

Benchmark Statement – PRIBOR

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Table of Contents

1	Introduction	3
2	About PRIBOR.....	3
3	Definition	3
4	Qualification as an interest rate benchmark.....	3
5	About the Czech financial market in the context of PRIBOR	3
6	The size of the Czech market.....	4
7	PRIBOR calculation methodology.....	4
8	Criteria and procedures used to determine PRIBOR	4
9	Potential limitations of PRIBOR.....	6
10	Expert judgement	7
11	Public consultation and material changes.....	7
12	Transition or the cessation of PRIBOR	8
13	Transition	8
14	Cessation.....	8
15	Procedures for dealing with errors in input data.....	9
16	Updates to this benchmark statement.....	9
17	Appendix 1 - The specific requirements of BMR Annex I for interest rate benchmarks... ..	10
17.1	Accurate and sufficient data used in a hierarchy	10
17.2	An independent oversight committee	10
17.3	An independent external audit of compliance with the benchmark methodology and BMR	11
17.4	Contributor systems and controls.....	11

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1 Introduction

The Czech Financial Benchmark Facility s.r.o. (CFBF) is the benchmark administrator for the PRIBOR benchmark.

This benchmark statement is published by the CFBF in compliance with the European Benchmark Regulation (BMR) and the accompanying ESMA Regulatory Technical Standards.

2 About PRIBOR

The Prague Interbank Offered Rate (PRIBOR) is the dominant money market reference rate for CZK financial instruments and is determined using contributions of input data from panel banks. Each panel bank is required to be a supervised entity and to be a participant in the Czech interbank market.

3 Definition

PRIBOR is the average interest rate at which unsecured CZK funds are offered by panel banks in the interbank market, just prior to 11am local time.

4 Qualification as an interest rate benchmark

PRIBOR is an Interest Rate Benchmark pursuant to BMR as it is determined from the rate at which banks may lend to other banks in the money market.

Statistics obtained from the Czech National Bank (CNB), amongst other informed sources, confirm that the notional amounts of underlying contracts do not exceed EUR 500 bn and therefore PRIBOR does not meet the criteria to be classified as a critical benchmark.

As an interest rate benchmark PRIBOR users should note that Annex I of BMR applies to the provision of, and contribution to PRIBOR, in addition to, or as a substitute for, the requirements of BMR Title II.

The specific requirements of Annex I for interest rate benchmarks are to ensure:

- Accurate and sufficient data used in a hierarchy
- An independent oversight committee
- An independent external audit of compliance with the benchmark methodology and BMR, and
- Contributor systems and control requirements.

More details on each of these requirements are described in Appendix 1.

5 About the Czech financial market in the context of PRIBOR

Like many global financial markets, the CZK interbank deposit market lacks liquidity, particularly in longer-term maturities. Naturally the most active tenors are short-term, particularly O/N, T/N and 1 week.

There exists a relatively healthy CZK interest rate derivatives market, most notably in IRS where price quotation is available out to 10 years and in FRA, and liquidity is accessible out to 1 year. The CZK IRS curve is widely used as a reference for the pricing of domestic mortgages.

Financial market derivative products such as the CZK IRS and CZK FRA market use PRIBOR for the settlement of contractual obligations.

Foreign markets (especially the EUR market) is very important for Czech banks with the most liquid instruments being cross-border EUR/CZK trades. Forward foreign exchange, cross-currency IRS and basis swaps are liquid markets that are frequently traded.

6 The size of the Czech market

The total average daily turnover for CZK deposits is CZK 124 bn. Daily IRS turnover is CZK 5 bn.

CNB survey for 2017 daily turnovers in the Czech financial market

Product	Total daily average turnover (CZK billion)
Money Market Deposits (residents)	3.5
Money Market Deposits (non-residents)	121
Repo (residents)	2.7
Repo (non-residents)	11.6
IRS (residents)	1
IRS (non-residents)	3.8
FRA (residents)	0
FRA (non-residents)	0.8

7 PRIBOR calculation methodology

The PRIBOR Calculation Methodology is designed to provide the most accurate and reliable benchmark rate to reflect the underlying financial market it measures. To achieve this outcome a number of banks from within the CZK interbank deposit market have been selected to perform the role of Panel Bank for the purpose of providing input data to the CFBF for the calculation of PRIBOR. Panel Banks provide the CFBF with the rate at which they would lend CZK unsecured deposits within the Czech Republic at 11:00am each business day. The Calculation Methodology document describes in detail the calculation process, but in summary it is the arithmetic mean (rounded to two decimal places) of the Panel Bank submitted rates, with topping and tailing applied depending upon the number of contributions received. The receipt by the CFBF of a number of Panel Bank contributions, in excess of a minimum of four Panel Bank contributions, ensures that there is a sufficiency of input data to produce an accurate and reliable PRIBOR output.

The PRIBOR Oversight Committee has the responsibility to approve and review the methodology. As described in the PRIBOR Oversight Committee Terms of Reference the committee must undertake a review of all aspects of the determination methodology at a minimum annually. In reviewing the methodology, the PRIBOR Oversight Committee considers the underlying market dynamics and the usage of PRIBOR.

8 Criteria and procedures used to determine PRIBOR

The CFBF Calculation Methodology and PRIBOR Code of Conduct documents provide complete information on the criteria and procedures for the calculation of PRIBOR. These documents are available on the CFBF website. A summary of the criteria and procedures are provided here for the convenience of readers and in accordance with the requirements of BMR.

Input data for the calculation of PRIBOR is provided by Panel Banks to the CFBF between 10:30am and 10:45am local time each good business day¹.

The CFBF shall check the formal correctness of the input data between 10:45am and 11:00am local time and resolve any discrepancies directly with the Panel Bank in question. Panel Banks may, exceptionally, alter their input data at that time, but not later than 10:55am local time. The calculation of PRIBOR shall take place at 11:00am local time.

Panel Banks are to provide input data to the CFBF, as follows:

- a) Quotes for the rate at which banks will lend to other banks in the money market at the time of quotation;
- b) Input data should contain quotes for the Overnight (O/N), 1 week, 2 weeks, 1 month, 2 months, 3 months, 6 months, 9 months and 1-year tenors;
- c) Input data should take into account the requirements of the priority of use of input data as specified in Clause 3.3 of the PRIBOR Code of Conduct;
- d) Each tenor rate should be a positive or negative number to 2 decimal places;
- e) All tenor rates are to be provided each day;
- f) Input data will be entered into the CFBF calculating agent system according to the contribution procedures for Panel Banks as provided to them by the CFBF.

Panel Banks shall apply the following priority of use of input data:

- a) Transactions in the unsecured Czech interbank deposit market with a transaction value between 20 million to 2 billion CZK:
 - I. single transactions;
 - II. Volume Weighted Average Price (VWAP) of multiple transactions.
- b) Transactions in other unsecured Czech deposit markets including certificates of deposit and commercial paper with a transaction value between 20 million to 2 billion CZK:
 - I. single transactions;
 - II. VWAP of multiple transactions.
- c) If a Panel Bank's transactions in the underlying markets described above are not sufficient from which to base its submission, its expert judgement in relation to the following information should be considered and applied:
 - I. other correlated markets such as corporate deposits, overnight index swaps, interest rate swaps, forward rate agreements, repurchase agreements, foreign exchange forwards, interest rate futures and options;
 - II. observations of third-party transactions in the market described in point a), b), c) above;
 - III. committed quotes;

¹ A good business day is defined as a day when banks are open in the Czech Republic

IV. indicate quotes or expert judgements.

Panel Banks may adjust input data to correctly reflect the PRIBOR definition, by application of the following criteria:

- a) proximity of transactions to the time of provision of the input data and the impact of any market events between the time of the transactions and the time of the provision of the input data;
- b) interpolation or extrapolation from transactions data;
- c) adjustments to reflect changes in the credit standing of the Panel Banks and other market participants;
- d) if correlated market transactions are used in the determination of a submission, then the Panel Bank should apply a method of calculating their equivalence to the underlying market.

PRIBOR shall be calculated as the mathematical arithmetic mean rounded to two decimal places for the following maturities: overnight (O/N), 1 and 2 weeks, 1, 2, 3, 6 and 9 months, and 1 year, in the following manner:

- a) if the CFBF receives input data from eleven or more Panel banks, the rate for the relevant maturity shall be the arithmetic mean of the rates net of the two highest and two lowest rates;
- b) if the CFBF receives input data from at least six, but less than eleven Panel banks, the rate for the relevant maturity shall be the arithmetic mean of the remaining rates net of the one highest and one lowest rate;
- c) if the CFBF receives input data from four or five Panel banks, the rate for the relevant maturity shall be the arithmetic mean of all such rates

PRIBOR (except the O/N maturity) shall be calculated for transactions that are to be settled on the second business day following the calculation date, with the act/360 convention.

Once announced and published, the PRIBOR rates shall be final. This shall not rule out the possibility for the CFBF to publish a re-determined PRIBOR rate before 3:00pm local time at the latest, having announced the intention to republish corrected PRIBOR by 2:00pm local time.

In the event that the CFBF Business Continuity Plan is initiated the methodology applied for the calculation of PRIBOR will be unchanged.

9 Potential limitations of PRIBOR

Potential limitations of the benchmark, in particular, the circumstances in which the measurement of the CZK money market may become unreliable, are as follows:

- a. If there is lack of sufficient input data to determine PRIBOR

The PRIBOR methodology and procedures are designed to ensure that PRIBOR can be published every day that banks are open in the Czech Republic. If the CFBF receives input data from less than four panel banks by 12:30pm local time, the PRIBOR rate from the previous day for the relevant maturity is used as the input data and is published as that day's rate. In extreme cases such as natural disasters preventing panel banks from contributing, the process of using the previous day's PRIBOR rate may be repeated for up to three consecutive days (meaning 4 days of identical rates). In this scenario an exceptional meeting of the PRIBOR Oversight Committee will be convened to consider the circumstances and to make appropriate decisions in respect to the immediate future publication of PRIBOR rates.

- b. If the degree of liquidity in the underlying market becomes insufficient to provide input data to determine PRIBOR

Panel Banks apply a priority waterfall to select input data as described in Section 8 above and in the PRIBOR Code of Conduct. If a Panel Bank's available information in the underlying markets are insufficient from which to base its input data submission, it can apply expert judgement in relation to determining its input data. The use of expert judgment or discretion by Panel Banks makes it highly unlikely that an insufficient degree of liquidity in the underlying market would endanger the integrity and reliability of the PRIBOR determination.

- c. Any other relevant information in which the measurement of the underlying market may become unreliable, including exceptional market events

In the case an exceptional market event arose, an exceptional meeting of the PRIBOR Oversight Committee will be convened to consider the circumstances and make appropriate decisions in respect to the immediate future publication of PRIBOR rates.

10 Expert judgement

Rules which govern any exercise of expert judgement and ex-post evaluation process of any discretion are described in the PRIBOR Code of Conduct. Only adequately trained Submitters from panel banks may exercise an expert judgement in their contribution in circumstances described.

Panel banks are required to establish policies on the use of discretion that specify at least the following:

- a. the circumstances in which it may exercise discretion
- b. the persons within the panel bank that are permitted to exercise discretion
- c. any internal controls that govern the exercise of the panel bank's discretion in accordance with its policies
- d. any persons within the panel bank that may evaluate ex-post the exercise of discretion

Where the contribution of input data relies on expert judgement, the policies of a panel bank in relation of the use of judgement or the exercise of discretion shall include:

- a. a framework for ensuring consistency between different submitters, and consistency over time, in relation to the use of judgement or the exercise of discretion
- b. identification of the information that can be used to support expert judgement or discretion, and of any information that should not be taken into account
- c. procedures for the systematic review of any use of expert judgement

Each panel bank is required to maintain records of the input data source that was considered for each contribution and any related exercise of discretion.

11 Public consultation and material changes

The CFBF has developed procedures for the review of the PRIBOR methodology. In circumstances where a material review of PRIBOR is being considered the CFBF will conduct a public consultation to gather feedback from key stakeholders, including users of PRIBOR.

The CFBF has developed a Consultation Policy, which describes the circumstances under which a consultation will be undertaken and the process applicable for the conduct of a consultation. The policy is a public document available on the CFBF website at www.cfbf.cz.

12 Transition or the cessation of PRIBOR

PRIBOR has very few appropriate substitutes, and in the event that it ceased to be provided or was to become no longer fully representative of the underlying market there would be significant and adverse impact on market integrity and financial stability.

The CFBF has developed clear written policies and procedures to address the need for the possible transition or cessation of PRIBOR, which could be the result of market structural change, product definition change, or any other condition which could make PRIBOR no longer representative of the underlying market it measures. These policies and procedures are proportionate to the estimated breadth and depth of contracts and financial instruments that reference PRIBOR and the economic and financial stability impact that might result from the cessation of the benchmark.

Users of PRIBOR are advised that changes to, or the cessation of, PRIBOR may have an impact upon the financial contracts and financial instruments that reference PRIBOR or the measurement of the performance of investment funds that reference PRIBOR.

The CFBF has taken into account the views of stakeholders in determining what policies and procedures are appropriate for PRIBOR.

13 Transition

The CFBF provides the PRIBOR benchmark to users on the basis that there are a number of factors that may affect the production of the benchmark, including factors outside the control of the CFBF. Users are made aware that, while the CFBF has developed business continuity plans and fall-back provisions for the production of the PRIBOR benchmark, they should have in place their own fall-back provisions in the case that there was a material change in the nature of PRIBOR.

The CFBF Board is responsible for the CFBF Transition Policy and will take into consideration recommendations in regard to the policy or any actions associated with the policy, made by the PRIBOR Oversight Committee.

The CFBF Board will consider a number of issues in relation to this policy, including;

- Criteria for selection of credible alternate benchmarks
- Practicality of operating parallel benchmarks
- Procedures if no alternate benchmark is available
- Stakeholder engagement for any transition arrangements
- CFBF's inability for any reason to continue to operate as the administrator of PRIBOR leading to the cessation of the benchmark.

14 Cessation

The CFBF Cessation Policy outlines the processes that the CFBF will undertake in the case that there is a requirement for the cessation of PRIBOR in entirety or any individual tenor. The scope of the policy is only for the cessation of a tenor or the entire benchmark and does not include the transition to alternate benchmarks which is covered in the CFBF Transition Policy.

The key steps that the CFBF will undertake in regards are to cessation of PRIBOR are;

- Consult and assess
- Decision to cease calculation of the benchmark or an individual tenor
- Inform users
- Implement a process of cessation

Potential reasons for discontinuation may include;

- Change in the underlying market that PRIBOR represents
- Regulatory action
- Lack of demand for the benchmark generally by stakeholders
- Inability of the CFBF to produce PRIBOR for commercial or logistical reasons i.e. inability to obtain sufficient input data from panel banks
- Cessation of the CFBF as an entity

Should the decision be taken to implement the cessation of PRIBOR, or individual tenors, the CFBF will consider a range of factors prior to informing the market of a cessation. Consideration will be given to:

- Sufficient notice to stakeholders of the cessation date and the timing of the cessation
- Any transition measures that can be implemented
- Stakeholder engagement and the timing required for them to consider alternative options, modify documentation, seek legal and compliance advice and modify any materials referencing PRIBOR
- Identification of alternate benchmarks and plans for migration

Once these issues have been considered, the CFBF will notify the market via press release, its website and other communication tools, including details of the cessation and any other information that would assist stakeholders to understand and take appropriate action.

The Transition and Cessation policies will be made available to stakeholders upon request to the CFBF.

15 Procedures for dealing with errors in input data

The PRIBOR Post Publication Re-Determination Policy details the procedures for reviewing a published PRIBOR rate in circumstances where CFBF personnel, panel bank employees or any end-user of PRIBOR believes that a published PRIBOR rate may be materially incorrect. The policy is publicly available on the CFBF's website.

16 Updates to this benchmark statement

The CFBF will review and, where necessary, update this benchmark statement in the event of any changes to the information within it and at least every two years. An update will be provided whenever the information is no longer correct or sufficiently precise and at least where:

- there is a change in the classification of PRIBOR
- there is a material change in the methodology for determining PRIBOR

The date of initial publication: 19 December 2018.

17 Appendix 1 - The specific requirements of BMR Annex I for interest rate benchmarks.

Under Annex I of BMR additional regulatory regime is applicable. The requirements and arrangements that have been put in place by CFBF to comply with it are as follows:

17.1 Accurate and sufficient data used in a hierarchy

BMR requires the input data contributed by panel banks to be accurate and sufficient and the priority of use of input data shall be as follows:

- I. a contributor's transactions in the underlying market that a benchmark intends to measure or, if not sufficient, its transactions in related markets*
- II. a contributor's observations of third-party transactions in those markets*
- III. committed quotes*
- IV. indicative quotes or expert judgements*

The CFBF has developed a “waterfall” for submitting rates for the panel banks, which states the priority of use of input data that shall be followed. Panel banks are required to abide by these rules under the PRIBOR Code of Conduct.

17.2 An independent oversight committee

BMR states the following requirements for the oversight function of an interest rate benchmark:

- I. the administrator of an interest rate benchmark shall have in place an independent oversight committee. Details of the membership of that committee shall be made public, along with any declarations of any conflict of interest and the processes for election or nomination of its members*
- II. the oversight committee shall hold no less than one meeting every four months and shall keep minutes of each such meeting*
- III. the oversight committee shall operate with integrity and shall have all of the responsibilities provided for in BMR*

The CFBF has established an oversight committee known as the PRIBOR Oversight Committee. The committee meets at a minimum quarterly with redacted minutes available on the CFBF's website. The committee has the primary governance oversight of the methodology, determination and dissemination of PRIBOR. The Committee's purpose is to support the integrity, accuracy and reliability of the PRIBOR benchmark to the benefit of all users of the benchmark and reliant market participants. It achieves this through regular meetings to review, endorse or challenge decisions of the CFBF Board that have an impact PRIBOR.

Details of the membership of the PRIBOR Oversight Committee, along with any declarations of any conflict of interest are published at: <https://cfbf.cz/pribor/governance-oversight/oversight-committee/>

The responsibilities of the committee and the processes of membership nomination is described in the PRIBOR Oversight Committee Terms of Reference document published at: <https://cfbf.cz/pribor/governance-oversight/oversight-committee/>

17.3 An independent external audit of compliance with the benchmark methodology and BMR

The CFBF confirms that an external audit to review and report on CFBF's compliance with the benchmark methodology and BMR will be carried out consistent to BMR as stated in the PRIBOR Code of Conduct. The first external audit will be carried out six months after the introduction of the Code of Conduct and subsequently every two years.

The PRIBOR Oversight Committee may require an external audit of a panel bank if dissatisfied with any aspects of its conduct. The audit will be conducted within three months of such a request being made and the panel bank will provide all necessary assistance in regards to these enquiries as required by the PRIBOR Code of Conduct.

17.4 Contributor systems and controls

Under the Annex I of BMR, a contributor's systems and controls shall include following:

- I. an outline of responsibilities within each firm, including internal reporting lines and accountability, including the location of submitters and managers and the names of relevant individuals and alternates
- II. internal procedures for sign-off of contributions of input data
- III. disciplinary procedures in respect of attempts to manipulate, or any failure to report, actual or attempted manipulation by parties external to the contribution process
- IV. effective conflicts of interest management procedures and communication controls, both within contributors and between contributors and other third parties, to avoid any inappropriate external influence over those responsible for submitting rates. Submitters shall work in locations physically separated from interest rate derivatives traders;
- V. effective procedures to prevent or control the exchange of information between persons engaged in activities involving a risk of conflict of interest where the exchange of that information may affect the benchmark data contributed
- VI. rules to avoid collusion among contributors, and between contributors and the benchmark administrators
- VII. measures to prevent, or limit, any person from exercising inappropriate influence over the way in which persons involved in the provision of input data carries out those activities
- VIII. the removal of any direct link between the remuneration of employees involved in the provision of input data and the remuneration of, or revenues generated by, persons engaged in another activity, where a conflict of interest may arise in relation to those activities;
- IX. controls to identify any reverse transaction subsequent to the provision of input data

In addition, a contributor to an interest rate benchmark shall keep detailed records of the following:

- I. all relevant aspects of contributions of input data
- II. the process governing input data determination and the sign-off of input data
- III. the names of submitters and their responsibilities
- IV. any communications between the submitters and other persons, including internal and external traders and brokers, in relation to the determination or contribution of input data
- V. any interaction of submitters with the administrator or any calculation agent
- VI. any queries regarding the input data and their outcome of those queries

VII. sensitivity reports for interest rate swap trading books and any other derivative trading book with a significant exposure to interest rate fixings in respect of input data

All of the above-mentioned requirements are included within the PRIBOR Code of Conduct. Each contributor's submitter and the direct managers of that submitter acknowledge in writing that they have read the PRIBOR Code of Conduct and that they will comply with it.