

**S&P Dow Jones
Indices**

A Division of **S&P Global**

**Index Administration Services
(IAS) - BNP Paribas TRY FX
Implied Rates Index Family**

Benchmark Statement



Jan 2024

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1) General Disclosures

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| Benchmark family name | BNP Paribas TRY FX Implied Rates Indices |
| Benchmark administrator | IHS Markit Benchmark Administration Ltd. (IMBA) |
| Date of initial publication of this document | 1 August 2023 |
| Date of last update to this document | 8 January 2024 |
| ISIN (where available) | There are presently no ISINs available or accessible for the benchmarks covered by this Benchmark Statement. |
| Determination by contributions of input data | IMBA does not receive contributions of "input data" (as defined by the BMR) in relation to this family of benchmarks. |
| Qualification of the benchmark family | This benchmark statement covers non-significant benchmarks as defined by the BMR. However, IMBA administers this benchmark family as though it were 'significant' (as defined by the BMR). |

2) Market or Economic Reality of the Benchmark

General description of the market or economic reality

The BNP Paribas TRY FX Implied Rates aim to create Turkish Lira reference rates in the absence of a liquid money market curve. The lack of a liquid money market curve for Turkish Lira creates a hurdle for those seeking to trade TRY interest rate swaps, as there is no liquid fixing rate to reference. FX Forward implied rates are an alternate method to create a reference rate using the FX Forward market, which is traded actively.

Geographical boundaries of the market or economic reality

The BNP Paribas TRY FX Implied Rates are based on globally traded Turkish Lira/US Dollar FX Spot and Forward contracts.

Other relevant information relating to the market or economic reality

N/A

The methodology

The indices are calculated on a daily basis and published on T-basis with SLA of 10:00 am London time leveraging interest rate parity by combining FX Spot rates for USDTRY, US Dollar 3 Month AMM vs SOFR Overnight Index Swap (US Dollar 3 Month ICE LIBOR - USD3MFSR = was used prior to 08 March 2023) and FX Forward points for USDTRY at 3 month tenure.

The Index: The BNP Paribas TRY 3-Month FX Forward Implied Rate

The Index Methodology outlining the details of the determination methodology for the BNP Paribas TRY FX Implied Rates is made available to stakeholders upon request. BNP Paribas (or any successor thereto) retains the intellectual property to the BNP Paribas TRY FX Implied Rates. Any future changes to the

determination methodology or the termination of one or multiple BNP Paribas TRY FX Implied Rates are subject to the IAS change management and consultation process.

All benchmark methodologies are assessed prior to their implementation by IAS with respect to their methodological and operational complexity and risks associated with the required data inputs. IAS has put in place policies and procedures applicable to all IAS administered indices ensuring appropriate level of risk management, error identification resolution, handling of market disruptions, escalation to the Index Committee, periodic review of the fitness of the benchmarks. Additional benchmark-specific governance and control arrangements may be put in place as deemed appropriate by the Index Committee. Policies and procedures are documented in the administrator Control Framework.

Rationale for adopting the methodology

Due lack of a liquid money market curve for Turkish Lira creating a hurdle to trade TRY interest rate swap, as there is no liquid fixing rate to reference. This methodology aims to bridge this gap by providing 3-month reference implied rate by leveraging interest rate parity.

3) Potential Limitations of the Benchmark

Circumstances in which we would lack sufficient input data to determine the benchmark according to the methodology

Scenarios may arise where underlying input data is not available in order to determine the index, such as if there is a disruption to a particular underlying market that prevents price discovery from taking place. Also, underlying data is provided by third party data providers. Failure of those providers may impact the administrator's ability to determine benchmarks in accordance with the applicable methodology. Generally, in the case of a market or data source disruption, the administrator will either proceed with or defer the determination of the respective index levels in accordance with the relevant Index Methodology or actions determined by the IAS **Index Committee**. Such scenarios remain rare. The Index Committee serves as the index governance body tasked with ensuring that:

- The index objective is clearly stated, and the index is expected to achieve its objective.
- The procedures documented in the methodology are transparent and clearly described.
- The eligible universe, selection criteria and weighting method for constituents are fully detailed and described.
- All aspects of an index – data, calculation, maintenance, presentation and governance – are consistent with IMBA's practices and any exceptions are explicitly discussed and decided upon by the Index Committee.

Circumstances in which the degree of liquidity of the underlying market becomes insufficient to ensure the integrity and reliability of the benchmark determination according to the methodology

There may be instances where the liquidity in an underlying market is not sufficient to adequately represent the economic reality that the index seeks to measure.

Potential liquidity issues may be identified as part of the standard input data validation (e.g. abnormally long periods of stale prices) or may be identified in the context of market disruptions or brought forward through third party index owners, such potential issues are escalated to the Index Committee who will assess and determine the appropriate course of action in such cases.

4) Exercise of Expert Judgment and Discretion

Position of each function or body that may exercise discretion in the calculation of a benchmark and governance thereof

The administrator's indices are rules based and do not typically permit the use of discretion unless there are exceptional circumstances that are not addressed by either the index rules or an administrator policy. Such scenarios may include (but are not limited to):

- Failure of data providers;
- Significant changes to the underlying market;
- Action by governmental or regulatory bodies that causes market disruption; and
- Events beyond human control.

In the event that IMBA needs to take action or make a decision that has not been foreseen by the methodology or associated policy, the Index Committee conveys and makes a determination that is consistent with the objective of the index in question and that causes minimal disruption to index stakeholders.

Ex-post evaluation process

As above, the exercise of judgment or discretion in the calculation of the BNP Paribas TRY FX Implied Rates Indices would need to be approved by the Index Committee prior to the publication of the BNP Paribas TRY FX Implied Rates Indices to ensure that no conflict of interest arises and the index continues to reflect the underlying economic reality. A record of the Index Committee decision detailing the nature of the expert judgment or exercised discretion is maintained.

5) Methodology Changes and Benchmark Cessations

Methodology Changes

When a material change to the index methodology is considered, IMBA publishes a consultation inviting comments from market participants. The following are examples of when a methodology change may be deemed material:

- Methodology changes that impact the index objective, for example altering rules determining the index universe, the selection of its constituents or the weighting of constituents, or
- the Index Committee determines if a proposed change is material.

Consultations are announced through a number of channels, including on the website. Under normal circumstances, the consultation period is open for a minimum of 30 days from publication. In instances where a material change is deemed to be time sensitive, the Index Committee may determine that a shorter consultation period is required. All feedback from consultations is reviewed and considered before a final decision is made by the Index Committee.

Internal Reviews of Methodology

In addition to its daily governance of indices and maintenance of index methodologies, the Index Committee reviews, at least once within any 12-month period, the index methodology to ensure the indices continue to achieve the stated objectives, are transparent, and that the data and methodology remain effective. This is the Annual Review Process.

In the case that an index methodology is reviewed off cycle from the Annual Review, the Index Committee reserves the right to cancel the Annual Review if the requested review covers all the relevant issues.

Possible impact of Changes or the Cessation of Benchmarks

Where it consults, IMBA will make reasonable efforts to address stakeholder concerns expressed in response to consultations and to allow for reasonable advance notice for stakeholders to accommodate changes, unwind existing positions in contracts/instruments referencing the benchmark, or seek an appropriate substitute benchmark.

There may be circumstances where external factors beyond the control of IMBA could lead to short-term changes or the termination of the Index, e.g. where a continuous disruption of the underlying market or an underlying data point requires a change to the methodology or impacts the viability of the index. In such cases, the administrator may shorten the notice period as is appropriate to the urgency of the situation.

Further details of the **S&P Dow Jones Indices Index Cessation Policy** can be found [here](#).

6) Key Terms

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| BMR | means the retained EU law version of the Benchmarks Regulation ((EU) 2016/1011) that has applied in the UK from the end of the Brexit transition period (11pm on 31 December 2020). |
| Board | means the Board of Directors of IMBA. |
| ESG | means Environmental, Social, Governance. |
| IHS Markit Benchmark Administration Ltd. (IMBA) | means the administrator, which is the UK entity authorised by the FCA responsible for the daily provision of the BNP Paribas TRY FX Implied Rates Indices. |
| Index Committee | means the committee with responsibility for overseeing day to day administration of the BNP Paribas TRY FX Implied Rates Indices. |
| Internal Oversight Committee | means the Internal Oversight Committee, the independent function which coordinates and directs IMBA's benchmark oversight function. |

7) Additional Information

Updates to this Benchmark Statement

This Benchmark Statement will be updated whenever the information it provides is no longer correct or sufficiently precise and at least where:

- there is a change in the type of the benchmark;
- there is a material change in the methodology for determining the benchmark or, where the Benchmark Statement refers to a family of benchmarks, in the methodology for determining any benchmark within the family of benchmarks.

This Benchmark Statement will be updated at least every two years.

Contact us

For more information, including to request index specific methodologies, please visit <https://ihsmarkit.com/products/index-administration-services.html> or contact us at mk-indexadministrationoperations@ihsmarkit.com.

8) Consideration of ESG Factors

| | |
|---|--|
| Type of benchmark family | Other benchmarks |
| Name of the benchmarks | BNP Paribas TRY FX Implied Rates Indices |
| Does the benchmark pursue ESG objectives? | No |
| Where the answer to the above question is negative, is any EU Climate Transition Benchmark or EU Paris-Aligned Benchmark available in the portfolio of IMBA or does IMBA have benchmarks that pursue ESG objectives or benchmarks that take into account ESG factors? | Yes |

9) Disclosure of the Alignment with the Objectives of the Paris Agreement

| | |
|---|-----------------|
| Does the benchmark align with the target of reducing carbon emissions or the attainment of the objectives of the Paris Agreement? | No |
| The temperature scenario, in accordance with international standards, used for the alignment with the target of reducing GHG emissions or attaining of the objectives of the Paris Agreement. | Not applicable. |
| The name of the provider of the temperature scenario used for the alignment with the target of reducing GHG emissions or the attainment of the objectives of the Paris Agreement. | Not applicable |
| The methodology used for the measurement of the alignment with the temperature scenario. | Not applicable |
| The hyperlink to the website of the temperature scenario used. | Not applicable |
| Date on which information has last been updated and reason for the update. | Not applicable |

10) Disclaimer

The BNP Paribas TRY FX Implied Rates Indices are proprietary to BNP Paribas. No use or publication may be made of the BNP Paribas TRY FX Implied Rates Indices, or any of its provisions or values, without the prior written consent of BNP Paribas.

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In addition, S&P DJI provides a wide range of services to, or relating to, many organizations, including issuers of securities, investment advisers, broker-dealers, investment banks, other financial institutions, and financial intermediaries, and accordingly may receive fees or other economic benefits from those organizations, including organizations whose securities or services they may recommend, rate, include in model portfolios, evaluate, or otherwise address.