks, including the selection and appointment of its members, are laid down in the Regulations of the Oversight Committee of Interest Rate Benchmarks published by the Administrator according to point 4.1.

4. EXCHANGE OF INFORMATION BETWEEN THE ADMINISTRATOR AND THE REFERENCE RATES' USERS

- 4.1. Information and documents addressed to Entities Using Reference Rates are shared by the Administrator by publishing them on the website of the Administrator: <https://gpwbenchmark.pl/>.
- 4.2. Reference Rates' Users communicate with the Administrator using contact information provided on the website of the Administrator in the manner indicated in the Agreements for the Use of Reference Rates concluded with them.

5. THE REFERENCE RATES

- 5.1. The Administrator determines the Reference Rates in accordance with the Method of Determining the Reference Rates on the basis of Quotes submitted by Fixing Participants to the Administrator within the Fixing.
- 5.2. Definitions of Quotes, the rules of their determination and making them available, the Fixing Participant Criteria and their duties, are specified in WIBID and WIBOR Fixing Participant Code of Conduct, published by the Administrator according to point 4.1.
- 5.3. In the Description of the Reference Rates Method, i.e. Annex 1 to the Regulations, published by the Administrator according to point 4.1, the Administrator has laid down a description of:

- 5.3.1. the Reference Rates Method in accordance with Article 13(1)(a) of the Benchmarks Regulation,
- 5.3.2. the Input Data, including a description of the types of Input Data and the priority and hierarchy of their use in the Reference Rates Method, in accordance with Article 11(1)(c) of the Benchmarks Regulation,
- 5.3.3. arrangements that identify the circumstances in which the quantity or quality of Input Data falls below the standards necessary for the Reference Rates Method to determine the Reference Rates accurately and reliably, and that describe how the Reference Rates are to be determined in such circumstances, in accordance with Article 12(3) of the Benchmarks Regulation,
- 5.3.4 details of the internal review and the approval of Reference Rates Method in accordance with Article 13(1)(b) of the Benchmarks Regulation,
- 5.3.5. the consultation procedures on any proposed change in the Reference Rates Method the meaning of material change coherent with Article 13(1)(c) of the Benchmarks Regulation.
- 5.4. The Administrator commits additionally to publish, according to point 4.1, the following documents and information required under the Benchmarks Regulation:
 - 5.4.1. the Benchmark Statement,
 - 5.4.2. Declarations of Conflict of Interest,
 - 5.4.3. the key assumptions of the Procedure of receiving, investigating and retaining records concerning complaints made,
 - 5.4.4. the terms and conditions of membership in the Oversight Committee of Interest Rate Benchmarks and its composition.
- 5.5. Any time references in these Regulations and the Reference Rates Method relate to the Central European Time.

6. PUBLICATION OF THE REFERENCE RATES

- 6.1. Reference Rates determined within the Fixing on a given Fixing Day are published on the Administrator's website on the same Fixing Day at 11:00 pm.
- 6.2. Entities Using Reference Rates may access data on Reference Rates between the Fixing and making Reference Rates public through Administrator's website, through data vendors in accordance with the conditions set by the data vendors.

7. USE OF THE REFERENCE RATES

- 7.1. Use of the Reference Rates, consisting of:
 - 7.1.1. issuing Financial Instruments, which reference the WIBID or the WIBOR,
 - 7.1.2. determination of the amount payable due to a Financial Instrument or a Financial Contract by referencing the WIBID or the WIBOR or a combination of indices containing the WIBID or the WIBOR,
 - 7.1.3. being a party to a Financial Contract, concluded as part of own services, which references the WIBID or the WIBOR,
 - 7.1.4. providing a borrowing rate as defined in Article 3 (j) of Directive 2008/48/EC of the European Parliament and the Council of 23 April 2008 on credit agreements for consumers and repealing Council Directive 87/102/EEC, calculated as a spread or mark-up over the WIBID or the WIBOR or a combination of indices containing the WIBID or the WIBOR,

- 7.1.5. measuring the performance of a Fund using the WIBID, the WIBOR or a combination of indices containing the WIBID or the WIBOR, for the purpose of tracking the return in relation to the WIBID or the WIBOR or a combination of indices containing the WIBID or the WIBOR, specifying the asset allocation from a portfolio or performance fees,
may take place exclusively on the basis of an Agreement for the Use of Reference Rates.
- 7.2. The Agreement for the Use of Reference Rates specifies in particular:
 - 7.2.1. the commitment of the Administrator to provide the Reference Rates in accordance with the rules specified by legal provisions applicable to the Administrator, and in accordance with the Regulations,
 - 7.2.2. the commitment of the Reference Rates' Users to pay a licence fee to the Administrator for the licence to Use the Reference Rates.
- 7.3. The Administrator provides, according to point 4.1, access to the template of the Agreement for the Use of Reference Rates and specifies the rules of conclusion of the Agreement by Reference Rates' Users.

8. COMPLAINTS OF THE REFERENCE RATES' USERS

- 8.1. Reference Rates' Users may address the Administrator with complaints concerning the provision or publication of the Reference Rates.
- 8.2. The Administrator provides the Oversight Committee of Interest Rate Benchmarks with update on complaints received, referred to in point 8.1, and the responses given.
- 8.3. The detailed rules of submitting complaints and the mode of replying to these by the Administrator are laid down in the Procedure of receiving and processing of complaints, published in accordance with point 4.1.

9. RESPONSIBILITY OF THE ADMINISTRATOR

- 9.1. The rules of responsibility of the Administrator to Reference Rates' Users are outlined in the Agreement for the Use of Reference Rates.
- 9.2. The Administrator is not responsible for damages resulting from use of Reference Rates or other use of Reference Rates without the knowledge or consent of the Administrator.

10. CESSATION OF PROVISION OF THE REFERENCE RATES

- 10.1. The Administrator may decide to cease the provision of the Reference Rates in particular where the Reference Rates cannot be provided in accordance with the Benchmarks Regulation.
- 10.2. The Administrator's decision to cease the provision of the Reference Rates for the reason referred to in point 10.1 requires an opinion of the Oversight Committee of Interest Rate Benchmarks and must be preceded by consultation with the KNF.
- 10.3. Information concerning the cessation of the provision of the Reference Rates and its effective date is published according to point 4.1. In addition, such decision is notified to the KNF.

11. AMENDMENT OF THE REGULATIONS

- 11.1. Any amendment of the Regulations by the Administrator is subject to opinion of the Oversight Committee of Interest Rate Benchmarks.
- 11.2. The amended Regulations are made available to the Entities Using Reference Rates as a consolidated text according to point 4.1.

- 11.3. Amendments to the Regulations come into force on the day indicated in the information concerning amendment of the Regulations, however not earlier than 30 days after making the amended Regulations available according to point 4.1, subject to point 11.4.
- 11.4. The Administrator may decide on amendment's entry into force of prior to expiry of the date referred to in point 11.3, if the amendment adapts the Regulations to the legal provisions in force or reflects a KNF decision.

12. ENTRY INTO FORCE AND VALIDITY OF THE REGULATIONS

- 12.1. The Regulations come into force on 4th May 2020. The Administrator publishes such information on its website.
- 12.2. The previous Regulations for the WIBID and WIBOR Reference Rates of 6 December 2019 become null and void on the day referred to in point 12.1.
- 12.3. The Regulations will cease to be valid on the day the decision of the Administrator to cease the provision of the Reference Rates becomes effective.

DESCRIPTION OF THE REFERENCE RATES METHOD



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1. INTRODUCTION

1.1. This document defines in particular:

- 1.1.1. the basic information concerning the Reference Rates,
- 1.1.2. a description of the Reference Rates Method in accordance with Article 13(1)(a) of the Benchmarks Regulation and Article 2 of Commission Delegated Regulation 2018/1641,¹
- 1.1.3. a description of the Input Data, including a description of the types of Input Data and the priority and hierarchy of their use in the Reference Rates Method, in accordance with Article 11(1)(c) of the Benchmarks Regulation,
- 1.1.4. arrangements that identify the circumstances in which the quantity or quality of Input Data falls below the standards necessary for the Reference Rates Method to determine the Reference Rates accurately and reliably, and that describe how the Reference Rates are to be calculated in such circumstances, in accordance with Article 12(3) of the Benchmarks Regulation,
- 1.1.5. details of the internal review and the approval of Reference Rates Method in accordance with Article 13(1)(b) of the Benchmarks Regulation and Article 3 of Commission Delegated Regulation 2018/1641,
- 1.1.6. a description of consultation procedures on any proposed material change in the Reference Rates Method in accordance with Article 13(1)(c) of the Benchmarks Regulation and Article 4 of Commission Delegated Regulation 2018/1641.

1.2. This document fulfils the disclosure and publication obligations of the Administrator concerning the Reference Rates Method arising in particular from the Benchmarks Regulation and its implementing regulations.

2. DEFINITION AND DESCRIPTION OF THE REFERENCE RATES

- 2.1. The Reference Rates are interest rate benchmarks within the meaning of Article 3(1)(22) of the Benchmarks Regulation, determined for the Fixing Tenors by the Administrator.
- 2.2. The Reference Rates include: the WIBID and the WIBOR.
- 2.3. The WIBID is an interest rate benchmark within the meaning of Article 3(1)(22) of the Benchmarks Regulation, reflecting the interest rate at which entities meeting the Fixing Participant Criteria are ready to accept Deposits for specified Fixing Tenors from other entities meeting the Fixing Participant Criteria.
- 2.4. The WIBOR is an interest rate benchmark within the meaning of Article 3(1)(22) of the Benchmarks Regulation, reflecting the interest rate at which entities meeting the Fixing Participant Criteria are ready to place Deposits for specified Fixing Tenors with other entities meeting the Fixing Participant Criteria.
- 2.5. The WIBOR has been recognised as a critical benchmark within the meaning of the Benchmarks Regulation.²
- 2.6. The Reference Rates are a family of benchmarks within the meaning of Article 3(1)(4) of the Benchmarks Regulation because both:
 - 2.6.1. are determined upon Input Data of the same nature,
 - 2.6.2. provide measures of the same market, described in point 3 below.

¹ Commission Delegated Regulation (EU) 2018/1641 of 13 July 2018 supplementing Regulation (EU) 2016/1011 of the European Parliament and of the Council with regard to regulatory technical standards specifying further the information to be provided by administrators of critical or significant benchmarks on the methodology used to determine the benchmark, the internal review and approval of the methodology and on the procedures for making material changes in the methodology

² Commission Implementing Regulation (EU) 2019/482 of 22 March 2019 amending Commission Implementing Regulation (EU) 2016/1368 establishing a list of critical benchmarks used in financial markets pursuant to the Benchmarks Regulation came into force on 26 March 2019. WIBOR was entered into the list of critical benchmarks pursuant to Article 20(1).

3. DESCRIPTION OF THE MARKET WHICH THE REFERENCE RATES INTEND TO MEASURE

The market which the Reference Rates intend to measure is a market of transactions in unsecured deposits in the Polish zloty (PLN) concluded between Fixing Participants, and transactions in unsecured deposits in the Polish zloty (PLN) concluded between Fixing Participants and entities which are not Fixing Participants, but meet the Fixing Participant Criteria.

4. METHOD OF DETERMINING THE REFERENCE RATES – REFERENCE RATES FIXING

- 4.1. The Administrator determines the Reference Rates through Fixing on the basis of the Quotes submitted by the Fixing Participants to the Administrator.
- 4.2 The Reference Rates are determined for the following Fixing Tenors:
 - 4.2.1 overnight (O/N),
 - 4.2.2 tomorrow/next (T/N),
 - 4.2.3 1 week (SW),
 - 4.2.4 2 weeks (2W),
 - 4.2.5 1 month (1M),
 - 4.2.6 3 months (3M),
 - 4.2.7 6 months (6M),
 - 4.2.8 1 year (1Y).
- 4.3 The minimum number of Quotes necessary for a Fixing for a given Fixing Tenor is 6 (six). If Fixing Participants submit 5 or fewer Quotes for a given Fixing Tenor to the Administrator, then the Administrator does not determine the Reference Rates for such a Fixing Tenor.
- 4.4 The Administrator determines the average of the Quotes submitted by Fixing Participants for a given Fixing Tenor at each Fixing Day as follows:
 - 4.4.1 excluding four extreme Quotes, i.e., the two lowest Quotes and the two highest Quotes, if at least 10 Quotes are submitted,
 - 4.4.2 excluding the lowest Quote and the highest Quote, if 8 or 9 Quotes are submitted,
 - 4.4.3 not excluding any Quotes, if 6 or 7 Quotes are submitted.
- 4.5 The Reference Rates are determined according to the ACT/365 day count convention, with a precision of two decimal places.
- 4.6 The Administrator does not use any discretion in the provision of the Reference Rates.
- 4.7 The Reference Rates do not take into account reinvestments of dividends or coupons paid by their constituents.
- 4.8 The Administrator sets no minimum requirements for the liquidity of constituents of the Reference Rates.
- 4.9 No third parties participate in the provision of the Reference Rates who would be involved in collecting data for the purposes of the Reference Rates or involved in their determination or making available.
- 4.10 The Fixing Time for all Fixing Tenors except the overnight O/N and the tomorrow/next (T/N) Tenors is 11:00 am.
- 4.11 The Fixing Time for the overnight O/N and the tomorrow/next (T/N) Tenors is 5:00 pm.
- 4.12 If the Reference Rates cannot be determined according to the Method of Determining the Reference Rates by the Fixing Time, then the Fixing Time may be postponed to no later than to 3:00 pm for all Fixing Tenors except the Fixing Tenor overnight O/N and the Fixing Tenor

tomorrow/next (T/N), where the Fixing Time may be shifted (postponed) to no later than 7:00 pm. Shift of the Fixing Time for the Fixing Tenors referred to in point 4.10 is not tantamount to shift of the Fixing Time for the Fixing Tenors referred to in point 4.11.

- 4.13 On the day on which the above Fixing Time shift occurs, the Administrator is obliged to immediately, but not later than within 5 minutes upon Fixing Time, inform Fixing Participants about the postponed Fixing Time and to provide Fixing Participants with information on the reasons for the shift and the Fixing Time on the given Fixing Day.
- 4.14 The Administrator has in place applicable contingency procedures necessary to determine the course of action in the event referred to above.
- 4.15 The notice referred to above is also made to the KNF and published on the Administrator's website.
- 4.16 If the Reference Rates cannot be determined no later than at 3:00 pm for all Fixing Tenors except the Fixing Tenor overnight O/N and the Fixing Tenor tomorrow/next (T/N) for which the Fixing Time may be postponed no later than to 7:00 pm, the Reference Rates for these Fixing Tenors are not determined on that day.
- 4.17 In the case referred to in point 4.16, the Chair of the Oversight Committee of Interest Rate Benchmarks is obliged to convene a meeting of the Oversight Committee of Interest Rate Benchmarks on the same Business Day when the Reference Rates cannot be determined in order to establish the course of action necessary to recover the continuity of determination of the Reference Rates.
- 4.18 A notice of failure to determine the Reference Rates at a given day is immediately provided to the KNF and published on the Administrator's website.
- 4.19 Except for the cases referred to in points 4.12 – 4.18 above, other potential limitations of the Method of Determining the Reference Rates may arise, in particular, if the Administrator deems the sources of Input Data to be:
 - 4.19.1 insufficient,
 - 4.19.2 inaccurate or
 - 4.19.3 unreliable.

Insufficient sources of Input Data

- 4.20 The Administrator suspends the provision of the Reference Rates if the number of Fixing Participants falls below 6 (six).
- 4.21 The Administrator may decide to suspend the Reference Rates Fixing if, despite a sufficient number of Fixing Participants, the Fixing Participants repeatedly fail to submit a number of Quotes necessary for Fixing.
- 4.22 In the suspension period of the Reference Rates Fixing, the Administrator may determine the Reference Rates according to the recommended Temporary Change of Method.
- 4.23 The process of suspending the Reference Rates Fixing and its consequences are described in 4.29 and below.

Inaccurate Input Data

- 4.24 The Administrator defines the minimum formal requirements and quality standards for Input Data submitted by Fixing Participants. In relevant cases, such standards must be met jointly each time for the Administrator to accept Quotes of a Fixing Participant.
- 4.25 If Input Data fail to meet any of such criteria, the Administrator may consider such Input Data to be inaccurate (i.e. non-compliant with the formal requirements and quality standards) and decide that such Input Data are not to be taken into account in the Method of Determining the Reference Rates.

Unreliable Input Data

- 4.26 The Administrator monitors the reliability of Input Data received from Fixing Participants, in particular against the Identification of Suspicious Quotes Procedure. The Procedure defines, in particular, the Administrator's procedures of identification and escalation of any actions of Fixing Participants that may potentially involve manipulation or attempts to manipulate the Reference Rates, in particular by providing the Administrator with Quotes which arise doubts of the Administrator as to their reliability.
- 4.27 Furthermore, according to the Code of Conduct and subject to the currently applicable regulations, Fixing Participants shall immediately notify the Administrator of any identified Suspicious Quote and any other identified case of potential manipulation of the Reference Rates within the meaning of MAR.
- 4.28 In its control framework which ensures integrity and reliability of Input Data, the Administrator may provide Fixing Participants with written guidelines for the identification of cases of potential manipulation of the Reference Rates within the meaning of MAR.

Suspension of the provision of the Reference Rates

- 4.29 The Administrator suspends the provision of the Reference Rates if the number of Fixing Participants falls below 6 (six).
- 4.30 The Administrator may decide to suspend the Fixing if, despite a sufficient number of Fixing Participants, the Fixing Participants repeatedly fail to submit a number of Quotes necessary for the Fixing.
- 4.31 The Administrator's decision to suspend the Fixing requires opinion of the Oversight Committee of Interest Rate Benchmarks and must be preceded by consultation with the KNF.
- 4.32 The Administrator publishes the suspension of a Fixing on the website of the Administrator: <https://gpwbenchmark.pl>. The Administrator publishes the cessation of the reasons for the suspension and the time of resumption of the Fixing in the same manner.
- 4.33 If the Administrator decides to suspend the Fixing, the Chair of the Oversight Committee of Interest Rate Benchmarks is obliged to immediately convene a meeting of the Oversight Committee of Interest Rate Benchmarks immediately upon notification by the Administrator, in order to cooperate with the Administrator on the course of action necessary to recover the continuity of provision of the Reference Rates.
- 4.34 The course of action referred to in 4.33 must be defined within 2 Business Days after the Administrator decides to suspend the Fixing, and recommend a Temporary Change of Method necessary to ensure continuity of the provision of the Reference Rates.
- 4.35 The Administrator publishes the Temporary Change of Method on the website of the Administrator. The application of the Temporary Change of Method is notified to the KNF.
- 4.36 The Method of Determining the Reference Rates according to the Temporary Change of Method cannot be applied for more than 6 months.

5. CRITERIA USED BY THE ADMINISTRATOR TO SELECT THE SOURCE OF INPUT DATA USED TO DETERMINE THE REFERENCE RATES

- 5.1 The source of Input Data used by the Administrator to determine the Reference Rates are Fixing Participants who submit Quotes to the Administrator as contributors within the meaning of Article 3(1)(9) of the Benchmarks Regulation.
- 5.2 The Administrator identifies Fixing Participants as the source of Input Data according to the following criteria:
 - 5.2.1 the Underlying Market and its characteristics,
 - 5.2.2 the definition of the Reference Rates and what type of benchmark the Reference Rates represent within the meaning of the Benchmarks Regulation in terms of the

type of Input Data used to determine them (interest rate benchmarks i.e. benchmarks which are determined on the basis of the rate at which banks may lend to, or borrow from, other banks, or agents other than banks, in the money market).

6. TYPES OF INPUT DATA USED TO DETERMINE THE REFERENCE RATES

- 6.1 The Administrator determines Reference Rates for the Fixing Tenors within the Fixing in accordance with the Method of Determining the Reference Rates based on Quotes submitted by Fixing Participants, used by the Administrator as Input Data.
- 6.2 Quotes are the result of the application and operation of the Waterfall Method on the part of Fixing Participants and may include:
 - 6.2.1 Model Quotes, and/or
 - 6.2.2 Committed Quotes.
- 6.3 A Model Quote determined by a Fixing Participant based on Transaction Data in accordance with the Waterfall Method reflects the interest rate at which the Fixing Participant could accept (Model Bid-Quote) or place (Model Offer-Quote) a Deposit on the Underlying Market for each Fixing Tenor.
- 6.4 Model Quotes are the result of Waterfall Level 1, 2 or 3 and are determined according to specific regulations laid down by the Administrator in the Code of Conduct and the Model Quote Specification.
- 6.5 A Model Quote is not determined for a given Fixing Tenor on a given Fixing Day by a Fixing Participant if it is impossible to determine it on a given Fixing Day for a given Fixing Tenor in accordance with the Waterfall Method.
- 6.6 Contribution of a Model Quote by a Fixing Participant does not constitute an obligation for the Fixing Participant to enter into a Deposit transaction with another Fixing Participant.
- 6.7 In the situation specified in point 6.5, a Committed Quote submitted by a Fixing Participant on such Fixing Day is used as Input Data for a given Fixing Tenor on the Fixing Day to determine the Reference Rates (Waterfall Level 4).
- 6.8 A Committed Quote defines the interest rate at which the Fixing Participant is, in accordance with the conditions set out in the Code of Conduct, committed to place (Committed Offer-Quote) or accept (Committed Bid-Quote) a Deposit from another Fixing Participant for each of the Fixing Tenors. A Committed Quote is submitted to the Administrator on each Fixing Day notwithstanding the Model Quote.
- 6.9 Committed Quotes are determined by a Fixing Participant in accordance with a Quoting Policy, taking into account the Administrator's Recommendation regarding the Committed Quotes.

Transaction Data used to determine Model Quotes

- 6.10 Fixing Participants use the following Transaction Data to determine Model Quotes:
 - 6.10.1 Transaction Data of Deposits from the Underlying Market for Fixing Tenors,
 - 6.10.2 Transaction Data of Deposits from the Underlying Market for Non-Fixing Tenors,
 - 6.10.3 Transaction Data from the Related Markets for Fixing Tenors,
 - 6.10.4 Transaction Data from the Related Markets for Non-Fixing Tenors,
- 6.11 Transaction Data may only be transactions denominated in the Polish zloty (PLN).

Criteria used by the Administrator to select Transaction Data from the Underlying Market to determine Model Quotes

- 6.12 The Administrator selects Transaction Data from the Underlying Market as data used to determine Model Quotes mainly in accordance with the requirements of the Benchmarks Regulation and the characteristics of the market which the Reference Rates intend to measure.

- 6.13 According to the Benchmarks Regulation, the priority is given in the provision of benchmarks to a contributor's transactions in the market that a benchmark intends to measure.
- 6.14 Considering the foregoing, to meet the requirements of the Benchmarks Regulation, the Administrator determines Model Quotes by requiring Fixing Participants to consider first (in the Waterfall Method) Transaction Data from the Underlying Market, i.e., transactions in unsecured deposits in the Polish zloty (PLN) concluded between Fixing Participants, and transactions in unsecured deposits in the Polish zloty (PLN) concluded between Fixing Participants and entities which meet the Fixing Participant Criteria.

Criteria used by the Administrator to select Transaction Data from the Related Markets to determine Model Quotes

- 6.15 The Administrator selects Transaction Data from the Related Markets as data used to determine Model Quotes, used by the Administrator as Input Data in the Method of Determining the Reference Rates, mainly in accordance with the requirements of the Benchmarks Regulation and the analyses carried out by the Administrator, including a quantitative and a qualitative analysis, necessary to identify the Related Markets and to evaluate their relation to the Underlying Market.
- 6.16 In accordance with the Benchmarks Regulation, in case of lack of data of a contributor's transactions in the market that a benchmark intends to measure, the Administrator determines the benchmark using data of contributor's transactions in Related Markets, such as:
- 6.16.1 the unsecured inter-bank deposit market,
 - 6.16.2 other unsecured deposit markets, including certificates of deposit and commercial paper,
 - 6.16.3 other markets such as overnight index swaps, repurchase agreements, foreign exchange forwards, interest rate futures and options, provided that those transactions comply with the Input Data requirements in the Code of Conduct.
- 6.17 Before choosing Transaction Data from the Related Markets as data to be used to determine Model Quotes as Input Data in the Method of Determining the Reference Rates, the Administrator carried out a range of analyses in order to select the markets which could hypothetically be treated as Related Markets. Those analyses included:
- 6.17.1 descriptive statistics and distributions analyses, describing the features of transaction data from different segments of the Deposit market,
 - 6.17.2 analysis of similarities between transaction data from different segments and transaction data from the Underlying Market,
 - 6.17.3 simulations of historical performance of the Reference Rates based on alternative assumptions for the selection of the markets which are used as Related Markets in the Waterfall Method and based on alternative assumptions for parameters of the Waterfall Method,
 - 6.17.4 analysis of the impact of the assumptions on the level of tradability of the WIBOR and its volatility,
 - 6.17.5 analysis of the results from a survey conducted among Fixing Participants concerning identification of the Related Markets.
- 6.18 On the basis of the aforementioned criteria, the Administrator decided to select two Segments as Related Markets in the Waterfall Method, which Transaction Data will be used by Fixing Participants to determine Model Quotes:
- 6.18.1 the Financial Institutions Segment, and
 - 6.18.2 the Other Financial Institutions Segment.

- 6.19 The Administrator regularly reviews and may extend the selection of the Related Markets, at least during the mandatory review of the Reference Rates Method in accordance with the requirements of the Benchmarks Regulation.

Data used to determine Committed Quotes

- 6.20 The Administrator uses Committed Quotes to determine Reference Rates according to the Method of Determining the Reference Rates if a Fixing Participant is unable to submit a Model Quote according to the Waterfall Method at a given Fixing Day, due to insufficient number of Transaction Data required by the Waterfall Method.
- 6.21 Committed Quotes are determined by Fixing Participants according to their internal procedures, in accordance with the Code of Conduct, the Quoting Policy and the Administrator's Recommendation regarding the Committed Quotes.

Effect of Committed Quotes – obligation to enter into a transaction

- 6.22 By contributing a Committed Quote, the Fixing Participant undertakes, subject to the exceptions defined in the Code of Conduct, to enter with another Fixing Participant on demand of such Fixing Participant into a transaction of placement or acceptance of a Deposit for the Fixing Tenors indicated in the Committed Quote within the Transaction Window.
- 6.23 Transactions involving the placement or acceptance of a Deposit for the Fixing Tenors indicated in the Committed Quote are concluded on the terms of the bid and offer rates, no less favourable than those which the Fixing Participant submits as a Committed Quote to the Administrator on that day.
- 6.24 The obligation referred to above is binding:
- 6.24.1 for O/N and T/N Deposits for transactions for the amount of PLN 30 million,
 - 6.24.2 for SW, 2W, 1M and 3M Deposits for transactions for the amount of PLN 20 million,
 - 6.24.3 for 6M Deposits for transactions for the amount of PLN 10 million,
 - 6.24.4 for 1Y Deposits for transactions for the amount of PLN 5 million.

7. THE WATERFALL METHOD

- 7.1 The Waterfall Method specifies how Fixing Participants determine Quotes and how Quotes are used by the Administrator as the Input Data.
- 7.2 The key assumptions of the Waterfall Method are as follows:
- 7.2.1 first, based on Transaction Data from the Underlying Market, a Fixing Participant calculates Transaction Factors for each Fixing Tenor, and then, applying the BID/OFFER Spread Calculation Procedure, determines a Model Bid-Quote and a Model Offer-Quote for each Fixing Tenor, providing that the Incrementality Parameter is met (Waterfall Level 1),
 - 7.2.2 if it is not possible to determine a Model Quote for a given Fixing Tenor according to points 7.2.1, and such Model Quote has been set to adjacent Fixing Tenors, a Fixing Participant determines a Quote for such Fixing Tenor using the Model Quote Interpolation Procedure (Waterfall Level 2.1),
 - 7.2.3 if it is not possible to determine a Model Quote for a given Fixing Tenor according to points 7.2.1 and 7.2.2, a Fixing Participant calculates the Transaction Factor for such Fixing Tenor based on Transaction Data from the Underlying Market for Non-fixing Tenors, using the Procedure of Allocation of Fixing Tenors to Non-fixing Tenor Transactions, and then determines a Model Bid-Quote and a Model Offer-Quote for such Fixing Tenor using the BID/OFFER Spread Calculation Procedure (Waterfall Level 2.2),

- 7.2.4 if it is not possible to determine a Model Quote for a given Fixing Tenor according to points 7.2.1 – 7.2.3, a Fixing Participant sets the Transaction Factor for such Fixing Tenor based on Transaction Data from the Related Markets (regarding the Financial Institutions Segment) corresponding to such Fixing Tenor using the Procedure of Extrapolation of Prices from the Related Markets to the Underlying Market, and then determines a Model Bid-Quote and a Model Offer-Quote for such Fixing Tenor using the BID/OFFER Spread Calculation Procedure (Waterfall Level 3.1),
- 7.2.5 if it is not possible to determine a Model Quote for a given Fixing Tenor according to points 7.2.1 – 7.2.4, a Fixing Participant sets the Transaction Factor for such Fixing Tenor using the Procedure of Allocation of Fixing Tenors to Non-fixing Tenor Transactions for Transaction Data with Non-fixing Tenors from the Related Markets (regarding the Financial Institutions Segment) and the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market, and then determines a Model Bid-Quote and a Model Offer-Quote for such Fixing Tenor with the BID/OFFER Spread Calculation Procedure (Waterfall Level 3.2),
- 7.2.6 if it is not possible to determine a Model Quote for a given Fixing Tenor according to points 7.2.1 – 7.2.5, a Fixing Participant sets the Transaction Factor for such Fixing Tenor based on Transaction Data from the Related Markets (regarding the Other Financial Institutions Segment) corresponding to such Fixing Tenor using the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market, and then determines a Model Bid-Quote and a Model Offer-Quote for such Fixing Tenor using the BID/OFFER Spread Calculation Procedure (Waterfall Level 3.3),
- 7.2.7 if it is not possible to determine a Model Quote for a given Fixing Tenor according to points 7.2.1 – 7.2.6, a Fixing Participant sets the Transaction Factor for such Fixing Tenor using the Procedure of Allocation of Fixing Tenors to Non-fixing Tenor Transactions for Transaction Data from the Related Markets (regarding the Segment of Other Financial Institutions) and the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market, and then determines a Model Bid-Quote and a Model Offer-Quote for such Fixing Tenor using the BID/OFFER Spread Calculation Procedure (Waterfall Level 3.4),
- 7.2.8 if it is not possible to determine a Model Quote for a given Fixing Tenor according to points 7.2.1 – 7.2.7, a Fixing Participant only submits a Committed Quote to the Administrator for such Fixing Tenor (Waterfall Level 4).

Waterfall Method Levels – summary of the key assumptions

7.3 The table below presents the Waterfall Method Levels.

Level	Description
1	Model Quotes based on Transaction Data from the Underlying Market for Fixing Tenors.
2.1	Model Quotes based on the results of the Model Quote Interpolation Procedure applied by the Fixing Participant for Model Quotes submitted by the Fixing Participant at Waterfall Level 1 on the Fixing Day.
2.2	Model Quotes based on Deposits from the Underlying Market for Non-fixing Tenors.
3.1	Model Quotes based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market applied by the Fixing Participant on the basis of Transaction Data from the Related Markets (Financial Institutions Segment) with Fixing Tenors.

3.2	Model Quotes based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market applied by the Fixing Participant on the basis of Transaction Data from the Related Markets (Financial Institutions Segment) assigned Fixing Tenors based on Non-fixing Tenors.
3.3	Model Quotes based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market applied by the Fixing Participant on the basis of Transaction Data from the Related Markets (Other Financial Institutions Segment) with Fixing Tenors.
3.4	Model Quotes based on the Procedure of Extrapolation of Prices from Related Markets to the Underlying Market applied by the Fixing Participant on the basis of Transaction Data from the Related Markets (Other Financial Institutions Segment) assigned Fixing Tenors based on Non-fixing Tenors.
4	Committed Quotes based on internal procedures of the Fixing Participant, determined according to the guidelines defined by the Administrator in the Code of Conduct.

7.4 Consequently, in accordance with the Waterfall Method:

- 7.4.1 if a Fixing Participant has Transaction Data for a given Fixing Tenor on a given Fixing Day, necessary to determine a Quote for such Fixing Tenor on that Fixing Day, such Quote is a Model Quote. In that case, the Waterfall Method generates a Model Quote which corresponds to Waterfall Levels 1, 2 and 3,
- 7.4.2 if a Fixing Participant has no Transaction Data for a given Fixing Tenor on a given Fixing Day, necessary to determine a Quote for such Fixing Tenor on that Fixing Day, the Fixing Participant submits a Committed Quote as a result of the Waterfall Method. In that case, the Waterfall Method generates a Committed Quote which corresponds to Waterfall Level 4.

8. EXTRAPOLATING AND INTERPOLATING OF DATA USED TO DETERMINE THE REFERENCE RATES

- 8.1 The Administrator uses neither extrapolation nor interpolation in the Method of Determining the Reference Rates.
- 8.2 Fixing Participants use extrapolation and interpolation according to the Waterfall Method as defined in the Model Quote Specification on the basis of the applicable Analytical Procedures, i.e., the Model Quote Interpolation Procedure and the Procedure of Extrapolating Prices from the Related Markets to the Underlying Market.

Procedure of Extrapolation of Prices from Related Markets to the Underlying Market

- 8.3 The Procedure of Extrapolation of Prices from Related Markets to the Underlying Market is a procedure applied by Fixing Participants, in which the Transaction Factor calculated by the Fixing Participant (based on the Model Quote Specification) on the basis of Transaction Data from the Related Markets is adjusted and stabilised by the Fixing Participant to represent the value consistent with the Underlying Market.
- 8.4 The Procedure of Extrapolation of Prices from Related Markets to the Underlying Market is a part of the Model Quote Specification and it is applied by Fixing Participants at Waterfall Level 3.

Model Quote Interpolation Procedure

- 8.5 The Model Quote Interpolation Procedure is a procedure applied by a Fixing Participant,, in which the Fixing Participant determines a Model Quote for a given Fixing Tenor on a given Fixing Day on the basis of the Waterfall Level 1 Model Quote of the two adjacent Fixing Tenors on the same Fixing Day.

- 8.6 The Model Quote Interpolation Procedure is applied by a Fixing Participant at Waterfall Level 2.1.
- 8.7 The Model Quote Interpolation Procedure only applies to Model Quotes for Fixing Tenors 2W, 1M, 3M and 6M.
- 8.8 Fixing Participant applies the Model Quote Interpolation Procedure to a given Fixing Tenor provided that the Fixing Participant determines a Model Quote for the two adjacent Fixing Tenors at Waterfall Level 1 on the same Fixing Day, for instance:
 - 8.8.1 Fixing Participants applies the Model Quote Interpolation Procedure to the Fixing Tenor 2W on the Fixing Day provided that the Fixing Participant calculates a Transaction Factor at Waterfall Level 1 for the Fixing Tenors SW and 1M on the Fixing Day and then determines a Model Bid-Quote and a Model Offer-Quote for such Fixing Tenors at Waterfall Level 1 on the Fixing Day using the BID/OFFER Spread Calculation Procedure.

9. PRIORITY GIVEN TO TYPES OF INPUT DATA USED BY THE ADMINISTRATOR TO DETERMINE THE REFERENCE RATES

- 9.1 A hierarchy principle in relation to the Reference Rates is used at two stages:
 - 9.1.1 in the Method of Determining the Reference Rates, and
 - 9.1.2 in the Waterfall Method to the extent of Input Data submitted by Fixing Participants.

Hierarchy in the Method of Determining the Reference Rates,

- 9.2 Different types of Input Data are given different priority in the Method of Determining the Reference Rates, which means that the Administrator gives higher priority to Model Quotes over Committed Quotes in the use of Model Quote as Input Data. .
- 9.3 Only if a Fixing Participant cannot submit a Model Quote according to the Waterfall Method does the Administrator use the Committed Quote submitted separately by Fixing Participants on each Fixing Day as the Input Data, according to the Method of Determining the Reference Rates.

Hierarchy in the Waterfall Method

- 9.4 The hierarchy of data used by Fixing Participants to provide Input Data is defined by the Administrator on the basis of the Waterfall Method and its levels presented in the description in point 7.2 and the table in point 7.3 above.
- 9.5 The hierarchy of the Waterfall Method means that the Waterfall is divided into Level 1, 2, 3 and 4 and their sub-levels.
- 9.6 As a result of the hierarchy, Fixing Participants determine a Model Quote for a given Fixing Tenor on a given Fixing Day on the basis of Transaction Data from the highest possible Waterfall Level and, if that is not possible, the Committed Quote submitted on each Fixing Day is considered to be the product of the Waterfall Method.
- 9.7 The hierarchy of the Waterfall Method implies that:
 - 9.7.1 Transaction Data and, consequently, Model Quotes have priority over Committed Quotes,
 - 9.7.2 Transaction Data from the Underlying Market have priority over Transaction Data from the Related Markets,
 - 9.7.3 in the Underlying Market, Model Quotes determined on the basis of Transaction Data have priority over Model Quotes determined on the basis of Interpolation,
 - 9.7.4 in a given Segment, Transaction Data for Fixing Tenor Transactions have priority over Transaction Data for Non-fixing Tenor Transactions,

- 9.7.5 in the Related Markets, Transaction Data from the Financial Institutions Segment have priority over Transaction Data from the Other Financial Institutions Segment.

10. EVALUATION AND VALIDATION OF CONTRIBUTORS' INPUT DATA

- 10.1 The Administrator verifies Quotes received from Fixing Participants before using them to determine Reference Rates. The scope of the verification is defined in the Code of Conduct, which specifies that it may, in particular consists in verifying:
- 10.1.1 authorisation of the Quote Submitter to submit the Quote on behalf of the Fixing Participant,
 - 10.1.2 compliance of the Quote format with the format specified in the Technical Conditions,
 - 10.1.3 submission of the Quote within the Hour limit specified in the Code of Conduct,
 - 10.1.4 completeness of the Quote (a Quote is deemed to be complete if it indicates both the bid rate and the offer rate),
 - 10.1.5 Quote by the Quote Approver within the first Level Of Control of the Fixing Participant,
 - 10.1.6 compliance with the acceptable Quote Spread (the Quote Spread should be up to 30 basis points for the Tenors O/N and T/N and up to 20 basis points for the other Tenors).

11. MINIMUM QUALITY STANDARDS OF INPUT DATA USED TO DETERMINE THE REFERENCE RATES

- 11.1 The Administrator defines the following core categories of quality standards for Input Data used by the Administrator to determine Reference Rates:
- 11.1.1 Completeness standards of Quotes,
 - 11.1.2 Quantitative standards of Transaction Data necessary for Fixing Participants to determine Model Quotes,
 - 11.1.3 Timing standards of Transaction Data necessary for Fixing Participants to determine Model Quotes for the Fixing Tenor overnight O/N and the Fixing Tenor tomorrow/next (T/N),
 - 11.1.4 Technical standards for Quotes, and
 - 11.1.5 Standards of authorisations regarding Quotes.
- 11.2 In relevant cases, in order for the Administrator to accept Quotes of a Fixing Participant the above standards must be met jointly every time. .

Completeness standards

- 11.3 Quotes submitted by Fixing Participants must be complete.
- 11.4 A Quote is deemed complete if it indicates both the Bid Quote and the Offer Quote and if the spread between the bid rate and the offer rate does not exceed the acceptable Quote Spread, wherein:
- 11.4.1 the Quote Spread should be up to 30 basis points for the Tenors O/N and T/N,
 - 11.4.2 the Quote Spread should be up to 20 basis points for the other Tenors.

Quantitative standards for Transaction Data

- 11.5 The Administrator defines the following quantitative standards for the quality of Transaction Data necessary for the Fixing Participants to determine Quotes:
- 11.5.1 Incrementality Parameter,
 - 11.5.2 Minimum thresholds of Transaction volumes,

- 11.5.3 Minimum number of Transactions necessary to determine a Model Quote,
 - 11.5.4 Minimum number of Transactions necessary for Extrapolation,
 - 11.5.5 Minimum number of days of Transactions necessary for Extrapolation, and
 - 11.5.6 Minimum period of historical Fixing Days necessary for Extrapolation.
- 11.6 The specific quantitative criteria referred to above and other procedures for defining deterministic processes related to the determination of Model Quotes are defined by the Administrator in the Model Quote Specification attached to the Code of Conduct.

Timing standards for Transaction Data necessary for Fixing Participants to determine Model Quotes for the Fixing Tenor overnight O/N and the Fixing Tenor tomorrow/next (T/N)

- 11.7 The following Transaction Data are used to determine the Reference Rates for the Fixing Tenor overnight ON and TN on the Fixing Day:
- 11.7.1 Transaction Data from the Underlying Market for transactions concluded from 00:00 (midnight) on the Fixing Day to 4:30 pm on the Fixing Day,
 - 11.7.2 Transaction Data from the Related Markets (the Financial Institutions Segment and the Other Financial Institutions Segment) for transactions concluded from 00:00 (midnight) on the Fixing Day to 3:30 pm on the Fixing Day.

Technical standards and authorisation standards of persons contributing Quotes to the Administrator on behalf of Fixing Participants

- 11.8 The Administrator defines, in a separate document which links the Administrator with the Users (Technical Standards) technical specifications of Quotes, specifying the mode, form, and system requirements for submission of Quotes. Every time, each Quote received by the Administrator is verified to ensure that it complies with the specifications defined in the Technical Standards. In addition, for each received Quote, the Administrator checks the authorisation of the Quote Submitter to contribute the Quote on behalf of the Fixing Participant and the verification of the Quote by the Quote Approver within the first Level of Control of the Fixing Participant.
- 11.9 For Model Quotes, each Model Quote should comply at all times with the technical guidelines defined by the Administrator in the Model Quote Specification.
 - 11.10 For Committed Quotes, Fixing Participants should provide them taking into account the Administrator's Recommendation regarding the Committed Quotes.

12. CONTRIBUTOR STATUS CRITERIA

- 12.1 To be a Fixing Participant, an entity has to fulfil the following Fixing Participant Criteria:
- 12.1.1 it holds the status of Credit Institution, and
 - 12.1.2 it is not under compulsory administration, recovery plan within the meaning of the Banking Law, and the Bank Guarantee Fund has taken no decision to initiate resolution or write-down or conversion of its equity instruments.
- 12.2 The decision to classify an entity as a Fixing Participant-candidate is made by the Administrator, taking into account, apart from fulfilment of the Fixing Participant Criteria, also other components which, in the opinion of the Administrator, ensure to the best extent a representative panel of Fixing Participants whose Quotes serve as the basis for the determination of the Reference Rates. In particular, the Administrator takes into account:
- 12.2.1 the activity on the Underlying Market,
 - 12.2.2 the level of the CET1 ratio and the capital adequacy ratio in relation to Credit Institutions (based on data from the KNF), taking into account the KNF's recommendation, provided that the Administrator receives one.

13. SELECTION OF CONTRIBUTORS

- 13.1 The decision to classify an entity as a Fixing Participant candidate is made by the Administrator taking into account fulfilment of the Fixing Participant Criteria and fulfilment of the criteria referred to in 12.2.
- 13.2 If the Administrator decides to classify an entity as a Fixing Participant candidate, the Administrator requests the Oversight Committee of Interest Rate Benchmarks to approve the Fixing Participant candidate.
- 13.3 After obtaining the approval of the Oversight Committee of Interest Rate Benchmarks, the Administrator sends a written invitation to participate in the Fixing to the Fixing Participant candidate.
- 13.4 The invitation to participate in the Fixing specifies the date of the proposed accession to the Fixing. Attached to the invitation to participate in the Fixing is the Fixing Participant Declaration form and the Limits Questionnaire, specifying the limits necessary to enter into Deposit transactions, set by the Fixing Participant candidate for Deposits placed with another Fixing Participant.
- 13.5 The invitation for participation in the Fixing is valid for 30 days from the day of its delivery by the Administrator. If accepting the proposal, the Fixing Participant candidate should, within this deadline, provide the Administrator with a signed Fixing Participant Declaration and a completed Limits Questionnaire.
- 13.6 Having received the Fixing Participant Declaration, the Administrator confirms the granting of the Fixing Participant status.

14. CONTRIBUTOR PANEL MEMBERS

- 14.1 The members of the contributor panel are as follows:
 - 14.1.1 Powszechna Kasa Oszczędności Bank Polski S.A.,
 - 14.1.2 Santander Bank Polska S.A.,
 - 14.1.3 Bank Polska Kasa Opieki S.A.,
 - 14.1.4 Bank Gospodarstwa Krajowego,
 - 14.1.5 Bank BNP Paribas Polska S.A.,
 - 14.1.6 Bank Handlowy w Warszawie S.A.,
 - 14.1.7 mBank S.A.,
 - 14.1.8 ING Bank Śląski S.A.,
 - 14.1.9 Bank Millennium S.A.,
 - 14.1.10 Deutsche Bank Polska S.A.

15. DESCRIPTION OF THE ADMINISTRATOR'S RULES AND PROCEDURES CONCERNING THE MEASURES OF INTERNAL REVIEW OF THE REFERENCE RATES METHOD

- 15.1 Review and Change Procedure for Methods of Interest Rate Benchmarks, available on the Administrator's website, defines the following:
 - 15.1.1 the Reference Rates Method review procedure,
 - 15.1.2 the Reference Rates Method modification procedure,
 - 15.1.4 the Reference Rates Method modification process in extraordinary cases,
 - 15.1.5 the Procedure of the cessation of the provision of the Reference Rates.

16. DEFINITION OF MATERIAL CHANGE OF THE REFERENCE RATES METHOD

- 16.1 A material change of the Reference Rates Method means:
- 16.1.1 any change of a Key Element of the Reference Rates Method which meets the Materiality Criterion, or
 - 16.1.2 any change of any other element of the Reference Rates Method if there are objectively justified indications that the planned change is a material change to the nature or performance of the Reference Rates, causing the Materiality Criterion to be met.
- 16.2 The Administrator defines the following Key Elements of the Reference Rates Method for the purposes of the definition of material change of the Reference Rates Method:
- 16.2.1 The Reference Rates are determined within the Fixing according to 4.4,
 - 16.2.2 Quotes submitted by Fixing Participants are Input Data,
 - 16.2.3 The Reference Rates are determined at 11:00,
 - 16.2.4 The Reference Rates are bilateral , i.e., the Administrator determines a bid rate (the interest rate at which the Fixing Participant is ready to accept a Deposit from another Fixing Participant) and an offer rate (the interest rate at which the Fixing Participant is ready to place a Deposit with another Fixing Participant).
- 16.3 In the review of the materiality of changes of the Reference Rates Method, the Administrator applies "Materiality Criteria", which measure the scale and scope of economic consequences of changes of a Key Element of the Reference Rates Method or changes of any other element of the Reference Rates Method if there are objectively justified indications that the change is a material change to the nature or performance of the WIBID or the WIBOR which meets the Materiality Criterion, setting the limit above which a change of the measurement method (Reference Rates Method) of a given market or economic conditions is considered a material change.
- 16.4 The Administrator verifies whether a change to a Key Element of the Reference Rates Method causes the Materiality Criterion to be met, classifies the planned change as a material change on that basis, and initiates the Procedure of material change of the Method. The Administrator may decide to verify a material change of a non-Key Element of the Method, if there are objectively justified indications that the planned change may be a material change to the nature and performance of the Reference Rates and trigger a Materiality Criterion.
- 16.5 Changes of market conditions which impact the performance of the Reference Rates are not considered to be indications which require a review of a material change.
- 16.5.1 The Administrator applies the following Materiality Criteria:
 - (a) Material changes of the level of the Reference Rates. To identify a material change of the level of the Reference Rates, a statistical test is carried out for the WIBID or the WIBOR, for each Fixing Tenor separately, in order to verify a hypothesis that the absolute value of the difference between the average value of the model WIBID or WIBOR in the reference period and the average value of the historical WIBID or WIBOR respectively in the reference period does not exceed 5 basis points and, however if it exceeds 5 basis points, it does not exceed 2% of the average value of the historical rate in the reference period. If the tested hypothesis is rejected for the WIBID or the WIBOR and a given Fixing Tenor, at a significance level of 5%, then the criterion is considered to be met for the benchmark in question and the Fixing Tenor in question (i.e. the change is material).
 - (b) Material changes of the performance of the Reference Rates. To identify a material change of the performance of the Reference Rates, a statistical test

is carried out for the WIBID or the WIBOR, for each Fixing Tenor separately, in order to verify a hypothesis that rank correlation between the model WIBID or WIBOR in the reference period and the historical WIBID or WIBOR respectively in the reference period is positive (one-tailed test). If the tested hypothesis is rejected for the WIBID or the WIBOR and a given Fixing Tenor, at a significance level of 5%, then the criterion is considered to be met for the benchmark in question and the Fixing Tenor in question (i.e. the change is material).

- (c) **Material increase of the volatility of the Reference Rates.** To identify a material increase of the volatility of the Reference Rates, a statistical test is carried out for the WIBID or the WIBOR, for each Fixing Tenor separately, in order to confirm the hypothesis that the standard deviation of the first differences of the model WIBID or WIBOR in the reference period is not greater than the standard deviation the first differences of the historical WIBID or WIBOR in the reference period by more than 1.5 basis points (one-tailed test) and, if it is greater by more than 1.5 basis points, that it does not exceed 10% of the standard deviation of the first differences of the historical WIBID or WIBOR respectively in the reference period (one-tailed test). If the tested hypothesis is rejected for the WIBID or the WIBOR and a given Fixing Tenor, at a significance level of 5%, then the Criterion is considered to be met for the benchmark and the Fixing Tenor in question (i.e. the change is material).

ANNEX 2 – ABBREVIATIONS AND DEFINITIONS

Administrator	GPW Benchmark S.A. with a registered office in Warsaw, ul. Książęca 4, 00-498 Warsaw, entered into the register of entrepreneurs of the National Court Register by the District Court for the capital city of Warsaw in Warsaw, 12 th Commercial Division under the number KRS no. 0000493097; with share capital in the amount of PLN 2,900,000 - paid up in full; NIP 5252546511
CET1	Common Equity Tier 1 capital ratio referred to in Article 92(2)(a) of Regulation (EU) No 575/2013 of 26 June 2013 on prudential requirements for credit institutions and investment firms, amending Regulation (EU) No 648/2012 (Official Journal EU L 176 of 27.6.2013, p. 1)
Transaction Data	data on transactions concluded by the Fixing Participant based on which the Fixing Participant determines the Model Quote under the Waterfall Method
Input Data	the Quotes, which are input data within the meaning of Article 3(1)(14) of the Benchmarks Regulation
Fixing Participant Declaration	a document submitted by the Fixing Participant to the Administrator, containing a declaration of the Fixing Participant concerning conclusion of an agreement with the Administrator, the content of which is specified in the Code of Conduct. A template of the Fixing Participant Declaration can be found in Annex 2 to the Code of Conduct
Deposit	an unsecured deposit in Polish zloty (PLN), accepted or placed by the Fixing Participant
Quote Submitter	a designated employee of the Fixing Participant responsible for submission of a Committed Quote or a Model Quote
Fixing Day	a Business Day, on which the Fixing takes place
Business Day	a calendar day, other than Saturday, Sunday, or a public holiday, on which the Fixing Participants operate on the Polish money market
Transaction Factor	the numerical value constituting the basis for applying the BID/OFFER Spread Calculation Procedure under the Waterfall Method to determine the Model Bid-Quote and the Model Offer-Quote
Fixing	the process of determination of the Reference Rates
Fund	an investment fund within the meaning of Article 3(1)(19) of the Benchmarks Regulation
Financial Instrument	a financial instrument within the meaning of Article 3(1)(16) of the Benchmarks Regulation
Fixing Time	the Fixing Time for a Tenor on a given Fixing Day, which is: a) 5:00 pm for the Fixing Tenor - overnight O/N and the Fixing Tenor - tomorrow/next (T/N),

	b) 11:00 am for all Fixing Tenors except for the Fixing Tenor - overnight O/N and Fixing Tenor - tomorrow/next (T/N)
FINREP Instruction	the document "Instruction supplementing the FINREP individual package (FINPL)", available on the website www.nbp.pl with all changes and supplements
Credit Institution	domestic banks, including affiliating banks, branches of foreign credit institutions operating in Poland, and branches of foreign banks operating in Poland, but excluding cooperative banks, mortgage banks, cooperative savings and credit unions, and the NBP
Key Elements of the Reference Rates Method	the elements of the Reference Rate Method listed in point 16.2
KNF	Komisja Nadzoru Finansowego (the Polish Financial Supervision Authority)
Code of Conduct	WIBID and WIBOR Fixing Participant Code of Conduct with all annexes which are integral part thereof, with all amendments and supplements
Oversight Committee of Interest Rate Benchmarks	the committee appointed by the Administrator, performing the oversight function as defined in Article 5 of the Benchmarks Regulation in relation to interest rate benchmarks as defined in the Benchmarks Regulation
Fixing Participant Criteria	the mandatory criteria to be met by any entity to obtain the Fixing Participant status
Model Quote	the interest rate at which the Fixing Participant could accept (Model Bid-Quote) or place (Model Offer-Quote) a Deposit on the Underlying Market for each Fixing Tenor, determined by a Fixing Participant in accordance with the conditions set out in the Code of Conduct, based on Transaction Data in accordance with the Waterfall Method, being the result of Waterfall Level 1, 2 or 3
Quote	the Model Quote and the Committed Quote, constituting the Input Data upon which the Administrator performs Fixing of the Reference Rates for particular Fixing Tenors in accordance with the Method of Determining the Reference Rates
Suspicious Quote	the Quote, as to which manipulation as defined in the MAR can be suspected
Committed Quote	the Quote specifying the interest rate at which the Fixing Participant is, in accordance with the conditions set out in the Code of Conduct, committed to place (Committed Offer-Quotes) or accept a Deposit (Committed Bid-Quotes) from another Fixing Participant for each of the Fixing Tenors, the result of Level 4 of the Waterfall Method
MAR	Regulation of the European Parliament and the Council no. 596/2014 of 16 April 2014 on market abuse and repealing Directive 2003/6/EC of the European Parliament and of the Council and Commission Directives 2003/124/EC, 2003/125/EC and 2004/72/EC (Market Abuse Regulation)

Waterfall Method, Waterfall	the method by which the Fixing Participants determine Input Data in accordance with the hierarchy of Waterfall Method Levels, i.e. determine Quotes submitted to the Administrator for each Fixing Tenor, in accordance with the detailed rules laid down in the Code of Conduct
Reference Rates Method	the Method of Determining the Reference Rates and the Waterfall Method
Method of Determining the Reference Rates	the method applied by the Administrator to determine the Reference Rates in form of the Fixing
Incrementality Parameter	the minimum number of Transaction Data necessary to determine a Model Quote in accordance with the Waterfall Method hierarchy
PLN	the Polish zloty
Entities Using the Reference Rates	Users of the Reference Rates and Recipients of the Reference Rates
Banking Law	the Act of 29 August 1997 "Banking Law" (Journal of Laws of 2018, item 2187, as amended)
Procedure of Extrapolation of Prices from Related Markets to the Underlying Market	the procedure according to which the volume-weighted average price value is determined on the basis of Transaction Data on the Related Market is subject to adjustment and stabilization in accordance with the Model Quote Specification so as to represent the value consistent with the Underlying Market
Model Quote Interpolation Procedure	the procedure by which the Fixing Participant performs interpolation of the Model Quote values, which means the process by which the Fixing Participant determines the Model Quote for a given Fixing Tenor on a given Fixing Day based on Model Quotes from Level 1 for the two Fixing Tenors adjacent to that Fixing Tenor on the given Fixing Day
Procedure of Allocation of Fixing Tenors to Transactions	the analytical procedure by which Fixing Participants assign Fixing Tenors to Eligible Transactions
Procedure of Allocation of Fixing Tenors to Non-fixing Tenor Transactions	the procedure by which exactly two closest Fixing Tenor Transactions, defined by prices and volume are assigned to each Eligible, Non-fixing Tenor Transaction
BID/OFFER Spread Calculation Procedure	the analytical procedure by which Fixing Participants determine the Quote Spread applied on the Transaction Factor, which leads to the determination of Model Bid-Quotes and Model Offer-Quotes
Analytical Procedures	the procedures applied in the Waterfall Method: • Procedure of Allocation of Fixing Tenors to Transactions, • Model Quote Interpolation Procedure, • Procedure of Allocation of Fixing Tenors to Non-fixing Tenor Transactions • Procedure of Extrapolation of Prices from Related Markets to the Underlying Market, • BID/OFFER Spread Calculation Procedure

Regulations	the regulations addressed to Entities Using the Reference Rates, specifying the principles of determination of the Reference Rates, their publication and use
Administrator's Recommendation regarding the Committed Quotes	Annex 10 to the Code of Conduct, specifying the set of Administrator's guidelines for Fixing Participants, laying down the principles for determining the Committed Quote by a Fixing Participant
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 (EU) No 596/2014
Underlying Market	market of unsecured deposit transactions in PLN concluded between Fixing Participants as well as unsecured deposit transactions in PLN concluded by Fixing Participants with entities meeting the Fixing Participant Criteria
Related Markets	segments related to the Underlying Market
Segment	a fragment of the deposit market which the Administrator classifies as a Related Market
Financial Institutions Segment	a segment, which consists of unsecured deposit transactions in the Polish zloty (PLN) concluded by Fixing Participants with non-Credit Institutions foreign credit institutions without a branch in Poland and foreign banks without a branch in Poland, pension, insurance and investment institutions as defined in the FINREP Instruction ,mortgage banks, cooperative banks and cooperative savings/ credit unions
Other Financial Institutions Segment	a segment, which consists of unsecured deposit transactions in the Polish zloty (PLN) concluded by the WIBID/WIBOR Fixing Participants with financial institutions other than Credit Institutions, foreign banks, foreign credit institutions, pension, insurance, investment institutions as defined in FINREP Instruction, mortgage banks, cooperative banks and cooperative savings/ credit unions
Model Quote Specification	Annex 8 to the Code of Conduct specifying the detailed principles for determining a Model Quote
Quote Spread	the spread between the offer rate and the bid rate provided by each of Fixing Participants
Reference Rates	the WIBID and the WIBOR, which are interest rate benchmarks within the meaning of Article 3(1)(22) of the Benchmarks Regulation, constituting a family of reference indicators within the meaning of Article 3(1)(4) of the Benchmarks Regulation
Fixing Tenors	the Deposit Tenors for which Fixing Participants are required to submit Quotes on the Fixing Day in accordance with the Code of Conduct
Non-fixing Tenors	Tenors that are not Fixing Tenors

Eligible Transaction	transaction of volume greater than, or equal to, the volume eligibility threshold set by the Administrator, as specified in the Model Quote Specification
Temporary Change of Method	a change of the Method of determining Reference Rates conducted under the circumstances specified in point 30.3 of the Code of Conduct
Fixing Participant	an entity that has received confirmation of the Fixing Participant status from the Administrator and has not lost the status according to the principles set out in the Code of Conduct
Financial Contract	a financial contract within the meaning of Article 3(1)(18) of the Benchmarks Regulation
Agreement for the Use of Reference Rates	an agreement concluded according to the Regulations, under which Entities Using Reference Rates are authorised to use Reference Rates to the extent of point 7.1 of the Regulations
Act on Trading in Financial Instruments	the Act of 29 July 2005 on trading in financial instruments (Journal of Laws of 2017, item 1768, as amended)
Reference Rates' User	any entity using the Reference Rates to the extent of point 7.1 of the Regulations
Technical Standards	technical specifications concerning the submission of Quotes, specifying the mode, form, and system requirements for submission of Quotes
Quote Approver	a person conducting verification of the Quote in the Quoting Unit before submission of the Quote to the Administrator
WIBID	the interest rate benchmark, within the meaning of Article 3(1)(22) of the Benchmarks Regulation, reflecting the interest rate at which entities meeting the Fixing Participant Criteria are ready to accept a Deposit for a specific Fixing Tenor from other entities that meet the Fixing Participant Criteria
WIBOR	the interest rate benchmark, within the meaning of Article 3(1)(22) of the Benchmarks Regulation, being a critical benchmark within the meaning of Article 3(1)(25) of the Benchmarks Regulation, reflecting the interest rate at which entities meeting the Fixing Participant Criteria are ready to place a Deposit for a specific Fixing Tenor with other entities that meet the Fixing Participant Criteria
Authorisation	the authorisation to perform the administrator function referred to in Article 34(1)(a) of the Benchmarks Regulation in the scope of interest rate benchmarks in the meaning of the Benchmarks Regulation