Bank Bill Benchmark Rate (BKBM)

Consultation One: Viable Replacement Options

26 June 2023 – Submissions due 18 August 2023

V7

NEW ZEALAND FINANCIAL BENCHMARK FACILITY

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PART ONE: INTRODUCTION

Background

New Zealand Financial Markets Association (NZFMA), as benchmark owner, and its subsidiary New Zealand Financial Benchmark Facility Limited (NZFBF), as benchmark administrator, are evaluating options for establishing a new interest rate benchmark as a potential replacement to BKBM.

NZFBF formed the BKBM Working Group in 2022, consisting of BKBM price-makers and benchmark users, to explore whether a suitable replacement benchmark might be developed that will comply with the Financial Markets Authority's (FMA) regulations for Benchmark Administrators (FMC Regulations 2014; Schedule 28) and align with the International Organization of Securities Commissions (IOSCO) Principles for Financial Benchmarks and global benchmark developments.

The drivers for this initiative are:

- **I.** Traded volumes in the BKBM rate-set window have been in gradual decline for several years, increasing the requirement to use executable bids and offers in the BKBM determination process. While this practice is consistent with the IOSCO Principles for Financial Benchmarks, the reduction in transaction volumes is not desirable.
- **II.** Internationally, many jurisdictions, including the US and the UK, have moved to overnight risk-free or near risk-free benchmark rates which are determined using a market that has large transaction volumes. While New Zealand's interest rate markets are smaller than their international counterparts, New Zealand would ideally have an interest rate benchmark that has higher transaction volumes underpinning the determination of the benchmark than those currently seen in BKBM. There might be merit in any new benchmark aligning with the new risk-free or near risk-free benchmarks that have been implemented in other key jurisdictions.

No decision has been made at this point regarding cessation of BKBM. The current focus is on exploring what viable replacement benchmarks might be available, with this consultation forming part of the process.

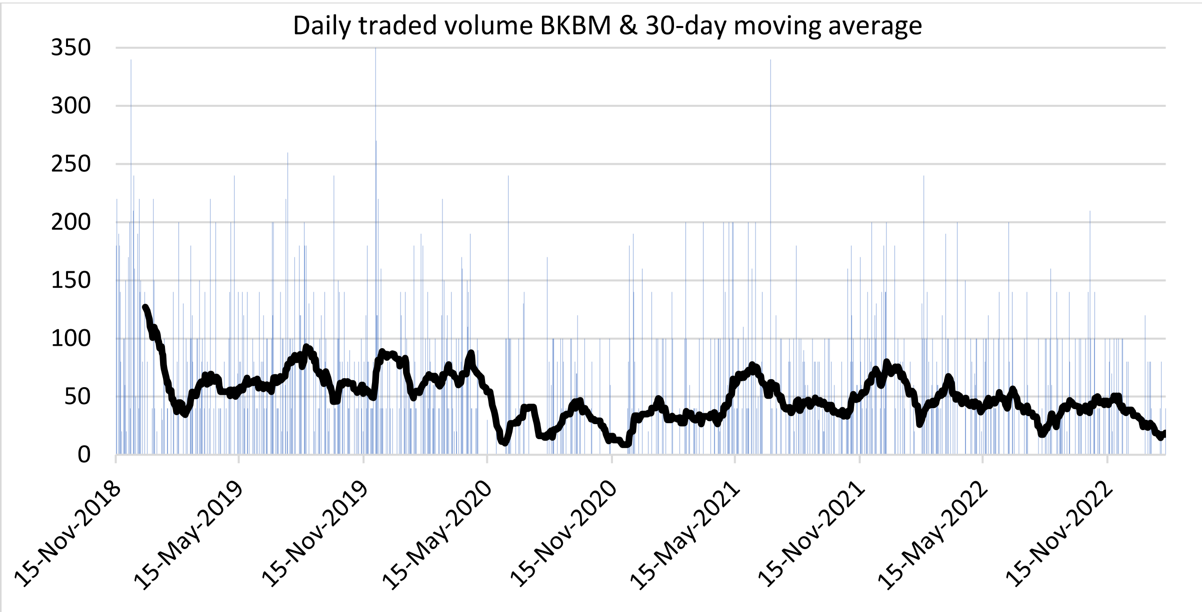
NZFBF intends to conduct two rounds of consultation on this matter. This first consultation provides background on BKBM, recent international benchmark developments and benchmark criteria. It highlights the potential options that have been identified, those that are considered possible viable replacements, and those options that have been discarded. The second consultation will provide summary feedback from the first consultation and seek submissions on any recommended option/s identified.

More information on the second consultation's content and timing can be found in Part Three: Next Steps.

BKBM

BKBM – represents the mid-rates (FRA or average) for prime bank eligible securities[1] that are traded in the local New Zealand market. BKBM represents the rates at which banks are willing borrow from, or lend to, one another for terms of one to six months. As such the rate includes a credit premium to the comparable risk-free interest rate curve.

Over the past 10 years, there has been a gradual decline in, not only the number of transactions occurring during the BKBM rate-set window, but also the volumes transacted in the rate-set window, as noted above. This requires increased usage of executable bids and/or offers to ensure that BKBM rates are set daily. While these executable bids/offers are consistent with the IOSCO Principles for Financial Benchmarks internationally, and FMA regulations locally, the application of this method to determine the benchmark is further down the calculation waterfall than traded volumes, signalling that ideally there should be less reliance on this method to calculate the benchmark rate. The graph below gives an indication of the decline in daily traded volumes over the past 5 years.



It is important to note that this document does not constitute a public statement or publication of information that BKBM has ceased, or will cease, permanently or indefinitely.

[1] The criteria for prime bank securities can be found in section 6.3 of the BKBM Operating Rules and Principles.

NZFBF, as the benchmark administrator of BKBM, will consult with all stakeholders including the NZFMA (benchmark owner), the FMA and Reserve Bank of New Zealand (RBNZ) before any decision is made to cease BKBM.

Other entities within New Zealand, such as the FMA or the RBNZ, can invoke the cessation of BKBM if they believe NZFBF is not able to calculate and publish BKBM and/or BKBM is no longer representative. If this were to occur prior to a replacement benchmark being introduced, BKBM users would need to ensure that they have robust fall-back provisions in place. The current ISDA fall-back benchmark for BKBM is the RBNZ's Official Cash Rate (OCR), with a term benchmark calculated by Bloomberg.

There is a general expectation that if BKBM were to cease, the bank bill market would continue to operate as a funding and investment product.

Question number	***Question***
1.	*Do you agree that it should be ascertained whether a viable replacement benchmark exists to potentially replace BKBM? Please provide an explanation.*
2.	*What is your view on the future of BKBM? Please provide an explanation.*
3.	*If you believe BKBM should be retained, on what basis should this occur (e.g., as the benchmark for most products or for certain products only)? Please provide an explanation.*
4.	*If BKBM is retained, how can the benchmark be improved to address the issues noted above? Would your organisation support the BKBM rate-set process? Please provide an explanation.*

International Benchmark Developments and Reform

Following the LIBOR scandal in the mid-2010s, central banks globally began to reform benchmark rates to restore integrity. This has led to, in many cases, a transition away from LIBOR, towards the use of risk-free or near risk-free rates and transactional based rate-sets.

Countries such as the US and UK have reformed key interest rate benchmarks. These benchmarks were initially developed from an ISDA requirement to identify and detail fall-back benchmark rates for the relevant LIBOR benchmarks. These benchmarks then transitioned to become the underlying benchmark for derivatives as LIBOR has been phased out. The table below identifies the new benchmark rates in each jurisdiction, as well as some of the features of these new rates:

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	USA	UK
Reference Rate	Secured Overnight Financing Rate (SOFR)	Reformed Sterling Overnight Index Average (SONIA)
Description	Repo transactions in the Broad General Collateral Rate data plus bilateral Treasury repo transactions	Actual transactions including overnight unsecured transactions negotiated bilaterally as well as those arranged by brokers. Sonia is a near risk-free rate where credit, liquidity and other risks are minimal.
Type of Rate	Secured	Unsecured
Term	Overnight	Overnight
Publication Time	Following Business Day 8:00am	Following Business Day 9:00am
Calculation Methodology	Volume-weighted median of transaction-level tri-party repo data as well as GCF Repo transaction data and data on bilateral Treasury repo transactions.	Volume-weighted Trimmed Mean – Excluding the highest and lowest 25% by volume of transactions

Since the introduction of these overnight risk-free or near risk-free benchmarks, forward looking term markets have been developed for some products, most notably cash products. In the US, for example, CME has developed a Term SOFR benchmark in consultation with the Alternative Reference Rate Committee (ARRC)[2]. SOFR was first published in April 2018, with USD LIBOR 1-, 3-, and 6-month tenors ceasing June 2023. The CME Term SOFR benchmark is based on transaction data from thirteen consecutive SR1 futures (1-month CME SOFR futures contracts) and five consecutive quarterly SR3 futures (3-month CME SOFR futures contracts) using Volume Weighted Average Prices (VWAP) calculated using transaction prices observed during several observation intervals throughout the trading day. The futures contracts used to determine Term SOFR markets developed following the introduction of the Overnight SOFR benchmark. The first Term SOFR benchmark was published in July 2021.

These reformed benchmark rates in other jurisdictions might offer a framework for how New Zealand, and NZFBF, could develop a replacement for the BKBM benchmark including identifying the features the potential replacement benchmark might contain. A further consideration is global consistency and the extent to which potential consistency, across both products and jurisdictions (currencies) will help promote liquidity, ease system (process) changes, promote a more efficient financial system and facilitate an easier transition to risk-free rates.

Question number	*Question*
5.	*If a viable replacement for BKBM is identified as a result of this consultation, should this be aligned as the fall-back rate for BKBM, even if*

[2] ARRC is a group of private-market participants convened by the Federal Reserve Board and the New York Fed to help ensure a successful transition from U.S. dollar (USD) LIBOR to a more robust reference rate, its recommended alternative, the Secured Overnight Financing Rate (SOFR). The ARRC is comprised of a diverse set of private-sector entities that have an important presence in markets affected by USD LIBOR and a wide array of official-sector entities, including banking and financial sector regulators, as ex-officio members.

	it necessitates a change to the existing ISDA defined fall-back arrangements (i.e., the OCR)? Please provide an explanation.

Criteria applied to determine viable options.

NZFBF, as benchmark administrator, aims to comply with New Zealand legislation, namely the Financial Markets Authority's (FMA) benchmark administrator licencing regime (FMC Regulations 2014 – Schedule 28) and align with the IOSCO Principles for Financial Benchmarks (to the extent applicable).

New Zealand legislative criteria

There are certain criteria in New Zealand legislation that a financial benchmark needs to meet, and these criteria will necessarily contribute to determining any possible BKBM viable replacement options. For example, the definition of "financial benchmark" in the Financial Markets Conduct Act 2013 is:

"…a price, estimate, rate, index, or value that is—

(a) referenced or otherwise used for purposes that include 1 or more of the following:

(i)calculating the interest, or other amounts, payable under financial products or other securities:

(ii)calculating the price at which a financial product or other security may be traded, redeemed, or dealt in:

(iii)calculating the value of a financial product or other security:

(iv)measuring the performance of a financial product or other security; and

(b)made available to users (whether or not for a fee); and

(c)generated periodically from 1 or more—

(i)transactions, instruments, currencies, prices, estimates, rates (including an interest rate or exchange rate), indices, values, financial products or other securities; or

(ii)other interests or property (whether tangible or intangible).

A **financial benchmark** does not include any price, estimate, rate, index, or value that is excluded (whether by class or in a particular case) by the regulations."

A further example is in the Financial Markets Conduct Regulations 2014 where, for the purposes of a licensed Benchmark Administrator of a specified financial benchmark, there is stated criteria that a specified financial benchmark must satisfy. It needs to be designed to be an accurate and reliable representation of the state of affairs that it is intended to represent, and generated in a manner that maintains the accuracy, integrity, reliability and continued availability of the benchmark, and does not adversely affect the integrity of any market connected with the benchmark. Further, the specified financial benchmark should be based on active market data if suitable active market data is available.

IOSCO Principles for Financial Benchmarks

IOSCO's Principles for Financial Benchmarks (Principles), published in 2013, provide an important framework that has been widely applied in the recent significant global reform of benchmarks. Accordingly, the Principles provide useful criteria to assist in identifying viable alternative benchmarks to potentially replace BKBM. There are 19 Principles arranged around four pillars.

This consultation focusses on the Principles related to the pillar concerning quality of benchmark and specifically Principle six, benchmark design and Principle seven, data sufficiency. These Principles are intended to promote the quality and integrity of benchmark determinations through the application of design factors that result in a benchmark that reflects a credible market for an interest measured by that benchmark. The Principles also clarify that a variety of data may be appropriately used to construct a benchmark, if the Data Sufficiency Principle is met (i.e., based on an active market).

The three remaining IOSCO pillars cover governance, quality of the methodology and accountability.

Other Criteria

Several other criteria, some of which are implicit in New Zealand legislation and the IOSCO Principles (referred to above), will also be used when considering possible options for any potential replacement benchmark. The criteria (in no particular order) include:

- **Minimise misconduct –** Where possible, the ability to reduce the likelihood, or perception of, manipulation during the benchmark setting process.
- **Stability –** The interest rate benchmark should not unduly fluctuate in a large range on a day-to-day basis in normal trading conditions.
- **Resilient –** The interest rate benchmark should be resilient through periods of illiquidity, to changes in the regulatory approach or to changes in the monetary policy framework.
- **Viable –** The benchmark should be available over the medium term (e.g., ten years plus).
- **Transaction based –** The benchmark should be set from observable transactions in a market/s that are deep and liquid if an active market is available.
- **Simple –** The benchmark methodology should be transparent, easy to follow, and the process well documented.
- **Ease of implementation –** The benchmark should produce a lower administrative burden on benchmark setting participants, benchmark users and the benchmark administrator.

- **Widely adopted –** Anticipated demand for and relevance to hedging and trading if BKBM ceases to exist. Included in relevant documentation (e.g., ISDA).
- **International compatibility and comparability –** While the benchmark should be set in a New Zealand context, consideration should be given to international developments. Several other jurisdictions have moved to risk free or near risk-free rates. Given that New Zealand entities are significant users of derivatives, predominantly against the US dollar, consideration should be given to developing a benchmark that is compatible and comparable with global benchmarks.

Question number	***Question***
6.	*Have all the appropriate criteria been considered and identified? Are there any other criteria that should be addressed, or current criteria removed? Please provide an explanation.*

How can you contribute?

Submissions on this consultation document can be provided by:

- Emailing us:

  submissions@nzfbf.co.nz
  Subject line: BKBM Benchmark – Consultation on Viable Replacement Options

- Sending a letter to:

  John Groom
  General Manager
  New Zealand Financial Benchmark Facility Limited
  PO Box 641
  Wellington 6011

The closing date for submissions is **18 August 2023**.

NZFBF welcomes responses to this consultation and will consider all comments received. This consultation document contains a number of questions. Responses to these questions are most useful if they contain a clear rationale and, where applicable, suggest an alternative. Please comment on any or all the questions that are relevant to you.

NZFBF encourages recipients of this consultation document to share this information with clients and other interested parties.

Submission Results

NZFBF will keep all individual submissions confidential. It will however publish an anonymised summary of the submissions in line with the timetable provided in Part Three: Next Steps.

PART TWO: OPTIONS CONSIDERED

Benchmark Design

A key consideration for NZFBF and the BKBM Working Group, in evaluating options for a potential replacement benchmark to BKBM, was benchmark design. Globally, central banks and working groups have identified risk-free or near risk-free rates (RFRs) as the most suitable replacements to previously used benchmark rates. These RFRs have been developed in other jurisdictions with an overnight tenor rather than a term tenor. Overnight RFRs are based on overnight trades in markets, whether unsecured or secured, where liquidity is deep enough to allow the rate to be strongly anchored in transactions, including in more adverse market conditions. To the extent that overnight RFRs are more strongly anchored in transactions than alternative rates, they are considered to represent the most robust rates available to the market.

Benchmark tenor is the period that the financial benchmark applies to. BKBM currently has six term benchmark tenors, 1-month, 2-month, 3-month, 4-month, 5-month, and 6-month.

Overnight

Overnight benchmarks apply the rate that was traded on average overnight in a market or markets. Globally, overnight benchmark rates seem to be the preference for replacement benchmarks, with that preference based on:

- the depth and volumes of the overnight market,
- the benefits of not concentrating rate-set risk into single daily periods, and
- the associated removal of the risk of actual, or perceived misconduct.

The new overnight benchmark rates closely track central bank policy rates, ensuring the index fulfils the requirement of accurate and reliable representation of the interest it is intended to represent. The US (SOFR), UK (SONIA), and Switzerland (SARON) markets have all seen successful transitions to overnight rates in the past few years since the cessation of LIBOR was confirmed. These overnight RFRs have been developed for derivative markets (e.g., Interest Rate Swaps) while forward looking term markets have, or are being, developed for other markets (e.g., cash products) based on these developing underlying derivative markets.

Term

Term benchmarks apply rates that refer to any period greater than one day (or overnight). The limitations of existing term benchmarks are that they are anchored in less liquid markets and are therefore more volatile in nature than overnight rates. However, term benchmarks are required for certain products (e.g., cash markets). Where underlying liquidity is present, term benchmark rates are being derived from newly developed overnight derivative markets. Usage of these benchmarks is limited to certain use cases to ensure underlying liquidity in derivative products are retained to the overnight index.

If BKBM is to be replaced, NZFBF and the BKBM Working Group's initial preference is to establish an overnight risk-free benchmark initially for derivatives (e.g., Interest Rate Swaps), with a term benchmark being established for other products (e.g., cash) in the medium term as liquidity in the new overnight risk-free benchmark builds. As noted above, the US developed their term benchmark during the transition phase from LIBOR to SOFR.

Question number	***Question***
7.	*Do you agree that a replacement benchmark for derivatives should be risk-free and have an overnight tenor to align with benchmark developments in other jurisdictions? If not, please provide an explanation.*
8.	*Do you agree with the premise that an overnight RFR should be developed for derivative markets and a term forward looking benchmark should be developed for other products (e.g., cash)? If not, please provide an explanation.*

Proposed Viable Options

NZFBF, in consultation with the BKBM Working Group, consider the following rates/markets could be viable options to potentially replace BKBM based on the criteria noted above. Appendix One provides a summary of each of the viable options against the stated criteria.

Overnight Options

RBNZ's Official Cash Rate (OCR) or Interest on Reserves

OCR

The RBNZ's OCR is one of the tools it uses to implement monetary policy and meet its statutory requirements in terms of the remit for the Monetary Policy Committee it signs with the New Zealand Government. The RBNZ reviews the OCR seven times a year and provides an advanced calendar of announcement dates. Inter-review, the OCR would remain stable, although the RBNZ retains the right to adjust the OCR at any time. This rate is currently the fallback benchmark interest rate for BKBM.

While the OCR meets nearly all the criteria noted above it could be argued that the OCR is not based on transactions from a deep liquid market (the option followed in other jurisdictions, with admittedly larger financial markets). However, the pricing for many transactions is based or influenced by the OCR, or expectations of the future level of the OCR. The OCR has also been the benchmark for Overnight Indexed Swaps for several years.

A potential risk with using the OCR as a benchmark is that it would be impacted if the RBNZ were to materially change the way they implemented monetary policy, for example moving to a corridor-based system like the Fed or a change in the RBNZ's mandate. This would likely require a new benchmark to be found or require a major change to the benchmark methodology.

Interest on Reserves

The RBNZ pays interest, at the OCR, on Exchange Settlement Account System (ESAS) account balances held at the RBNZ. The benefit of using this "interest on reserves" rate as a benchmark rather than the OCR is that it could be argued that the depositing of reserves at the RBNZ are transactions, so a benchmark based on rates applied to ESAS balances would be a transaction-based benchmark. (ESAS balances currently sit between $45 and $60 billion). The interest rate paid on reserves is updated by the RBNZ immediately following each OCR announcement. This option could also be impacted if the RBNZ were to materially change the way they implemented monetary policy. However, interest on reserves could remain a single rate rather than a range, and thus be a more stable option, if for example the RBNZ were to move to a corridor-based system.

Question number	Question
9.	*Does the OCR or Interest on Reserves meet the criteria noted earlier in the consultation? If not, please provide an explanation.*
10.	*Which of the two options do you favour? Please provide an explanation.*
11.	*Do you believe the use of either of these options as a benchmark would have consequences, either positive or negative, for other instruments in wholesale financial markets? Please provide an explanation.*

Overnight Repurchase Agreements (O/N General Collateral (GC) Repo)

Repurchase agreements, or 'repos', are a form of secured borrowing and lending, using government securities. In the New Zealand context, repos are predominantly used by banks for managing short-term fluctuations in their cash holdings, rather than for general balance sheet funding. The transactions are primarily attributed to interbank transactions and would not include transactions where a counterparty requires a specific government security. As a result, the O/N GC Repo market represents where overnight cash is trading on a secured basis using highly rated collateral. The size of the New Zealand repo market and the dominance of low-risk collateral (i.e., government securities) means that this market is much less likely to transmit shocks to other markets or see large swings in risk appetite.

NZFBF recently collected six-months of trading data for several wholesale financial markets, including O/N GC repo. The data collected showed average daily turnover for this market of $550 million, with trading on every day of the data series. NZFBF acknowledges the data sample is relatively small. The volumes are significantly higher than BKBM, over the same period, and indicate this market is potentially a viable benchmark option.

However, the BKBM Working group noted that the rate traded for O/N GC repo can be unduly influenced by the movement in overnight FX forwards. The BKBM Working Group had a concern that a dislocation of the FX forward market may skew the index or benchmark rate derived. The BKBM Working Group did note however that the RBNZ's Standing Repo Facility, currently priced at OCR less 10 basis points, places a floor on where O/N GC Repo trades. They also noted that while O/N GC Repo generally trades in a range to the OCR of plus/minus 10 basis points, there is no guarantee this will remain the case in the future.

Question number	***Question***
12.	*Does O/N GC Repo meet the criteria noted earlier in the consultation? If not, please provide an explanation.*
13.	*Do you have any comments on the stated average daily turnover (e.g., $550 million)?*
14.	*What level of daily volatility would be acceptable for an O/N GC rate-based benchmark (e.g., plus or minus 10 basis points)? Please provide an explanation.*
15.	*Do you think a daily observed rate should be used or a short-term moving average to eliminate some of the interest rate volatility seen in this market? Please provide an explanation.*
16.	*Do you believe the use of O/N GC repo as a benchmark would have consequences, either positive or negative, for this instrument or other instruments in wholesale financial markets? Please provide an explanation.*

Term Options

OCR Compound Index

The OCR compound index simplifies the calculation of compound interest rates providing a standardised basis. 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 is the realised New Zealand Overnight Index Average (NZONIA) which is a term risk-free rate. This is a backward-looking benchmark, resulting in the term rate not being discoverable until just before the maturity date of the transaction. NZFBF has administered the operation and distribution of the OCR Compound Index since December 2020 and is not aware of this benchmark being used as a benchmark for any transactions.

Globally, market participants have been reluctant to use backward-looking benchmarks and continue to favour forward-looking benchmarks as was the case with the LIBORs and is currently the case with BKBM.

The ISDA fallback rate for BKBM, which is administered by Bloomberg, uses a different, but similar methodology to the OCR compound index.

Question number	Question
17.	*Does the OCR Compound Index meet the criteria noted earlier in the consultation? If not, please provide an explanation.*
18.	*Do you think a backward-looking benchmark is a viable option to potentially replace BKBM? If not, please provide an explanation.*
19.	*Do you believe the use of OCR Compound Index as a benchmark would have consequences, either positive or negative, for other instruments in wholesale financial markets? Please provide an explanation.*

Overnight Indexed Swaps

Overnight index swaps (OIS) are a risk-free term interest rate swap involving the overnight rate being exchanged for a fixed interest rate. An overnight index swap uses an overnight rate index, in New Zealand's case the RBNZ's Official Cash Rate, as the underlying rate for its floating leg, while the fixed leg would be set at a rate agreed on by the parties involved. In New Zealand, a term market (OIST) exists out to one year and there is also a market to the RBNZ's OCR meeting dates (OISR). The OIS market has operated in New Zealand for several years, is relatively stable, and the movement in yields largely reflects the markets' interpretation of the RBNZ's monetary policy stance. While trading in the OISR market is more active than the OIST market, the BKBM Working Group suggested that both markets should be used to form the benchmark as this would provide more data inputs for the benchmark determination process.

While trading in the OISR market is more active that the OIST market, trading volumes over both markets are currently low, dependent on the monetary policy cycle and subject to a number of days where there is no trading. Use of the OISR and OIST markets as a benchmark would involve a more complex methodology, than other potential benchmarks such as OCR, to calculate term tenors (i.e., 1- to 6-months).

The BKBM Working Group noted that this market could develop further and become more liquid if a relevant overnight benchmark, such as the OCR, was introduced.

Question number	Question
20.	*Does OIS meet the criteria noted earlier in the consultation? If not, please provide an explanation.*

21.	*Do you believe the use of OIS as a benchmark would have consequences, either positive or negative, for this instrument or other instruments in wholesale financial markets? Please provide an explanation.*

Additional Considerations

Price Alignment Rate (PAI) on Collateral

Existing cleared and collateralised bi-lateral derivative trades are predominantly OIS discounted. Interest on lodged collateral is renumerated against collateral at the designated Price Alignment Interest (PAI) rate. In a New Zealand context, the PAI is the underlying OCR rate. If one of the above viable options is chosen, where the OCR is not present, the PAI for NZ dollar derivative contracts may need to change and a basis market developed to manage the risk between the new PAI and the OCR.

Question number	***Question***
22.	*Would your organisation be prepared to widely adopt a different PAI across all derivative trades (would this extend to pulling out of the existing OIS based trading completely)? Please provide an explanation.*
23.	*Would your organisation recommend the NZFMA considers recognising something other than the OCR as the standard PAI convention for New Zealand dollar based derivative contracts? Please provide an explanation.*
24.	*If the answer to questions 22 or 23 above is yes, would your organisation actively price make (and provide closing prices to the NZFMA) on the relevant basis spread (to OCR) in the market?*

Options Considered and Discarded.

Term Repurchase Agreement (Term GC repo)

Repurchase agreements have been defined above. Term repo agreements are financial contracts that have maturities to one year, although most transactions have a duration of three months or less.

When assessing the term repo market, the BKBM Working Group and NZFBF assessed this market as under-developed with low trading volumes and observed that there are numerous days when no trading occurs.

FX Swaps

An FX swap is an agreement to simultaneously borrow one currency and lend another at an initial date, then exchange the amounts at maturity, with no exchange rate risk.

FX swap rates were deemed to be largely influenced by factors outside of New Zealand, such as the supply of or demand for US dollars. As a result, FX swap rates can be extremely volatile at times. This market does not provide a risk-free rate.

New Zealand Government Treasury Bills

A Treasury Bill (T-Bill) is a short-term government debt obligation with a maturity of one year or less. Primary issuance by the New Zealand Treasury is currently relatively small and currently based on New Zealand Debt Management's (NZDM) cash management requirements, resulting in variable issuance and levels of outstanding New Zealand Government Treasury Bills. Currently three, six and twelve-month New Zealand Government Treasury Bills are issued, although future volumes would be subject to changes in NZDM's funding requirements, issuance approach and funding strategy. The BKBM Working Group noted that there is currently little secondary market activity in New Zealand Government Treasury bills.

T-bills were eliminated from consideration as this market does not trade as much as bank bills, accordingly a T-bill based benchmark would likely see less volume being transacted than in the current BKBM rate-set.

Question number	***Question***
25.	*Should any of the discarded options be reconsidered? If so, please provide an explanation.*
26.	*Are there other options that should be considered? If so, please advise the option/s and supporting evidence, ideally against the criteria stated earlier in the consultation document.*

Question number	***Question***
27.	*Do you consider any of the options proposed in this consultation, or the options noted in your answer to question 26 are viable potential replacements for BKBM? Please provide a list of the viable options and if you consider there is more than one, please rank them in order of preference, and provide an explanation for each.*
28.	*Do you have any comments or concerns regarding the process to consider if there is a viable potential replacement for BKBM? Are there any matters that have not been addressed in this consultation?*

PART THREE: NEXT STEPS

Step	Description	Tentative Date/s
One	*Consultation one*	*26 June to 18 August 2023*
Two	*Consultation one submissions collated and analysed by NZFBF in consultation with the BKBM working group*	*September/October 2023*
Three	*NZFBF Board for review and feedback*	*October 2023*
Four	*NZFMA Board for review and feedback*	*November 2023*
Five	*Consultation two:* - *Anonymised summary of responses* - *Viable options, if any* - *Proposed replacement, if applicable* - *Benchmark methodology & data collection* - *Benchmark administration* - *Term benchmark development, if applicable*	*29 January to 15 March 2024*
Six	*Consultation two submissions collated and analysed by NZFBF in consultation with the BKBM working group*	*March/April 2024*
Seven	*NZFBF Board for review and feedback*	*April 2024*
Eight	*NZFMA Board for review, feedback and decision*	*April 2024*

PART FOUR: SUMMARY OF QUESTIONS

Question number	Question
BKBM	
1.	*Do you agree that it should be ascertained whether a viable replacement benchmark exists to potentially replace BKBM? Please provide an explanation.*
2.	*What is your view on the future of BKBM? Please provide an explanation.*
3.	*If you believe BKBM should be retained, on what basis should this occur (e.g., as the benchmark for most products or for certain products only)? Please provide an explanation.*
4.	*If BKBM is retained, how can the benchmark be improved to address the issues noted above? Would your organisation support the BKBM rate-set process? Please provide an explanation.*
International Benchmark Developments	
5.	*If a viable replacement for BKBM is identified as a result of this consultation, should this be aligned as the fall-back rate for BKBM, even if it necessitates a change to the existing ISDA defined fall-back arrangements (i.e., the OCR)? Please provide an explanation.*
Benchmark Criteria	
6.	*Have all the appropriate criteria been considered and identified? Are there any other criteria that should be addressed, or current criteria removed? Please provide an explanation.*
Risk Free Rates & Benchmark Tenor	
7.	*Do you agree that a replacement benchmark for derivatives should be risk-free and have an overnight tenor to align with benchmark developments in other jurisdictions? If not, please provide an explanation.*
8.	*Do you agree with the premise that an overnight RFR should be developed for derivative markets and a term forward looking benchmark should be developed for other products (e.g., cash)? If not, please provide an explanation.*
OCR or Interest on Reserves	
9.	*Does the OCR or Interest on Reserves meet the criteria noted earlier in the consultation? If not, please provide an explanation.*
10.	*Which of the two options do you favour? Please provide an explanation.*
11.	*Do you believe the use of either of these options as a benchmark would have consequences, either positive or negative, for other instruments in wholesale financial markets? Please provide an explanation.*
Overnight GC Repo	
12.	*Does O/N GC Repo meet the criteria noted earlier in the consultation? If not, please provide an explanation.*
13.	*Do you have any comments on the stated average daily turnover (e.g., $550 million)?*
14.	*What level of daily volatility would be acceptable for an O/N GC rate-based benchmark (e.g., plus or minus 10 basis points)? Please provide an explanation.*
15.	*Do you think a daily observed rate should be used or a short-term moving average to eliminate some of the interest rate volatility seen in this market? Please provide an explanation.*

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16.	*Do you believe the use of O/N GC repo as a benchmark would have consequences, either positive or negative, for this instrument or other instruments in wholesale financial markets? Please provide an explanation.*
OCR Compound Index	
17.	*Does the OCR Compound Index meet the criteria noted earlier in the consultation? If not, please provide an explanation.*
18.	*Do you think a backward-looking benchmark is a viable option to potentially replace BKBM? If not, please provide an explanation.*
19.	*Do you believe the use of OCR Compound Index as a benchmark would have consequences, either positive or negative, for other instruments in wholesale financial markets? Please provide an explanation.*
Overnight Index Swaps (OIS)	
20.	*Does OIS meet the criteria noted earlier in the consultation? If not, please provide an explanation.*
21.	*Do you believe the use of OIS as a benchmark would have consequences, either positive or negative, for this instrument or other instruments in wholesale financial markets? Please provide an explanation.*
Price Alignment Rate (PAI) on Collateral	
22.	*Would your organisation be prepared to widely adopt a different PAI across all derivative trades (would this extend to pulling out of the existing OIS based trading completely)? Please provide an explanation.*
23.	*Would your organisation recommend the NZFMA considers recognising something other than the OCR as the standard PAI convention for New Zealand dollar based derivative contracts? Please provide an explanation.*
24.	*If the answer to questions 22 or 23 above is yes, would your organisation actively price make (and provide closing prices to the NZFMA) on the relevant basis spread (to OCR) in the market?*
Discarded Options	
25.	*Should any of the discarded options be reconsidered? If so, please provide an explanation.*
26.	*Are there other options that should be considered? If so, please advise the option/s and supporting evidence, ideally against the criteria stated earlier in the consultation document.*
Viable Replacements for BKBM	
27.	*Do you consider any of the options proposed in this consultation, or the options noted in your answer to question 26 are viable potential replacements for BKBM? Please provide a list of the viable options and if you consider there is more than one, please rank them in order of preference, and provide an explanation for each.*
28.	*Do you have any comments or concerns regarding the process to consider if there is a viable potential replacement for BKBM? Are there any matters that have not been addressed in this consultation?*

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PART FIVE: APPENDIX ONE

Potential Overnight Benchmark Options Against Stated Criteria

Criteria	OCR or Interest on Reserves	Overnight GC Repo (inter-bank and client)
Minimise misconduct. (Where possible, the ability to reduce the likelihood, or perception of, manipulation during the rate setting process)	Yes.	Average daily volumes circa $550m with transactions on most business days. However, no trading does occur from time to time.
Stable. (Interest rates should not unduly fluctuate in a large range on a day-to- day basis in normal trading conditions)	Yes.	Trading range can be relatively volatile and influenced by movements in other short-term interest rates (e.g., FX swaps).
Resilient. (To periods of illiquidity, changes in the regulatory approach or to the monetary policy framework)	OCR could be subject to changes in the monetary policy framework. Interest on reserves possible alternative.	Subject to occasional periods of low liquidity.
Viable. (Available over the medium term)	Yes.	Yes.
Transaction based. (The benchmark rate is set from observable transactions in a market/s that are deep and liquid, if an active market is available)	Not directly transaction based but does impact pricing of other markets. Interest on reserves could be interpreted as transaction based.	Yes, mostly inter-bank. Volumes some 10 times higher than BKBM on average.
Overnight and term rates. (Does the option provide an overnight rate and/or a term rate?)	Overnight rate.	Majority of liquidity in overnight and tom/next tenors.
Risk free or credit component.	Risk free.	Risk free, government securities used as collateral.
Simple. (The benchmark methodology should be transparent, easy to follow and well documented)	Yes.	New collection method would be required. Availability of data could be an issue. Calculation of the benchmark would be transparent and simple.
Ease of implementation. (The benchmark should produce a lower administrative burden on participants, benchmark users and the benchmark administrator)	Yes.	Likely process and system enhancements required by both participants and benchmark administrator.
International compatibility and comparability. (Set in a New Zealand context with consideration given to international developments)	Not aware of other Central Bank policy rates used as a benchmark. OCR already used as benchmark for OIS.	In line with international developments using secured overnight rates.
FMA Benchmark Administrator Licence Regulations (FMC Conduct Regulations 2014 Schedule 28)[3] and IOSCO Principles for Financial Benchmarks[4]. (Quality of benchmark and quality of the methodology)	Central banks and their rates typically exempt from meeting principles/EU BMR. Should comply subject to framework and if suitable active market is not available.	Should comply subject to framework.

[3] FMA's regulations can be found here.

[4] The IOSCO principles for financial benchmarks can be found at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf. IOSCO note that that the principles are not a one size fits all. The Principles provide a framework of standards, which might be met in different ways depending on the specificities of each Benchmark.

Potential Term Benchmark Options Against Stated Criteria

Criteria	OIS	OCR Compound Index (in arrears)
Minimise misconduct. (Where possible, the ability to reduce the likelihood, or perception of, manipulation during the rate setting process)	Would depend on volumes traded. Trading volumes can be low or non-existent for large periods depending on RBNZ policy stance.	Yes. Similar benchmark are available in other jurisdictions.
Stable. (Interest rates should not unduly fluctuate in a large range on a day-to- day basis in normal trading conditions)	Linked to the OCR and movements based on expected future track of the OCR.	Yes.
Resilient. (To periods of illiquidity, changes in the regulatory approach or to the monetary policy framework)	Subject to long periods of no or low liquidity.	OCR subject to changes in the monetary policy framework.
Viable. (Available over the medium term)	Yes.	Yes.
Transaction based. (The benchmark rate is set from observable transactions in a market/s that are deep and liquid, if an active market is available)	Yes. As noted above traded volumes can be volatile.	No, although interest paid on reserves could be interpreted as transaction based.
Overnight and term rates. Does the option provide an overnight rate and/or a term rate	Term rates could be calculated from OIS RBNZ meeting date runs and the OIS term market.	Term rates in arrears.
Risk free or credit component.	Risk free	Risk free
Simple. (The benchmark methodology should be transparent, easy to follow and well documented)	The use of RBNZ meeting dates would require relatively complex methodology to determine term rates. Availability of data could be an issue.	Yes. This index has been calculated since 2020 with documentation available on NZFBF's website. Data backdated to 17 March 1999.
Ease of implementation. (The benchmark should produce a lower administrative burden on participants, benchmark users and the benchmark administrator)	Likely process and system enhancements required by both participants and benchmark administrator.	Benchmark already established. No issues for Benchmark Administrator unless adjustments are made to index. System enhancements required by benchmark users.
International compatibility and comparability. (Set in a New Zealand context with consideration given to international developments)	No examples of OIS being used as benchmarks. The US ARRC rejected the use of OIS, as it was not comfortable with the OIS's reference rate, the Effective Federal Funds Rate[5].	An index, in arrears, has been developed in other jurisdictions but there has been reluctance to use them.
FMA Benchmark Administrator Licence Regulations (FMC Conduct Regulations 2014 Schedule 28)[6] and IOSCO Principles for Financial Benchmarks[7]. (Quality of benchmark and quality of the methodology)	Should comply subject to framework.	Should comply subject to framework and if suitable active market is not available.

[5] Less counterparties involved and dominated by Government sponsored entities.
[6] FMA's regulations can be found here.
[7] The IOSCO principles for financial benchmarks can be found at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf. IOSCO note that that the principles are not a one size fits all. The Principles provide a framework of standards, which might be met in different ways depending on the specificities of each Benchmark.

BKBM Benchmark Against Stated Criteria

Criteria	BKBM
Minimise misconduct. (Where possible, the ability to reduce the likelihood, or perception of, manipulation during the rate setting process)	BKBM Waterfall provides varying options for deriving BKBM depending on market situation. Traded volumes have been decreasing over past few years, relying more heavily on executable bids and/or offers.
Stable. (Interest rates should not unduly fluctuate in a large range on a day-to- day basis in normal trading conditions)	Yes, historically BKBM has provided stable benchmark rates. Mainly influenced by RBNZ OCR rate change expectations.
Resilient. (To periods of illiquidity, changes in the regulatory approach or to the monetary policy framework)	Can be subject to periods of low liquidity. In these times executable bids and/or offers used to derive benchmark. Is influenced by monetary policy framework.
Viable. (Available over the medium term)	The longevity of the benchmark, given the reduction in traded volumes and benchmark developments in other jurisdictions (i.e., move from credit benchmark to risk-free) has been questioned.
Transaction based. (The benchmark rate is set from observable transactions in a market/s that are deep and liquid, if an active market is available)	Traded volumes have been diminishing over time. Trading currently only occurs on slightly less than 50% of days.
Overnight and term rates. (Does the option provide an overnight rate and/or a term rate)	Term rates, one to six months.
Risk free or credit component.	Benchmark contains margin for bank credit.
Simple. (The benchmark methodology should be transparent, easy to follow and well documented)	The BKBM methodology has been improved over time, is well documented and there is a transparent calculation process.
Ease of implementation. (The benchmark should produce a lower administrative burden on participants, benchmark users and the benchmark administrator)	Benchmark already established; no implementation required unless changes are made.
International compatibility and comparability. (Set in a New Zealand context with consideration given to international developments)	Most major overseas' jurisdictions have transitioned to an overnight risk-free or near risk-free benchmark. Australia continues to use the BBSW benchmark which contains a bank credit component.
FMA Benchmark Administrator Licence Regulations (FMC Conduct Regulations 2014 Schedule 28)[8] and IOSCO Principles for Financial Benchmarks[9]. (Quality of benchmark and quality of the methodology)	BKBM complies with the IOSCO Principles for Financial Benchmarks. Work is underway to fully comply with the FMA's Benchmark Administrators licence regulations.

[8] FMA's regulations can be found here.

[9] The IOSCO principles for financial benchmarks can be found at https://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf. IOSCO note that that the principles are not a one size fits all. The Principles provide a framework of standards, which might be met in different ways depending on the specificities of each Benchmark.

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