

# REFINITIV BENCHMARK SERVICES (UK) LIMITED

## Methodology

### Canadian Overnight Repo Rate Average (CORRA)

**Effective Date:** 23 March 2020

**Expiry Date:** 12 June 2020<sup>1</sup>

**Refinitiv Document Classification:** Public

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<sup>1</sup> RBSL will cease to be the Administrator of CORRA after 12 June 2020. From 15 June 2020, the Bank of Canada will be the Administrator and will use a new Methodology for the determination of CORRA. Further details of the new Methodology can be found at [www.bankofcanada.ca/rates/methodology-calculating-corra](http://www.bankofcanada.ca/rates/methodology-calculating-corra). (Expiry date and footnote added 27 May 2020.)

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# 1 - Introduction

## 1.1 CORRA Overview

- The Canadian Overnight Repo Rate Average (“CORRA”) is a measure of the average cost of overnight collateralized funding.
- CORRA is defined as the volume weighted average rate of overnight repo transactions, conducted on-screen through designated inter-dealer brokers (“IDBs”), which involve general (non-specific) Government of Canada Collateral.
- CORRA is widely used as the reference for overnight indexed swaps and related futures.

## 1.2 Purpose of Document

- This document, issued by Refinitiv Benchmark Services (UK) Limited in its capacity as Administrator for CORRA, specifies the Methodology of CORRA.

## 1.3 Refinitiv Benchmark Services (UK) Limited

- Refinitiv Benchmark Services (UK) Limited (“RBSL”) is incorporated in England and Wales with company number 08541574 and is a wholly owned subsidiary of Refinitiv Limited (“RL”), itself a wholly owned subsidiary within the Refinitiv Group.
- RBSL is authorized and regulated in the UK by the Financial Conduct Authority (“FCA”), FCA Reference Number 610678.
- RBSL is an Authorized Benchmark Administrator as listed on the European Securities and Markets Authority (“ESMA”) Register, pursuant to Article 34 of the Benchmarks Regulation (Regulation (EU) 2016/1011).

## 1.4 Intended Readership

- This document is intended for Stakeholders of the Benchmark.

## 1.5 Document Publication

- This document will be Published through a Refinitiv portal or Made Available to Stakeholders upon request.

## 1.6 Document Review

- The Methodology will be subject to review by the Administrator at least annually.

## 2 – Methodology Overview

### 2.1 Overview

- CORRA is set daily as the volume weighted average rate of overnight repo transactions conducted on-screen through designated IDBs (“Data Sources”) between 6:00 and 16:00 Eastern Time (“ET”), on the specified date as reported to the Administrator by the IDBs.
- CORRA is limited to repo transactions that involve general (non-specific) collateral. In the event that less than CAD\$500 million in eligible overnight trades are reported in aggregate, CORRA is set at the Bank of Canada's target for the overnight rate.
- All participants transacting on the designated IDBs would have their Government of Canada general collateral Repo transactions included in the CORRA calculation, including those cleared through the Canadian Derivatives Clearing Corporation's central counterparty system, provided the transactions are in excess of CAD\$500 million in aggregate. The Participant screens therefore provide a primary source of price discovery throughout the day.
- For each specified Business Day, CORRA is calculated and published by the Administrator on the following Business Day at 09.00 ET. A Business Day means any day on which Schedule 1 banks under the Bank Act (Canada) are open for business in Toronto, Ontario, Canada.

### 2.2 Data Sources

As of the Effective Date of this document the Data Sources are:

- Freedom International Brokerage Company
- Shorcan Brokers Limited
- Tullett Prebon Canada Limited.

This list may be updated from time to time. Changes to Data Sources are available on request from MyRefinitiv: <https://my.refinitiv.com/content/mytr/en/helpandsupport.html>. The criterion for including a Data Source is that the Data Source must be an inter-dealer broker involved in arranging suitable repo transactions. The addition or removal of a Data Source shall be a change to the Methodology.

Only data in respect of suitable repo transactions in accordance with section 2.1 (such data defined as “Input Data”) is provided by Data Sources. No expert judgement is used by the Data Sources.

### 2.3 Procedures and Publication Time

- Input Data is made available by Data Sources between 16:00 and 17:59:59 ET. On early market closes, Input Data is made available between 13:00 ET and 6:59:59 ET the following Business Day.
- Data Sources can make changes to their Input Data as many times as required up until 17:59:59 ET (or 6:59:59 ET on early market closes). Any new Input Data will overwrite the previous Input Data if sent before 17:59:59 ET.
- The Administrator will use reasonable efforts to include in the calculation any Input Data, or any change to Input Data, made after 17:59:59 ET (or 6:59:59 ET on early market closes).

- The Benchmark will be published at 09:00 ET each Business Day, subject to any delay as set for in Section 2.4 below. A Business Day means any day on which Schedule 1 banks under the Bank Act (Canada) are open for business in Toronto, Ontario, Canada.

## 2.4 Delayed Release

- In the event the Administrator becomes aware, before the 09:00 ET publication of the Benchmark, of an error committed by the Data Source in its Input Data, the Administrator may, in its discretion, delay publication of the Benchmark up until 09:30 ET at the latest. This delay will allow the Data Source to revise its Input Data, and the Administrator to calculate and publish the Benchmark.
- In the event one or more Data Source (s) does not make its Input Data available to the Administrator before the 9:00 ET publication of the Benchmark, the Administrator will use reasonable efforts to contact the Data Source, as well as to enable the provision of the Input Data through alternative means if the standard provision mechanism is experiencing an operational failure. The Administrator can delay the publication of the Benchmark up until 11:00 ET, to the extent this delay allows for all Input Data to be effectively made available by the Data Sources and communicated to the Administrator.
- In the event of a delay in publication of the Benchmark, the Administrator will initiate its standard process for alerting market participants, which includes publishing an alert on the FIXALERT page.
- In the event one or more Data Source(s) does not make its Input Data available to the Administrator, even after reasonable efforts are used by the Administrator, and if the CAD\$500 million threshold is met by the Input Data from the remaining Data Source(s), then the Administrator will calculate the Benchmark. In the event that Input Data from one or more Data Source(s) are not made available to the Administrator, even after reasonable efforts are used by the Administrator, and if the CAD\$500 million threshold is not met by the Input Data from the remaining Data Source(s), the Benchmark will be set at the Bank of Canada's target for the overnight rate.

## 2.5 Minimum Threshold for Input Data

- The Benchmark is calculated by the Administrator only if the trade volume represented by the Input Data meets or exceeds CAD\$500 million in aggregate eligible overnight trades. If the CAD\$500 million threshold is not met by the Input Data, the Benchmark is set at the Bank of Canada's target for the overnight rate.
- If anything comes to the attention of the Administrator that leads the Administrator to believe that a Data Source is not adhering to the legal agreement between the Administrator and the Data Source, the Administrator will not use input from that Data Source until the situation is clarified or rectified to the Administrator's satisfaction.

## 2.6 Refix Policy

- If the Administrator becomes aware of any error that has any effect on the final calculated benchmark within fifteen minutes of the 09:00 ET publication time, an alert will be released as soon as possible, and the rate will be recalculated. This is the case for both errors in Input Data that is delivered to the Administrator and calculation errors.
- In addition, if the Administrator becomes aware of an error that has a two basis points or greater effect on the final calculated benchmark before 09:45 ET on the day of calculation, an alert will be released as soon as possible and the rate will be recalculated. This is the case for both errors in Input Data that is delivered to the Administrator and calculation errors.
- If the Administrator becomes aware of an error after 09:45 ET on the day of calculation, no matter the cause or magnitude, there will be no recalculation.

- In the event of an error being reported, the Administrator will alert clients that the rates are suspect through a message on the Refinitiv <FIXALERT> page. CORRA participants will also be informed via email. During the investigation into the rates, updates will continue on the <FIXALERT> page every 30 minutes, including confirmation of any refix. The <FIXALERT> page is also available via other vendors. Any refix will be reported to the Independent Oversight Committee.

## **2.7 Review of the Benchmark and Data Sources**

- The Administrator will carry out a review of the Benchmark on an at least an annual basis. This review will include analysis of the underlying market the Benchmark seeks to represent, performance and appropriateness of the current Data Sources, and analysis of other potential Data Sources.
- The aim of the review will be to ensure that the Benchmark is still representative of the underlying market, that the Data Sources are the optimum grouping to provide Input Data to represent the underlying interest, and that the current Data Sources have been submitting in an accurate and timely manner. The Independent Oversight Committee will provide input into the review.

## **2.8 Review of the Methodology**

- The Administrator will review the Methodology at least annually and the Administrator may conduct additional reviews at the Administrator's discretion.
- The Independent Oversight Committee will review the Methodology at least annually and ensure it remains appropriate and reflective of all relevant regulation and guidance.

## **2.9 Exercise of Expert Judgment by the Administrator**

- The Administrator will not exercise Expert Judgment.

## **2.10 Changes to the Methodology**

- Changes to the Methodology shall be made in accordance with the TRBSL Benchmark Methodology Change Procedures. The combined TRBSL Benchmark Methodology Change and Cessation Policy is available at <https://www.refinitiv.com/en/financial-data/financial-benchmarks>.

## **2.11 Identification of Potential Limitations of the Benchmark**

- The ability of Data Sources to provide Input Data relies on there being a liquid market in overnight repo transactions in the Canadian market. If any ongoing constraint or fragmentation to liquidity in this market is identified or foreseen, the Administrator will consult with Stakeholders as well as the independent Oversight Committee. As a matter of general policy, the Administrator believes that Input Data representing a significant share of transaction volume in the Canadian overnight repo market are needed with respect to determination of the Benchmark.

## **2.12 Enquiries Regarding the Methodology**

- Please address any enquiries regarding the CORRA Methodology to: [index\\_queries@thomsonreuters.com](mailto:index_queries@thomsonreuters.com).

### 3 - Definition of Key Terms

Capitalized terms used in this document but not otherwise defined are defined in the following table. Definitions are sourced from IOSCO Principles for Financial Benchmarks<sup>2</sup>.

Glossary of Defined Terms & Acronyms	
Term	Definition
Administration	Includes all stages and processes involved in the production and dissemination of a Benchmark, including: a) Collecting, analysing and/or processing information or expressions of opinion for the purposes of the determination of a Benchmark; b) Determining a Benchmark through the application of a formula or another method of calculating the information or expressions of opinions provided for that purpose; and c) Dissemination to users, including any review, adjustment and modification to this process.
Administrator	An organisation or legal person that controls the creation and operation of the Benchmark Administration process, whether or not it owns the intellectual property relating to the Benchmark. In particular, it has responsibility for all stages of the Benchmark Administration process, including: a) The calculation of the Benchmark; b) Determining and applying the Benchmark Methodology; and c) Disseminating the Benchmark.
Benchmark	Prices, estimates, rates, indices or values that are: a) Made available to users, whether free of charge or for payment; b) Calculated periodically, entirely or partially by the application of a formula or another method of calculation to, or an assessment of, the value of one or more underlying Interests; c) Used for reference for purposes that include one or more of the following: • determining the interest payable, or other sums due, under loan agreements or under other financial contracts or instruments; • determining the price at which a financial instrument may be bought or sold or traded or redeemed, or the value of a financial instrument; and/or • measuring the performance of a financial instrument.  For purposes of this methodology document, any reference to the term "Benchmark" shall be a reference to CORRA.
Calculation Agent	A legal entity with delegated responsibility for determining a Benchmark through the application of a formula or other method of calculating the information or expressions of opinions provided for that purpose, in accordance with the Methodology set out by the Administrator.
Expert Judgment	Refers to the exercise of discretion by an Administrator or Data Source with respect to the use of data in determining a Benchmark. Expert Judgment includes extrapolating values from prior or related transactions, adjusting values for factors that might influence the quality of data such as market events or impairment of a buyer or seller's credit quality, or weighting firm bids or offers greater than a particular concluded transaction.
Market Participants	Legal entities involved in the production, structuring, use or trading of financial contracts or financial instruments used to inform the Benchmark, or which reference the Benchmark.
Methodology	The written rules and procedures according to which information is collected and the Benchmark is determined.
Publish or Make Available	Refers to the expectation that a party such as an Administrator should provide a document or notice to Stakeholders. The means by which such notice is made should be proportionate to the breadth and depth of Benchmark use by Stakeholders, as determined by the Administrator on a "best efforts" basis. Ordinarily, posting a document or notice on the Administrator's website will meet this expectation.
Stakeholder	Refers to Subscribers and other persons or entities who own contracts or financial instruments that reference a Benchmark.
Subscriber	A person or entity that purchases Benchmark determination services from an Administrator.

<sup>2</sup> <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf>