

TE POU HERENGA PŪTEA O AOTEAROA

NZFBF Benchmarks – Self-Assessed Statement of Compliance with the IOSCO Principles for Financial Benchmarks

November 2022

### NEW ZEALAND FINANCIAL BENCHMARK FACILITY

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# PART ONE – Background and Overview of New Zealand Financial Benchmark Facility Limited

#### Introduction

The International Organization of Securities Commissions (IOSCO) published the "Final Report on Principles for Financial Benchmarks" (IOSCO Principles) in July 2013.

New Zealand Financial Benchmark Facility Limited (NZFBF) has governance, processes and controls designed to comply with the IOSCO Principles (to the extent applicable), and has expressed its compliance with the IOSCO Principles in the "Self-assessed Statement of Compliance with the IOSCO Principles for Financial Benchmarks" (Statement of Compliance).

#### **Business overview**

The New Zealand Financial Markets Association (NZFMA, the Shareholder) is a not-for-profit organisation that is the owner of the benchmarks. The NZFMA also contributes to New Zealand's financial markets through dealer accreditation, education, and advocacy on behalf of its members. The NZFMA's members largely consist of banks and brokers who are active in New Zealand's wholesale financial markets. The NZFMA is governed by its Board.

In 2021, NZFBF, a subsidiary of the NZFMA, was established to operate New Zealand's interest rate benchmarks following the introduction of Benchmark Administration regulation overseen by the Financial Markets Authority (FMA). New Zealand has created an opt-in benchmark licensing regime, with NZFBF established as the entity that plans to apply in 2023 to be licensed.

NZFBF's Board consists of three independent directors, two non-independent directors and up to two observers who can be appointed from the Government sector. Governance documentation, available on NZFBF's <u>website</u>, include:

- a. NZFBF Constitution;
- b. NZFBF Board Charter;
- c. Code of Conduct and Conflict Management;
- d. Governance Conflict Management Plan;
- e. Complaints process; and,
- f. Whistle-blowing process.

The NZFBF Board meets at least six times a year and has principal oversight over the operation of NZFBF and all issues relating to methodology, calculation, and publication of benchmarks to ensure they remain compliant with the IOSCO Principles (to the extent applicable). This compliance will be subject to periodic external review.

The following Benchmarks are calculated and published by NZFBF and are defined as inscope indices for this Statement of Compliance. Details of the Indices are provided in the Operating Rules and Principles and the Calculation Methodology documents which can be found on NZFBF's <u>website</u>:

- a. **BKBM** is representative of the rates at which banks are willing to borrow and lend to one another for terms of one, two, three, four, five and six months. As a result, the rate contains a credit component. The benchmark is set each business day during a two-minute trading window, held at 10:20am, via two brokers venues. Price-makers participate in this trading window providing executable bids and offers in the one, three- and six-month tenors. The benchmark for the three tenors is set using armslength transactions transacted during the two-minute window or the midpoint of the executable bid and offer at 10.22am, if no trading occurs. BKBM rates for the two, four- and five-month tenors are set using straight line interpolation between the one- and three-month tenors, and the three- and six-month tenors. A waterfall methodology has been adopted to produce the benchmark if not all data inputs are available. NZFBF monitors the rate-setting process and conducts post rate-set checks to ensure rates have been set using the agreed methodology. BKBM is published at 10.41am and includes information on how each BKBM tenor has been set and details are also released of the transactions and/or executable bids and offers that have been used to determine BKBM.
- b. **OCR Compound Index** the Official Cash Rate (OCR) Compound Index simplifies the calculation of compound interest rates providing a standardised basis that is published by a recognised benchmark administrator. The OCR compound index is equivalent to a series of daily data representing the returns from a rolling unit of investment earning compound interest each day at the OCR. The change in the OCR Compound Index between any two dates can be used to calculate the interest rate payable over that period.

The interest rate payable over that period would be realised New Zealand Overnight Index Average (NZONIA) which is a term risk free rate. Realised NZONIA is a backward-looking rate based on the OCR, compounded daily in arrears over the relevant period. The OCR Compound Index is published each business day at 10:41am.

- c. Closing rates are produced as an end of day valuation tool. Closing Rates are representative of the rates at which banks are willing to buy or sell the relevant instruments to clients via Bloomberg. NZFBF collects marks from price-makers' Bloomberg pages on four occasions during the afternoon, predominantly for business continuity reasons, and the final data collection is taken at 4:32pm. The final data collection is used to calculate the closing rates. NZFBF monitors the ratesetting process and conducts post rate-set checks to ensure rates have been set using the agreed methodology. Closing rates are set for:
  - i. NZ Government bonds (NZGS);
  - ii. NZ Interest Rate Swaps (NZSW);
  - iii. NZ Overnight Indexed Swaps (NZOS);
  - iv. Bank bill/Overnight Index Swap Basis Swaps (NZBO)

- v. LIBOR/BKBM Basis Swaps (NZBL);
- vi. SOFR/BKBM Bais Swaps (NZBR);
- vii. SOFR/OCR Basis Swaps (NZRR): and,
- viii. NZ Credit Markets (NZNG).

NZGS, NZSW, NZOS, NZBO, NZBL, NZBR and NZRR closing rates are published at 4:46pm. NZNG closing rates are published at 4:47pm.

NZFBF takes primary responsibility for all aspects of the benchmark setting process. This involves leading the development of documentation relating to the benchmark process, the development and maintenance of the systems used to determine the benchmarks and the daily monitoring of the determination process. NZFBF is the contact point for any issues that arise and oversight of the Benchmark process.

## PART TWO – Statement of Compliance

NZFBF confirm that, as of November 2022, governance, processes, and control activities designed to comply with the Principles for Financial Benchmarks published by the International Organization of Securities Commissions (the "IOSCO Principles") regarding the indices listed in part one of this report have been implemented.

The accompanying description in Section III of the Statement of Compliance sets out details of our responses to the IOSCO Principles based on the activities as of November 2022. As described in Section III of the Statement of Compliance, principles two and fourteen do not apply to the indices.

- Principle two: Oversight of Third Parties –Third parties are not used to collect input data or to calculate and disseminate the benchmark. NZFBF is responsible for these tasks.
- Principle fourteen: Submitter Code of Conduct Indices are not based on submissions.

The Board of New Zealand Financial Benchmark Facility Limited is, and shall be, responsible for the appropriate design and operation of the governance, processes, and control activities as well as for the compliance with the IOSCO Principles.

# PART THREE – IOSCO Principles for Financial Benchmarks and NZFBF Compliance

The table below sets out the responses of NZFBF in terms of how it complies with the IOSCO Principles for in-scope indices listed in part one of this document as of November 2022.

| Principle description   | NZFBF response   | Relevant documentation  |
|---|--|---|
| 1. Overall Responsibility of the Administrat  | or   |   |
| The Administrator should retain primary<br>responsibility for all aspects of the<br>Benchmark determination process. For<br>example, this includes: | NZFBF considers that it complies with this<br>principle.<br>NZFBF maintains responsibility for all aspects<br>of the Benchmark Determination process as<br>noted by the Benchmark Services Agreement<br>with NZFMA. Oversight of NZFBFs'<br>benchmark administration activities is<br>provided by the NZFBF Board (Board).<br>The BKBM Operating Rules and Principles<br>(ORP), the OCR Compound Index Operating<br>Principles and Methodology (OCRP) and the<br>Closing Rate Operating Guidelines and<br>Principles (OGP) and Methodology<br>documents, which can be found on NZFBF's<br>website, cover the aspects of the Benchmark<br>determination process referred to in this<br>principle. | <ul> <li>NZFBF Constitution</li> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> <li>The above documents are available on<br/>the NZFBF website</li> <li>NZFMA/NZFBF Benchmark<br/>Services Agreement</li> </ul>   |
| a) Development: The definition of the<br>Benchmark and Benchmark Methodology;   | a) The ORP, OCRP, OGP and Methodology<br>documents contain the benchmark's<br>definition and methodology to be<br>followed for the calculation of BKBM,<br>OCR Compound Index and Closing<br>Rates. The ORP, OCRP, OGP and<br>Methodology document's annual<br>reviews were undertaken by NZFBF in<br>2022 in consultation with the NZFMA's<br>Rates and Credit Market Committees or<br>working groups. The NZFMA<br>administers the committee structure as<br>committees are made up of NZFMAs'<br>committees relevant to the benchmark<br>determination process. Any proposed<br>changes to the benchmark's definition<br>or methodology are presented to and<br>ratified by the NZFBF Board.  | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website <ul> <li>Rates and Credit Market<br/>Committee minutes</li> <li>NZFBF working Group<br/>Minutes</li> <li>NZFBF Board Minutes</li> </ul> |
| b) Determination and Dissemination:<br>Accurate and timely compilation and<br>publication and distribution of the<br>Benchmark;                     | b) NZFBF calculates BKBM, the OCR<br>Compound Index and Closing Rates<br>using the NZFMA's internal system<br>(NZdata) and the benchmarks are<br>disseminated on the NZFMA's website<br>(with a 24-hour delay), emailed<br>spreadsheets and via other vendors<br>(e.g., Bloomberg and Refinitiv). BKBM<br>and the OCR Compound Index are<br>published at 10.41am and Closing rates<br>between 4.46pm and 4.47pm. In case of<br>delay in the publication of the<br>benchmarks, subscribers are notified of<br>the delay via market notice (email).<br>These processes are set out in the ORP,<br>OCRP OGP and Methodology<br>documents.   | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> <li>The above documents are available on<br/>the NZFBF website</li> <li>Also see principle 15.</li> </ul>   |

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| Principle description  | NZFBF response   | Relevant documentation  |
|--|--|---|
| c) Operation: Ensuring appropriate<br>transparency over significant decisions<br>affecting the compilation of the<br>Benchmark and any related determination<br>process, including contingency measures<br>in the event of absence of or insufficient<br>inputs, market stress or disruption, failure<br>of critical infrastructure, or other relevant<br>factors; and   | c) The ORP, OCRP, OGP, Methodology<br>documents and NZdata documentation<br>detail the responsibilities of NZFBF in<br>the benchmark determination process<br>including the calculation and<br>dissemination of the benchmarks. It<br>also contains procedures regarding<br>changes in the methodology as well as<br>the relevant consultation process for<br>material changes. It sets out the<br>procedures for data quality reviews, the<br>calculation waterfall (BKBM) and<br>provisions for instances where there is<br>insufficient input data or market<br>disruption events. Additionally, NZFBF<br>has a Business Continuity Plan (BCP) in<br>place to cover disruptions both to<br>technical and office infrastructure. | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index Operating<br/>Principles and Methodology</li> <li>Closing Rate Operating Guidelines<br/>and Principles, and methodology<br/>documents</li> <li>NZFBF Constitution</li> <li>NZFBF Charter</li> <li>The above documents are available on<br/>the NZFBF website</li> <li>NZ Data Comprehensive Overview,</li> <li>Business Continuity Plan</li> </ul> |
| d) Governance: Establishing credible and<br>transparent governance, oversight and<br>accountability procedures for the<br>Benchmark determination process,<br>including an identifiable oversight function<br>accountable for the development,<br>issuance and operation of the Benchmark.   | d) The NZFBF Board maintains governance<br>responsibilities, contains a majority of<br>independent directors, and provides<br>oversight of the Benchmark<br>determination process as noted in<br>principle 5. The independent directors<br>have backgrounds in industry, legal and<br>regulatory bodies, while the non-<br>independent directors are industry<br>based. Observers can be drawn from<br>Government agencies. NZFBF policy is<br>that compliance is at shareholder level<br>(NZFMA) who report to the NZFBF<br>Board on benchmark activities.  | • NZFBF Board Charter<br>The above document is available on the<br>NZFBF <u>website</u>   |
| <ul> <li>2. Oversight of Third Parties</li> <li>Where activities relating to the<br/>Benchmark determination process are<br/>undertaken by third parties - for example<br/>collection of inputs, publication or where<br/>a third-party acts as Calculation Agent -<br/>the Administrator should maintain<br/>appropriate oversight of such third<br/>parties. The Administrator (and its<br/>oversight function) should consider<br/>adopting policies and procedures that:</li> <li>a) Clearly define and substantiate<br/>through appropriate written<br/>arrangements the roles and<br/>obligations of third parties who<br/>participate in the Benchmark<br/>determination process, as well as the<br/>standards the Administrator expects<br/>these third parties to comply with;</li> <li>b) Monitor third parties' compliance<br/>with the standards set out by the<br/>Administrator;</li> <li>c) Make Available to Stakeholders and<br/>any relevant Regulatory Authority<br/>the identity and roles of third parties<br/>who participate in the Benchmark<br/>determination process; and</li> </ul> | NZFBF considers that this principle does not<br>apply.<br>NZFBF does not use third parties for the<br>Benchmark determination process.   | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website   |

| Principle description  | NZFBF response  | Relevant documentation  |
|--|---|---|
| d) Take reasonable steps, including  |   |   |
| contingency plans, to avoid undue  |   |   |
| operational risk related to the<br>participation of third parties in the                 |   |   |
| Benchmark determination process.   |   |   |
| This Principle does not apply in relation to   |   |   |
| a third party from whom an Administrator   |   |   |
| sources data if that third party is a  |   |   |
| Regulated Market or Exchange.  |   |   |
| 3. Conflicts of Interest for Administrators<br>To protect the integrity and independence | NZFBF considers that it complies with this  |   |
| of Benchmark determinations,   | principle.  | NZFBF Constitution  |
| Administrators should document,  |   | NZFBF Board Charter   |
| implement and enforce policies and   | NZFBF manages conflicts of interest via its   | NZFBF Code of Conduct and   |
| procedures for the identification,<br>disclosure, management, mitigation or              | Code of Conduct and Conflicts of Interest<br>policy and Governance Conflicts              | Conflicts of Interest   |
| avoidance of conflicts of interest.  | Management Plan policy. These documents   | <ul> <li>Governance Conflicts<br/>Management Plan</li> </ul>            |
| Administrators should review and update  | outline the identification and management   | Wanagement Flam   |
| their policies and procedures as   | of relevant conflicts as well as setting out the  | The above documents are available on                                    |
| appropriate.   | details around the Conflicts of Interest  | the NZFBF <u>website</u>  |
| Administrators should disclose any   | register. Conflict management is a standing agenda item for the NZFBF Board's bi-         |   |
| material conflicts of interest to their users  | monthly meetings where they discuss and   | <ul> <li>NZFBF Director's Interest<br/>Register</li> </ul>              |
| and any relevant Regulatory Authority, if  | record potential conflicts of interest as they  |   |
| any.   | arise. The Governance Conflicts   |   |
| The framework should be appropriately  | Management Plan contains the recorded conflicts and the controls in place to ensure       |   |
| tailored to the level of existing or   | that the potential impact and effects of  |   |
| potential conflicts of interest identified   | conflicts of interest are managed and   |   |
| and the risks that the Benchmark poses   | mitigated.  |   |
| and should seek to ensure:   | The Director's Interest Register is made  |   |
|  | available to the Regulatory Authorities upon  |   |
|  | request.  |   |
|  |   |   |
|  | Design, amendments and implementation of<br>the Code of Conduct and Conflicts of Interest |   |
|  | policy are owned by Compliance, which is  |   |
|  | operated and managed by the NZFMA. The  |   |
|  | NZFBF Board is responsible for reviewing and  |   |
|  | ratifying any changes on an annual basis.   |   |
| a) Existing or potential conflicts   | a) Existing or potential conflicts are  |   |
| of interest do not   | identified and detailed as noted above.   | NZFBF Constitution  |
| inappropriately influence  | NZFBF is a distinct entity within the   | NZFBF Board Charter   |
| Benchmark determinations;  | NZFMA group and has its own Board of<br>Directors and Management Structure.               | NZFBF Code of Conduct and     Conflicts of Internet                     |
|  | NZFBF operates with secure physical   | <ul> <li>Conflicts of Interest</li> <li>Governance Conflicts</li> </ul> |
|  | and technological separation from the   | Management Plan   |
|  | NZFMA to enhance its operational  | _   |
|  | independence. Any manual<br>intervention by NZFBF staff in the                            | The above documents are available on the NZERE website                  |
|  | calculation of BKBM or Closing Rates is   | the NZFBF <u>website</u>  |
|  | recorded in the NZData system and   |   |
|  | noted in the post publication   |   |
|  | compliance report.  |   |
| b) Personal interests and  | b) Staff, Management and NZFBF Board  |   |
| connections or business  | members are required to declare any   | NZFBF Code of Conduct and   |
| connections do not   | personal interests or connections   | Conflicts of Interest   |
| compromise the<br>Administrator's performance  | through the conflict management<br>policies noted above. Any reported                     | <ul> <li>Governance Conflicts<br/>Management Plan</li> </ul>            |
| of its functions;  | conflicts are assessed at the   |   |
|  | appropriate level and reported to the   | The above documents are available on                                    |
|  | NZFBF Board for review.   | the NZFBF <u>website</u>  |
| c) Segregation of reporting lines  | c) NZFBF has an organizational chart that   |   |
| within the Administrator,  | clearly defines the roles of the NZFBF  | NZFBF Organisational Chart  |
|  |   |   |

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| Principle des  |   | NZFBF response   | Relevant documentation  |
|--|---|--|---|
| de<br>pr<br>ur<br>in   | here appropriate, to clearly<br>fine responsibilities and<br>revent unnecessary or<br>ndisclosed conflicts of<br>terest or the perception of<br>ich conflicts;  | and NZFMA, including reporting lines<br>which reinforce the segregation of<br>responsibilities and support the<br>independence of benchmark<br>determination. Job descriptions<br>provide further details on the roles<br>and responsibilities within NZFBF for<br>the benchmark determination process.  | NZFBF Job Descriptions  |
| of   | dequate supervision and sign-<br>f by authorised or qualified<br>nployees prior to releasing<br>enchmark determinations;  | <ul> <li>d) The production of BKBM, OCR<br/>Compound Index and Closing Rates is<br/>automated and as such NZFBF perform<br/>a monitoring role and check that all<br/>inputs for the Benchmark calculations<br/>are as observed. The General<br/>Manager, NZFBF has daily oversight of<br/>the benchmark determination<br/>processes, including the post<br/>publication compliance report. NZFBF<br/>staff have the required background<br/>and skills to perform these tasks. Staff<br/>can escalate issues to colleagues<br/>and/or management depending on<br/>severity. The required skills are<br/>documented in the Job Descriptions<br/>while ongoing training is covered in<br/>the NZFBF Recruitment and Workplace<br/>Policy document. As noted in a) any<br/>intervention in the BKBM and Closing<br/>Rate determination processes are<br/>subject to governance and oversight<br/>procedures.</li> </ul> | <ul> <li>NZFBF Operational Guidelines<br/>and Procedures</li> <li>NZFBF Recruitment and<br/>Workplace Policies</li> <li>NZFBF Job Descriptions</li> </ul> |
| in<br>su<br>pr<br>Ac<br>dis  | ne confidentiality of data,<br>formation and other inputs<br>abmitted to, received by or<br>roduced by the<br>dministrator, subject to the<br>sclosure obligations of the<br>dministrator;  | <ul> <li>e) &amp; f) The Code of Conduct and Conflicts<br/>of Interest policy specifies how internal<br/>data should be handled and the<br/>confidentiality requirements. Staff are<br/>required to treat NZFBF information<br/>with the strictest confidence and<br/>ensure it is not disclosed or discussed</li> </ul>   | NZFBF Code of Conduct and<br>Conflicts of Interest The above document is available on the<br>NZFBF <u>website</u>   |
| th<br>be<br>co<br>st<br>th<br>re   | fective procedures to control<br>e exchange of information<br>etween staff engaged in<br>tivities involving a risk of<br>onflicts of interest or between<br>aff and third parties, where<br>at information may<br>asonably affect any<br>enchmark determinations;<br>ad | with any person who is not an NZFBF<br>representative, except where required<br>or permitted under relevant<br>regulations or legislation. Staff training<br>on confidentiality obligations is<br>conducted annually and obligations are<br>covered in NZFBF Recruitment and<br>Workplace Policy document.   | <ul> <li>NZFBF Recruitment and<br/>Workplace Policies</li> </ul>  |
| pc<br>wl<br>Be<br>nc<br>re   | dequate remuneration<br>olicies that ensure all staff<br>ho participate in the<br>enchmark determination are<br>ot directly or indirectly<br>warded or incentivised by<br>e levels of the Benchmark.  | g) The remuneration of NZFBF staff is not<br>linked in any way to the level of the<br>calculated benchmarks.   | NZFBF Employment Contracts  |
| framework sh<br>existing or po<br>its ownership<br>to other inter<br>or wider grou | ator's conflict of interest<br>nould seek to mitigate<br>otential conflicts created by<br>o structure or control, or due<br>rests the Administrator's staff<br>up may have in relation to<br>eterminations. To this end,<br>rk should:                                  | <ul> <li>a) &amp; b) NZFBF's benchmark determination<br/>process operates independently from<br/>the parent entity, the NZFMA, as stated<br/>in the organisational chart. The<br/>Governance Conflicts Management<br/>Plan highlights the conflict pertaining to<br/>NZFBF's ownership and control, and<br/>notes the interaction required between<br/>senior management and Boards of both</li> </ul>   | Governance Conflicts<br>Management Plan The above document is available on the NZFBF <u>website</u>   |

| Principle description   | NZFBF response   | Relevant documentation  |
|---|--|---|
| <ul> <li>a) Include measures to avoid,<br/>mitigate or disclose conflicts of<br/>interest that may exist<br/>between its Benchmark<br/>determination business<br/>(including all staff who<br/>perform or otherwise<br/>participate in Benchmark<br/>production responsibilities),<br/>and any other business of the<br/>Administrator or any of its<br/>affiliates; and</li> <li>b) Provide that an Administrator<br/>discloses conflicts of interest<br/>arising from the ownership<br/>structure or the control of the<br/>Administrator to its<br/>Stakeholders and any relevant<br/>Regulatory Authority in a<br/>timely manner.</li> </ul>  | organisations to manage potential<br>conflicts. The identification and<br>recording of conflicts are managed by<br>the NZFBF Board and is available for the<br>Regulatory Authorities on request.  |   |
| 4. Control Framework for Administrators<br>An Administrator should implement an<br>appropriate control framework for the<br>process of determining and distributing<br>the Benchmark. The control framework<br>should be appropriately tailored to the<br>materiality of the potential or existing<br>conflicts of interest identified, the extent<br>of the use of discretion in the Benchmark<br>setting process and to the nature of<br>Benchmark inputs and outputs. The<br>control framework should be documented<br>and available to relevant Regulatory<br>Authorities, if any. A summary of its main<br>features should be Published or Made<br>Available to Stakeholders.This control framework should be<br>reviewed periodically and updated as<br>appropriate. The framework should<br>address the following areas: | <ul> <li>NZFBF considers that it complies with this principle.</li> <li>NZFBF has a documented risk-based control framework which is supported by the Risk Management Framework Guidelines for benchmark risk assessment. The framework considers potential risks related to the provision of benchmarks and the controls required to manage them. There is no use of discretion by the NZFBF in the benchmark determination process. NZFBF can manually intervene in the process to either input or correct data. This activity is logged within the system and recorded in the compliance reports.</li> <li>Controls have been identified for key processes around benchmark determination and comprise of automated and manual checks, regular reviews of best practice, conflict management and staff training.</li> <li>NZFBF's Risk Management Framework policy requires the NZFBF Board to review and approve the framework regularly. The framework is available to Regulatory Authorities and stakeholders on request.</li> </ul> | <ul> <li>NZFBF Constitution</li> <li>NZFBF Board Charter</li> <li>NZFBF Code of Conduct and<br/>Conflicts of Interest</li> <li>NZFBF Whistle-blowing<br/>Process</li> <li>NZFBF Complaints Process</li> <li>NZFBF Complaints Process</li> <li>The above documents are available on<br/>the NZFBF website</li> <li>NZFBF Risk Management<br/>Framework</li> <li>NZFBF Board minutes</li> </ul> |
| <ul> <li>a) Conflicts of interest in line with<br/>Principle 3 on conflicts of<br/>interests;</li> <li>b) Integrity and quality of<br/>Benchmark determination:         <ol> <li>Arrangements to ensure<br/>that the quality and<br/>integrity of Benchmarks is<br/>maintained, in line with<br/>principles 6 to 15 on the<br/>quality of the Benchmark<br/>and Methodology;</li> <li>Arrangements to</li> </ol> </li> </ul>  | <ul> <li>a) Please refer to NZFBF's responses to principle 3.</li> <li>b) i) The NZFBF Board is responsible for the adequacy of controls to maintain the integrity and quality of the benchmark determinates as outlined in the NZFBF's responses to principles 6 to 15.</li> <li>ii) NZFBF monitors and checks the daily</li> </ul>   |   |

| Principle description   | NZFBF response  | Relevant documentation  |
|---|---|---|
| Benchmark inputs,<br>including adequate due<br>diligence on input<br>sources;   | inputs are correct and the outputs are<br>as expected. If any calculation issues<br>arise NZFBF can pause the benchmark<br>setting process to investigate and make<br>the necessary adjustments. Such<br>activity is logged, noted in the<br>compliance report and if material,<br>documented in an incident report. The<br>NZFBF Board meets bi-monthly and<br>receives operational reports including<br>any incidents that have occurred<br>regarding the benchmark's<br>determination. Serious incidents are<br>reported immediately by NZFBF to the<br>NZFBF Board. Issues relating to the<br>adequacy of input sources are<br>considered on an ongoing basis by<br>NZFBF in consultation with the<br>NZFMA's Rates and Credit Markets<br>Committees. | <ul> <li>NZFBF Operational<br/>Guidelines and Procedures</li> <li>NZFBF Board Minutes</li> </ul>                                    |
| iii. Arrangements to<br>ensure accountability and<br>complaints mechanisms<br>are effective, in line with<br>principles 16 to 19; and   | <ul> <li>iii) The NZFBF Board reviews<br/>complaints received in accordance with<br/>the NZFBF's complaints policy. Further<br/>details are provided in principle 16.</li> </ul>  |   |
| iv. Providing robust<br>infrastructure, policies<br>and procedures for the<br>management of risk,<br>including operational risk.  | iv) Risks are identified through the<br>NZFBF Board's formal risk assessment<br>and mitigated by the control<br>framework noted above in this<br>principle (b)ii). The benchmark<br>determination process is largely<br>automated which mitigates risk of<br>manual process/human error. The<br>automated checks noted above further<br>reduce operational risk and any errors<br>that do occur are recorded in an<br>incident report. The incident report will<br>also recommend controls to mitigate<br>the operational risk. The management<br>of infrastructure risks are noted in<br>principle 15.   | <ul> <li>NZFBF Risk Management<br/>Framework</li> <li>NZFBF Board minutes</li> </ul>  |
| c) Whistleblowing mechanism:<br>Administrators should establish<br>an effective whistleblowing<br>mechanism to facilitate early<br>awareness of any potential<br>misconduct or irregularities<br>that may arise. This mechanism<br>should allow for external<br>reporting of such cases where<br>appropriate. | c) NZFBF has a whistle-blowing policy<br>which provides a mechanism to report<br>misconduct or irregularities that are<br>identified during the benchmark<br>determination process. The policy<br>describes the obligations to disclose,<br>the processes to be followed internally<br>and the protections that are in place.<br>There is also information if the issue<br>needs to be escalated externally to the<br>Financial Markets Authority. This policy<br>is available on the NZFBF's website.  | • NZFBF Whistle Blowing policy<br>The above document is available on the<br>NZFBF <u>website</u>                                    |
| <ul> <li>d) Expertise:         <ol> <li>Ensuring Benchmark<br/>determinations are made<br/>by personnel who possess<br/>the relevant levels of<br/>expertise, with a process<br/>for periodic review of<br/>their competence; and</li> </ol> </li> </ul>  | <ul> <li>d) i) NZFBF is a small team of three with a complete focus on benchmark administration. The team consists of a General Manager, Analyst, and IT Manager, all with the appropriate backgrounds and experience. The team are required to regularly review NZFBF policies and documentation related to benchmark determination. Informal performance reviews are conducted bimonthly, with an annual formal performance review to ensure</li> </ul>   | <ul> <li>NZFBF Recruitment and<br/>Workplace Policies</li> <li>NZFBF Job Decriptions</li> <li>NZFBF Employment Contracts</li> </ul> |

| Principle description  | NZFBF response  | Relevant documentation   |
|--|---|--|
|  | personnel remain competent and  |  |
|  | benchmark education is undertaken.  |  |
|  |   |  |
| ii. Staff training, including  | ii) Training consists largely of on-the job   |  |
| ethics and conflicts of  | training by senior staff. This includes   |  |
| interest training, and   | updates on the markets relevant to the  |  |
| continuity and succession  | benchmark, changes to the   |  |
| planning for personnel.  | methodology and any other issues that   |  |
|  | impact the determination and publication of the benchmark. Staff                      |  |
|  | also receive annual training on   |  |
|  | governance issues, such as conflict   |  |
|  | management and whistleblowing. The  |  |
|  | annual formal review, noted in d) i)  |  |
|  | above, also focuses on the required   |  |
|  | training needs for each person.   |  |
|  |   |  |
| Where a Benchmark is based on  | The benchmark's determination does not  |  |
| Submissions: Administrators should   | include any steps based on submission.  |  |
| promote the integrity of inputs by:  |   |  |
| a) Ensuring as far as possible that  |   |  |
| the Submitters comprise an   |   |  |
| appropriately representative   |   |  |
| group of participants taking   |   |  |
| into consideration the   |   |  |
| underlying Interest measured   |   |  |
| by the Benchmark;  |   |  |
| b) Employing a system of   |   |  |
| appropriate measures so that,  |   |  |
| to the extent possible,  |   |  |
| Submitters comply with the   |   |  |
| Submission guidelines, as<br>defined in the Submitter Code   |   |  |
| of Conduct and the   |   |  |
| Administrators' applicable   |   |  |
| quality and integrity standards  |   |  |
| for Submission;  |   |  |
| c) Specifying how frequently   |   |  |
| Submissions should be made   |   |  |
| and specifying that inputs or  |   |  |
| Submissions should be made   |   |  |
| for every Benchmark  |   |  |
| determination; and<br>d) Establishing and employing  |   |  |
| <ul> <li>d) Establishing and employing<br/>measures to effectively</li> </ul>                                      |   |  |
| monitor and scrutinise inputs  |   |  |
| or Submissions. This should  |   |  |
| include pre-compilation or pre-  |   |  |
| publication monitoring to  |   |  |
| identify and avoid errors in   |   |  |
| inputs or Submissions, as well   |   |  |
| as ex-post analysis of trends  |   |  |
| and outliers.  |   |  |
| 5. Internal Oversight<br>Administrators should establish an  | NZERE considers that it complice with the   |  |
| Administrators should establish an<br>oversight function to review and provide                                     | NZFBF considers that it complies with this<br>principle.                              | NZFBF Constitution   |
| hallenge on all aspects of the Benchmark   |   | NZFBF Constitution     NZFBF Board Charter                                 |
| letermination process. This should   |   | <ul> <li>NZFBF Board Charter</li> <li>NZFBF Code of Conduct and</li> </ul> |
| nclude consideration of the features and   | The NZFBF Board has responsibility for the  | Conflicts of Interest  |
| ntended, expected, or known usage of   | oversight of the benchmark processes  | Governance Conflicts   |
| the Benchmark and the materiality of   | including definition, methodology,<br>calculation, and publication relating to all of | Management Plan  |
| existing or potential conflicts of interest  | NZFBFs' benchmarks. The NZFBF Board   | Benchmark Operating Rules  |
| dentified.   | consists of three independent directors and   | and Principles, and  |
|  | two non-independent directors with industry,  | methodologies  |
|  |   |  |
| -  |   |  |
| The oversight function should be carried<br>out either by a separate committee, or<br>other appropriate governance | legal and regulatory backgrounds. The Board can also appoint two non-voting observers | The above documents are available or the NZFBF <u>website</u>              |

| Principle description  | NZFBF response  | Relevant documentation  |
|--|---|---|
| its composition should be appropriate to<br>provide effective scrutiny of the<br>Administrator. Such oversight function  | from Government agencies. Further detail of<br>the NZFBF Board's role is noted in Principle 4.  | <ul> <li>NZFBF Board minutes</li> <li>NZFMA Compliance reports</li> </ul> |
| could consider groups of Benchmarks by<br>type or asset class, provided that it<br>otherwise complies with this Principle.<br>An Administrator should develop and<br>maintain robust procedures regarding its  | The oversight role and membership of the NZFBF Board are governed by the NZFBF Constitution, NZFBF Board Charter, Code of Conduct and Conflicts of Interest, and Governance Conflicts Management Plan.  |   |
| oversight function, which should be<br>documented and available to relevant<br>Regulatory Authorities, if any. The main<br>features of the procedures should be<br>Made Available to Stakeholders. These   | These documents are reviewed and approved<br>on an annual basis and are available on<br>NZFBF's website.<br>The NZFBF Board is in place to support the  |   |
| procedures should include:   | integrity, efficiency, and reputation of the<br>Benchmarks. The NZFBF Board periodically<br>reviews and provides challenge on all<br>aspects of the Benchmark determination<br>process and provide effective oversight of<br>the Benchmark Administrator. This includes   |   |
|  | consideration of the features and intended,<br>expected, or known usage of the<br>Benchmarks and the materiality of existing<br>or potential conflicts of interest are<br>identified. The NZFBF Board also investigates<br>any complaints that may be received in<br>relation to the setting of the benchmarks.   |   |
| <ul> <li>a) The terms of reference of the oversight function;</li> <li>b) Criteria to select members of the oversight function;</li> <li>c) The summary details of membership of any committee or arrangement charged with the oversight function, along with any declarations of conflicts of interest and processes for election, nomination or removal and replacement of committee members.</li> </ul> | <ul> <li>a) to c) The NZFBF Board's terms of<br/>reference are contained in the NZFBF<br/>Constitution, NZFBF Board Charter,<br/>Code of Conduct and Conflicts of<br/>Interest, and Governance Conflicts<br/>Management Plan. This includes the<br/>criteria to select NZFBF Board<br/>members, the process for election,<br/>nomination or removal and<br/>replacement of NZFBF Board members.<br/>Declarations of conflicts of interest are<br/>also covered in the aforementioned<br/>documents, as well as the Director's<br/>letter of appointment.</li> </ul> |   |
| The responsibilities of the oversight<br>function include:<br>a) Oversight of the Benchmark design:<br>i. Periodic review of the definition of the<br>Benchmark and its Methodology;   | <ul> <li>a) i. The NZFBF Board's policy is to<br/>conduct an annual review of the<br/>definitions and methodologies of the<br/>benchmarks.</li> </ul>   |   |
| ii. Taking measures to remain informed<br>about issues and risks to the Benchmark,<br>as well as commissioning external reviews<br>of the Benchmark (as appropriate);  | ii. The NZFBF Board consider risks at<br>each meeting based on the Risk<br>Management guidelines and Matrix.<br>The risks and their controls are<br>reassessed at least annually. NZFBF and<br>the NZFBF Board consider any new risks<br>that arise and consider appropriate<br>controls. The NZFBF Board's Charter<br>allows the NZFBF Board to seek<br>independent advice on the benchmarks<br>and the NZFBF Board is responsible for<br>commissioning external reviews as<br>necessary for the benchmarks.   |   |
| iii. Overseeing any changes to the<br>Benchmark Methodology, including<br>assessing whether the Methodology<br>continues to appropriately measure the<br>underlying Interest, reviewing proposed   | iii. Any proposed changes to the<br>Benchmark's methodology are<br>reviewed and approved by the NZFBF<br>Board to ensure the benchmarks<br>continue to appropriately measure the  |   |
| and implemented changes to the   | underlying interest and comply with   |   |

| Principle description   | NZFBF response   | Relevant documentation                  |
|---|--|---|
| Principle description<br>Methodology, and authorising or                  | the required standards (e.g., IOSCO).  | Recount documentation                   |
| requesting the Administrator to   | The NZFBF Board also provide guidance  |   |
| undertake a consultation with   | on the need for consultation regarding                                       |   |
| Stakeholders where known or its   | any changes to benchmark   |   |
| Subscribers on such changes as per  | methodology using the principles   |   |
| Principle 12; and   | stated in the BKBM Operating Rules   |   |
|   | and Principles (ORP), the OCR  |   |
|   | Compound Index Operating Principles  |   |
|   | and Methodology (OCRP) and Closing   |   |
|   | Rates Operating Guidelines and   |   |
|   | Principles (OGP).  |   |
|   |  |   |
| iv. Reviewing and approving procedures                                    | iv. The NZFBF Board reviews the  |   |
| for termination of the Benchmark,   | benchmark's cessation process, as  |   |
| including guidelines that set out how the                                 | stated in the ORP, OCRP and Closing  |   |
| Administrator should consult with   | Rate Methodology documents, at least   |   |
| Stakeholders about such cessation.  | annually to ensure it complies with the                                      |   |
|   | requirements of Regulatory Authorities                                       |   |
|   | and Stakeholders.  |   |
|   |  |   |
| b) Oversight of the integrity of Benchmark                                | b) i. The NZFBF Board meets bi-monthly to                                    |   |
| determination and control framework:                                      | oversee the management and   |   |
| i. Overseeing the management and  | operation of the NZFBFs' benchmarks  |   |
| operation of the Benchmark, including                                     | and reviews operational reports  |   |
| activities related to Benchmark   | including calculation issues,  |   |
| determination undertaken by a third                                       | complaints, and Benchmark reviews.   |   |
| party;  | No third parties are responsible for the<br>benchmark determination process. |   |
|   | benchmark determination process.   |   |
|   |  |   |
| ii. Considering the results of internal and                               | ii. The NZFBF Board is responsible for                                       |   |
| external audits, and following up on the                                  | reviewing the results of external audits                                     |   |
| implementation of remedial actions  | and internal assessments, and oversees                                       |   |
| highlighted in the results of these audits;                               | the actions required by NZFBF to   |   |
| and   | ensure it complies with international  |   |
|   | standards and to enhance operational   |   |
|   | procedures, as noted in the Charter.   |   |
| iii. Overseeing any exercise of Expert                                    | iii. The benchmarks are not set using  |   |
| Judgment by the Administrator and   | expert judgement. The daily  |   |
| ensuring Published Methodologies have                                     | compliance report records the  |   |
| been followed.  | benchmark setting process and would  |   |
| Seen followed.  | highlight where published  |   |
|   | methodologies have not been  |   |
|   | followed. This report is reviewed by the                                     |   |
|   | NZFMA's Compliance Officer and   |   |
|   | exceptions are reported to the NZFBF   |   |
|   | Board.   |   |
|   |  |   |
| Where conflicts of interests may arise in                                 | The NZFBF's Governance Conflict  |   |
| the Administrator due to its ownership                                    | Management Plan includes conflicts that may                                  |   |
| structures or controlling interests, or due                               | arise due to the ownership structure of the                                  |   |
| to other activities conducted by any entity                               | controlling interests, namely the NZFMA. To                                  |   |
| owning or controlling the Administrator                                   | mitigate any potential conflicts the NZFMA                                   |   |
| or by the Administrator or any of its                                     | has established a subsidiary, the NZFBF, to act                              |   |
| affiliates: the Administrator should                                      | as the Benchmark Administrator, with   |   |
| establish an independent oversight  | oversight from the largely independent                                       |   |
| function which includes a balanced  | NZFBF Board.   |   |
| representation of a range of Stakeholders                                 |  |   |
| where known, Subscribers and  |  |   |
| Submitters, which is chosen to  |  |   |
| counterbalance the relevant conflict of                                   |  |   |
| interest.   |  |   |
|   |  |   |
| Where a Benchmark is based on   | a) to d) There are no Benchmarks based                                       |   |
| Submissions: the oversight function                                       | on submissions.  | BKBM Operating Rules and     Dringinlag |
| should provide suitable oversight and<br>challenge of the Submissions by: |  | Principles                              |
| a) Overseeing and challenging the scrutiny                                |  |   |
| and monitoring of inputs or Submissions                                   |  |   |
| and monitoring of inputs of Submissions                                   | 15   |   |

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| Principle description  | N7ERE response   | Relevant documentation  |
|--|--|---|
| Principle description<br>by the Administrator. This could include<br>regular discussions of inputs or<br>Submission patterns, defining parameters<br>against which inputs or Submissions can<br>be analysed, or querying the role of the<br>Administrator in challenging or sampling<br>unusual inputs or Submissions;<br>b) Overseeing the Code of Conduct for<br>Submitters;<br>c) Establishing effective arrangements to<br>address breaches of the Code of Conduct<br>for Submitters; and<br>d) Establishing measures to detect<br>potential anomalous or suspicious | NZFBF response   | <ul> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> <li>The above documents are available on<br/>the NZFBF website</li> </ul>  |
| Submissions and in case of suspicious<br>activities, to report them, as well as any<br>misconduct by Submitters of which it<br>becomes aware to the relevant<br>Regulatory Authorities, if any.<br><b>6. Benchmark Design</b>  |  |   |
| <ul> <li>benchmark Design</li> <li>The design of the Benchmark should seek to achieve, and result in an accurate and reliable representation of the economic realities of the Interest it seeks to measure and eliminate factors that might result in a distortion of the price, rate, index or value of the Benchmark.</li> <li>Benchmark design should take into account the following generic non-exclusive features, and other factors should be considered, as appropriate to the particular Interest:</li> </ul>   | NZFBF considers that it complies with this<br>principle.<br>The benchmark design and the interest the<br>benchmark is intended to measure is detailed<br>in the BKBM Operating Rules and Principles<br>for BKBM, the OCR Compound Index<br>Operating Principles and Methodology and<br>the Operating Guidelines and Principles for<br>Closing Rates.<br>Factors monitored regarding design include<br>adequacy of sample, the number of active<br>market participants, the size and liquidity of<br>the relevant market, market concentration<br>issues and the relative size of the market in<br>relation to the volume trading in the markets<br>that reference the benchmark.   | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul>   |
| a) Adequacy of the sample used to<br>represent the Interest;   | <ul> <li>a) BKBM methodology is aligned with the size of New Zealand's domestic money markets using transactions and/or executable bids/offers that are representative of where banks are willing to borrow or lend with one another. Furthermore, market participants are subject to eligibility criteria which seek to eliminate factors that may lead to distortions (e.g., minimum parcel sizes, maximum bid/offer spread, no gapping of prices during the rate-set window and having limits to buy and sell sufficient lines of bank paper).</li> <li>The OCR Compound Index methodology is aligned to the Reserve Bank of New Zealand's Official Cash Rate. This rate is used across the banking system, for example as the rate used to remunerate ESAS account at the RBNZ (current balance \$57 billion).</li> <li>Closing Rate methodology is also aligned with the size of New Zealand's domestic money markets using live and executable two-way (bid &amp; offer) quotations extracted from pricemakers Bloomberg ALLQ pages, Price-</li> </ul> | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website |

| Principle description  | NZFBF response   | Relevant documentation  |
|--|--|---|
|  | makers are subject to eligibility criteria<br>which seek to eliminate factors that<br>may lead to distortions (e.g., maximum<br>bid/offer spreads and stale pricing).  |   |
| b) Size and liquidity of the relevant<br>market (for example whether there is<br>sufficient trading to provide observable,<br>transparent pricing);<br>c) Relative size of the underlying market<br>in relation to the volume of trading in the<br>market that references the Benchmark;<br>d) The distribution of trading among<br>Market Participants (market<br>concentration); | <ul> <li>b) to d) NZFBF and the NZFBF Board<br/>regularly review the volumes<br/>transacted through the BKBM rate set<br/>and the spreads applicable on<br/>executable bids and offers to ensure<br/>they provide an accurate<br/>representation. Trading of short-term<br/>bank paper outside of the two-minute<br/>rate-set window is also monitored. Any<br/>change in these variables is discussed<br/>and further information is sought<br/>either directly from the BKBM price-<br/>makers or via the NZFMA's Rates<br/>Committee.</li> <li>As noted above the OCR is used across<br/>the banking system.</li> <li>A similar process, to BKBM, is<br/>followed for Closing Rates with<br/>spreads and the number of stale prices<br/>monitored to ensure the Closing Rates<br/>provide an accurate representation.<br/>Any change in these variables is<br/>discussed and further information</li> </ul> | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website |
| e) Market dynamics (e.g., to ensure that<br>the Benchmark reflects changes to the<br>assets underpinning a Benchmark).   | <ul> <li>sought either directly from the Closing<br/>Rate price-makers or via the NZFMA's<br/>Credit Markets Committee.</li> <li>NZFBF, in consultation with the<br/>NZFMA's Rates and Credit Markets<br/>Committees, regularly reviews the<br/>design of BKBM, OCR Compound Index<br/>and Closing Rates as part of the process</li> </ul>   |   |
|  | noted in b) - d) above to ensure the<br>benchmarks remain representative.<br>NZFBF conducts these reviews at least<br>annually and forwards the outcome to<br>the NZFBF Board for their comment<br>and ratification.   |   |
| 7. Data Sufficiency  | 1  |   |
| The data used to construct a Benchmark<br>determination should be sufficient to<br>accurately and reliably represent the<br>Interest measured by the Benchmark and<br>should:  | NZFBF considers that it complies with this<br>principle.<br>BKBM operates a waterfall methodology<br>based on the liquidity of the market it seeks<br>to measure and are described in the<br>Operating Rules and Principles, which is<br>available on the NZFBF website, as follows:   | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>The above document is available on the<br/>NZFBF <u>website</u></li> </ul>  |
|  | <ul> <li>i. Arm's-length transactions or<br/>executable bids or offers for one,<br/>three- and six-month tenors in<br/>the underlying interest;</li> <li>ii. If only two of the one, three- and<br/>six-month tenors are available,<br/>interpolation of the third tenor;</li> <li>iii. If only one of the one, three- and<br/>six-month tenors is available,<br/>interpolation of the other two<br/>tenors; and,</li> </ul>   |   |

| Principle description  | NZFBF response  | Relevant documentation  |
|--|---|---|
|  | iv. For the three steps above,<br>interpolation for two, four- and<br>five-month tenors.  |   |
|  | If BKBM cannot be determined from the above process, NZFBF will revert to the previous day's rate.  |   |
| a) Be based on prices, rates, indices, or<br>values that have been formed by the<br>competitive forces of supply and demand<br>in order to provide confidence that the<br>price discovery system is reliable; and<br>b) Be anchored by observable<br>transactions entered into at arm's length<br>between buyers and sellers in the market<br>for the Interest the Benchmark measures<br>in order for it to function as a credible<br>indicator of prices, rates, indices, or<br>values.<br>This Principle requires that a Benchmark<br>be based upon (i.e., anchored in) an active<br>market having observable Bona Fide,<br>Arms-Length Transactions. This does not<br>mean that every individual Benchmark<br>determination must be constructed solely<br>of transaction data. Provided that an<br>active market exists, conditions in the<br>market on any given day might require<br>the Administrator to rely on different<br>forms of data tied to observable market<br>data as an adjunct or supplement to<br>transactions. Depending upon the<br>Administrator's Methodology, this could<br>result in an individual Benchmark<br>determination being based<br>predominantly, or exclusively, on bids and<br>offers or extrapolations from prior<br>transactions. This is further clarified in<br>Principle 8.<br>Provided that subparagraphs (a) and (b)<br>above are met, Principle 7 does not<br>preclude Benchmark Administrators from<br>using executable bids or offers as a means<br>to construct Benchmarks where anchored<br>in an observable market consisting of<br>Bona Fide, Arms-Length transactions.<br>This Principle also recognizes that various<br>indices may be designed to measure or<br>reflect the performance of a rule-based<br>investment strategy, the volatility or<br>behavior of an index or market or other<br>aspects of an active market. Principle 7<br>does not preclude the use of non-<br>transactional data for such indices that<br>are not designed to represent<br>transactions and where the nature of the<br>index is such that non-transactional data<br>is used to reflect what the index is<br>designed to measure. For example,<br>certain volatility indices, which are<br>designed to measure the expected<br>volatility of an index o | <ul> <li>a) &amp; b) BKBM represents the mid-rates for prime bank eligible securities that are traded during a two-minute rate-set window, using broker venues. BKBM represents the rates at which banks are willing to borrow from, or lend to, one another for terms of one to six months.</li> <li>Each day price-makers provide executable bids and offers, in the one, three- and six-month tenors, in accordance with the rules contained in the BKBM Operating Rules and Principles. If trading occurs those transactions determine the benchmark and if there is no trading the tightest spread on the executable bids and offers are used.</li> <li>For transparency, post publication of the benchmark, NZFBF publishes either the buyers and sellers for traded tenors or the price-makers on the bid and offer to highlight that the benchmark has been set using arm's length transactions/pricing.</li> <li>Furthermore, market participants in the BKBM process are subject to several requirements by the Financial Markets Authority as described in section 8.4 of the BKBM Operating Rules and Principles_This guidance sets out legal obligations, the principles underlying the FMA's approach and examples of how participants of BKBM can meet their obligations. This guidance, amongst other things, requires banks to record contextual evidence that trading activity in BKBM is for a legitimate purpose.</li> <li>The OCR Compound Index is set using the RBNZ's monetary policy rate, the Official Cash Rate. The OCR is used widely in the marketplace, for example the RBNZ currently uses the rate to remunerate bank reserves held at the RBNZ, with a current balance circa \$50 billion. The RBNZ also uses the OCR rate each morning from the RBNZ's official pages, via Bloomberg. NZFBF calculates the OCR Compound Index and publishes the OCR Compound Index operating Principles</li> </ul> | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website |
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| Principle description  | NZFBF response   | Relevant documentation  |
|--|--|---|
| thus "anchored" in an actual functioning securities or options market.   | and Methodology. This document is available on the NZFBF website.  |   |
|  | Closing rates are set using executable<br>bid/offer quotes set by approved price-<br>makers to clients for the eight closing rate<br>markets. The primary purpose of Closing<br>Rates is to provide end of day valuations and<br>as such if the Closing Rate process, as<br>documented, is unable to calculate and<br>publish the Closing Rates then no<br>determination is provided.  |   |
|  | a) &b) NZFBF collects the closing rates at<br>4.32pm, completes data checks,<br>calculates the closes, and publishes the<br>rates between 4.46pm and 4.47pm.<br>Data is also collected at four additional<br>times prior to 4.32pm for business<br>continuity purposes. If the 4.32pm data<br>inputs are not available, the earlier data<br>inputs will be used to calculate the<br>Closing Rates. This process follows the<br>guidelines and principles contained in<br>the Closing Rate Operating Guidelines<br>and Principles and the Methodology<br>document for each Closing Rate<br>market. These documents are available<br>on the NZFBF website.   |   |
| 8 Hierarchy of Data Inputs   |  |   |
| 8. Hierarchy of Data Inputs An Administrator should establish and Publish or Make Available clear guidelines regarding the hierarchy of data inputs and exercise of Expert Judgment used for the determination of Benchmarks. In general, the hierarchy of data inputs should include: | <ul> <li>NZFBF considers that it complies with this principle.</li> <li>The BKBM Operating Rules and Principles contain clear guidelines on the hierarchy of data inputs for the determination of BKBM. The hierarchy is: <ul> <li>i. Arm's-length transactions or executable bids or offers for one, three- and six-month tenors in the underlying interest;</li> <li>ii. If only two of the one, three- and six-month tenors are available, interpolation of the third tenor;</li> <li>iii. If only one of the one, three- and six-month tenors is available, interpolation of the other two tenors; and,</li> <li>iv. For the three steps above, interpolation for two, four- and five-month tenors.</li> </ul> </li> <li>If the above inputs are not available and the benchmark cannot be determined the previous day's determination will be used. This method will likely be used in periods of low liquidity or market stress. This step can only be utilised for a period of five business days as stated in the ORP (section 7.7).</li> <li>The OCR Compound Index uses the RBNZ's monetary policy rate, the Official Cash Rate. This rate is available daily via the RBNZ's Bloomberg pages. If the RBNZ were to cease using the OCR it is assumed sufficient market would be provided so an alternative rate could be sourced. As such there is not a</li> </ul> | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> |

| Duinsials description  |  | Delevent desurrentet an  |
|--|--|--------------------------|
| Principle description  | NZFBF response<br>hierarchy of inputs for the OCR Compound                     | Relevant documentation   |
|  | Index.   |                          |
|  | Index.   |                          |
|  | The Closing Rate Methodology documents,  |                          |
|  | available on the NZFBF's website, provide                                      |                          |
|  | guidelines on the inputs used to calculate the                                 |                          |
|  | Closing Rates, as described in Principle 6, a                                  |                          |
|  | description of the calculation method and                                      |                          |
|  | examples of those calculations. If the inputs                                  |                          |
|  | are not available, and the reason is technical,                                |                          |
|  | NZFBF have contingency procedures to   |                          |
|  | contact Bloomberg directly to rectify the                                      |                          |
|  | issue. If the issue cannot be rectified in a                                   |                          |
|  | reasonable timeframe, NZFBF will obtain the                                    |                          |
|  | data directly from the price-makers. If those                                  |                          |
|  | prices are not available, for whatever reason,                                 |                          |
|  | no closing rates are published.  |                          |
|  |  |                          |
|  |  |                          |
| a) Where a Benchmark is dependent upon   | a) to e) BKBM is not dependent upon  |                          |
| Submissions, the Submitters' own   | submissions or expert judgement. The   |                          |
| concluded arms-length transactions in the                                      | benchmark is set in a two-minute   |                          |
| underlying interest or related markets;  | trading window using arms-length   |                          |
| b) Reported or observed concluded  | transactions or executable bids and  |                          |
| Arm's-length Transactions in the   | offers in the underlying interest as   |                          |
| underlying interest;   | noted above. As noted in principle 9,  |                          |
| c) Reported or observed concluded Arm's-                                       | the NZFBF publishes details relating to  |                          |
| length Transactions in related markets;  | how the benchmark is set each  |                          |
| d) Firm (executable) bids and offers; and                                      | business day on its website.   |                          |
| e) Other market information or Expert  |  |                          |
| Judgments.   |  |                          |
| Drouided that the Data Sufficiency   | a) to e) The OCR Compound Index is not<br>dependent upon submissions or expert |                          |
| Provided that the Data Sufficiency<br>Principle is met (i.e., an active market | judgement.   |                          |
| exists), this Principle is not intended to                                     | Judgement.   |                          |
| restrict an Administrator's flexibility to                                     |  |                          |
| use inputs consistent with the   | a) to e) Closing Rates are not dependent                                       |                          |
| Administrator's approach to ensuring the                                       | upon submissions or expert judgement.  |                          |
| quality, integrity, continuity and reliability                                 | The benchmarks are set using   |                          |
| of its Benchmark determinations, as set  | executable bid/offer quotes in   |                          |
| out in the Administrator's Methodology.  | Bloomberg ALLQ in the underlying   |                          |
| The Administrator should retain flexibility                                    | interest as noted above.   |                          |
| to use the inputs it believes are  |  |                          |
| appropriate under its Methodology to   |  |                          |
| ensure the quality and integrity of its  |  |                          |
| Benchmark. For example, certain  |  |                          |
| Administrators may decide to rely upon   |  |                          |
| Expert Judgment in an active albeit low  |  |                          |
| liquidity market, when transactions may  |  |                          |
| not be consistently available each day.  |  |                          |
| IOSCO also recognizes that there might be circumstances (e.g., a low liquidity |  |                          |
| market) when a confirmed bid or offer  |  |                          |
| might carry more meaning than an outlier                                       |  |                          |
| transaction. Under these circumstances,  |  |                          |
| non-transactional data such as bids and  |  |                          |
| offers and extrapolations from prior   |  |                          |
| transactions might predominate in a given                                      |  |                          |
| Benchmark determination.   |  |                          |
| 9. Transparency of Benchmark Determinati                                       |  |                          |
| The Administrator should describe and  | NZFBF considers that it complies with this                                     |                          |
| publish with each Benchmark  | principle.   | BKBM Operating Rules and |
| determination, to the extent reasonable  |  | Principles               |
| without delaying an Administrator  | NZFBF releases details each business day on                                    | OCR Compound Index       |
| publication deadline:  | the inputs used to calculate BKBM. They are described below:                   | Operating Principles and |
|  |  | Methodology              |
|  | 1  | 1                        |

| Principle description  | NZFBF response   | Relevant documentation   |
|--|--|--|
| Principle description<br>a) A concise explanation, sufficient to<br>facilitate a Stakeholder's or Market<br>Authority's ability to understand how the<br>determination was developed, including,<br>at a minimum, the size and liquidity of the<br>market being assessed (meaning the<br>number and volume of transactions<br>submitted), the range and average<br>volume and range and average of price,<br>and indicative percentages of each type of<br>market data that have been considered in<br>a Benchmark determination; terms<br>referring to the pricing Methodology<br>should be included (i.e., transaction-<br>based, spread-based or<br>interpolated/extrapolated); | <ul> <li>NZFBF response</li> <li>a) BKBM is available each business day at 10:41am on a fee-paying basis or freeto-air with a 24-hour delay. The benchmark is published on the NZFMA's website (free to air with a 24-hour delay), via vendors and email to subscribers. A full description, including examples of the calculation process can be found in section 8.1 of the published Operating Rules and Principles. As noted in principle 6, the data release includes information on the banks, volumes and rate/s used to calculate the one, three- and six-month tenors, either via transactions or using executable bids and offers.</li> <li>Each day's publication of BKBM includes the hierarchy of data inputs that has been used to calculate each of the benchmark rates (one to six months). Each BKBM tenor is assigned one of the following codes: <ul> <li>T – Traded</li> <li>E – Executable bid and offer</li> <li>I – Interpolated</li> </ul> </li> <li>The OCR Compound Index is published each day at 10:41am via the NZFMA's website, vendors, and an email to subscribers. A full description, including examples of the calculation method can be found in section 6.0 of the OCR Compound Index Operating Principles and Methodology documents (OCRP).</li> <li>Closing Rates are published each day between 4.46pm and 4.47pm via vendors and email to subscribers. Certain closing rates are available on the NZFMA website free to air with a 24-hour delay. A full description, including examples of the calculation can be found in section 2.3 of the</li> </ul> | Relevant documentation <ul> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website |
| b) A concise explanation of the extent to<br>which and the basis upon which Expert<br>Judgment if any, was used in establishing<br>a Benchmark determination.  | <ul> <li>b) The use of expert judgement falls outside of the waterfall for setting BKBM. As noted in the BKBM Operating Rules and Principles the use of Expert Judgement relates to instruction provided by the Financial Markets Authority (see section 8.4). If the waterfall cannot determine the benchmark, then the previous day's determination will be used and notified on the NZFBF and NZFMAs' websites.</li> <li>The use of expert judgement is not used for determining the OCR Compound Index. It is very unlikely that the OCR Compound Index cannot be determined on any given business day.</li> </ul>   |  |

| Principle description  | NZFBF response  | Relevant documentation  |
|--|---|---|
|  | The use of expert judgement is not<br>used for determining the Closing<br>Rates. As noted in the Closing Rate<br>Methodology documents the use of<br>expert judgement relates to<br>instruction provided by the Financial<br>Markets Authority (see section 2.8). If<br>the Closing rate benchmark cannot be<br>determined, then no Closing Rates are<br>published.   |   |
| 10. Periodic Review The Administrator should periodically review the conditions in the underlying Interest that the Benchmark measures to determine whether the Interest has undergone structural changes that might require changes to the design of the Methodology. The Administrator also should periodically review whether the Interest has diminished or is non- functioning such that it can no longer function as the basis for a credible Benchmark. The Administrator should Publish or Make Available a summary of such reviews where material revisions have been made to a Benchmark, including the rationale for the revisions. | NZFBF considers that it complies with this<br>principle.<br>The benchmark's underlying trading activity<br>and executable bid/offer spreads are<br>regularly monitored and reported to the<br>NZFBF Board and the NZFMA's Rates and<br>Credit Markets Committees for review.<br>NZFBF also reports feedback or complaints<br>received from stakeholders and subscribers<br>relating to benchmark determination. The<br>NZFBF Board has a standing agenda item<br>(GM Report) to discuss these reports and the<br>general functioning of the benchmark.<br>NZFBF also runs an annual satisfaction<br>survey with stakeholders and subscribers to<br>receive feedback on all facets of the<br>benchmark process and to ensure that they<br>remain an effective benchmark<br>administrator.<br>If there is any notable change in the<br>underlying interest or the methodology this<br>is managed using the procedure described in<br>section 4.2 of the BKBM Operating Rules and<br>Principles (ORP), OCR Compound Index<br>Operating Principles and Methodology<br>(OCRP) and Closing Rate Guidelines and<br>Principles (OGP). Generally, NZFBF form a<br>working group of relevant stakeholders to<br>determine the impact of the change on the<br>benchmark and possible solutions. The<br>analysis and any proposed change from the<br>working group is referred to the NZFMA's<br>Rates or Credit Markets Committees for<br>further comment before going to the NZFBF<br>Board for ratification. If the change is<br>considered material, as described in section<br>4.2 of the ORP, OCRP and OGP, NZFBF will<br>conduct a consultation which would include<br>all stakeholders and subscribers.<br>Once a change to the methodology is<br>approved the resulting changes in the<br>methodology will be updated in the ORP,<br>OCRP or OGP. NZFBF publish a market notice<br>on its website and an email is sent to all<br>subscribers and stakeholders, with sufficient<br>notice, advising the change and providing a<br>link to the revised document.<br>The methodology is subject to<br>annual/periodic review as described in<br>section 3.5 of the ORP and OGP, and section<br>3.2 of the OCRP. | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website <ul> <li>General Manager's report to<br/>the NZFBF Board</li> <li>NZFBF annual satisfaction<br/>survey</li> </ul> |

| Principle description  | NZFBF response   | Relevant documentation  |
|--|--|---|
| <ul> <li>11.Content of the Methodology</li> <li>The Administrator should document and<br/>Publish or Make Available the<br/>Methodology used to make Benchmark<br/>determinations. The Administrator should<br/>provide the rationale for adopting a<br/>particular Methodology. The Published<br/>Methodology should provide sufficient<br/>detail to allow Stakeholders to<br/>understand how the Benchmark is derived<br/>and to assess its representativeness, its<br/>relevance to particular Stakeholders, and<br/>its appropriateness as a reference for<br/>financial instruments.</li> <li>At a minimum, the Methodology should<br/>contain:</li> <li>a) Definitions of key terms;</li> </ul> | <ul> <li>NZFBF considers that it complies with this principle.</li> <li>BKBM</li> <li>a) BKBM determination methodology and rationale is explained in the BKBM Operating Rules and Principles (ORP) which is publicly available on the NZFBF website and include the following: Key definitions are noted in appendix VII of the ORP.</li> </ul>   | b) BKBM Operating Rules and<br>Principles<br>The above document is available on the<br>NZFBF <u>website</u> |
| b) All criteria and procedures used to<br>develop the Benchmark, including input<br>selection, the mix of inputs used to derive<br>the Benchmark, the guidelines that<br>control the exercise of Expert Judgment<br>by the Administrator, priority given to<br>certain data types, minimum data needed<br>to determine a Benchmark, and any<br>models or extrapolation methods;  | <ul> <li>b) Appendix II of the ORP provides the procedures for the Broker venues used for the rate-set window, the source of the data and the calculation methodology used to determine BKBM. Section 8.1 contains the BKBM waterfall which highlights the priority given to the various data inputs and the minimum data requirements. Examples are also provided for each step of the waterfall to provide a clearer understanding of the calculation methodology and the interpolation used to calculate the remaining tenors (two, four and five months).</li> </ul> |   |
| c) Procedures and practices designed to<br>promote consistency in the exercise of<br>Expert Judgment between Benchmark<br>determinations;  | c) Expert judgement is not used for the<br>calculation of BKBM under normal<br>market circumstances. Section 8.2<br>notes the use of the previous day's<br>determination, if the BKBM waterfall<br>cannot provide the benchmark<br>determination on any given business<br>day due to unforeseen circumstances.<br>Section 8.4 states the Final Stage<br>Methodology, which is implemented on<br>instruction from the Financial Markets<br>Authority and requires the price-makers<br>to provide Expert Judgement.  |   |
| d) The procedures which govern<br>Benchmark determination in periods of<br>market stress or disruption, or periods<br>where data sources may be absent (e.g.,<br>theoretical estimation models);   | d) As noted in b) section 8.1 contains the waterfall if not all data inputs are available. If the waterfall was unable to determine the benchmark, for example during times of market stress, the previous day's rate would be used as noted in c). This method cannot be used beyond five business days.  |   |
| e) The procedures for dealing with error<br>reports, including when a revision of a<br>Benchmark would be applicable;  | <ul> <li>e) Section 5.1 of the ORP contains BKBM's<br/>policy of restatement. This section<br/>highlights the process followed, the<br/>definition of a material error, cut-off<br/>times for benchmark revision and the<br/>NZFBF's notification process to<br/>stakeholders and subscribers.</li> </ul>  |   |

| Principle description  | NZFBF response   | Relevant documentation   |
|--|--|--|
| f) Information regarding the frequency for<br>internal reviews and approvals of the<br>Methodology. Where applicable, the<br>Published Methodologies should also<br>include information regarding the<br>procedures and frequency for external<br>review of the Methodology;   | <ul> <li>f) Policy requires NZFBF to review BKBM<br/>methodology on an annual basis, in<br/>consultation with the NZFMA's Rates<br/>Committee. The NZFBF Board provide<br/>oversight of this review. In practice,<br/>reviews occur more regularly with<br/>discussion held as and when issues are<br/>raised by price-makers, brokers, NZFMA<br/>committees, stakeholders, or<br/>subscribers. Any changes in<br/>methodology follow the process stated<br/>in section 4.2 of the ORP.</li> </ul> |  |
| g) The circumstances and procedures<br>under which the Administrator will<br>consult with Stakeholders, as appropriate;<br>and   | g) As noted in f) and Principle 10.  |  |
| h) The identification of potential<br>limitations of a Benchmark, including its<br>operation in illiquid or fragmented<br>markets and the possible concentration of<br>inputs.   | <ul> <li>h) As New Zealand's domestic money<br/>markets are relatively small in size, the<br/>BKBM calculation operates on a<br/>waterfall methodology as described in<br/>section 8.1 of the ORP to cater for low<br/>liquidity in the market.</li> <li>In times of market stress, the previous<br/>day's determination may be used as<br/>noted in section 8.2.</li> </ul>   |  |
| The Administrator should document and<br>Publish or Make Available the<br>Methodology used to make Benchmark<br>determinations. The Administrator should<br>provide the rationale for adopting a<br>particular Methodology. The Published<br>Methodology should provide sufficient<br>detail to allow Stakeholders to<br>understand how the Benchmark is derived<br>and to assess its representativeness, its<br>relevance to particular Stakeholders, and<br>its appropriateness as a reference for<br>financial instruments.<br>At a minimum, the Methodology should<br>contain:<br>a) Definitions of key terms; | <ul> <li>OCR Compound Index</li> <li>a) The OCR Compound Index<br/>determination methodology and<br/>rationale is explained in the OCR<br/>Compound Index Operating Principles<br/>and Methodology (OCRP) which is<br/>publicly available on the NZFBF<br/>website and include the following: Key<br/>definitions are noted in appendix I of<br/>the OCRP.</li> </ul>  | <ul> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>The above document is available on the<br/>NZFBF <u>website</u></li> </ul> |
| b) All criteria and procedures used to<br>develop the Benchmark, including input<br>selection, the mix of inputs used to derive<br>the Benchmark, the guidelines that<br>control the exercise of Expert Judgment<br>by the Administrator, priority given to<br>certain data types, minimum data needed<br>to determine a Benchmark, and any<br>models or extrapolation methods;  | <ul> <li>b) Section 6.3 and 6.4 of the OCRP<br/>contains the source of the data and<br/>the calculation methodology used to<br/>determine the OCR Compound Index.<br/>Examples are also provided for each<br/>step of the calculation process to<br/>provide a clearer understanding of the<br/>calculation methodology.</li> </ul>  |  |
| c) Procedures and practices designed to<br>promote consistency in the exercise of<br>Expert Judgment between Benchmark<br>determinations;  | c) Expert judgement is not used for the<br>calculation of the OCR Compound<br>Index under any circumstances. The<br>OCR is published daily by the Reserve<br>Bank of New Zealand and is reviewed<br>every 6 to 8 weeks. The Financial<br>Markets Authority ability to require<br>price-makers to provide Expert<br>Judgement does not apply to the<br>RBNZ.  |  |

| Principle description   | NZFBF response  | Relevant documentation                 |
|---|---|--|
| d) The procedures which govern                                | d) The publication of the OCR by the  |  |
| Benchmark determination in periods of                         | RBNZ will still occur in times of market                                      |  |
| market stress or disruption, or periods                       | stress. The RBNZ may adjust the OCR   |  |
| where data sources may be absent (e.g.,                       | in such circumstances, and this will  |  |
| theoretical estimation models);                               | feed into the OCR Compound Index's  |  |
|   | calculation methodology.  |  |
|   |   |  |
| e) The procedures for dealing with error                      | e) Section 5.1 of the OCRP contains the                                       |  |
| reports, including when a revision of a                       | OCR Compound Index's policy of  |  |
| Benchmark would be applicable;                                | restatement. This section highlights the process followed, cut-off times for  |  |
|   | benchmark revision and the NZFBF's  |  |
|   | notification process to stakeholders and                                      |  |
|   | subscribers   |  |
|   |   |  |
| f) Information regarding the frequency for                    | f) Policy requires NZFBF to review the OCR                                    |  |
| internal reviews and approvals of the                         | Compound Index methodology on an  |  |
| Methodology. Where applicable, the                            | annual basis, using a NZFBF working   |  |
| Published Methodologies should also                           | group. The NZFBF Board provide  |  |
| include information regarding the                             | oversight of this review. Any changes in                                      |  |
| procedures and frequency for external                         | methodology follow the process stated   |  |
| review of the Methodology;                                    | in section 4.2 of the OCRP.   |  |
|   |   |  |
| g) The circumstances and procedures                           | g) As noted in f) and Principle 10.   |  |
| under which the Administrator will                            |   |  |
| consult with Stakeholders, as appropriate;                    |   |  |
| and   |   |  |
|   |   |  |
| h) The identification of potential                            | h) The OCR Compound Index has few   |  |
| limitations of a Benchmark, including its                     | limitations as it is based on the Reserve                                     |  |
| operation in illiquid or fragmented                           | Bank of New Zealand's Official Cash   |  |
| markets and the possible concentration of                     | Rate. This rate is not affected by illiquid                                   |  |
| inputs.   | or fragmented markets.  |  |
| The Administrator should document and                         |   |  |
| Publish or Make Available the                                 | Closing Rates   | b) Closing Rate Operating Guidelines   |
| Methodology used to make Benchmark                            |   | and Principles, and methodology        |
| determinations. The Administrator should                      | Closing Rate determination methodology and                                    | documents                              |
| provide the rationale for adopting a                          | rationale is explained in the Closing Rate                                    |  |
| particular Methodology. The Published                         | Operating Guidelines and Principles (OGP)<br>and the Closing Rate Methodology | The above document is available on the |
| Methodology should provide sufficient                         | and the Closing Rate Methodology<br>documents (CRM) which are publicly        | NZFBF <u>website</u>                   |
| detail to allow Stakeholders to                               | available on the NZFBF website and include                                    |  |
| understand how the Benchmark is derived                       | the following:  |  |
| and to assess its representativeness, its                     |   |  |
| relevance to particular Stakeholders, and                     | a) Key definitions are noted in appendix II                                   |  |
| its appropriateness as a reference for financial instruments. | of the OGP.   |  |
|   |   |  |
| At a minimum, the Methodology should                          |   |  |
| contain:  |   |  |
|   |   |  |
| a) Definitions of key terms;                                  |   |  |
| b) All criteria and procedures used to                        | b) Section 2 of the CRM contains the  |  |
| develop the Benchmark, including input                        | source of the data and the calculation  |  |
| selection, the mix of inputs used to derive                   | methodology used to determine the   |  |
| the Benchmark, the guidelines that                            | Closing Rates. Examples are also  |  |
| control the exercise of Expert Judgment                       | provided for each step of the calculation                                     |  |
| by the Administrator, priority given to                       | process to provide a clearer  |  |
| certain data types, minimum data needed                       | understanding of the calculation  |  |
| to determine a Benchmark, and any                             | methodology.  |  |
| models or extrapolation methods;                              |   |  |
| c) Procedures and practices designed to                       | c) Expert judgement is not used for the                                       |  |
| promote consistency in the exercise of                        | calculation of Closing Rates under  |  |
| Expert Judgment between Benchmark                             | normal market circumstances. If   |  |
| determinations;   | Closing Rates are not available, no   |  |
|   | determination is published. Section 2.8                                       |  |

| above proceedings       above proceedings         brind proceedings       above proceedings         brind proceedings       above proceedings         brind proceeding       above proceeding </th <th>Principle description</th> <th>NZFBF response</th> <th>Relevant documentation</th>  | Principle description  | NZFBF response   | Relevant documentation |
|--|--|--|------------------------|
| Benchmark determination in periods of<br>market stress of disruption, or periods<br>where data sources may be absent (e.g.,<br>theoretical estimation models);       Procedure if NZEPE deems the<br>existence of market stress. In times of<br>stress this allows all data inputs to be<br>used for the calculation of Closing<br>Rates.         e) The procedures for dealing with error<br>reports, including when a revision of a<br>Benchmark would be applicable;       e) Section 5.1 of the OGP contains the<br>Closing Rates policy of restatement.<br>This section hterSiPFs notification<br>process to stakeholders and<br>subscribers         1) Information regarding the frequency for<br>Internal reviews and approvals of the<br>Methodology, Where applicable, the<br>Published Methodologies should also<br>include information regarding the<br>procedures and frequency for external<br>review of the Methodology;       I) Policy requires NZTBF to review Closing<br>Rate methodology on an annual basis,<br>in consultation with the NZTAN's Rates<br>and Credit Markets Committees. The<br>Published Methodology;         g) The circumstances and procedures<br>under which the Administrator will<br>consult with Stakeholders, as appropriate;<br>and       g) As noted in f) and Principle 10.         f) The identification of potential<br>Imitations of a Benchmark, including its<br>operation in liquid of ragmented<br>markets and the possible concentration of<br>inputs.       N As New Zealand's domestic money<br>markets are relatively small in size and<br>given the primary purpose of the<br>Closing Rates are not based on submissions.         The Administrator should clearly establish<br>criteria for including and accluding<br>submitters. The administrator, these criteria should<br>be available to stakeholders. Any relevant Regulatory<br>Authoritis, if any, and Published or Made<br>available to stakeholders. Any revisions<br>related to changes in composition, in<br>ea |  | of the CRM states the Final Stage<br>Methodology, which is implemented<br>on instruction from the Financial<br>Markets Authority and requires the<br>price-makers to provide Expert<br>Judgement.  |                        |
| reports, including when a revision of a       Closing Rates policy of restatement.         Benchmark would be applicable;       This section highlights the process followed, cut-off times for benchmark revision and the NZFBF's notification process to stakeholders and subscribers         f) Information regarding the frequency for internal reviews and approvals of the MATEBF's notification process to stakeholders, and proceeding the proteometant reviews and approvals of the MATEBF sortification regarding the procedures and frequency for external review. In practice reviews Occur more regularly with discussion helds and when issues are raised by price-makers, NZFBF Board provides oversight of this review. In practice reviews occur more regularly with discussion helds and when issues are raised by price-makers, NZFBF Board provides oversight of this review. In practice reviews occur more regularly with discussion helds and when issues are raised by price-makers, NZFBF Board provides oversight of this review. In practice reviews occur more regularly with discussion helds and when issues are raised by price-makers, NZFBF Board provides oversight of this review. In practice reviews occur more regularly with discussion helds and when issues are raised by price-makers, NZFBF Board provides oversight of the association 4.2 of the OGP.         g) The circumstances and procedures under which the Administrator will consult with Stakeholders, as appropriate; and the possible concentration of inputs.       P) As New Zealand's domestic money markets are relatively small in size and given the primary purpose of the Closing Rates is end of day valuation, any incident of filliquidity or fragmented markets is either managed by the process noted in 0 or no Closing rates are published.         Where a Benchmark is based on submissions.       The ORC compound Index   | Benchmark determination in periods of<br>market stress or disruption, or periods<br>where data sources may be absent (e.g.,  | procedure if NZFBF deems the<br>existence of market stress. In times of<br>stress this allows all data inputs to be<br>used for the calculation of Closing   |                        |
| internal reviews and approvals of the<br>Methodology. Where applicable, the<br>Published Methodology is out also<br>include information regarding the<br>procedures and frequency for external<br>review of the Methodology;Rate methodology common<br>methodology is out also<br>include information regarding the<br>more regularly with discussion held as and<br>when issues are raised by price-makers,<br>NZFBF Board provides oversight of this<br>review. In practice reviews occur more<br>regularly with discussion held as and<br>when issues are raised by price-makers,<br>NZFMA committees, stakeholders, or<br>subscribers. Any changes in<br>methodology follow the process stated<br>in section 4.2 of the OGP.g) The circumstances and procedures<br>under which the Administrator will<br>consult with Stakeholders, as appropriate;<br>andg) As noted in f) and Principle 10.h) The identification of potential<br>limitations of a Benchmark, including its<br>operation in illiquid or fragmented<br>markets are relatively small in size and<br>given the primary purpose of the<br>Closing Rates is end of day valuation,<br>any incledent of filliquid yor fragmented<br>markets is either managed by the<br>process noted in 0) or no Closing rates<br>are published.Where a Benchmark is based on<br>submissions, the additional Principle als<br>applies:BKBM is not based on submissions.The Administrator should clearly establish<br>criteria for including and excluding<br>submitter, if na, and Published or Made<br>available to any relevant Regulatory<br>Authorities, if any, and Published or Made<br>available to stakeholders. Any provisions<br>related to changes in composition,<br>including notice periods should be marked in any and published or Made<br>available to stakeholders. Any provisions<br>related to changes in composition,<br>nicluding notice periods should be made   | reports, including when a revision of a  | Closing Rates policy of restatement.<br>This section highlights the process<br>followed, cut-off times for benchmark<br>revision and the NZFBF's notification<br>process to stakeholders and   |                        |
| under which the Administrator will<br>consult with Stakeholders, as appropriate;<br>andh)As New Zealand's domestic money<br>markets are relatively small in size and<br>given the primary purpose of the<br>Closing Rates is end of day valuation,<br>any incident of illiquidity or fragmented<br>markets and the possible concentration of<br>inputs.h)As New Zealand's domestic money<br>markets are relatively small in size and<br>given the primary purpose of the<br>Closing Rates is end of day valuation,<br>any incident of illiquidity or fragmented<br>markets is either managed by the<br>process noted in d) or no Closing rates<br>are published.Where a Benchmark is based on<br>Submissions, the additional Principle also<br>applies:BKBM is not based on submissions.The Administrator should clearly establish<br>criteria for including and excluding<br>Submitters. The criteria should consider<br>any issues arising from the location of the<br>Submistient, if in a different jurisdiction to<br>the Administrator. These criteria should<br>be available to any relevant Regulatory<br>Autorities, if any, and Published or Made<br>Available to Stakeholders. Any provision,<br>including notice periods should be madeClosing Rates are not based on submissions.   | internal reviews and approvals of the<br>Methodology. Where applicable, the<br>Published Methodologies should also<br>include information regarding the<br>procedures and frequency for external   | Rate methodology on an annual basis,<br>in consultation with the NZFMA's Rates<br>and Credit Markets Committees. The<br>NZFBF Board provides oversight of this<br>review. In practice reviews occur more<br>regularly with discussion held as and<br>when issues are raised by price-makers,<br>NZFMA committees, stakeholders, or<br>subscribers. Any changes in<br>methodology follow the process stated |                        |
| limitations of a Benchmark, including its<br>operation in illiquid or fragmented<br>markets and the possible concentration of<br>inputs.markets are relatively small in size and<br>given the primary purpose of the<br>Closing Rates is end of day valuation,<br>any incident of illiquidity or fragmented<br>markets is either managed by the<br>process noted in d) or no Closing rates<br>are published.Where a Benchmark is based on<br>Submissions, the additional Principle also<br>applies:BKBM is not based on submissions.The Administrator should clearly establish<br>criteria for including and excluding<br>Submitters. The criteria should consider<br>any issues arising from the location of the<br>Submistator. These criteria should<br>be available to any relevant Regulatory<br>Authorities, if any, and Published or Made<br>Available to Stakeholders. Any provisions<br>related to changes in composition,<br>including notice periods should be madeBKBM is not based on submissions.  | under which the Administrator will consult with Stakeholders, as appropriate;  | g) As noted in f) and Principle 10.  |                        |
| Submissions, the additional Principle also<br>applies:The OCR Compound Index is not based on<br>submissions.The Administrator should clearly establish<br>criteria for including and excluding<br>Submitters. The criteria should consider<br>any issues arising from the location of the<br>Submitter, if in a different jurisdiction to<br>the Administrator. These criteria should<br>be available to any relevant Regulatory<br>Authorities, if any, and Published or Made<br>Available to Stakeholders. Any provisions<br>related to changes in composition,<br>including notice periods should be madeThe OCR Compound Index is not based on<br>submissions.   | limitations of a Benchmark, including its<br>operation in illiquid or fragmented<br>markets and the possible concentration of  | markets are relatively small in size and<br>given the primary purpose of the<br>Closing Rates is end of day valuation,<br>any incident of illiquidity or fragmented<br>markets is either managed by the<br>process noted in d) or no Closing rates   |                        |
|  | Submissions, the additional Principle also<br>applies:<br>The Administrator should clearly establish<br>criteria for including and excluding<br>Submitters. The criteria should consider<br>any issues arising from the location of the<br>Submitter, if in a different jurisdiction to<br>the Administrator. These criteria should<br>be available to any relevant Regulatory<br>Authorities, if any, and Published or Made<br>Available to Stakeholders. Any provisions<br>related to changes in composition,<br>including notice periods should be made | The OCR Compound Index is not based on submissions.  |                        |

| Drinciple description  |  | Polovant documentation  |
|--|--|---|
| Principle description<br>12.Changes to the Methodology   | NZFBF response   | Relevant documentation  |
| <ul> <li><b>12.Changes to the Methodology</b></li> <li><b>An</b> Administrator should Publish or Make</li> <li>Available the rationale of any proposed<br/>material change in its Methodology, and<br/>procedures for making such changes.</li> <li>These procedures should clearly define<br/>what constitutes a material change, and<br/>the method and timing for consulting or<br/>notifying Subscribers (and other<br/>Stakeholders where appropriate, taking<br/>into account the breadth and depth of the<br/>Benchmark's use) of changes.</li> <li>Those procedures should be consistent<br/>with the overriding objective that an<br/>Administrator must ensure the continued<br/>integrity of its Benchmark determinations.</li> <li>When changes are proposed, the<br/>Administrator should specify exactly what<br/>these changes entail and when they are<br/>intended to apply.</li> <li>The Administrator should specify how<br/>changes to the Methodology will be<br/>scrutinized, by the oversight function.</li> <li>The Administrator should develop<br/>Stakeholder consultation procedures in<br/>relation to changes to the Methodology<br/>that are deemed material by the oversight<br/>function, and that are appropriate and<br/>proportionate to the breadth and depth<br/>of the Benchmark's use and the nature of<br/>the Stakeholders. Procedures should:<br/>a) Provide advance notice and a clear<br/>timeframe that gives Stakeholders<br/>sufficient opportunity to analyse and<br/>comment on the impact of such proposed<br/>material changes, having regard to the<br/>Administrator's assessment of the overall<br/>circumstances; and<br/>b) Provide for Stakeholders' summary<br/>comments, and the Administrator's<br/>summary response to those comments, to<br/>be made accessible to all Stakeholders<br/>after any given consultation period,<br/>except where the commenter has<br/>requested confidentiality.</li> </ul> | <ul> <li>NZFBF considers that it complies with this principle.</li> <li>NZFBF, in consultation with the NZFMA's Rates and Credit Market Committees, and the NZFBF Board, will publish or make available the rationale of any proposed material change in its BKBM, OCR Compound Index or Closing Rates Methodology as stated in section 4.2 of the BKBM Operating Rules and Principles and Closing Rates Operating Guidelines and Principles. 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.</li> <li>The BKBM Operating Rules and Principles. OCR Compound Index Methodology and Closing Rate Operating Guidelines and Principles also include the following:</li> <li>a) Material changes to the methodology are communicated to subscribers and stakeholders via a consultation with adequate time for response, typically four to six weeks.</li> <li>b) Following the consultation's close NZFBF, in consultation with the NZFMA's Rates and Credit Market Committees and/or a NZFBF Working Group, consider the feedback. A summary of the feedback, anonymised, and proposed next steps would be published to all stakeholders and subscribers, for further comment before a final decision is recommended to the NZFBF Board for ratification.</li> <li>A market notice is distributed to all stakeholder outlining the change to the methodology, why this change has been undertaken, and the</li> </ul> | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul>   |
| 13.Transition  | implementation date.   |   |
| Administrators should have clear written<br>policies and procedures, to address the<br>need for possible cessation of a<br>Benchmark, due to market structure<br>change, product definition change, or any<br>other condition which makes the<br>Benchmark no longer representative of its<br>intended Interest. These policies and<br>procedures should be proportionate to<br>the estimated breadth and depth of<br>contracts and financial instruments that<br>reference a Benchmark and the economic<br>and financial stability impact that might<br>result from the cessation of the<br>Benchmark. The Administrator should<br>take into account the views of<br>Stakeholders and any relevant Regulatory<br>and National Authorities in determining  | <ul> <li>NZFBF considers that it complies with this principle.</li> <li>The policy for the benchmark's cessation is included in the BKBM Operating Rules and Principles (ORP), the OCR Compound Index Operating Principles and Methodology and the Closing Rate Methodology documents.</li> <li>The policy notes:         <ul> <li>The factors which may lead to cessation of the benchmark, such as the benchmark no longer being representative or being unable to source input data;</li> <li>Notification to stakeholders and subscribers of the benchmark, including Regulatory Authorities;</li> <li>The content of that notification;</li> </ul> </li> </ul>  | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website |

| Principle description   | NZFBF response   | Relevant documentation  |
|---|--|---|
| what policies and procedures are<br>appropriate for a particular Benchmark.<br>These written policies and procedures<br>should be Published or Made Available to<br>all Stakeholders.<br>Administrators should encourage<br>Subscribers and other Stakeholders who<br>have financial instruments that reference<br>a Benchmark to take steps to make sure<br>that:  | <ul> <li>The notice period; and,</li> <li>The steps taken by NZFBF if it can<br/>no longer continue to act as the<br/>Benchmark Administrator.</li> </ul>  |   |
| a) Contracts or other financial instruments<br>that reference a Benchmark, have robust<br>fall-back provisions in the event of<br>material changes to, or cessation of, the<br>referenced Benchmark; and  | a) The Official Cash Rate (OCR) is the fall-<br>back benchmark interest rate for<br>BKBM. The fallback rate is<br>administered and published by<br>Bloomberg who calculate a term risk<br>free rate in arrears and add a credit<br>spread. Bloomberg was appointed by<br>ISDA who published a fall-back<br>protocol for legacy derivative<br>transactions, as well as a fall-back<br>supplement for new derivative<br>transactions in December 2021.   | The RBNZ's announcement supporting<br>the OCR as the fall-back on 28 January<br>2020 can be found <u>here</u><br>ISDA's December 2021 announcement<br>can be found <u>here</u>  |
| b) Stakeholders are aware of the<br>possibility that various factors, including<br>external factors beyond the control of the<br>Administrator, might necessitate material<br>changes to a Benchmark.   | <ul> <li>b) The ORP, OCR Compound Index<br/>Operating principles and Methodology<br/>and the Closing Rate Operating<br/>Guidelines and Principles (section 3.5)<br/>defines the various external factors<br/>beyond the NZFBF's control that might<br/>necessitate material changes to the<br/>benchmark. These could include:</li> <li>Structural changes in the market used<br/>to set the benchmark;</li> <li>The non-functioning of that market;<br/>and,</li> <li>Any other external changes, which<br/>may mean the benchmark is no longer<br/>representative.</li> </ul>  | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website |
| Administrators' written policies and<br>procedures to address the possibility of<br>Benchmark cessation could include the<br>following factors, if determined to be<br>reasonable and appropriate by the<br>Administrator:<br>a) Criteria to guide the selection of a<br>credible, alternative Benchmark such as,<br>but not limited to, criteria that seek to<br>match to the extent practicable the<br>existing Benchmark's characteristics (e.g.,<br>credit quality, maturities and liquidity of<br>the alternative market), differentials<br>between Benchmarks, the extent to which<br>an alternative Benchmark meets the<br>asset/liability needs of Stakeholders,<br>whether the revised Benchmark is<br>investable, the availability of transparent<br>transaction data, the impact on<br>Stakeholders and impact of existing<br>legislation; | c) If BKBM or the Closing rates were deemed<br>to be no longer representative be that by the<br>NZFBF, the NZFBF Board, the NZFMA Board,<br>or a Regulatory Authority, NZFBF in<br>consultation with an appointed working<br>group would consider alternative rates. The<br>following issues would be considered; the<br>intended use of the benchmark, similarities<br>with the current benchmark, the depth of<br>the market relative to the benchmarks<br>intended use, how the benchmark would be<br>set and how an orderly transition could be<br>achieved. The working group would consider<br>several options and consult with Regulatory<br>Authorities, stakeholders and subscribers. | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website |
| b) The practicality of maintaining parallel<br>Benchmarks (e.g., where feasible,<br>maintain the existing Benchmark for a<br>defined period of time to permit existing  | d) to e) The process noted above would also<br>consider how long the current benchmark<br>could continue. This would include:  |   |

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| Principle description  | NZFBF response   | Relevant documentation  |
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| <ul> <li>Principle description</li> <li>contracts and financial instruments to mature and publish a new Benchmark) in order to accommodate an orderly transition to a new Benchmark;</li> <li>c) The procedures that the Administrator would follow in the event that a suitable alternative cannot be identified;</li> <li>d) In the case of a Benchmark or a tenor of a Benchmark that will be discontinued completely, the policy defining the period of time in which the Benchmark will continue to be produced in order to permit existing contracts to migrate to an alternative Benchmark if necessary; and</li> <li>e) The process by which the Administrator will engage Stakeholders and relevant Market and National Authorities, as appropriate, in the process for selecting and moving towards an alternative Benchmark, including the timeframe for any such action commensurate with the</li> </ul>   | <ul> <li>NZFBF response</li> <li>Input from the price-makers;</li> <li>The Benchmark Administrators ability to continue in that role; and,</li> <li>Any consultation and instruction from the Financial Markets Authority (FMA) that provides further guidance on next steps. The FMA administers an opt-in licensing regime for benchmark administrators that was introduced in 2022. The licensing regime provides the FMA with powers to ensure the Benchmark Administrator has sufficient capital to continue operating and to compel pricemakers to provide expert opinion so the current benchmark can continue for a period of time.</li> </ul> | Relevant documentation  |
| <ul> <li>any such action commensurate with the tenors of the financial instruments referencing the Benchmarks and the adequacy of notice that will be provided to Stakeholders.</li> <li><b>14.Submitter Code of Conduct</b></li> <li>Where a Benchmark is based on Submissions, the following additional Principle also applies:</li> <li>The Administrator should develop guidelines for Submitters ("Submitter Code of Conduct"), which should be available to any relevant Regulatory Authorities, if any and Published or Made Available to Stakeholders.</li> <li>The Administrator should only use inputs or Submissions from entities which adhere to the Submitter Code of Conduct and the Administrator should appropriately monitor and record adherence from Submitters. The Administrator should require Submitter Code of Conduct and the Submitter Code of Conduct and the Administrator should require Submitters to confirm adherence to the Submitter. The Administrator should require Submitter Code of Conduct annually and whenever a change to the Submitter Code of Conduct has occurred.</li> </ul> | <ul> <li>The outcome of this process would be communicated to stakeholders and subscribers, via market notice, with sufficient time for an orderly transition as agreed by the NZFBF Board, Regulatory Authorities, and other stakeholders.</li> <li>NZFBF considers that this principle does not apply.</li> <li>The benchmark determination process is not based on submissions, so this principle does not apply.</li> </ul>  | <ul> <li>BKBM Operating Rules and<br/>Principles</li> <li>OCR Compound Index<br/>Operating Principles and<br/>Methodology</li> <li>Closing Rate Operating<br/>Guidelines and Principles,<br/>and methodology documents</li> </ul> The above documents are available on<br>the NZFBF website |
| review and oversight of the Submitter<br>Code of Conduct.<br>The Submitter Code of Conduct should<br>address:<br>a) The selection of inputs;<br>b) Who may submit data and information<br>to the Administrator;<br>c) Quality control procedures to verify the<br>identity of a Submitter and any<br>employee(s) of a Submitter who report(s)<br>data or information and the authorization   |  |   |

| Principle description  | NZFBF response  | Relevant documentation               |
|--|---|--------------------------------------|
| 15. Internal Controls over Data Collection                                     | NIZEDE considere that is consulted with this  |                                      |
| When an Administrator collects data from any external source the Administrator | NZFBF considers that it complies with this principle.                                     | BKBM Operating Rules and             |
| should ensure that there are appropriate                                       | principie.  | Principles                           |
| internal controls over its data collection                                     | The NZFBF's internal controls regarding data  | OCR Compound Index                   |
| and transmission processes. These  | collection and transmission processes are   | Operating Principles and             |
| controls should address the process for  | documented in the NZdata System Technical   | Methodology                          |
| selecting the source, collecting the data                                      | Overview, the Bloomberg API Reference, and  | Closing Rate Operating               |
| and protecting the integrity and   | the Comprehensive Overview document.  | Guidelines and Principles,           |
| confidentiality of the data. Where<br>Administrators receive data from         | The NZdata System collects data using the   | and methodology documents            |
| employees of the Front Office Function,  | Bloomberg Server API (SAPI) system and via  | The above documents are available on |
| the Administrator should seek  | a public facing website. The Bloomberg  | the NZFBF website                    |
| corroborating data from other sources.   | Server API system consists of an on-premises  |                                      |
|  | application (feed handler) which connects   | NZdata System Technical              |
|  | securely to Bloomberg's "Zero Footprint"  | Overview                             |
|  | Cloud Data Centre.  | Bloomberg API Reference              |
|  | The NZdata system features a feed handler   | Comprehensive Overview               |
|  | that makes secure API calls to the Bloomberg  | Document                             |
|  | Cloud to authenticate and fulfil the requests.  |                                      |
|  | The data returned from the Bloomberg  |                                      |
|  | Cloud is then processed and stored in an SQL  |                                      |
|  | database hosted on the same server as the   |                                      |
|  | NZdata System.  |                                      |
|  | Once the data is collected it is made   |                                      |
|  | available to the helpdesk, via market   |                                      |
|  | monitors on the NZdata website. Only users  |                                      |
|  | with active accounts, secure passwords and  |                                      |
|  | sufficient permissions can view the collected   |                                      |
|  | data.   |                                      |
|  | For BKBM, data that is captured from  |                                      |
|  | brokers via the website is verified against the   |                                      |
|  | data supplied via emails from the same  |                                      |
|  | brokers to the helpdesk email account. Any  |                                      |
|  | discrepancies are followed up directly with<br>the broker. If the data captured via the   |                                      |
|  | website is found to be incorrect then the   |                                      |
|  | helpdesk makes an adjustment for this   |                                      |
|  | before the benchmark is calculated. NZdata  |                                      |
|  | logs any manual intervention by the   |                                      |
|  | administrator. If the error is found to be in   |                                      |
|  | the broker's email, then that broker must   |                                      |
|  | send another email containing the correct data.   |                                      |
|  |   |                                      |
|  | For OCR Compound Index, the NZdata  |                                      |
|  | system subscribes directly to the Reserve   |                                      |
|  | Bank of New Zealand's OCR tickers via   |                                      |
|  | Bloomberg's Server API. The NZdata system   |                                      |
|  | uses both the RBNZ's OCR tickers, one which<br>updates each morning, daily, and the other |                                      |
|  | that updates immediately after the OCR  |                                      |
|  | announcement. The NZdata system will use  |                                      |
|  | the rate which was most recently updated.   |                                      |
|  | The timing of the OCR Compound Index  |                                      |
|  | calculation and publication, and that of the  |                                      |
|  | OCR announcements allows a few hours, if not days and weeks, to verify the correct        |                                      |
|  | rate OCR used in the daily calculation. If the  |                                      |
|  | data is not available from Bloomberg, then  |                                      |
|  | the previous day's rate is used. Should the   |                                      |
|  | OCR rate change and not be available on the   |                                      |
|  | day then the new rate can be manually   |                                      |
|  |   |                                      |
|  | added to the calculation by the systems administrator.                                    |                                      |

| Principle description | NZFBF response   | Relevant documentation |
|-----------------------|--|------------------------|
|                       | For Closing Rates, the NZdata system   |                        |
|                       | completes several pre-close checks of the  |                        |
|                       | data-inputs as stated in the Closing Rate  |                        |
|                       | Methodologies (e.g., stale rates), which is  |                        |
|                       | designed to exclude data inputs that are   |                        |
|                       | outside a pre-defined bid/offer range. For those data inputs that are outside the pre-                           |                        |
|                       | set bid/offer an automatically generated   |                        |
|                       | email will be sent by the system to the  |                        |
|                       | relevant price-maker/s as a notification to  |                        |
|                       | ensure their prices on Bloomberg are up to   |                        |
|                       | date. The price-maker can then, at their   |                        |
|                       | discretion, determine if they need to take   |                        |
|                       | any action. This process is important, given   |                        |
|                       | the small size of New Zealand's financial<br>markets, to ensure accurate and sufficient                          |                        |
|                       | data inputs are included and the Closing   |                        |
|                       | Rate process is robust. NZdata system  |                        |
|                       | retains all the records of this process  |                        |
|                       | indefinitely.  |                        |
|                       | and the second |                        |
|                       | The server on which the NZdata System  |                        |
|                       | resides can only be accessed by authorised administrators, namely the IT Manager and                             |                        |
|                       | the CIO of our IT service provider and has an  |                        |
|                       | internal firewall that only allows remote  |                        |
|                       | desktop sessions (for authorised admins),  |                        |
|                       | website access and vendor connections.   |                        |
|                       | Only authorised IP addresses are allowed to  |                        |
|                       | connect to the Vendor Feed with each   |                        |
|                       | vendor assigned a specific port per<br>connection. Any connections from  |                        |
|                       | unauthorised IP addresses are dropped.   |                        |
|                       |  |                        |
|                       | The NZdata server is secured using a   |                        |
|                       | combination of hardware and software   |                        |
|                       | firewalls with access controlled on a per user   |                        |
|                       | basis. Only the authorised personnel from the hosting provider and the helpdesk have                             |                        |
|                       | full remote access to the NZdata server and  |                        |
|                       | only from authorised premises (specific IP   |                        |
|                       | addresses).  |                        |
|                       |  |                        |
|                       | The server software is kept up to date via   |                        |
|                       | regular automatic updates as supplied by the   |                        |
|                       | software vendors and applied on a weekly basis or as vulnerabilities are identified and                          |                        |
|                       | notified. All updates can be rolled back in  |                        |
|                       | case of unexpected outcomes.   |                        |
|                       |  |                        |
|                       | The NZdata website is only accessible via  |                        |
|                       | HTTPS protocol which is secured using a  |                        |
|                       | certificate which is renewed every 3 months.   |                        |
|                       | This protects any data or communications between the user and the server.  |                        |
|                       |  |                        |
|                       | Physical access to the server room on the  |                        |
|                       | hosts premises is allowed only for authorised  |                        |
|                       | persons. The NZdata server resides on a  |                        |
|                       | separate network to the NZFMA and NZFBF  |                        |
|                       | office networks. The NZFMA and NZFBF<br>networks are also separated from each other                              |                        |
|                       | using onsite networking equipment.   |                        |
|                       | o ensite networking equipments   |                        |
|                       | The BKBM process is monitored by the   |                        |
|                       | NZFBF team and as such they can see the  |                        |
|                       | volume and yield inputs at the broker  |                        |
|                       | venues, via Bloomberg, and any trading   |                        |
|                       | activity that occurs during the two-minute   |                        |
|                       | 32   |                        |
|                       | New Zealand Financial Benchmark Facility   |                        |

| Principle description  | NZFBF response   | Relevant documentation   |
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|  | window. The BKBM trading-window closes,<br>at 10.22am, the data is collected at 10.23am<br>for each of the benchmarks and is submitted<br>to the NZFMA's NZdata system through<br>secure data collection mechanisms, as noted<br>above.  |  |
|  | The process for the OCR Compound Index<br>involves verifying the vendor screens have<br>updated at 10:41am. The subscriber<br>spreadsheet is also checked daily and there<br>is an end of month reconciliation against<br>NZFBF's test data.   |  |
|  | The process for Closing Rates is similar to<br>BKBM with the final data inputs collected at<br>4:32pm and submitted to the NZFMA's<br>NZdata system through the secure data<br>collection mechanisms noted above.  |  |
|  | Prior to being used to calculate the<br>Benchmarks, the data is validated by NZFBF.<br>This includes ensuring the rules contained in<br>the BKBM Operating Rules and Principles,<br>the OCR Compound Index methodology and<br>the Closing Rate Operating Guidelines and<br>Principles have been adhered to. If any<br>issues arise the NZFBF contact the relevant<br>party/parties.  |  |
| 16 Complaints Procedures   | NZFBF uses the same systems and internal<br>controls as noted above. Additionally, any<br>incidents, error or breaches are reported to<br>the compliance officer and the NZFBF Board.  |  |
| 16.Complaints Procedures<br>The Administrator should establish and<br>Publish or Make Available a written<br>complaints procedures policy, by which  | NZFBF considers that it complies with this principle.  | NZFBF Complaints process   |
| Stakeholders may submit complaints<br>including concerning whether a specific<br>Benchmark determination is<br>representative of the underlying Interest<br>it seeks to measure, applications of the<br>Methodology in relation to a specific<br>Benchmark determination(s) and other<br>Administrator decisions in relation to a<br>Benchmark determination.<br>The complaints procedures policy should:  | NZFBF has a Complaints Process in place for<br>all aspects relating to the benchmarks,<br>methodologies, and determinations. The<br>relevant document is available on the NZFBF<br>website. This document describes the<br>complaints process, including the steps to be<br>taken on receipt of a complaint.   | <ul> <li>The above document is available on the NZFBF website.</li> <li>BKBM Operating Rules and Principles</li> <li>OCR Compound Index Operating Principles and Methodology</li> <li>Closing Rate Operating Guidelines and Principles, and methodology documents</li> </ul> |
| a) Permit complaints to be submitted<br>through a user-friendly complaints<br>process such as an electronic Submission<br>process;   | <ul> <li>a) Complainants can contact either the<br/>General Manager NZFBF, the Chair of<br/>the NZFBF's Board or the CEO, NZFMA<br/>by phone or email.</li> </ul>  | The above documents are available on the NZFBF website   |
| b) Contain procedures for receiving and<br>investigating a complaint made about the<br>Administrator's Benchmark determination<br>process on a timely and fair basis by<br>personnel who are independent of any<br>personnel who may be or may have been<br>involved in the subject of the complaint,<br>advising the complainant and other<br>relevant parties of the outcome of its<br>investigation within a reasonable period<br>and retaining all records concerning<br>complaints; | <ul> <li>b) The complaints process includes details on<br/>the information the complaint needs to<br/>provide, in any form, and the steps the NZFBF<br/>take once a complaint has been received<br/>including timeframes.</li> <li>The document also provides information on<br/>complaining directly to the Financial Markets<br/>Authority if the complainant is unsatisfied<br/>with the outcome of the NZFBF's process or<br/>the complainant wishes to complain directly<br/>to the Financial Markets Authority.</li> </ul> |  |

| Principle description  | NZFBF response  | Relevant documentation  |
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| <ul> <li>c) Contain a process for escalating complaints, as appropriate, to the Administrator's governance body; and</li> <li>d) Require all documents relating to a complaint, including those submitted by the complainant as well as the Administrator's own record, to be retained for a minimum of five years, subject to applicable national legal or regulatory requirements.</li> </ul>  | <ul> <li>c) As noted above complaints can be made to<br/>the Chair of the NZFBF's Board or the<br/>Financial Markets Authority.</li> <li>d) All documentation related to any<br/>complaint will be retained for a minimum of<br/>seven years in line with current New Zealand<br/>standards.</li> </ul>   |   |
| Disputes about a Benchmarking<br>determination, which are not formal<br>complaints, should be resolved by the<br>Administrator by reference to its standard<br>appropriate procedures. If a complaint<br>results in a change in a Benchmark<br>determination, that should be Published<br>or Made Available to Subscribers and<br>Published or Made Available to<br>Stakeholders as soon as possible as set<br>out in the Methodology.   | Section 5.1 of the ORP, OCRP and OGP sets<br>out the parameters for a restatement of a<br>benchmark determination. A market notice<br>will be distributed to stakeholders informing<br>them of this restatement as soon as possible<br>by NZFBF.  |   |
| 17.Audits  | 1   | 1   |
| The Administrator should appoint an independent internal or external auditor with appropriate experience and capability to periodically review and report on the Administrator's adherence to its stated criteria and with the Principles. The frequency of audits should be proportionate to the size and complexity of the Administrator's operations. Where appropriate to the level of existing or potential conflicts of interest identified by the Administrator (except for Benchmarks that are otherwise regulated or supervised by a National Authority other than a relevant Regulatory Authority), an Administrator should appoint an independent external auditor with appropriate experience and capability to periodically review and report on the Administrator's defendence to its stated Methodology. The frequency of audits should be proportionate to the size and complexity of the Administrator's Benchmark operations and the breadth and depth of Benchmark use by Stakeholders. | NZFBF considers that it complies with this<br>principle.<br>NZFBF appoints external auditors for limited<br>assurance that the benchmark,<br>determination process and governance<br>comply with the IOSCO principles (to the<br>extent applicable). The NZFBF Board is<br>responsible for commissioning external<br>reviews and an external audit will be<br>completed as required.<br>NZFBF does not have an internal audit<br>function given its small size but will complete<br>a self-assessment every two years.<br>All audit and assurance reports, including<br>management responses, are reviewed by the<br>NZFBF Board. | <ul> <li>Relevant benchmark<br/>documentation is available<br/>on the NZFBF <u>website.</u></li> <li>NZFBF Board Annual Plan</li> </ul>   |
| <b>18.Audit Trail</b><br>Written records should be retained by the<br>Administrator for five years, subject to<br>applicable national legal or regulatory<br>requirements on:  | NZFBF considers that it complies with this<br>principle.<br>NZFBF maintain all records related to the<br>benchmarks for seven years. This<br>information is freely available to the<br>Financial Markets Authority<br>either via the website or on request.   | <ul> <li>Relevant benchmark<br/>documentation is available<br/>on the NZFBF website.</li> <li>The NZdata Technical<br/>Overview document details<br/>how backups are synced daily<br/>and stored on to the server.</li> </ul> |
| a) All market data, Submissions and any<br>other data and information sources relied<br>upon for Benchmark determination;  | <ul> <li>All data used to calculate the<br/>benchmarks including the data scraped<br/>from Broker pages and the brokers</li> </ul>  | The data includes:<br>o All market data<br>and any other  |

| Principle description  | NZFBF response  | Relevant documentation   |
|--|---|--|
|  | confirmation emails which are retained for seven years.   | data and<br>information<br>sources relied  |
| b) The exercise of Expert Judgment made<br>by the Administrator in reaching a<br>Benchmark determination;  | b) Expert Judgement is not used in the<br>determination of the benchmarks. Any<br>manual intervention by the benchmark<br>administrator in the benchmark<br>determination process, to for example<br>correct data inputs, is logged in the<br>NZdata system, and noted in the<br>compliance report. The logs are<br>retained for seven years. | upon for<br>Benchmark<br>determination,<br>and<br>○ Other changes in<br>or deviations from<br>standard<br>procedures and<br>Methodologies,<br>including those<br>made during |
| c) Other changes in or deviations from<br>standard procedures and Methodologies,<br>including those made during periods of<br>market stress or disruption;   | c) Any changes to standard procedures<br>are recorded as noted above, and an<br>Incident Report is written. This report is<br>shared with the NZFBF Board and will<br>be made available to Regulatory<br>Authorities on request. Records are<br>retained for seven years.   | periods of market<br>stress or<br>disruption.<br>• Email<br>correspondence   |
| d) The identity of each person involved in producing a Benchmark determination; and  | <ul> <li>d) The system logs and reporting noted<br/>above provides information on the<br/>identity of all participants in the<br/>benchmark determination process.</li> </ul>   |  |
| e) Any queries and responses relating to<br>data inputs.   | <ul> <li>e) NZFBF retains all correspondence in<br/>relation to queries regarding<br/>benchmark data inputs for seven years.<br/>This includes relevant phone<br/>conversations and email trails.</li> </ul>  |  |
| If these records are held by a Regulated<br>Market or Exchange the Administrator<br>may rely on these records for compliance<br>with this Principle, subject to appropriate<br>written record sharing agreements.  | This is not applicable.   |  |
| When a Benchmark is based on<br>Submissions, the following additional<br>Principle also applies:   | BKBM, OCR Compound Index and Closing<br>Rates are not based on submissions.   | <ul> <li>Relevant benchmark<br/>documentation is available<br/>on the NZFBF <u>website.</u></li> </ul>   |
| Submitters should retain records for five<br>years subject to applicable national legal<br>or regulatory requirements on:<br>a) The procedures and Methodologies<br>governing the Submission of inputs;<br>b) The identity of any other person who<br>submitted or otherwise generated any of<br>the data or information provided to the<br>Administrator;<br>c) Names and roles of individuals<br>responsible for Submission and<br>Submission oversight;<br>d) Relevant communications between<br>submitting parties;<br>e) Any interaction with the Administrator;<br>f) Any queries received regarding data or<br>information provided to the<br>Administrator;<br>g) Declaration of any conflicts of interests<br>and aggregate exposures to Benchmark<br>related instruments;<br>h) Exposures of individual traders/desks<br>to Benchmark related instruments in<br>order to facilitate audits and |   |  |

| Principle description   | NZFBF response   | Relevant documentation   |
|---|--|--|
| <ul> <li>i) Findings of external/internal audits,<br/>when available, related to Benchmark</li> <li>Submission remedial actions and progress<br/>in implementing them.</li> </ul>   |  |  |
| 19. Cooperation with Regulatory<br>Authorities<br>Relevant documents, Audit Trails and<br>other documents subject to these<br>Principles shall be made readily available<br>by the relevant parties to the relevant<br>Regulatory Authorities in carrying out<br>their regulatory or supervisory duties and<br>handed over promptly upon request. | NZFBF considers that it complies with this<br>principle.<br>NZFBF maintain a co-operative relationship<br>with the Financial Markets Authority and New<br>Zealand's Central Bank, the Reserve Bank of<br>New Zealand (RBNZ). Documents relating to<br>methodology and calculation of BKBM, OCR<br>Compound Index and Closing Rates are<br>publicly available on the NZFBF's website. The<br>RBNZ have a representative on the NZFBF<br>Board, in an observer role.<br>NZFBF and the NZFBF Board work closely with<br>the Financial Markets Authority and other<br>Government agencies on all benchmark<br>related issues. NZFBF will make information<br>available either via its website, or on request,<br>to the relevant authorities within strict<br>timeframes. NZFBF plan to become a<br>Financial Markets Authority Licenced<br>Benchmark Administrator in 2023. | <ul> <li>Relevant governance and<br/>benchmark documentation is<br/>available on the NZFBF<br/>website.</li> </ul> |