

NZFBF

NEW ZEALAND
FINANCIAL BENCHMARK
FACILITY



TE POU HERENGA PŪTEA O AOTEAROA

NZFBF Closing Rates – Operating Guidelines and Principles

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NEW ZEALAND FINANCIAL BENCHMARK FACILITY

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NZFBF CLOSING RATE PRICING SERVICE

Operating Guidelines and Principles

1.0 INTRODUCTION

The Operating Guidelines and Principles outlined in this document have been derived with the objective of ensuring:

- Complies with the New Zealand benchmark administration licensing regime overseen by the FMA;
- Alignment with the IOSCO Principles for Financial Benchmarks (to the extent applicable);
- A transparent Closing Rate process is maintained; and,
- Conformance with global best practice.

This service provides Closing Rates that represent the mid-rates for pre-approved and eligible instruments and tenors as noted below. The Closing Rates are sourced from live and deal-able two-way quotations extracted from Bloomberg ALLQ pages at 16:32 NZST every Business Day. Closing rates are determined each business day for the following markets:

NZ Government Bonds (NZGS) - The New Zealand Government Bond Closing mid-rate represents the outright yield for a selected range of government issued maturities traded in the local New Zealand Market.

NZ Interest Rate Swaps (NZSW) – The New Zealand Interest Rate Swap Closing mid-rate represents pricing of a market standard interest rate swap for a range of different tenors, where the periodic floating rate payment is based on BKBM (Bank Bill Benchmark Rate).

NZ Overnight Indexed Swaps (NZOS) – The Overnight Indexed Swap Closing mid-rate represents pricing of an interest rate swap for a range of different tenors, where the periodic floating payment is based on a return calculated from a daily compound of the overnight cash rate.

NZ Overnight Indexed Swap RBNZ Meeting Date (NZOR) - The Overnight Indexed Swap RBNZ Meeting Date Closing mid-rate represents pricing of a series of standard overnight indexed swaps between the RBNZ's Official Cash Rate (OCR) Meeting Dates, where the periodic floating payment is based on a return calculated from a daily compound of the overnight cash rate between the designated RBNZ meeting date and the next subsequent meeting.

NZD Bills/OIS Basis Swap (NZBO) - The NZD Bills OIS Basis Swap Closing mid-rate represents the differential between OCR and the equivalent tenor BKBM (flat), expressed as a margin in basis points plus or minus to OCR.

RFR/BKBM Basis Swaps (NZBR) – The NZD/USD Basis Swap Closing mid-rate represents the basis floating rate differential between USD SOFR funding (flat) and the equivalent tenor NZD floating rate expressed as a margin in basis points plus or minus to BKBM.

RFR/RFR Basis Swaps (NZRR) – The NZD/USD Basis Swap Closing mid-rate represents the basis floating rate differential between USD SOFR funding (flat) and the equivalent tenor NZD floating rate expressed as a margin in basis points plus or minus to OCR.

NZ Credit Markets (NZNG) - The New Zealand Credit Markets Closing mid-rates represent pricing in outright yield on a range of vanilla Corporate, Local Authority and Kauri fixed income instruments as well as pricing for non-vanilla Corporate, Local Authority and Kauri fixed income instruments, and Floating Rate Notes. The definition for non-vanilla-bonds can be found in key definition (section 7).

This document should be read in conjunction with the following NZFBF publications, all of which can be found on the NZFBF website:

- NZFBF Board Charter;
- NZFBF Constitution;
- NZFBF Code of Conduct & Conflicts of Interest;
- NZFBF Governance Conflict Management Plan;
- NZFBF Complaints Process; and,
- NZFBF Whistle Blowing Process.

2.0 GOVERNANCE

NZFBF is the administrator and calculation agent for key New Zealand financial market benchmarks. NZFBF provides transparent governance, oversight, and accountability procedures for benchmark determination processes.

NZFBF is a wholly owned subsidiary of the New Zealand Financial Markets Association (NZFMA).

NZFMA was formed in 2007 as the industry association for institutional participants in New Zealand's wholesale financial markets. NZFMA is a not-for-profit incorporated society that operates in accordance with its Rules of Association, primarily to represent the common interests of its members as institutional participants in New Zealand's wholesale financial markets. One of NZFMA's key services is facilitating the provision of financial benchmarks that support the operation of New Zealand's wholesale financial markets.

NZFBF was established by NZFMA in 2021 to provide independent financial benchmark administration services exclusively for the NZFMA. NZFBF's objective is to deliver effective and efficient calculation and publication of the Benchmarks, ensuring, to the extent applicable, compliance with the New Zealand administrators of financial benchmarks regime, as provided for in the Financial Markets Conduct Act 2013 and the Financial Markets Conduct Regulations 2014, and alignment with the International Organization of Securities Commissions (IOSCO) Principles for Financial Benchmarks.

NZFBF is governed by a board of directors, which comprises a majority of independent directors.

If you wish to subscribe to any of the key New Zealand financial market benchmarks, please find the link [here](#).

2.1 Overall Responsibility of the Administrator

As Administrator, NZFBF maintains responsibility for all aspects of the capture and calculation process and overall governance surrounding the Closing Rates. This includes the following:

- a) Development: The definition of the Closing Rates and Closing Rate methodologies (as outlined in this document);
- b) Determination and Dissemination: Accurate and timely compilation, publication and distribution of the Closing Rates;
- c) Operation: Ensuring appropriate transparency in respect of significant decisions affecting the compilation of the Closing Rates and any related determination process, including contingency measures in the event of absence of or insufficient inputs, market stress or disruption, failure of critical infrastructure, or other relevant factors; and
- d) Governance: Establishing credible and transparent governance, oversight, and accountability procedures for the Closing Rates determination process, including an identifiable oversight function accountable for the development, issuance and operation of the Closing Rate process (see next section).

2.2 Internal Oversight

NZFBF governance, which includes policies and processes for the calculation and control of the Closing Rate Pricing Service, as noted above, is coordinated through the NZFBF Board (Board) with assistance from relevant committees and working groups.

2.2.1 NZFBF Board

NZFBF have an oversight function via the Board to review and challenge all aspects of the Benchmark determination process. NZFBF's Constitution and Board Charter details the Board's oversight function and are available on the NZFBF website.

The Board will consist of at least three Directors, with a majority of these Directors meeting the independence criteria stated in the constitution. Two of these independent Directors will fill the Chair and Deputy Chair roles. The Board will also include non-independent Directors, with relevant wholesale market experience. The Board is also able to appoint two non-voting Observers from the Government sector.

2.2.2 NZFBF Credit Market Committee and Closing Rate Working Group

The NZFBF Credit Market Committee is responsible for reviewing the operational management of the NZNG market noting, however, that the governance of these and other NZFBF generated Benchmarks will be the responsibility of the NZFBF Board. The NZFBF Credit Market Committee generally meet every two months or six times annually. NZFBF have also formed the NZFBF Closing Rate Working Group to assist with the operational management of the Closing Rates for the NZGS, NZSW, NZOS, NZOR, NZBO, NZBR and NZRR markets. This Working Group meet on an ad-hoc basis if an issue is identified in the Closing Rate process, or to complete the annual review of the Closing Rates.

NZFBF, in consultation with the NZFBF Closing Rate Working Group and NZFBF Credit Market Committee, will provide recommendations to the NZFBF Board concerning the overall operation of the Closing Rates. The NZFBF Closing Rate Working Group and NZFBF Credit Market Committee members are drawn from NZFMA members operating in the NZ domestic rates market and other financial market participants. NZFBF have discretion to invite any other financial market participants to attend all committee meetings in an observer role.

2.3 Code of Conduct

NZFMA requires that Price-makers providing quotations used in the Closing Rate process agree to comply with the NZFMA Code of Conduct and Principles. This Code sets out ethical principles for acceptable standards of behaviour in the over-the-counter financial markets and promotes responsible decision-making by participants.

For further information, please refer to the NZFMA Code of Conduct and Principles.

2.4 Conflicts of Interest

Identifying and disclosing existing and potential conflicts of interest is a standing agenda item at NZFBF Board meetings. Employees and contractors of the Administrator must disclose any existing or potential conflicts of interest to the Chair of the NZFBF Board as soon as they arise in line with the Conflict Management Plan and the Code of Conduct and Conflicts of Interest.

Once disclosed, it is the responsibility of the Chair (or, where the Chair has the conflict, the Deputy Chair) to ensure that conflict does not inappropriately influence the calculation of the Closing Rates.

2.5 Staff Training

NZFBF ensures staff have the necessary skills and ongoing training to perform their duties to the highest standard and ensure benchmark outputs comply with the New Zealand benchmark administration licensing regime

overseen by the FMA and align with the IOSCO Principles for Financial Benchmarks (to the extent applicable). Staff training is governed by the NZFBF Recruitment & Workplace Policies. This will consist of in-house training, and the use of external training providers in relevant fields. Topics covered will be benchmark administration, NZ Financial markets, and securities law & market regulation. Staff are also required to be familiar with the contents of the NZFMA's Accreditation programme.

3.0 QUALITY OF BENCHMARK¹

3.1 Benchmark design

Factors such as the adequacy of the sample, the number of willing and available Price-makers from which to obtain quotations from, the size and liquidity of the relevant market, any market concentration issues surrounding the distribution of trading, and the relative size of the market in relation to the volume of trading in the market that references the Closing Rates, are subject to ongoing monitoring by NZFBF in consultation with the NZFBF Closing Rate Working Group, NZFBF Credit Market Committee and the NZFBF Board. Should there be any significant developments to these market dynamics, a review process will be conducted to determine if the Closing Rate process remains appropriate and produces a robust representation of the interest that it seeks to measure.

The NZFBF Board shall also review the design of the Closing Rate process (upon recommendation from NZFBF, in consultation with the NZFBF Closing Rate Working Group and NZFBF Credit Market Committee) in accordance with IOSCO Principle 5 (Refer 3.5 for more detail).

3.2 Data Sufficiency

The Closing Rate process obtains live data from Bloomberg which includes deal-able two-way quotations from Price-makers formed by competitive forces of supply and demand. The NZFBF therefore relies on this two-way pricing as an active market to determine the Closing Rates.

These two-way quotations have also been formulated by Price-makers on the basis that they bear witness to bona fide, arms-length transactions that each security trades.

NZFBF and the NZFBF Board monitor this activity closely and regularly engage with market participants regarding any changes in this activity.

3.3 Hierarchy of Data Inputs

Due to the infrequency of trading and the lack of interbank activity in the Closing Rate markets, NZFBF utilises deal-able bid and offer quotations from Price-makers extracted from Bloomberg to capture and calculate the Closing Rates.

The process is not dependent on submissions although quotations may be sourced directly from Price-makers in the event of technical issues, such as Bloomberg being unavailable. This is outlined in more detail in section 2.6 (contingency procedures) of the methodology documents for each of the Closing Rate markets.

3.4 Transparency of Benchmark Determinations

On the basis that the NZ Closing Rates are sourced exclusively from executable bid and offer quotes and there is public disclosure of the methodology, no explanation for how each Closing Rate has been determined is required.

¹ In parts of this section, the IOSCO Principles for Benchmarks have been referenced verbatim. As a result, the term "Benchmark" should be taken in context to mean "Closing Rate" for the purpose of clarity in this section.

The Closing Rate process will be conducted in a manner that complies with the details specified in this document, the methodology document for each of the Closing Rate markets and the NZFMA Code of Conduct and Principles. Any deviation will be investigated and, if necessary, escalated to the NZFBF Board for further consideration.

3.5 Periodic Review

NZFBF regularly reviews both the inputs and outputs of the Closing Rate process. If any issues arise it will raise the concerns directly with the NZFBF Closing Rate Working Group who meet on an ad-hoc basis and the NZFBF Credit Market Committee who meet approximately six times a year. This review of the Closing Rate methodologies and Operating Guidelines & Principles is undertaken annually and includes whether the two-way quotations:

- Have undergone any structural changes that may necessitate changes to the design of the methodology;
- Have diminished or are non-functioning such that they can no longer function as the basis for a credible Benchmark; and/or
- Have undergone any change which makes the Benchmark no longer representative of its intended interest and may result in the possible cessation of a Closing Rate Benchmark.

Any recommendations following each review will be forwarded to the NZFBF Board for consideration and approval. The Board will also review all methodologies and the Operating Guidelines & Principles on an annual basis. If any changes are required, the Board will determine if a consultation is needed (see section 4.2).

NZFBF will publish or make available a summary of such reviews where material revisions have been made to the methodology, including the rationale for the revisions with appropriate time frames for implementation.

4.0 QUALITY OF METHODOLOGY

4.1 Content of Methodology

The methodologies are outlined in the Methodology documents for each of the Closing Rate markets. These documents are available on the NZFBF website. The methodology documents include the following:

- a) Definitions of key terms;
- b) All criteria and procedures used to develop the Closing Rates including the input selection and source, prioritization of certain data types, quorums and calculation methods; and,
- c) The procedures which govern a Closing Rate determination in periods of market stress or disruption including technology issues;

This document includes the following:

- a) Definitions of key terms;
- b) Information regarding the frequency of internal and external reviews of methodologies – as specified in section 3.5; and,
- c) The circumstances in, and procedures under which, the Administrator will consult with Stakeholders (section 4.2).

4.2 Changes to the Methodology

NZFBF, in consultation with the NZFBF Closing Rate Working Group and NZFBF Credit Market Committee, and the NZFBF Board, will publish or make available the rationale of any proposed material change in its Methodology. A material change would be defined as, but not limited to, any change to the methodology that would alter the definition or representativeness of the benchmark, the calculation of the benchmark, the format in which it is released and/or the timing of that release.

Material changes to the methodology will be communicated to benchmark users and stakeholders via a

consultation with adequate time for response. Following the consultation's close, the NZFBF Closing Rate Working Group and/or NZFBF Credit Market Committee will consider the feedback. A summary of the feedback and proposed next steps will be published following this process for further comment before a final decision is made by the NZFBF Board.

NZFBF will provide, at a minimum, one month's notice, via a market notice, for the implementation of the change which would be guided by consultation feedback.

Minor changes that do not meet the material change definition above will be discussed by NZFBF, in consultation with the NZFBF Closing Rate Working Group and NZFBF Credit Market Committee, and the NZFBF Board before being implemented. These non-material changes would be implemented via a market notice, with a minimum two-week notice period.

The above processes may not apply if the FMA has given written notice that a change is required.

4.3 Internal Controls over Data Collection

As NZFBF collects data from an external source, appropriate internal controls have been put in place regarding data collection and transmission processes. These controls address the process for selecting the source, collecting the data, and protecting the integrity and confidentiality of the data.

A Master Services Agreement has been signed by the NZFMA with Bloomberg Finance LP which outlines the terms and conditions of the data license between the two entities. Permissions have been obtained from Price-maker banks to access and use the quotation information that they publish on the relevant Bloomberg ALLQ pages. Price-makers are obligated to confirm that they have read, understood, and accept the rules outlined in section 6.2.

The Administrator does not actively monitor Bloomberg's arrangements for the collection and dissemination of the data because the data consists of live executable two-way quotations and therefore is of a mechanical nature.

4.4 Transition

When a possible cessation event has been identified during the periodic review process specified in section 3.5, or at any other time by the NZFBF Board, be that due to the Benchmark no longer being representative or where NZFBF and NZFMA can no longer act as the Benchmark Administrator, the processes in section 2.9 of the relevant methodology documents are to be followed, these methodologies are available on the NZFBF website.

5.0 ACCOUNTABILITY

5.1 Complaints Procedures

NZFBF has a complaints procedure by which Stakeholders may submit complaints relating to the Closing Rate process. This is covered in the NZFBF's Complaints Process which can be found on the NZFBF website. This document provides information on laying a complaint directly with NZFBF or externally to the FMA.

Where a complaint involves a request for a review and possible re-publication of Closing Rates, or in the event NZFBF identifies a system generated or other error in the calculation post publication, the complaint will be handled in accordance with the NZFBF's Complaints Policy and the following procedures:

- Any user can request a review of Closing Rates if they believe that a rate is materially incorrect, such requests will be investigated by the NZFBF;
- A request to review Closing Rates must be lodged by phone or email to the NZFBF before 5:15pm NZ time. Please call 0800 693 282 or email helpdesk@nzfbf.co.nz;

- NZFBF will take steps to verify the basis of the complaint. If it is identified that a re-calculation is warranted, a recommendation will be made as per the procedures of section 2.3 of the relevant methodology document, available on the NZFBF website; and,
- NZFBF will maintain a log of all requests to re-calculate Closing Rates, including the entities which requested it, the investigations undertaken, and the reasons for the decision taken by the NZFBF.

Post Publication Review of Closing Rates

The Policy of restatement for Closing Rates is as follows:

If NZFBF identifies a system generated or other error in the calculation post publication of the Closing Rates, and the error is material, NZFBF will republish the relevant Closing Rate market as an intraday refix. For the NZSW, NZGS, NZOS, NZOR, NZBR, NZBO & NZRR markets, a material error is defined as an error that is 2.00 basis points or greater away from the prevailing market mid for that tenor. For the NZNG market, this material error is defined as 10% of said securities credit spread, or 5.00 basis points, whichever is greater.

In determining the parameters for a refix, NZFBF considers the following:

- Global best practice;
- The time and effort required to amend transactions in the event of a refix;
- Transparency of error reporting; and,
- Ensuring the rate is robust, reliable, and reflective of the underlying interest.

The cut off time for a request to review Closing Rates is 5:15pm NZ time.

NZFBF will send out a market notice to all subscribers via email communicating the relevant Closing Rates that are under review. If an intraday refix is required, NZFBF will republish the amended market to vendor screens, along with email notification to all Closing Rate subscribers by 6:00pm NZ time.

NZFBF will maintain an error log detailing any errors, the relevant tenor, and the magnitude of the error (non-directional).

5.2 Reporting and Audits

Daily data integrity checks will be conducted pre-publication and retrospective reviews undertaken to ensure Closing Rate methodologies remains robust. These integrity checks will be performed by NZFBF as part of its obligations as Administrator. Breaches of tolerance will be identified in NZdata through email notifications and live market monitors, with Price-makers and the NZFBF notified accordingly.

The report function will contain a log of all quotations on each market. These will be logged from 3 data snaps taken at randomized times between 16:15 and 16:31 so that market activity preceding the final snap (16:32) can be monitored. An earlier snap (taken at 14:00) will also be recorded and stored. This snap may be used if no data is available at 16:32 or from the three pre-close snaps.

From time to time, the NZFBF Board may appoint an independent external auditor with appropriate experience and skill to review and report the NZFBF's adherence to its stated Closing Rate Operating Guidelines & Principles.

5.3 Audit Trail

Written records will be retained by NZFBF for a minimum of seven years. These will include:

- All market data, any other data and information sources relied upon for Closing Rate determinations;
- Details surrounding deviations from standard procedures and methodologies; and,
- Any queries and/or complaints with appropriate responses relating to the Closing Rate process.

Record Keeping:

NZFBF will retain auditable records of all data relating the daily calculation of Closing Rates and any changes to the methodologies. Physical and electronic records shall be kept for at least seven years. Records of telephone conversations or electronic communications shall be kept for a period of three years. The following information will be retained:

- All data inputs including details of the source;
- The calculated rates;
- Evidence of any NZFBF intervention;
- Relevant compliance reports including the NZFBF approval process;
- Any other reporting related to the calculation of Closing Rates;
- Relevant communication relating to the inputs or published Closing Rates;
- Any queries or complaints received in relation to Closing Rates and the NZFBF's response;
- Incident reports in relation to any issues or errors that occurred, including the proposed resolution;
- The identification of any conflicts of interest and how they were managed; and,
- Findings of any external audits.

The above information is available to the FMA on request.

5.4 Confidentiality

Subject to section 5.5, data captured from Price-makers and used in the Closing Rate determination process will not be disclosed to any party other than NZFBF and its employees, officers, and the Board for the purpose of carrying out its duties as Administrator.

5.5 Co-operation with Regulatory Authorities

Where required by law, data, audit trails and other documents subject to these Operating Guidelines & Principles shall be made readily available by NZFBF to any relevant Regulatory Authority.

6.0 Appendix I

Eligibility, Rules, and Current Price-makers

6.1 Price-maker Eligibility Criteria

A Price-maker means a financial institution approved by NZFBF to supply pricing via a third-party platform for the calculation of end of day rates for either a sub-set of, or all Closing Rate benchmarks.

To be accepted as a Price-maker to the Closing Rate process, an entity must:

1. Be approved in writing by the NZFBF Board;
2. Be a current financial member or international member of NZFMA;
3. Be an active Price-Maker in the New Zealand dollar denominated Closing markets (NZGS, NZSW, NZOS, NZOR, NZBO, NZBR, NZRR & NZNG);
4. Contribute two-way pricing in accordance with the Rules for Price-makers stipulated below on a daily basis;
5. Display professionalism and operate in accordance with the NZFMA Code of Conduct and Principles; and,
6. Provide NZFBF with written acceptance, on an annual basis, of these Guidelines & Principles.

6.2 Rules for Price-makers

1. A participating entity must meet the Price-maker Eligibility Criteria detailed in 6.1 above. The entity must also be confirmed by the NZFBF Board as a participant in the Closing Rate process, thereby being bound by these Operating Guidelines & Principles;
2. A participating entity will publish two-way quotations between 14:00 and 16:32 as part of their obligations as an approved Price-maker;
3. The two-way quotation is considered live and deal-able to third parties (not interbank) in the volume specified;
4. Providers of these quotations do so in the full knowledge that the data will be extracted and used in the Closing Rate process;
5. The two-way quotations will be made on yield or clean price terms depending on the product (see each Closing Rate methodology for further detail);
6. Minimum volumes to be quoted are required to be in line with current broker minimums or as specified in the methodology (Refer section 2.4 of the relevant methodology documents, available on the NZFBF website). Amendments to these volumes and the inclusion of new securities will need approval from the NZFBF Closing Rate Working Group and/or NZFBF Credit Markets Committee; and,
7. To provide context to the firmness of these quotations, the Price-maker has the discretion to change the price or amend the volume in certain circumstances. Some examples of these are outlined below:
 - The Request for Quote ("RFQ") volume differs to the volumes displayed on Bloomberg ALLQ (e.g., a larger volume may result in a deterioration in price and vice versa);
 - Key customers may get preferential pricing advantages when RFQs are received; and,
 - Stale data feeds may result in out-of-market prices.

6.3 Current Price-makers

ANZ Bank New Zealand Limited	(NZGS, NZSW, NZOS, NZOR, NZBO, NZBR, NZRR & NZNG)
ASB Bank Limited	(NZSW, NZOS, NZOR & NZBO)
Commonwealth Bank of Australia	(NZGS & NZNG)
Bank of New Zealand	(NZGS, NZSW, NZOS, NZOR, NZBO, NZBR, NZRR & NZNG)
Westpac Banking Corporation – New Zealand Branch	(NZGS, NZSW, NZOS, NZOR, NZBO, NZBR, NZRR & NZNG)

7.0 APPENDIX II

Criteria for Securities to enter the Credit Market (NZNG) Close

The following criteria should be used as a guideline when considering if a security will be added to the NZNG credit market Closing Rates:

1. Securities must be issued in New Zealand (ISIN NZ) and be denominated in New Zealand dollars.
2. Minimum parcel size - NZ\$50 million.
3. Minimum rating - Investment grade (BBB-).
4. Openly issued into the market (i.e., not a private placement).
5. Pricing must be available from at least three price-makers on a regular basis.
6. Acceptable securities – Vanilla bonds, Floating Rate Notes, and certain non-vanilla securities.
7. Non-vanilla security definition – See appendix 3.0 (page 13) of the NZNG Closing Rate Operating Guidelines and Principles below.
8. Securities that are to be listed on NZX must be listed before they can be added to the NZNG close.

Note the decision whether to provide pricing for these securities will be at the sole discretion of the individual price-makers, driven by decisions on credit limits and risk appetite.

8.0 APPENDIX III

Key Definitions

Administration: Includes all stages and processes involved in the production and dissemination of a Closing Rate, including:

- a) Collecting, analysing and/or processing information or expressions of opinion for the purposes of the determination of a Closing Rate;
- b) Determining a Closing Rate 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.

ALL Quote (ALLQ): Bloomberg screen that displays bid/offer quotes for securities and derivative instruments. ALLQ can also be used as a liquidity platform where trades can be executed through dealers with whom permission has been given to trade. ALLQ refreshes pricing automatically and displays the time for each pricing update.

Audit trail: For the purposes of the Closing Rate determination process, the documentation and retention of all relevant data, submissions, other information, judgments (including the rationale for any exclusions of data), analyses and identities of Submitters used in the Closing Rate setting process for an appropriate period.

Benchmark: The Benchmarks in scope of this report are 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.

Benchmark Administrator (“Administrator”): An entity or legal person that controls the creation and operation of the Closing Rate Administration process, whether or not it owns the intellectual property relating to the Benchmarks. It has responsibility for all stages of the Closing Rate Administration process, including:

1. The calculation of the Closing Rates;
2. Determining and applying the Closing Rate methodologies; and
3. Disseminating the Closing Rates.

The Benchmark Administrator is New Zealand Financial Benchmark Facility Limited (NZFBF).

Benchmark User: A person or entity that purchases Closing Rate services from the Benchmark Owner.

Bloomberg: A third party platform that provides a real time source of market data, pricing information and news.

Bona fide: Refers to data where the parties submitting the data have executed, or are prepared to execute, transactions generating such data and the concluded transactions were executed at arm’s-length from each other.

BPIPE: BPIPE is the Bloomberg technology that allows users such as the NZFBF to access real time data from Bloomberg ALLQ pages based on predetermined parameters. For instance, with reference to section 2.1 of the methodology documents, the following data could be readily obtained in a preferred format, e.g. xml and formatted

according to the NZFBF's requirements.

Business Day: A Business Day is defined as a day on which banks in New Zealand are generally open for business (refer NZFMA website for a detailed definition).

Calculation Agent: An entity with delegated responsibility for determining a Closing Rate 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.

Closing Rate: An instrument valuation as at the market close on any trading day, the calculation of which has been determined in line with the methodologies specified in these Operating Guidelines & Principles. The Closing Rate is intended to provide an indication of market value and specifically should not be used for settlement purposes.

Contingency procedure: An alternative to the normal procedure – triggered if an unusual but anticipated situation arises.

Interest: Refers to any physical commodity, currency or other tangible goods, intangibles (such as an equity security, bond, futures contract, swap or option, interest rates, another index, including indexes that track the performance of a rule-based trading strategy or the volatility of a financial instrument or another index), any financial instrument on an Interest, which is intended to be measured by a Closing Rate. Depending on the context, it is assumed that the word "Interest" also includes the market for such Interest.

Market parcel: The minimal notional size of a trade (or bid or offer) for a financial instrument that is accepted by Price-makers as a fair reflection for a standard market transaction.

Material Error: Materiality relates to the seriousness of the error and how this error may impact on what is meant to be represented. Therefore, if an error will see the Closing Rate benchmark to move by more than these material rates, this will warrant a re-calculation of rates. Refer to section 5.1 for Closing Rate markets material error threshold.

Methodology: The written rules and procedures according to which information is collected and the Closing Rate is determined.

Non-vanilla bonds and Floating Rate Notes (FRNs): A fixed coupon bond is considered non-vanilla if it contains certain features which require assumptions around coupons or maturities to calculate the yield of the bond. These may include, but are not limited to:

- Call options where the maturity date of the bond is not certain;
- Coupon resets;
- Capital or Coupon values linked to inflation or some other index;
- Conversion to equity or other non-standard maturities; and,
- Soft bullet maturities.

A fixed coupon bond that no longer require assumptions around coupons and maturities in order to calculate the yield of the bond may be considered vanilla. Examples include:

- A bond containing a single call date and that has no other non-vanilla features. Once a call notice is issued for that bond, it will be considered vanilla until maturity; and,
- A bond containing a single reset date and that has no other non-vanilla features. Once the reset has been published, it will be considered vanilla until maturity.

The following non-vanilla features would not on their own, result in the bond being considered non-vanilla

- Call options that do not impact the traded maturity date of the bond (even if they may impact the traded credit spread of the bond). Examples include:
 - Calls on a Volume Weighted at Average Price basis; or,

- Calls relating to credit ratings changes.
- Coupon step ups caused by a downgrade in credit rating; and,
- Non-standard day count conventions, such as ACT/365 basis.

A floating rate note is considered non-vanilla if it contains certain features which require assumptions around interest margins or maturities to calculate the price of the note.

These features may include, but are not limited to

- Call options where the maturity date of the FRN is not certain;
- Capital or interest margin values linked to inflation or some other index;
- Conversion to equity or other non-standard maturities; and,
- Soft bullet maturities.

A floating rate note that no longer require assumptions around coupons and maturities in order to calculate the price of the note may be considered vanilla. Examples include:

- A floating rate note containing a single call date and that has no other non-vanilla features. Once a call notice is issued for that bond, it will be considered vanilla until maturity.

The following non-vanilla features would not on their own, result in the bond being considered non-vanilla

- Call options that do not impact the traded maturity date of the note (even if they may impact the traded credit spread of the bond). Examples include:
 - Calls on a Volume Weighted at Average Price basis; or,
 - Calls relating to credit ratings changes.
- Margin step ups caused by a downgrade in credit rating; and,
- Non-standard day count conventions.

* Note there are no FRNs in the NZ market currently considered non-vanilla.

Outliers: Outliers are an internal metric used by NZFBF to identify if a Price-makers rate is significantly different from the other Price-makers in the market. This outlier test is undertaken on data at the 5 snaps between 14:00 and 16:32 and will be flagged in the email notifications. The metric for outliers is One Standard Deviation from the average bids and offers for that tenor in that market.

Over-the-Counter: Financial instruments that are bought and sold and privately negotiated directly between two counterparties, without the use of an exchange or other intermediary.

Participants: Legal entities involved in the production, structuring, use or trading of financial contracts or financial instruments used to form the Closing Rates, or which reference the Closing Rates.

Price-maker: A financial institution approved by the NZFBF to supply two-way quotations via a third-party platform for the calculation of the Closing Rates.

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 the Closing Rate used 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.

RBNZ Meeting Dates: Refers to the Reserve Bank of New Zealand’s dates for publication of upcoming Monetary Policy Statement (MPS) and Monetary Policy Review (MPR) Official Cash Rate (OCR) decisions. These dates are published at least 1 year in advance.

Stakeholder: Refers to benchmark users and other persons or entities who own contracts or financial instruments that reference a Closing Rate.

Stale Rates: Stale rates refer to the NZFBF metric used to identify if a Price-makers rates are current and up to date. The stale rate times for Closing Rates are as follows:

- 4:00pm – NZSW, NZGS, NZOS & NZOR
- 7:30am – NZBO, NZBR, NZRR & NZNG

Stressed market conditions: When a market is exposed to heightened volatility which negatively impacts liquidity and the ability to execute transactions. One of the potential consequences is financial instrument bid / offer spread widening. The maximum bid / offer spread limits set out in this document have been determined by Price-makers as maximum acceptable level for normal market conditions.

Two-way: A price that has a bid price (yield) and an offer price (yield). The bid offer spread is the difference between the bid price and offer price.