



NZD/USD Basis Swap Closing Rate Pricing Service

Operating Guidelines & Principles

**New Zealand Financial
Markets Association**

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NZD/USD Basis Swap Closing Rate Pricing Service

Operating Guidelines & Principles

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

1.0 INTRODUCTION

The operating guidelines and principles outlined in this document have been derived with the objective of ensuring:

- Where appropriate, the alignment with the IOSCO Principles for Financial Benchmarks.
- A transparent Closing Rate process is maintained.
- Conformance with global best practice.

This service provides Closing Rates that represent the mid-rates for pre-approved NZD/USD Basis Swap tenors that are traded in the local New Zealand market. The NZD/USD Basis Swap Closing Rates are sourced from live and deal-able two-way quotations extracted from Bloomberg ALLQ pages at 16:30 NZST every Business Day.

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

- NZFMA Code of Ethics & Code of Conduct
- NZFMA Benchmark Oversight Committee – Guidelines and Terms of Reference

2.0 GOVERNANCE

NZFMA is the Administrator and Calculation Agent for the NZD/USD Basis Swap Closing Rates. NZFMA provides transparent governance, oversight and accountability procedures for the Closing Rate determination process. This includes an identifiable oversight function accountable for the development, issuance and operation of the Closing Rate process to protect the integrity of the Closing Rates and to address any conflicts of interest.

2.1 Overall Responsibility of the Administrator

As Administrator, the NZFMA maintains responsibility for all aspects of the capture and calculation process and overall governance surrounding the NZD/USD Basis Swap Closing Rates. This includes the following:

- a) Development: The definition of the Closing Rates and Closing Rate methodology (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

NZFMA governance, which includes policies and processes for the calculation and control of the NZD/USD Basis Swap Closing Rate Pricing Service, is coordinated through its Benchmark Oversight Committee (“BOC”), its Board of Directors (“NZFMA Board”) and relevant sub-committees.

2.2.1 NZFMA Benchmark Oversight Committee

The NZFMA have established an oversight function via the BOC to review and provide challenge on all aspects of the NZD/USD Basis Swap Closing Rate determination process, details of which are outlined in the BOC Guidelines and Terms of Reference document on the NZFMA website.

The committee includes representation from Price-making organisations, Benchmark users, independent industry experts and Regulatory Authorities (The Reserve Bank of New Zealand and Financial Markets Authority attend in an observer capacity). BOC members are appointed annually by the NZFMA Board.

The following are the responsibilities of the BOC:

1. Conduct regular reviews of all aspects of the determination of the Closing Rate, including the methodology, features, definition, scope and setting.
2. Assess aspects listed in 1 above, including the underlying interest and the usage of the Closing Rate.
3. Oversee the practice standards in the Operating Guidelines & Principles relevant to each Closing Rate, and review these documents as required.
4. Develop proposals for consultation of prospective changes to Closing Rate methodologies as required, and have regard to any representations made in response to consultations undertaken.
5. Review incidences of suspected breaches of the practice standards detailed in the relevant market Operating Guidelines & Principles.
6. Review incidences of suspected manipulation of the Closing Rates.
7. Consider existing or potential conflicts of interest where material.
8. Take measures to remain informed about material issues and risks relating to the setting of Closing Rates.
9. Oversee the Administrator’s adherence to its published methodologies, including calculation, re-fix and business continuity policies.
10. Recommend as appropriate the external review of the Closing Rates be commissioned by the Administrator.
11. Consider recommendations made pursuant to internal or external reviews of the Administrator’s compliance with published methodologies, applicable laws and regulation.
12. Follow up on remedial actions required to implement any recommendations identified under 11 above, as appropriate.
13. Refer any conflict between the BOC’s decisions and the responsibilities of the NZFMA Board to the Chair of the BOC and the Chair of NZFMA’s Board for resolution.
14. Where appropriate, monitor the activities relating to the Closing Rate determination process that are undertaken by third parties.

2.2.2 NZFMA Board

The NZFMA Board is made up of the Heads of Markets of the Association’s Financial Markets member banks and the Head of Financial Markets of the Reserve Bank of New Zealand in an observer capacity. The NZFMA Board meets regularly to identify issues relating to the New Zealand markets, review market initiatives, develop strategic policy, monitor changes to the regulatory environment and manage the Association’s affairs.

The NZFMA Board will confirm the appointment of representatives forming the BOC to oversee the capture, calculation and publishing methodology of the NZD/USD Basis Swap Closing Rates and other New Zealand official financial market Closing Rates.

The NZFMA Board also appoints member representatives with specialist knowledge to sit on Committees and Industry Working Groups that share and develop market ideas and strategies to enhance the New Zealand

financial markets. These Committees and Working Groups provide Stakeholders with active input into the operations of the wholesale markets and provide recommendations and support to the NZFMA Board.

2.2.3 NZFMA Rates Committee

The Rates Committee is responsible for reviewing the operational management of the NZD/USD Basis Swap Closing Rates capture and calculation process noting, however, that the governance of this and other NZFMA generated Closing Rates will be the responsibility of the BOC.

The Rates Committee will provide recommendations to the NZFMA Board concerning the overall operation of the NZD/USD Basis Swap Closing Rates. The Rates Committee members are drawn from banks operating in the NZ domestic rates market including participants and non-participants in the NZD/USD Basis Swap Closing Rate process. Each paid up Financial Markets member of the NZFMA may provide a member to the Committee. The Reserve Bank of New Zealand is invited to attend all committee meetings as an observer.

2.3 Code of Conduct

NZFMA requires that NZFMA member banks providing quotations used in the NZD/USD Basis Swap Closing Rate process agree to comply with the NZFMA Code of Ethics & Code of Conduct. 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 Ethics & Code of Conduct.

2.4 Conflicts of Interest

Identifying and disclosing existing and potential conflicts of interest is a standing item at BOC meetings and NZFMA Board meetings. Employees and contractors of the Administrator must disclose any existing or potential conflicts of interest to the Chair of the NZFMA Board as soon as they arise.

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

NZFMA maintains and regularly updates an operational guide for its helpdesk staff.

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 the Administrator via the Rates Committee. 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 BOC shall also review the design of the Closing Rate process (upon recommendation from the Rates Committee) and make recommendations to the Administrator in accordance with IOSCO Principle 5 (Refer 3.5 for more detail).

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.

3.2 Data Sufficiency

In the absence of transparent observable transactions, the NZD/USD Basis Swap 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 Administrator 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 the Price-maker on the basis that they bear witness to bona fide, arms-length transactions evidenced by the Price-makers in the market that each security trades.

3.3 Hierarchy of Data Inputs

Due to the infrequency of trading and the lack of interbank activity in the NZD/USD Basis Swap market, the NZFMA 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 that Bloomberg is not available. This is outlined in more detail in Appendix IV as part of the contingency procedures.

3.4 Transparency of Benchmark Determinations

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

The daily NZD/USD Basis Swap Closing Rate process will be conducted in a manner that complies with the details specified in this document and the NZFMA Code of Ethics & Code of Conduct. Any deviation will be investigated and, if necessary, escalated to the BOC for further consideration.

3.5 Periodic Review

The Rates Committee meets at least semi-annually at which time a review of the methodology and Operating Guidelines & Principles will be undertaken. This includes whether the two-way quotations:

- Have undergone any structural changes that might require 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 Closing Rate, and/or
- Have undergone any change which makes the Closing Rate no longer representative of its intended Interest and may result in the possible cessation of the Closing Rate.

Any recommendations following each review will be forwarded to the BOC and the NZFMA Board for consideration and approval. The NZFMA Board and BOC will also review the methodology and Operating Guidelines & Principles as and when they deem appropriate.

The NZFMA 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.

4.0 QUALITY OF METHODOLOGY

4.1 Content of Methodology

The methodologies are outlined in the Appendices and 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, prioritisation of certain data types, quorums and calculation methods.
- c) The procedures which govern a Closing Rate determination in periods of market stress or disruption including technology issues.
- d) Information regarding the frequency of internal and external reviews of methodologies – as specified in section 3.5.
- e) The circumstances in, and procedures under which, the Administrator will consult with Stakeholders.

4.2 Changes to the Methodology

The NZFMA and its relevant committees will publish or make available the rationale of any proposed material change in its methodology.

These material methodology changes will be communicated to Stakeholders and announced one month prior to implementation, except for situations where the timing of the announcement must be determined by the BOC ad hoc or in situations where there is no Stakeholder impact. This communication will give detailed information about the nature and rationale of the change as well as the implications and terms for the new methodology to enter into the Closing Rate process.

Such notification will allow sufficient opportunity for Stakeholders to analyse and comment on the impact of such proposed material change. Outcomes from the consultation process with relevant responses will also be published or made available to Stakeholders.

All material changes to the Methodology will be scrutinized and approved by the BOC.

4.3 Internal Controls over Data Collection

As the NZFMA collects data from an external source, appropriate internal controls have been put in place over its 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. Permissioning has 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 comply with 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 NZFMA Board, a consultation process will be undertaken with market participants, Stakeholders and relevant Regulatory Authorities to ascertain the following:

- If a viable and a credible alternative that closely matches the existing Closing Rate characteristics can be selected.
- In the event that a suitable alternative can be identified, the formulation of a transition process that endeavours to minimise market disruption.
- If not, defining an appropriate time frame in which the Closing Rates will continue to be determined including the specification of a suitable notice period for the cessation.

5.0 ACCOUNTABILITY

5.1 Complaints Procedures

The NZFMA has a written complaints procedure by which Stakeholders may submit complaints including:

- Whether a specific Closing Rate determination is representative of the compliant quotations (in accordance with section 7) on the Bloomberg ALLQ pages at the time of the Closing Rate snap.
- Applications of the methodology in relation to a specific Closing Rate determination.
- Administrator decisions in relation to a Closing Rate determination.

In the first instance, a Stakeholder may submit a complaint via telephone or in writing to the NZFMA Complaints Officer. The complaint will then be escalated to NZFMA management (and chairperson of the BOC if not the same person) who will determine if the submission constitutes a complaint, and if so, make an assessment on its level of severity and communicate to the appropriate committees as is deemed necessary.

The NZFMA shall respond to the complainant within 48 hours of initial receipt.

5.2 Reporting and Audits

Daily data integrity checks will be conducted pre-publication and retrospective reviews undertaken to ensure the methodology remains robust. This integrity check will be performed by the NZFMA Helpdesk as part of NZFMA's obligations as Administrator. Breaches of tolerance will be identified on the NZdata Helpdesk market monitor platform with Price-makers and NZFMA management 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 from 16:15 prior to the Closing Rate snap so that market activity preceding the close (16:30) can be monitored. An earlier snap (taken at 14:00) will also be recorded and stored. This snap may be used in the event that no data is available at 16:30 or from the three pre-close snaps.

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

5.3 Audit Trail

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

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

Record Keeping:

- Records will be retained in a medium and format that makes them readily accessible for future reference.
- To the extent permitted by law, records will be furnished to authorized independent reviewers in a timely manner upon request.
- Appropriate security measures will be applied so that records cannot be changed or manipulated.
- Records will be retained in such a manner that complies with relevant confidentiality requirements.
- Physical and electronic records shall be kept for at least seven years. Records of telephone conversation or electronic communications shall be kept for a period of three years.

5.4 Confidentiality

Subject to section 5.5, data provided by Price-makers and used in the Closing Rate determination process will not be disclosed to any party other than the NZFMA and its employees, officers and the BOC 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 the NZFMA 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 the NZFMA to supply pricing via a third party platform for the calculation of end of day average rates to the NZD/USD Basis Swap Closing Rates.

To be accepted as a Price-maker to the NZD/USD Basis Swap Closing Rate process, an entity must:

1. Be approved in writing by the NZFMA Board.
2. Be a current financial member or international member of NZFMA.
3. Be an active Price-Maker in the New Zealand dollar denominated NZD/USD Basis Swap market.
4. Undertake to contribute two-way pricing in accordance with the Rules for Price-makers stipulated below on a daily basis directly to Bloomberg.
5. Display professionalism and operate in accordance with the NZFMA Code of Ethics & Code of Conduct.
6. Provide the NZFMA with written acceptance 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 NZFMA Board as a participant in the NZD/USD Basis Swap Closing Rate process, thereby being bound by these Operating Guidelines & Principles.
2. A participating entity will publish two-way quotations on Bloomberg at 16:30 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 NZD/USD Basis Swap Closing Rate process.
5. The two-way quotation on Bloomberg will be made on yield terms.
6. Minimum volumes to be quoted are required to be in line with current broker minimums or as specified (Refer to Appendix II). Amendments to these volumes and the inclusion of new securities will need approval from the Rates Committee.
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.
 - Stale data feeds may result in out-of-market prices.

6.3 Current Price-makers

ANZ Bank New Zealand Limited
ASB Bank Limited
Bank of New Zealand
Commonwealth Bank of Australia
Westpac Banking Corporation – New Zealand Branch

7.0 APPENDIX II

The Process for Capture, Calculation and Publication of NZD/USD Basis Swap Closing Rates

7.1 Source of Data

Quotations for each security, where available, will be extracted from the ALLQ pages.

These two-way quotations appearing on ALLQ can be updated instantaneously by Price-makers and are considered live quotes. This includes the actual bid and offer rates (yields) and volumes published on either side of the market.

The following data is extracted from the respective ALLQ pages:

- Pricing Source (PCS)
- Bid
- Ask (Offer)
- Bid Size
- Ask (Offer) Size
- Time stamp of last update

The quotations published are deal-able on a RFQ basis whereby a counterparty will request either a two-way quote or a specific bid or offer in a specified volume based on the pricing observed on screen. This RFQ will “pop up” on the Price-maker’s Bloomberg and they can either accept or reject the terms of the RFQ, or respond with amended pricing (either an improvement or deterioration).

7.2 Time of Data Snap

16:30 NZT

Three data snaps prior to the 16:30 closing snap will be carried out at randomised intervals from 16:15 onwards. This data will be stored in accordance with the audit trail protocol outlined in section 5.3 and can also be used as part of the contingency procedures as outlined in section 9.0.

An additional data snap will be taken at 14:00 and utilised in the contingency procedures if initiated.

If a Price-maker is not publishing to Bloomberg on any of the four pre close snaps, an email will be sent from the NZFMA Helpdesk requesting that they resume publishing prices.

7.3 Calculation Methodology

The methodology is based on averaging all complying bids and all complying offers for each individual tenor/security from approved Price-makers. Data will be obtained in accordance with protocols outlined above.

1. For the quotations to be compliant and included in the calculation process, certain criteria are required to be met. These are as follows:
 - a. Comply with maximum bid/offer spread limits specified below.
 - b. The bid and offer are derived from a two-way price (i.e. a market price that simultaneously has a bid price (yield) and an offer price (yield)). One sided quotations will not be included in calculations.
 - c. The data will have been updated on the relevant Bloomberg ALLQ screens by Price-makers at least once in the 30mins preceding the official close (16:30). If this is not the case, the price is deemed to be stale.
2. A quorum of two compliant quotations is required to calculate the Closing Rates.
3. Reminder emails will be sent from the NZFMA Helpdesk to Price-makers advising them to resume publishing or updating quotations at the 14:00 data snap or any of the pre-close data snaps between 16:15 and 16:30.

4. Should the quorum not be met and stressed market conditions are deemed to be in existence by the Administrator, all published prices (including those that do not comply with the bid/offer spread limits but excluding stale and one sided quotations) from NZFMA approved Price-makers will be included in the Closing Rate determination.
5. Should stressed market conditions be deemed to be in existence and if three or more compliant and non-compliant quotations cannot be sourced, the NZFMA Helpdesk will contact the Price-makers in an effort to obtain a quorum for those tenors or securities that cannot be calculated. In the event that a quorum cannot be achieved following this step, no Closing Rate will be calculated.
6. The Closing Rate for each security or tenor will be derived in accordance with the following (unless stressed market conditions apply):
 - $(\text{Average of all complying bid rates} + \text{Average of all complying offer rates}) / 2$

Under stressed market conditions (non-complying does not include one sided or stale quotations):

 - $(\text{Average of all complying \& non-complying bid rates} + \text{Average of all complying \& non-complying offer rates}) / 2$
7. Closing Rates will be expressed as a positive or a negative integer up to three numerical places and to two decimal places to the nearest 25 basis points, e.g. 32.25, for each tenor and displayed under the eligible contributor rates on page.
8. Closing Rates will be calculated for the following tenors: 1, 2, 3, 4, 5, 7, 10, 12 & 15 years.
9. Bid/offer volumes will have no bearing on the outcome of the calculated closing rates.
10. If there is no updated bid and/or offer data available from all of the Price-makers simultaneously, Appendix IV sets out the contingency procedures which will operate.

7.4 NZD/USD Basis Swap Minimum Volumes and Maximum Bid v Offer spreads

Maturity	Market Parcel Notional Principal	Maximum bid v offer spread (bp)
1 to 2 years	\$100 million	4
3 to 5 years	\$50 million	4
6 to 10 years	\$25 million	4
10+ years	\$20 million	8

7.5 Publication

The NZD/USD Basis Swap Closing Rate information will be published in accordance with the following protocol:

- Display of average Closing Rates on NZdata pages will be displayed in an ascending date of maturity and include an average rate for each security.
- Calculated Closing Rates will be disseminated to all participating Information Vendors by no later than 16:55 NZST on the Business Day to which they apply.

8.0 APPENDIX III

Calculation Scenarios

Scenario 1: (3y NZD/USD Basis Swap)

PCS	Bid	Ask	BSz (MM)	ASz (MM)
ANZX	22.5	26.5	50	50
BNZ	22.0	26.0	50	50
CBAA	22.0	26.0	50	50
WPAC	23.0	27.0	50	50

All bid offer spreads equal to or less than four basis points: Y

Average Bid: 22.375

Average Offer: 26.375

Calculated Closing Rate: $(22.375+26.375)/2 = 24.375$, rounded to 24.50

Scenario 2: (3y NZD/USD Basis Swap)

PCS	Bid	Ask	BSz (MM)	ASz (MM)
ANZX	21.0	26.0	50	50
BNZ	22.0	26.0	50	50
CBAA	22.0	26.0	50	50
WPAC	23.0	27.0	50	50

All bid offer spreads equal to or less than four basis points: N

Quorum (2 or more complying prices): Y

Average Bid: 22.333 (*ANZX price excluded)

Average Offer: 26.333 (*ANZX price excluded)

Calculated Closing Rate: $(22.333+26.333)/2 = 24.333$, rounded to 24.25

Scenario 3: (3y NZD/USD Basis Swap)

PCS	Bid	Ask	BSz (MM)	ASz (MM)
ANZX	21.0	26.0	50	50
BNZ	20.0	26.0	50	50
CBAA	21.0	26.0	50	50
WPAC	23.0	27.0	50	50

All bid offer spreads equal to or less than four basis points: N

Quorum (2 or more complying prices): N

Average Bid: 21.333 (All prices included based on stressed market conditions, no stale or one sided prices)

Average Offer: 26.333 (All prices included based on stressed market conditions, no stale or one sided prices)

Calculated Closing Rate: $(21.333+26.333)/2 = 23.8333$, rounded to 23.75

9.0 Appendix IV

Contingency Procedures

In the event that no Closing Rate data is able to be obtained from Bloomberg at 16:30, the following process replaces the normal process.

16:30 – Final snap attempt. If no data is able to be accessed from BBG ALLQ source at this time – data taken from the most recent pre-close snap (between 16:15 and 16:30) will be used in the calculation process.

16:35 – If no data is available or a quorum of two compliance quotations can still not be achieved, the Closing Rate process is automatically extended by sixty (60) minutes. Emails with a template for manual completion are sent to Price-makers. Once responses have been obtained, this data is then used by the Calculation Agent to calculate closes (assuming a quorum of 2 Price-makers is obtained).

NZdata Helpdesk will also make contact with Price-makers as a follow up reminder.

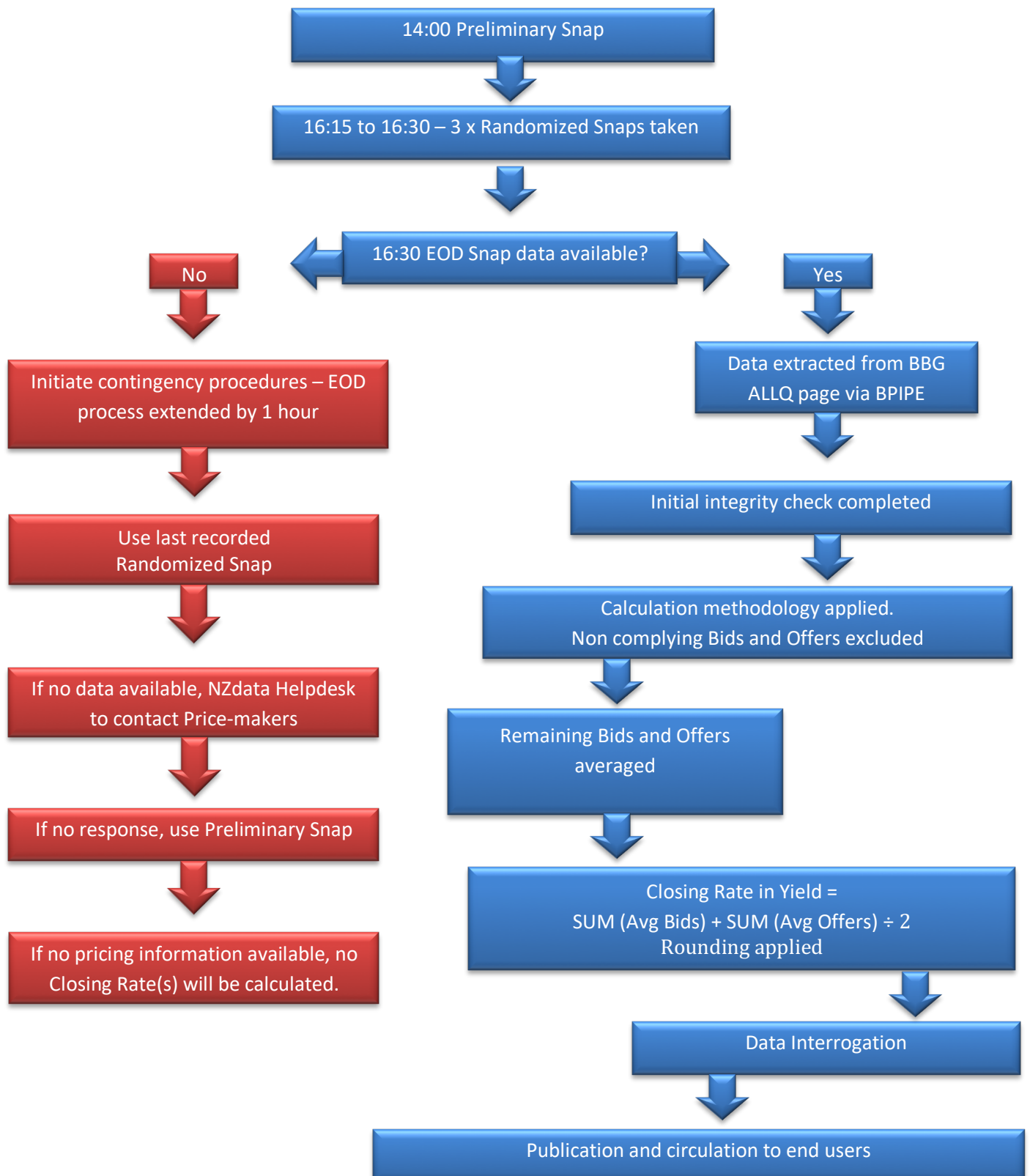
17:05 - Email window closes

17:15 – If no contact made or no Closing Rate data is received directly from Price-makers, the data extracted from a snap taken earlier in the day (14:00) is used in the calculation process.

17:30 - If the data extracted from a snap taken earlier in the day (14:00) is also unavailable – no determination of Closing Rates is completed for that day.

10.0 APPENDIX V

NZ Rates Closing Rate Process – Decision Tree



11.0 APPENDIX VI²

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 Closing Rates. In particular, 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 methodology; and
3. Disseminating the Closing Rates.

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 NZFMA to access real time data from Bloomberg ALLQ pages based on predetermined parameters. For instance, with reference to Appendix 2, the following data could be readily obtained in a preferred format, e.g. xml and formatted according to the NZFMA’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).

² Source: IOSCO Principles for Financial Benchmarks July 2013 and NZFMA internal documents.

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. In this way, Closing Rates are distinct from Benchmarks.

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.

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

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 NZFMA to supply two-way quotations via a third party platform for the calculation of the NZSW 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.

Regulatory Authority: A governmental or statutory body (not being a Self-Regulatory Organisation) with responsibility for securities and/or commodities and futures regulation.

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

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.

Submission(s): Prices, estimates, values, rates or other information that is provided by a Price-maker to an Administrator for the purposes of determining a Closing Rate. This excludes data sourced from Regulated Markets or Exchanges with mandatory post-trade transparency requirements.

Subscriber: A person or entity that purchases Closing Rate determination services from an Administrator.

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.