

INDEX METHODOLOGY

The Bloomberg AusBond and NZBond Index Family

Historical changes to index methodology

Date	Update
1988	UBS launches UBS Australian Bond Indices (AusBond) to serve as benchmarks for the Australian bond market
2014	Bloomberg acquires the AusBond Indices from UBS
October 2015	Minimum time to maturity of 1 month introduced
October 2015	Cessation of index publication on weekends and holidays
October 2015	Returns Universe qualification on the last business day of the prior month
October 2015	Launch of NZD credit, supranational, and local government indices and composite index comprising treasury, local government, credit, and supranational
October 2015	Publication of AusBond indices in 6 additional currencies and hedged into 6 additional currencies. Currencies include: USD, JPY, GBP, EUR, and NZD or AUD for AusBond or NZBond respectively
September 2016	Exclusion of commercial mortgage-backed securities and asset-backed securities
September 2016	Standardization in the use of maturity dates for maturity-banded subindices
September 2016	Inclusion of expected ratings and comparable issue ratings for prompt inclusion of new issues
October 2017	Inclusion of bonds based on issue date rather than settle date
October 2017	Removal of legacy economic call requirement
October 2017	Exclusion of bonds with a non-viability trigger
October 2017	Change to how public versus private issues are identified
October 2017	Clarification on the handling of public taps
October 2017	Re-inclusion of RBA initial take-up no longer held by the RBA
	Update to 'Index Rating' methodology to the middle rating of the three credit rating agencies included
October 2017	Move to T+1 settlement assumption for index calculations
December 2021	Removal of expected ratings Added AusBond Bank Bill Index +X % series

Table of Contents

Overview	5
Index Family Structure	6
Subindices	7
Returns Universe and Projected Universe	7
Index Oversight and Governance	9
Index Data and Reviews	9
Limitations of the Indices	10
Index Design	12
Criteria for Index Inclusion and Exclusion	14
Amount Outstanding	14
Currency	14
Maturity	14
Credit Quality	15
Sector Classifications	166
Market of Issue Criteria	177
Coupon Types	18
Optionality (Callable and Puttable Bonds)	188
Excluded Securities	198
Index Calculations	19
Pricing	19
Analytics	20
Treatment of Cash	210
Unavailable Data and Unexpected Events	210
Restatement Policy	210
Exchanges	221
Data Providers and Data Extrapolation	221
Access to the Indices	232
Data and Analytics	232
Bloomberg Terminal	232
Internet Access	243
SFTP	243
Redistributors	243
Financial Products	254
Appendices	265
Primary Index Inception Dates	265
Bloomberg AusBond and NZBond Index Methodology	276

Risk Parameters.....	287
Bank Bill Index Calculations.....	28
Swap Indices.....	29
Index-Specific Rules.....	31
Bloomberg AusBond Composite Index (BACMO).....	31
Bloomberg AusBond Inflation Index (BAIL0).....	31
Bloomberg AusBond Credit FRN Index (BAFRNO).....	32
Bloomberg AusBond Bank Bill Index (BAUBIL).....	32
Bloomberg AusBond Supranational/Sovereign Index (BASSO).....	33
Bloomberg NZBond Composite Index (BNZCM0).....	34
Bloomberg NZBond Supranational/Sovereign Index (BNZSS0).....	34
Bloomberg NZBond Inflation Index (BNZIO).....	35
Bloomberg NZBond Bank Bill Index (BNZBIL).....	35
Glossary.....	36

THE BLOOMBERG AUSBOND AND NZBOND INDEX FAMILY

Overview

The Bloomberg AusBond and NZBond Indices (the “Indices”) are benchmarks representative of the Australian and New Zealand investment-grade fixed income markets respectively. To be included in the Indices, bonds must qualify against a set of rules detailed in this document. The Indices include Australian dollar and New Zealand dollar denominated bonds with an investment grade index rating and minimum size outstanding in order to focus on liquid issues that represent the majority of the market. Further criteria such as ratings, coupon structure, and sector classifications are used to define the subcomponents of the Indices.

The AusBond and NZBond Indices at a glance

- Investment-grade fixed income securities (including certain mortgage securities)
- Minimum amount outstanding of \$100 million (\$50 million for inflation-linked securities)
- Local currency denominated securities (Australian dollars or NZ dollars respectively)
- AusBond Composite Index includes treasury, semi-government, credit and supranational issues. Inflation, Floating Rate Note (FRN), Bank Bill and Swap indices are also available.
- NZBond Composite Index includes treasury, local government, credit and supranational issues. Inflation, Bank Bill and Swap indices are also available.
- Market capitalisation weighted
- Rebalanced monthly

In 1988, UBS created the suite of UBS Australian Bond Indices (“AusBond Indices”) to serve as a stable, comprehensive, and objective basis for evaluating the performance of Australia’s fixed income markets. Beginning with indices for bank bills, government, and semi-government securities, this index suite has expanded to cover all the major asset classes in the Australian fixed income market including credit, supranationals, and inflation-linkers. The AusBond Indices are the most established benchmark for Australian fixed income market performance. The New Zealand Bond Indices (“NZBond Indices”) similarly provide a benchmark for evaluating performance of the New Zealand (NZ) fixed income market.

Bloomberg historically produced indices and made a further commitment to this business with the acquisition of the AusBond indices from UBS in 2014. The success of this transaction led to an even larger investment in 2016 with the purchase of Barclays Risk Analytics and Index Solutions Ltd. (BRAIS), subsequently renamed Bloomberg Index Services Limited (“BISL” or the “Index Administrator”). BISL (collectively with its affiliates, “Bloomberg”) is the administrator of, among other benchmarks, the AusBond and NZBond Indices, the Bloomberg Barclays Indices, BCOM (Bloomberg Commodity Indices), CMCI (Constant Maturity Commodity Indices), and Bloomberg Currency Indices.

Following Bloomberg’s 2014 acquisition of the Indices from UBS, the Indices were rebranded as the Bloomberg AusBond Indices and Bloomberg NZBond Indices respectively. Since then, the Indices have

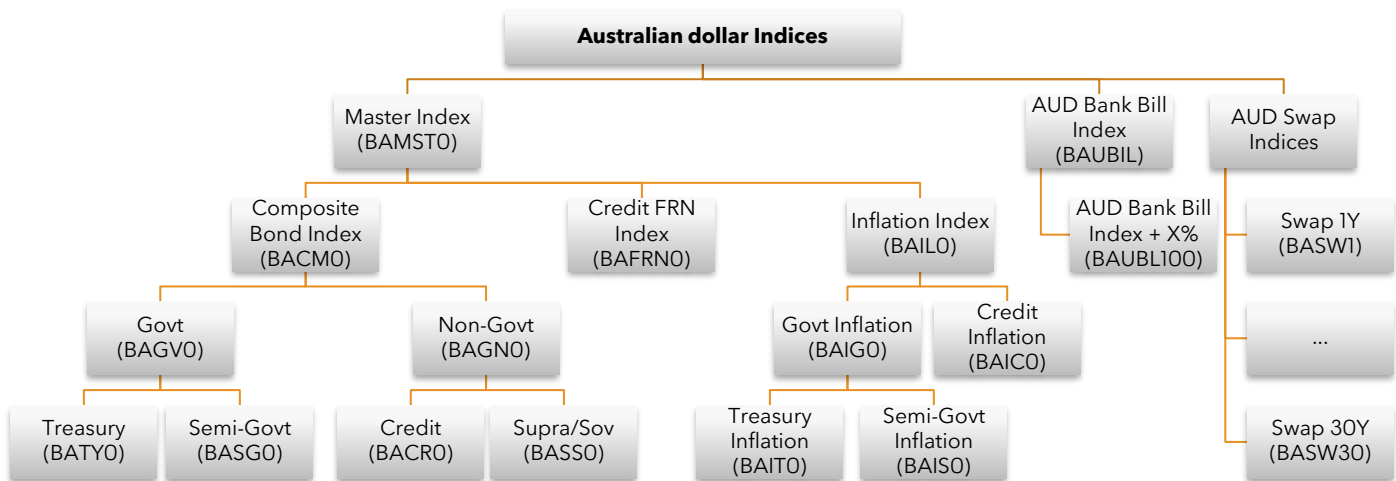
been calculated, administered, and licensed by Bloomberg. The Indices are broadly available to the Australian, New Zealand, and global fixed income investment communities. The use of Bloomberg’s data, technology, and distribution platforms provides robust means for tracking the fixed income markets of Australia and New Zealand and disseminating this information effectively.

This document (the “Index Methodology”) describes the rules of construction of the Bloomberg AusBond and NZBond Indices. The Index Methodology is reviewed annually to maintain its relevance and integrity in providing a representative and accurate measure of the markets the Indices are designed to measure, as further described below.

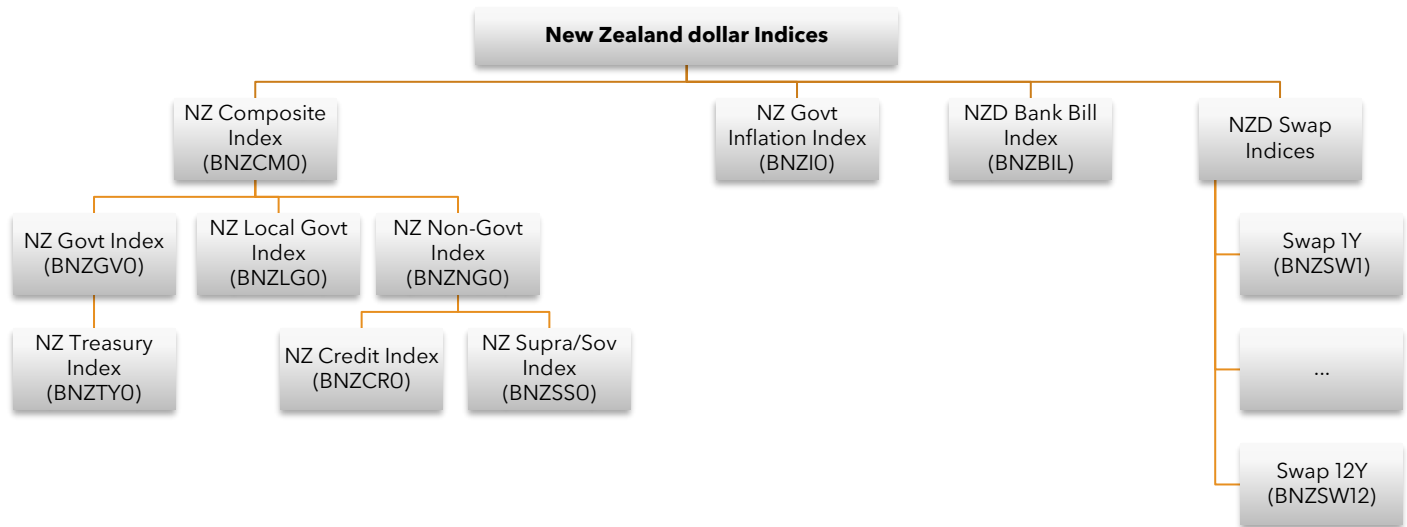
Index Family Structure

The charts below provide the structure of the Bloomberg AusBond and NZBond Indices and their primary component indices. The corresponding tickers in the Bloomberg Terminal® are shown in parentheses.

The Bloomberg AusBond Index Family



The Bloomberg NZBond Index Family



Subindices

The Indices include various subindices based on maturity bands, quality (i.e. credit ratings), issuer type and/or industry sectors. General subindices available include:

Criteria	Subindices
Maturity	<i>AusBond Indices</i> (30 buckets): 0+, 0-1, 0-3, 0-5, 0-8, 0-10, 0-15, 0-20, 1+, 1-2, 1-3, 1-5, 1-10, 1-15, 1-20, 2-5, 2-10, 3+, 3-5, 3-7, 5+, 5-7, 5-8, 5-10, 7+, 7-10, 10+, 10-20, 15+, 20+ years <i>NZBond Indices</i> (5 buckets): 0+, 0-5, 1+, 5-10, 10+ years (also 0-3, 3-7 and 7+ years for the Government Index)
Quality	AAA, AA- to AAA, AA- to AA+, A- to AA+, A- to A+, BBB- to BBB+
Issuer Type	Government, Treasury, Semi-Government, Non-Government, Credit, Credit ex MBS, Credit MBS, Supranational/Sovereign/Agency (SSA)
Industry Sector	Utilities, Financials, Industrials (<i>AusBond Credit Index only</i>)

Returns Universe and Projected Universe

The Indices and their data, including index levels, returns, and analytics, are published daily on two different bases:

- Returns Universe
- Projected Universe

The provision of two different bases provides enhanced insight into the fixed income market that the Indices aim to represent.

- **Returns Universe:** The Returns Universe is designed to mimic a strict buy-and-hold portfolio with monthly rebalancing. The membership of the Returns Universe is constructed by applying the index eligibility rules at each monthly rebalancing date (i.e., the last business day of the prior month) and holding the resulting list of securities constant over the current month. Starting weights for the constituents are based on market values on the rebalancing date. All published return measures are calculated against the Returns Universe. In order for a new deal to be included in the Returns Universe, the deal must have terms and conditions available on the Terminal which meet all index

criteria and it must be priced by BVAL prior to the monthly rebalancing date.

- **Projected Universe:** The Projected Universe represents the changing risk profile of the market the index is designed to represent. The membership of the Projected Universe is defined by applying the security eligibility rules daily and setting constituent weights based on daily closing prices. The Projected Universe captures new issuance and removes securities that are no longer eligible as soon as information is made publicly available. Statistical measures are often cited against the Projected Universe as it describes the changing nature of the market (e.g., the Projected Universe can be used to analyze how a large intra-month new issue - which will be added to the Returns Universe at month end - is expected to change the duration of the index). The Projected Universe is a projection of the next month's index as it accumulates all changes to the market over the course of the month; then, on the last business day of the month, the Projected Universe becomes the Returns Universe for the following month.

Index Oversight and Governance

Benchmark Governance, Audit and Review Structure

BISL uses two primary committees to provide overall governance and effective oversight of its benchmark administration activities:

- The Product, Risk & Operations Committee (“PROC”) provides direct governance and is responsible for the first line of controls over the creation, design, production and dissemination of benchmark indices, strategy indices and fixings administered by BISL, including the Indices. The PROC is composed of Bloomberg personnel with significant experience or relevant expertise in relation to financial benchmarks. Meetings are attended by Bloomberg Legal & Compliance personnel.
- The oversight function is provided by Bloomberg’s Benchmark Oversight Committee (“BOC”). The BOC is independent of the PROC and is responsible for reviewing and challenging the activities carried out by the PROC. In carrying out its oversight duties, the BOC receives reports of management information both from the PROC as well as Bloomberg Legal & Compliance members engaged in second level controls.

On a quarterly basis, the PROC reports to the BOC on governance matters, including but not limited to client complaints, the launch of new benchmarks, operational incidents (including errors & restatements), major announcements and material changes concerning the benchmarks, the results of any reviews of the benchmarks (internal or external) and material stakeholder engagements.

Internal and External Reviews

BISL’s index administration is also subject to Bloomberg’s Compliance function, which periodically reviews various aspects of its businesses in order to determine whether it is adhering to applicable policies and procedures, and assess whether applicable controls are functioning properly. In addition, Bloomberg may from time to time appoint an independent external auditor with appropriate experience and capability to review adherence to benchmark regulation. The frequency of such external reviews will depend on the size and complexity of the operations and the breadth and depth of the Index use by stakeholders.

Index Advisory Councils (IACs)

IACs are composed of key market participants and other influential individuals to assist BISL in setting index priorities, to discuss potential rules changes and to provide ideas for new products. IACs are generally constituted on an annual basis. While potential benchmark changes are discussed through this process, all feedback received is non-binding and all final decisions on benchmark index rules are made by BISL after the review period has ended.

Index Data and Reviews

The Index Administrator will review the Indices (both the rules of construction and data inputs) on a periodic basis, not less frequently than annually, to determine whether they continue to reasonably measure the intended underlying market interest, the economic reality or otherwise align with their stated objective. More frequent reviews may result from extreme market events and/or material changes to the

applicable underlying market interests.

Criteria for data inputs include reliable delivery and active underlying markets. Whether an applicable market is active depends on whether there are sufficient numbers of transactions (or other indications of price, such as indicative quotes) in the applicable constituents that a price may be supplied for such constituent(s).

Other than as set forth in this Index Methodology, there are no minimum liquidity requirements for Index constituents and/or minimum requirements or standards for the quantity or quality of the input data. The review will be conducted by product managers of the Indices at least annually or as otherwise appropriate in light of significant market changes or other developments.

Any resulting change to the Index Methodology deemed to be material (discussed below) will be subject to the review of the PROC under the oversight of the BOC, each of which committees shall be provided all relevant information and materials it requests relating to the change. Details regarding the PROC and BOC are described above.

Material changes will be reflected and tracked in updated versions of this Index Methodology.

BISL's Index administration is also subject to Bloomberg's Compliance function which periodically reviews various aspects of its businesses in order to determine whether it is adhering to applicable policies and procedures, and assess whether applicable controls are functioning properly.

Material changes related to the Indices will be made available in advance to affected stakeholders whose input will be solicited. The stakeholder engagement will set forth the rationale for any proposed changes as well as the timeframe and process for responses. The Index Administrator will endeavor to provide at least two weeks for review prior to any material change going into effect. In the event of exigent market circumstances, this period may be shorter. Subject to requests for confidentiality, stakeholder feedback and the Index Administrator's responses will be made accessible upon request.

In determining whether a change to an Index is material, the following factors shall be taken into account:

- The economic and financial impact of the change;
- Whether the change affects the original purpose of the Index; and/or
- Whether the change is consistent with the overall objective of the Index and the underlying market interest it seeks to measure.

Limitations of the Indices

Though the Indices are designed to be representative of the markets they measure or otherwise align with their stated objective, they may not be representative in every case or achieve their stated objective in all instances. They are designed and calculated strictly to follow the rules of this Index Methodology, and any index level or other output is limited in its usefulness to such design and calculation.

Markets can be volatile, including those market interests which the Indices intend to measure or upon which the Indices are dependent in order to achieve their stated objective. For example, illiquidity can have an impact on the quality or amount of data available to the Index Administrator for calculation and may cause the Indices to produce unpredictable or unanticipated results.

In addition, market trends and changes to market structure may render the objective of the Index unachievable or to become impractical to replicate by investors.

In particular, the Indices measure the fixed income markets of Australia and New Zealand. As with all fixed income investing, the Indices are exposed to interest rate risk. The value of bonds fluctuates with the changes in the interest rate policies established by central banks and the natural movement of rates over time. Bonds with optionality will also be impacted by interest rate volatilities. Most fixed income securities often trade at a spread to the base interest rate curve. The level of the spread reflects the additional premium an investor requires for taking the additional credit risk, liquidity risk, and other risks. The change of the spread, which reflects primarily the change in perceived risk of a security, comes from both common forces, affecting all bonds with similar characteristics, and information specific to a particular issuer. As the Indices are designed to measure those markets, its indices could be materially impacted by market movements, thus significantly impacting the use or usefulness of the fixings for some or all users.

In addition, subindices within the AusBond and NZBond family are designed to measure smaller subsets of the Indices such as specific sectors, maturities, or credit quality bands. Some of these subindices have very few qualifying constituents and may have none for a period of time. During such period, the subindex will continue to be published at its last value, effectively reporting a 0% return, until new constituents qualify. If no constituents are expected to qualify (due to changes in issuance trends and other factors), the subindex may be discontinued. In such an event, this discontinuation will be announced to index users.

Index Design

The Indices comply with international conventions for index construction. In particular:

- **Representativeness:** The Indices use a consistent, systematic process to represent the fixed income markets by geographies, sectors, currencies, and maturities. Investors use indices to measure the performance and risk profile of a market. A balance is necessary between investability and completeness when determining index membership. For example, the Indices employ additional criteria, such as a minimum amount outstanding, to limit the Indices to the larger bonds which are generally considered more liquid. The Indices cover the investible universe of securities in the Australian and New Zealand bond markets across an array of asset classes. These include:
 - Government debt
 - Investment grade non-government debt
 - Inflation-linked securities
 - Floating rate securities

As the universe of securities changes over time, Bloomberg continually monitors new issuance to screen eligible securities for potential inclusion in the Indices.

- **Timeliness and accessibility:** The Indices are published on all business days (Monday-Friday) excluding regional holidays. AusBond and NZBond adhere to the New South Wales and New Zealand holiday calendars respectively¹. Index values are available shortly after the market closes from a range of access mechanisms including the Bloomberg Terminal, index data files, and third-party redistributors.
- **Replicability:** Each of the Indices is a practical index capable of replication in a real-world portfolio.
- **Transparency:** The inputs used in index construction are publicly available, including inclusion rules, rebalancing frequency, and methodologies for the computation of index returns and statistics.
- **Data integrity:** Independent and transparent pricing is an important part of Bloomberg's index families. Rather than relying on single-dealer pricing or composite pricing across a small number of dealers, bonds in Bloomberg's indices are priced by BVAL, Bloomberg's securities valuation services. BVAL provides credible, transparent and defensible valuations across a broad spectrum of financial instruments, including fixed income, derivatives and structured notes. These prices are independent, drawing on numerous sources relevant to the market. This broad global dataset of market observations is combined with analytics and Bloomberg's terms and conditions databases to produce objective pricing with transparency into how the prices are derived.
- **Expert Judgement:** Bloomberg may use expert judgement with regards to the following:
 - Index restatements
 - Extraordinary circumstances during a market emergency

¹ Holiday calendars for the Indices are published annually in advance of a new year and are also available on the Bloomberg Terminal at CDR AU <GO> and CDR NZ <GO>.

- Pricing or other data interruptions, issues and closures

When expert judgment is required, Bloomberg strives to be consistent in its application, with recourse to written procedures outlined in this Index Methodology and internal procedures manuals. In certain circumstances, exercises of expert judgment are reviewed by senior members of BISL management and Bloomberg Compliance teams, and are reported to the PROC. BISL also maintains and enforces a code of ethics to prevent conflicts of interest from inappropriately influencing index construction, production, and distribution, including the use of expert judgment.

- **Customization:** The suite of Indices is designed to accommodate specific portfolio objectives and constraints. The Indices offer a wide range of sub-maturities and market sectors allowing the construction of customized indices.

Criteria for Index Inclusion and Exclusion

The following provides a summary of the general rules governing the Indices. Please refer to the Index-specific rules that follow in the Appendices.

Amount Outstanding

The minimum face value amount outstanding in order to be eligible for the Indices is as follows:

- \$100 million for fixed-rate notes
- \$100 million for floating-rate notes
- \$50 million for inflation-linked notes

These amounts are denominated in the relevant local currency for the respective Indices.

It is possible for an existing security to become eligible for the Indices following a fungible tap that increases the amount outstanding over the minimum required. In this case, if all terms are available and meet all index criteria and the bond is priced, it will be added to the Projected Universe immediately and, on the next rebalancing date, included in the Returns Universe for the following month. Conversely, securities that fall below the minimum amount outstanding will be removed from the Projected Universe immediately and the Returns Universe at the next rebalance date.

The float-adjusted amount outstanding is considered for index eligibility purposes in relation to treasury bonds in the NZBond Indices. The float adjustment deducts the amounts held by Reserve Bank of New Zealand (RBNZ) and Earthquake Commission (EQC) from the total amount outstanding. For the AusBond Indices, there is no deduction of Reserve Bank of Australia (RBA) holdings².

Currency

Currency refers to a security's denomination and is independent of the country of the issuer. Securities must be denominated in Australian dollar (AUD) and New Zealand dollar (NZD) to be eligible for the Indices.

Maturity

A security must have a minimum of one month to maturity in order to be eligible for the Indices. The expected maturity date is relevant for mortgage securities (i.e., planned early maturity date or refinance date, as published in the prospectus). Accordingly, the Returns Universe will not contain any securities maturing within the current month (as it is constructed on the final business day of the prior month).

Maturity Bucketing

Securities qualify for maturity-band subindices based on their final maturity date. This treatment also

² Note: Prior to November 2017, an initial take-up of A\$10 million had been removed from a small number of securities issued by the Commonwealth of Australia from 2011-2012. Refer to RBA, Transaction Data, 'Treasury Bond Transactions: Issuance', available: <http://aofm.gov.au/statistics/transactional-data> (7 June 2017) for further information.

applies for callable securities trading to call. There are two exceptions:

- Mortgage securities are qualified based on their expected maturity date.
- Securities with a fixed-to-float coupon structure will qualify for the fixed-rate indices until one month prior to the first coupon reset date. The first coupon reset date is treated as the maturity date when qualifying such securities into maturity-band subindices, during the fixed-rate phase.

Credit Quality

The credit rating of a security is a key classification in the fixed income market, with a clear distinction between investment grade (Baa3/BBB- or higher) and high yield (Ba1/BB+ or lower) debt. As the AusBond and NZBond Indices measure the markets of investment grade debt, they are designed to include only investment grade securities.

Index Rating Methodology

Each bond is assigned an Index Rating in order to qualify it for inclusion in the AusBond and NZBond Indices. To qualify, a bond must be assigned an Index Rating of Baa3/BBB- or higher. While different types of ratings may be used in different scenarios, the Index Rating methodology includes ratings from the following three credit rating agencies (CRAs):

- S&P Global Ratings
- Moody's Ratings
- Fitch Ratings

These CRAs do not always assign the same rating to the same security. Bloomberg uses multiple ratings sources to classify securities appropriately, including bond-level ratings from the different agencies, comparable bond ratings, and local or foreign currency sovereign debt ratings. The type of rating included is discussed later in this section.

Bloomberg uses the middle rating of Moody's, S&P and Fitch to determine a security's credit classification or Index Rating. This essentially works as a "two-out-of-three" rule because at least two of the three agencies need to rate a bond as investment grade to qualify it as investment grade. If only two agencies rate a security, the most conservative (lowest) rating is adopted as the Index Rating. If only one rates a security, that single rating is used.

Types of CRA Ratings Considered

The primary inputs into the Index Rating are the issue (bond level) ratings published by the CRAs (sometimes called "final" ratings). If a bond has been assigned a final issue rating from at least one CRA, that rating takes precedence in determining the Index Rating in accordance with the Index Rating Methodology above.

In cases where a final rating has not been assigned, comparable issue ratings provide other indications of credit quality which may be used to determine inclusion in the Indices. This enables new issues to be added to the Projected Universe as soon as they meet all index criteria and sufficient information is

available to determine a probable investment-grade rating.

- **Comparable issue ratings:** Securities that do not have a final rating may have an Index Rating imputed from a comparable bond in the index in order to qualify the bond for inclusion in the AusBond and NZBond Indices. A comparable bond is defined as a bond issued by the same issuer, with the same structure, and seniority level.

Sovereign ratings are assigned by the CRAs as a measure of the capacity and commitment of central governments to repay their outstanding debt obligations. For debt issued by a sovereign government, the issuer rating (rather than the issue rating) from the CRAs is used in determining the Index Rating.

- Domestic sovereign debt: Uses the long-term local currency debt rating assigned by the three CRAs
- Foreign sovereign debt: Uses the long-term foreign currency debt rating assigned by the three CRAs

Timing of Ratings Availability and Ratings Updates

For a CRA rating to be considered in the Index Rating, the ratings must be made available on the Terminal. For a bond to be included in the Returns Universe for a given month, the rating must be available prior to close of business on the rebalance date (i.e., last business day of the prior month).

If a CRA changes the rating assigned to a bond (either an upgrade or a downgrade) which changes the Index Rating, that change will be reflected in the bond characteristics within the index. An Index Rating change may cause a bond to move between the rating bands of an index. If a change in the CRA rating causes the Index Rating to change from being investment grade to high yield (or high yield to investment grade), that will be reflected in the Projected Universe of the relevant index immediately and the Returns Universe after the next rebalancing date.

The Indices include only investment grade debt and therefore a bond default is an extremely rare event. In the event of a default, the accrued interest falls to zero, reversing any accrued interest since the last coupon payment date and causing a negative interest return. The defaulted security would be removed immediately from the Projected Universe and after the next rebalance date from the Returns Universe.

Sector Classifications

Composite Index Main Components

The AusBond Composite Index and NZBond Composite Index include four key components defined by issuer category³.

Index	AusBond Composite Index	NZBond Composite Index
Treasury	Securities issued by the Commonwealth of Australia	Securities issued by the Government of New Zealand

³ The Bloomberg Industry Classification System for Fixed Income (BICS FI) is used to classify issuers for this purpose.

<p>Semi Government (AusBond)</p> <p>Local Government (NZBond)</p>	<p>Securities issued by Australian state and territory governments authorities, listed as follows:</p> <ul style="list-style-type: none"> • Australian Capital Territory • New South Wales Treasury Corporation • Northern Territory Treasury Corporation • Queensland Treasury Corporation • South Australian Government Financing Authority • Tasmanian Public Finance Corporation • Treasury Corporation of Victoria • Western Australia Treasury Corporation 	<p>Securities issued by New Zealand local government authorities and entities wholly- owned and controlled by such local government authorities, including but not limited to the following:</p> <ul style="list-style-type: none"> • Auckland Council • New Zealand Local Government Funding Agency Limited • Watercare Services Limited • Christchurch City Holdings Limited
<p>Supranational, Sovereign and Agency (SSA)</p>	<p>Securities issued by any of the following issuers:</p> <ul style="list-style-type: none"> • Supranationals • Foreign sovereign, provincial, state or equivalent governments • Domestic and foreign government agencies that carry an explicit government guarantee and/or support from sovereign, provincial, state and/or equivalent governments <p>Classification of an issuer as a “supranational” or “sovereign” by a credit rating agency or RBA Repurchase Eligibility does not automatically qualify the security as an SSA security for the Indices.</p> <p>German law principles of Anstaltslast and Gewährträgerhaftung are considered to be the provision of explicit government support for these purposes.</p>	
<p>Credit</p>	<p>All other securities that meet index eligibility criteria.</p>	

Structured Instruments

The Indices allow the following structured securities that meet all other index eligibility requirements:

- Fixed-rate residential mortgage-backed securities (MBS) (bullet or soft-bullet)
- Covered bonds

Structured securities such as credit-linked notes, total return structures, collateralized debt obligations (CDOs), collateralized bond obligations (CBOs), collateralized fund obligations (CFOs) and synthetic securitizations are ineligible for the Indices. Since November 2016, commercial MBS and asset-backed securities (ABS) are also ineligible for the Indices. Hybrid capital securities (i.e., containing characteristics of both debt and equity) are also ineligible for the Indices.

Market of Issue Criteria

Private Placements

A security must be a publicly available issue in order to qualify for the Indices; private placement issues are excluded from the Indices. In order to qualify as public, a security must not be subject to Australian withholding tax by satisfying the public offer test requirements of section 128F of the Income Tax Assessment Act 1936. This requirement does not apply to NZBond Indices. The Indices employ Bloomberg Terminal fields to identify private placements and determine the status of the Australian withholding tax exemption, which are strictly defined and make use of the Terminal’s access to objective data⁴.

⁴ Available in {FLDS<GO>} and {DES<GO>} screens of individual bonds, the Bloomberg Terminal carries two fields

A private placement security that has been excluded from the Indices at issuance may be considered at a later time following public taps to the issue. Bloomberg monitors taps on an ongoing basis. Any tap that is confirmed to be public in nature will be considered for inclusion in the Indices. Assuming all other conditions are met, when the size of the public portion of an issue reaches the minimum size required for the relevant index, that issue will be added to the Projected Universe immediately and, at the next rebalancing date, to the Returns Universe for the following month. The entire issue size of the associated instrument will be included in the relevant index.

Governing Law

A security must be governed by Australian law in order to qualify for the AusBond Indices. Having part of the security (e.g. collateral) governed by non-Australian law is also permitted. There is no governing law requirement for NZBond Indices.

Coupon Types

The AusBond Indices allow fixed-rate, floating-rate, fixed-to-float rate, and inflation-linked coupon securities. The NZBond Indices allow fixed-rate, fixed-to-float rate during fixed coupon period, and inflation-linked coupon securities. Zero coupon securities and strips are excluded from both AusBond and NZBond Indices.

Optionality (Callable and Puttable Bonds)

Callable and puttable securities must meet the same inclusion rules as securities without embedded optionality in order to qualify for the Indices. If a call or put is announced, the security will be removed from the Projected Universe when the time to the call or put date falls under one month and from the Returns Universe on the rebalancing date on which the time to the call date falls below one month. A called or put security will exit the index at its call or put price with any final principal or coupon cash flows. Cash flows from called securities are effectively reinvested into the index immediately on the payment date.

For clarity, some features that are similar to optionality but are not considered as such by the Indices are:

- Early redemption features on securities (whereby the issuer may redeem the security at any time

identifying private placements:

- **PRVT_PLACE (DS512):** This is a Y/N field which returns 'Y' when the issuer's offering documentation (e.g., prospectus or offering memorandum) includes statements to the effect that the security may be offered and/or sold only through private placements or other non-public offerings, or when other information from the issuer or another involved party reliably indicates that such restrictions exist.
- **WITHHOLDING_TAX_EXEMPT (DX112):** This Y/N field indicates if a security is exempt from withholding tax. Per section 128F of the 'Income Tax Assessment Act 1936,' one can infer whether an instrument was offered to 10 or more investors by looking at whether income from said instrument is exempt from withholding tax.

As issuance of 1 year FRNs is often privately placed, Bloomberg may apply different criteria and perform additional reviews on these securities to properly exclude private placements from the AusBond Indices.

As a greater dependency will be placed on these Bloomberg Terminal fields, we strongly encourage clients to review them for new issues and contact us for additional information.

- close to final maturity date)
- Make-whole calls
- Contingent calls (e.g., tax changes calls)

Excluded Securities

The following types of securities are ineligible for the Indices:

- Convertibles
- Zero coupon
- Private placements
- Perpetuals
- Credit-linked notes
- Total return structures
- Collateralized debt, bond and fund obligations (CDOs, CBOs, CFOs)
- Synthetic securitizations
- Hybrid capital securities with deferral payment options
- Defaulted securities
- Securities with loss absorption clause (e.g. non-viability trigger, contingent convertible)
- Amortizing structures (except Inflation Linked Annuities)

Index Calculations

Bloomberg calculates the AusBond and NZBond Indices on days when the fixed income markets in Australia and New Zealand, respectively, are open; AUD indices are published Monday through Friday excluding Australian holidays and NZD indices are published Monday through Friday excluding New Zealand holidays. The index levels, or since inception returns, are calculated on a total return basis primarily in AUD or NZD depending on the index. The Indices are additionally published unhedged and hedged in 6 additional currencies. These currencies include USD, JPY, GBP, EUR, and NZD or AUD for AusBond or NZBond respectively.

In addition to index total returns, Bloomberg also calculates index characteristics such as yields and durations. A list of all characteristics calculated by Bloomberg and their corresponding mnemonics in the Bloomberg can be provided upon request.

Pricing

In pricing the benchmark indices, Bloomberg aims to mark each bond with an appropriate and observable level when available. In addition to pricing sources, other pricing considerations (quote side, settlement and timing) are important as they often provide the basis for relating an index price with levels observed in the market.

Sources for Index Prices and Validation

All securities in the Indices are priced by the Bloomberg Valuated Service, BVAL. All quotes used in the Indices are T+2 mid prices from the BVAL Sydney 17:00 snapshot with the exception of new issues. Prices for new issues are calculated to the first settlement date.

The high quality of index pricing is maintained by employing a variety of statistical techniques applied on day-to-day movements and point-in-time levels using tolerance bands set at the issuer, sector, quality and maturity levels. Possible outliers resulting from the verification process are resolved by the index team dedicated to pricing validation. Index users may also challenge price levels, which are then reviewed by the pricing team. If a discrepancy arises, prices may be adjusted on a going forward basis.

Quote Type

Securities in the Indices are quoted according to the market conventions. Currently with the exception of a few Australian inflation linked bonds, all securities in the Indices are quoted in clean prices (i.e., excluding accrued interest) in percentage of par. A small number of Australian inflation linked bonds are quoted in dirty prices (i.e., including accrued interest) in percentage of par.

Timing and Frequency

Securities in the Indices are priced at 17:00 Sydney time. Index bonds are priced daily, except on market holidays.

Settlement Assumptions

For index purposes, securities are assumed to settle on the next calendar day. At month-end, settlement is

assumed to be the first calendar day of the following month, even if the last business day is not the last day of the month. This procedure allows for one full month of accrued interest to be calculated.

Analytics

Index users rely on a range of fixed income analytics calculated by Bloomberg to quantify various risk exposures (duration, convexity, etc.) and the corresponding sensitivity to those risks for a given security, sector or asset class. Comparing the analytics of a portfolio relative to its benchmark allows investors to measure the magnitude of particular risks embedded within their portfolios and how they relate to the broad market. The Indices calculate all analytics on a next calendar day (T+1) basis. Analytics are calculated at the bond level using Bloomberg calculators and then aggregated to produce an index-level analytic value. Details on individual analytics and their calculations can be found in the Glossary.

Treatment of Cash

Any cash generated from coupon payments or early principal repayments is fully reinvested in the Indices immediately on payment day.

Unavailable Data and Unexpected Events

Where unforeseen events result in the unexpected closure of Australian or New Zealand fixed income markets, or where pricing data cannot reasonably be obtained or verified for one or more securities, affected securities will be priced using information from the last available index publication date.

If Australian or New Zealand market data is not available, the prior day's values will be used.

Restatement Policy

Bloomberg makes every effort to provide accurate calculation of its indices. However, to the extent a material error in index values is uncovered following its publication and dissemination, a notification will be sent to index clients alerting them of such error and the expected date of a revised publication, if warranted. Bloomberg considers the following factors to determine whether to restate. Not all conditions need to be present to warrant a restatement, and certain factors may be more determinative than others depending on the circumstances of the given error.

- The relative importance of the data field impacted by the error;
- When the error occurred and when it was discovered;
- The number of indices and subindices affected;
- Whether the impacted indices are linked to tradable products;
- The magnitude of the error;
- The burden of restatement on client re-processing relative to the impact of the error; and/or
- The impact of the restatement on analytical tools.

If a material error in index values is uncovered following the publication of any of the Indices (including any

subindices), appropriate notice will be provided advising whether a restatement will occur and how it will be made available. Any revisions to an index will be promptly advised of and published. Bloomberg retains final discretion as to a decision to review and/or restate any index. Bloomberg will give due consideration to all relevant matters in such cases and act in accordance with its governance processes in such situations.

Exchanges

A security that experiences an exchange in the current month will be removed from the Projected Universe immediately after the exchange announcement and from the Returns Universe on its exchange effective date. If the new replacement security has identical terms with the one that has been exchanged, it will be added to the Returns Universe and Projected Universe on the exchange effective date.

Data Providers and Data Extrapolation

Overview

The Indices are rules-based, and their construction is designed to consistently produce levels without the exercise of discretion. Except as otherwise described in this Index Methodology, the indices are produced without interpolation or extrapolation of input data. As further discussed below, the indices favor defined data backups and level carry-forwards to such interpolation or extrapolation, but the Administrator will update this Index Methodology and its internal procedures should either become necessary. In addition, the Index Administrator seeks to avoid contributions of input data that may be subject to the discretion of the source of such data and instead seeks to use input data that is readily available and/or distributed for a number of non-index or benchmark creation purposes. Accordingly, the Indices require no 'contributors' to produce and no codes of conduct with any such sources are required.

Other Data Inputs

The AusBond Bank Bill Index uses the Reserve Bank of Australia (RBA) cash rate and the Australian Stock Exchange (ASX) Bank Bill Swap (BBSW) rates⁵. The NZBond Bank Bill Index uses the Reserve Bank of NZ (RBNZ) official cash rate (OCR) and the NZ Financial Markets Association (NZFMA) Bank Bill Benchmark (BKBM) rates⁶. Any cash rate changes announced by the RBA and RBNZ are implemented in the Indices on the next index publication date following the announcement date.

⁵ The ASX has been administrator of the Australian BBSW since 1 January 2017. BBSW was previously administered by the Australian Financial Markets Association (AFMA). More information on BBSW is available at ASX, *Benchmark administration*, available: <http://www.asx.com.au/services/benchmark.htm>.

⁶ More information on BKBM is available at NZFMA, *NZFMA Reference Rate Pages - Rules*, available: https://nzfma.org/Site/OLD/Market_Data/NZ_Reference_rate_pages_-_Rules.aspx.

Access to the Indices

Data and Analytics

The Indices compile returns and characteristics for over 700 different indices. All indices are calculated daily excluding weekends and public holidays.

Bloomberg Terminal

Bloomberg Terminal subscribers can access data and reports including historical performance since inception, index constituents, aggregated analytics, and index publications for these benchmarks. The Bloomberg AusBond and NZBond Indices are available for analysis in many functions on the Bloomberg Terminal. Some of the functions available include:

IN <GO> - Bloomberg Index Browser

The Bloomberg Index Browser provides access to current and historical index performance data and statistics for the Bloomberg AusBond and NZBond Indices. Additional index families such as the Bloomberg Barclays Indices, commodity indices (BCOM and CMCI), and currency indices are also available.

DES <GO> - Description Page for Indices

The Description Page provides transparency into the composition of the Indices and displays an overview of the characteristics and historical levels.

- Profile: Understand the composition of the index, key data points such as inception date and reporting currency and view summary information from other tabs.
- Characteristics: Access key statistics, such as duration and yield and plot over time.
- Return Analysis: View index returns over various time periods and in different currencies (unhedged and hedged).
- Membership: See the constituents of the Returns Universe and Projected Universe on historical dates.

INP <GO> - Index Insights and Publications

The Index Publications page provides consolidated access to publications on Bloomberg's multi-asset class index families. Read the latest index-related reports and announcements or use the filters to access historical publications for a specific family or publication type.

PORT <GO> - Portfolio Risk & Analytics

Use PORT to analyze the risk and historical performance of a portfolio relative to a benchmark. The AusBond and NZBond Indices are available in PORT <GO> with constituent level data and weights. PORT provides access to additional characteristics, aggregations, and models for return attribution and risk. The wide breadth of coverage and depth of models in PORT is available to all terminal subscribers.

- Characteristics & exposures through time
- Tracking error

- Scenario analysis
- Performance attribution
- Projected cash flows
- Optimization
- What-if analysis
- Intraday performance

INDE <GO> - Bloomberg Indices Introduction

Use the Bloomberg Indices Introduction page to easily identify index performance and view recent announcements, reports, and publications pertaining to the major index families administered by BISL.

BVAL <GO> - Bloomberg Valuations

The BVAL screens provide transparency into pricing used in the indices including historical prices and insight into the inputs for the final BVAL price.

Bloomberg also makes data available for downloading through the Excel API.

Internet Access

Bloomberg AusBond Index home page:

<https://www.bloomberg.com/professional/product/indices/bloomberg-ausbond-index/>

SFTP

Bloomberg AusBond and NZBond Index end of day files are available for delivery via SFTP.

Redistributors

Bloomberg AusBond and NZBond Index files are available via many third-party channels.

Financial Products

Exchange Traded Funds (ETFs)

ETFs typically allow investors to access a passive indexed fund in smaller unit increments than may be available through traditional fund managers. The Indices, including the Bloomberg AusBond Composite Bond index as the primary benchmark used by fund managers of Australian bonds, may be used as the benchmark for ETFs in the Australian market (subject to execution of appropriate licensing agreements). ETF providers should contact Bloomberg to discuss licensing requirements when referencing the Bloomberg AusBond or NZBond Indices in any product, marketing material or descriptions.

Index Swaps and Total Return Swaps

Investors may wish to receive passive bond index returns by entering into a total return swap on the Bloomberg AusBond or NZBond Indices. Total return swaps are derivative products, so will typically be subject to ISDAs being in place between the two parties.

Price makers will quote a spread to a market floating interest rate, most commonly the three-month BBSW rate set, to be paid in exchange for the return of the relevant index, for a specified maturity with payment dates agreed prior to the trade. Investors can opt to pay or receive the index return against the floating rate. Investors will enter an agreement to make payments to the total return swap provider based on the direction of the trade, the notional amount and the floating rate reset (plus or minus the spread). The total return swap may be fully funded or an unfunded trade.

Investors should ensure that all price makers of total return swaps or other derivative products which reference the Bloomberg AusBond or NZBond Indices hold the appropriate licenses from Bloomberg to make such transactions. Price makers wishing to offer total return swaps or index swaps on any of the Indices should contact Bloomberg to discuss product license agreements.

Index-Linked Funds

Index linked funds provide exposure to the performance of the index families administered by BISL by generating returns equal to index returns for investors. Index linked fund providers should contact the Bloomberg team to discuss licensing requirements.

Custom Indices

The technology and deep dataset underlying the families of indices administered by BISL provide a foundation for custom index creation. Variables for customization include:

- Traditional selection criteria such as currency, Country of Risk, sectors, ratings or amount outstanding.
- Bloomberg's proprietary variables such as BVAL scores related to pricing quality and depth or calculated variables such as option-adjusted spreads.
- Caps on issuers or sectors to satisfy diversification or regulatory requirements such as those of the UCITS or IRS.
- Enhanced index weighting based on issuer-specific or algorithmic variables.

Appendices

Primary Index Inception Dates

Bloomberg AusBond Index Family

Composite Bond Index	30 September 1989
Government Index	30 June 1998
Treasury Index	31 March 1988
Semi-Government Index	30 September 1988
Non-Government Index	31 December 1998
Supra/Sov Index	31 January 2005
Credit Index	30 September 1989
Inflation Index	31 December 1998
Government Inflation Index	31 March 1991
Treasury Inflation Index	30 June 2014
Semi Government Inflation Index	30 June 2014
Credit Inflation Index	31 December 1998
Credit FRN Index	31 December 1998
AUD Bank Bill Index	31 March 1987
AUD Swap Indices (1-30 Year)	30 April 2005
AUD Bank Bill Index + X %	31 May 2016

Bloomberg NZBond Index Family

Composite Bond Index	31 December 2010
Government Index	31 December 1995
Treasury Index	31 December 2010
Local Government Index	31 December 2010
Non-Government Index	31 December 2010
Supra/Sov Index	31 December 2010
Credit Index	31 December 2010
Government Inflation Index	31 December 1995
NZD Bank Bill Index	31 December 1999

*Bloomberg AusBond and NZBond Index Methodology***Revaluation**

The Indices are capital accumulation indices, designed to measure the total return from investing in a particular sector. The Indices are market value weighted. In the absence of any new issue, maturities, or other changes in the index portfolio, the accumulation index may be written as:

Table A: Index valuation formula

$$INDEX = \frac{\sum_{j=1}^n (P_{j,t} + C_{j,t}) F_{j,t}}{\sum_{j=1}^m P_{j,0} F_{j,0}}$$

- $P_{j,t}$ = gross price per \$1.00 of face value for the j bond at time t, which includes an accrued interest component that increases linearly from the time that a coupon was last paid until the bond next turns ex-interest
- $C_{j,t}$ = coupon payable per \$1.00 face value for the j bond if the date t falls in the time period from the ex-interest date to the interest payment date, discounted to reflect the fact that this coupon will not actually be received until the payment date
- $F_{j,t}$ = face value on issue for the j bond at time t
- n = number of bonds in the index portfolio
- m = number of bonds in the index portfolio at inception

Daily Index Calculation

Index returns and characteristics are calculated every business day. Adhering to the principle of incorporating the most accurate and recent data available, when a local holiday precludes employing same-day pricing, then the index will use the previous day's pricing but maintain same-day settlement.

Rebalancing

All Indices are rebalanced monthly unless otherwise noted. The rebalancing day is the last business day of the month.

Reinvestment

Received coupon and principal payments are reinvested in the universe of securities comprising the index. Rebalancing is performed in market value proportions at the day's closing prices.

Risk Parameters

The following risk parameters are applied to the individual bonds comprising an index and the index as a whole.

Duration

Calculated as the weighted average term of all cash flows relating to a bond, including coupon receipts and maturity payment, using as weights the cash flows expressed as present values. For bonds which observe an ex-dividend period, while in the ex-dividend period, duration calculations assume the coupon has been paid effective on the ex-dividend date.

Modified Duration

Measures bond price sensitivity to interest rate changes. Modified duration is a linear approximation to price changes. For bonds which observe an ex-dividend period, modified duration calculations assume the coupon has been paid effective on the ex-dividend date.

Convexity

Measures a bond's price / yield curve deviation from linearity. It explains the discrepancy between actual price changes and those predicted using modified duration alone. Thus, convexity measures the second derivative of price change with respect to interest rates, and indicates how sensitive modified duration is to changes in interest rates. For bonds which observe an ex-dividend period, convexity calculations assume the coupon has been paid effective on the ex-dividend date.

*Bank Bill Index Calculations***Interpolation of Yields for Bank Bills**

Calendar Days Until maturity	Interpolated Rate
1-7	$R1$
8-14	$\frac{2}{3}R1 + \frac{1}{3}R2$
15-21	$\frac{1}{3}R1 + \frac{2}{3}R2$
22-28	$R2$
29-35	$\frac{8}{9}R2 + \frac{1}{9}R3$
36-42	$\frac{7}{9}R2 + \frac{2}{9}R3$
43-49	$\frac{6}{9}R2 + \frac{3}{9}R3$
50-56	$\frac{5}{9}R2 + \frac{4}{9}R3$
57-63	$\frac{4}{9}R2 + \frac{5}{9}R3$
64-70	$\frac{3}{9}R2 + \frac{6}{9}R3$
71-77	$\frac{2}{9}R2 + \frac{7}{9}R3$
78-84	$\frac{1}{9}R2 + \frac{8}{9}R3$
88-91	$R3$

Where

$R1$ = RBA 24-hour cash rate (AUD) or RBNZ 24-hour cash rate (NZD)

$R2$ = 1M BBSW rate (AUD) or 1M NZFMA rate (NZD)

*Bank Bill Index + X% Calculations***Calculation of Daily Returns for Bank Bills + X%**

$$\text{Daily Return} = \text{AUD Bank Bill Index Daily Return} + \frac{X}{365}$$

Where

X = Annualized cash rate to be added to the AUD Bank Bill Index returns

Swap Indices

The AusBond and NZBond Swap Indices measure the daily performance of AUD and NZD swap rates respectively⁷.

- *AusBond Swap Indices*: There are 15 AUD Swap Indices, with maturities of one to 10 years, increasing in one-year increments, followed by 12, 15, 20, 25, and 30 years.
- *NZBond Swap Indices*: There are 8 NZD Swap Indices, with maturities of 1, 2, 3, 4, 5, 7, 10 and 12 years respectively. There are an additional six NZD swap indices with the following blended maturity bands: 1-3, 1-5, 1-10, 3-7, 5-10 and 7-10 years.

Each single maturity swap index is comprised of a single notional underlying security with a maturity that corresponds to the maturity in the index name. The notional underlying security is a bond with following characteristics:

- Fixed-rate coupon bond that pays semi-annually or quarterly⁸.
- Next coupon payment date is exactly six months from the index valuation date (or three months for quarterly payments).
- Issue date (i.e., date purchased into the index) is the index valuation date minus one (T+1 settlement).
- Maturity date is equal to the issue date plus the number of years specified in the index name.
- Coupon rate is the par swap rate prevailing on the issue date (i.e., T-1) for the corresponding swap curve, rounded to 3 decimal places. (Note: this is based on quarterly payments for the 1, 2, and 3-year swap indices and semi-annual payments for all longer-term swap indices.)
- The bond is priced using the Reserve Bank of Australia (RBA)'s basic formula for treasury bonds⁹:

$$P = \left(v^{\frac{f}{d}} \right) * (g * (1 + a_n^{-1}) + 100v^n)$$

In this formula:

P	=	the price per \$100 face value. P is rounded to three decimal places.
i	=	Market yield per period (half-year or quarterly)
v	=	$1/(1+i)$
f	=	the number of days from the date of settlement to the next coupon payment
d	=	the number of days to next coupon payment
g	=	the half-yearly or quarterly rate of coupon payment per \$100 face value
n	=	the term in half years or quarters from the next interest-payment date to maturity
a_n^{-1}	=	$v + v^2 + \dots + v^n = \frac{1-v^n}{i}$, except if $i = 0$ then $a_n^{-1} = n$

⁷ The swap rate source is the Bloomberg AUD or NZD CBBT swap curves.

⁸ AUD swaps with maturities of 1, 2 and 3 years have quarterly payments, while longer maturities have semi-annual payments, in accordance with the Australian market convention. For NZD swaps, all maturities have semi-annual payments. Refer to the relevant AUD or NZD CBBT swap curve on the Bloomberg Terminal for details (e.g., ADSWAP 10 CBBT for the AUD 10-year swap curve or NDSWAP10 CBBT for the NZD 10-year swap curve).

⁹ See RBA, *Treasury Bonds* (Pricing Formulae), available: <<http://aofm.gov.au/ags/treasury-bonds/>> (accessed 6 June 2017). Note: adjust for quarterly payment frequency where necessary.

- The bond is priced using a yield corresponding to the par swap rate of the swap curve with corresponding maturity to the bond, as on the index valuation date.
- A daily return is calculated by dividing the bond price by 100 and subtracting one (i.e., the bond would have been priced at par the previous day (issue date), as the coupon rate is set to the par swap rate prevailing on the issue date). The daily return is applied to the previous swap index level to calculate the new index level.
- The NZBond Swap Indices with blended maturities are constructed from the existing single-year NZBond Swap Indices that fall within the maturity band (for example, the 1-10 year swap index is based on an equal weight of the 1, 2, 3, 4, 5, 7 and 10-year swap indices). The daily index level is calculated by applying the equally-weighted average of the daily returns of the constituent swap indices to the previous index level.
- These swap indices are published on trading days only, as defined by a Sydney or Auckland calendar. Where the issue date is a non-trading day, the swap rate from the previous trading day is used and the date is not adjusted. Similarly, if the maturity date is a non-trading day, the swap rate will be interpolated for that date and the date is not adjusted.

Swap Index Valuation Formula

$$I_1 = I_0 \times \frac{GV_1}{GV_0}$$

$$GV_i = \frac{FV_i \times GP_i}{100}$$

Where:

I	=	Index Value on Day i
GV	=	Gross Market Value of bond on Day i
GP	=	Gross Price per \$100 Face Value of bond on Day i
FV	=	Market Issuance Face Value of bond on Day i

Note: As the security will always price at par on issue date, the above formula simplifies to: $I_1 = I_0 \times \frac{GP_1}{100}$

Index-Specific Rules

Bloomberg AusBond Composite Index (BACMO)

Index description:

The Bloomberg AusBond Composite Bond Index includes investment grade, fixed interest bonds with a minimum of 1 month to maturity issued in the Australian debt market under Australian law.

Sectors included:

- Australian Treasuries
- Australian Semi-Governments
- Credit
- Supranationals
- Non-Australian Governments (including sovereign, provincial or state governments)
- Government Guaranteed or Supported (by sovereign, provincial or state governments)

Bond types included:

- Fixed rate bullet or callable securities
- Fixed-to-float securities in their fixed coupon period

Bond types excluded: Please refer to 2.1 Criteria for Index Inclusion/Exclusion

Minimum issue size: A\$100 million

Bloomberg AusBond Inflation Index (BAILO)

Index description:

The Bloomberg AusBond Inflation Index includes investment grade, inflation-linked securities with a minimum of 1 month to maturity issued in the Australian debt market under Australian law.

Bond types included:

- Capital Indexed Bonds
- Scheduled Indexed Bonds
- Inflation Indexed Annuities

Bond types excluded: Please refer to 2.1 Criteria for Index Inclusion/Exclusion

Minimum issue size: A\$50 million

Indexation method: Full inflation indexation of all cash flows

Indexation basis: Consumer Price Index (all groups)

Bloomberg AusBond Credit FRN Index (BAFRNO)

Index description:

The Bloomberg AusBond Credit FRN Index includes investment grade, floating rate credit securities with a minimum of 1 month to maturity issued in the Australian debt market under Australian law.

Sectors included:

- Credit
- Supranationals
- Government Agencies

Bond types included:

- Floating rate bullet or callable securities
- Fixed-to-float securities in their floating coupon period

Bond types excluded: Please refer to 2.1 Criteria for Index Inclusion/Exclusion

Minimum issue size: A\$100m

Bloomberg AusBond Bank Bill Index (BAUBIL)

Capital changes:

Amounts outstanding updated each Tuesday on maturity of the shortest dated bill.

Reinvestment:

Maturing bills are reinvested in the discounted value of a new 91-day bill on the day the cash is received (each Tuesday).

Pricing:

Index valuation is based on the following three rates, obtained from Bloomberg (page BTMM AU <GO>) at end of business day: RBA 24-hour cash rate; 1M BBSW rate; and 3M BBSW rate. Using the three rates, thirteen interpolated rates are calculated and applied to each of the bills.

Index methodology:

Each day the term to maturity of each bill, and hence the index as a whole, reduces by one day until the shortest bill matures. The face value of the maturing bill is then reinvested in a new bill with a term to maturity of 13 weeks and the term to maturity of the index as a whole lengthens by approximately seven days.

Bloomberg AusBond Supranational/Sovereign Index (BASSO)

Index description:

The Bloomberg AusBond Supranational/Sovereign Index measures the market of supranational agencies, provincial/state government obligations, and sovereign bonds with a minimum of 1 month to maturity issued in the Australian debt market under Australian law.

Sectors included:

- Supranationals
- Non-Australian Governments (including sovereign, provincial or state governments)
- Government Guaranteed or Supported (by sovereign, provincial or state governments)

Note: For the avoidance of doubt, classification of an entity by a rating agency as “supranational” or “sovereign” or RBA Repurchase Eligibility does not automatically qualify the security for inclusion in the Bloomberg AusBond Supranational/Sovereign Index.

The Bloomberg AusBond Indices recognize the German law principles of Anstaltslast and Gewährträgerhaftung as being the provision of explicit government support.

Bond types included:

- Fixed rate bullet or callable securities
- Fixed-to-float securities in their fixed coupon period

Bond types excluded: Please refer to 2.1 Criteria for Index Inclusion/Exclusion

Minimum issue size: A\$100 million

Bloomberg NZBond Composite Index (BNZCM0)

Index description:

The Bloomberg NZBond Composite Index includes investment grade fixed interest bonds with a minimum of 1 month to maturity issued in the New Zealand debt market.

Sectors included:

- New Zealand Treasuries
- New Zealand Local Governments
- Credit
- Suprationals
- Non-New Zealand Governments (including sovereign, provincial or state governments)
- Government Guaranteed or Supported (by sovereign, provincial or state governments)

Bond types included:

- Fixed rate bullet or callable securities
- Fixed-to-float securities in their fixed coupon period

Bond types excluded: Please refer to 2.1 Criteria for Index Inclusion/Exclusion

Minimum issue size: NZ\$100 million

Bloomberg NZBond Supranational/Sovereign Index (BNZSS0)

Sectors included:

- Suprationals
- Non-New Zealand Governments (including sovereign, provincial or state governments)
- Government Guaranteed or Supported (by sovereign, provincial or state governments)

Note: For the avoidance of doubt, classification of an entity by a rating agency as “supranational” or “sovereign” or RBA Repurchase Eligibility does not automatically qualify the security for inclusion in the Bloomberg NZBond Supranational/Sovereign Index.

The Bloomberg NZBond Indices recognize the German law principles of Anstaltslast and Gewährträgerhaftung as being the provision of explicit government support.

Bond types included:

- Fixed rate bullet or callable securities
- Fixed-to-float securities in their fixed coupon period

Bond types excluded: Please refer to 2.1 Criteria for Index Inclusion/Exclusion

Minimum issue size: NZ\$100 million

Bloomberg NZBond Inflation Index (BNZIO)

Index description:

The Bloomberg NZBond Government Index includes inflation-linked securities with a minimum of 1 month to maturity issued in the New Zealand debt market by the Government of New Zealand.

Sectors included:

- New Zealand Treasuries

Bond types included:

- Capital Indexed Bonds
- Scheduled Indexed Bonds
- Inflation Indexed Annuities

Minimum issue size: NZ\$50 million

Indexation method: Full inflation indexation of all cash flows

Indexation basis: Consumer Price Index (all groups)

Bloomberg NZBond Bank Bill Index (BNZBIL)

Frequency:

Daily index values available back to base date.

Capital changes:

Amounts outstanding updated each Tuesday on maturity of the shortest dated bill.

Reinvestment:

Maturing bills are reinvested in the discounted value of a new 91-day bill on the day the cash is received (each Tuesday).

Pricing:

Index valuation is based on the following three rates, obtained from Bloomberg (page BTMM NZ <GO>) at end of business day: RBNZ 24-hour cash rate; 1M NZFMA rate; and 3M NZFMA rate. Using the three rates, thirteen interpolated rates are calculated and applied to each of the bills.

Index methodology:

Each day the term to maturity of each bill, and hence the index as a whole, reduces by one day until the shortest bill matures. The face value of the maturing bill is then reinvested in a new bill with a term to maturity of 13 weeks and the term to maturity of the index as a whole lengthens by approximately seven days.

Glossary

- **Accrued interest:** The interest that has accumulated on a bond since the last interest payment up to, but not including, the settlement date.
- **Amount Outstanding:** The total current amount of the bond issue that is outstanding in the market. Initial Reserve Bank of Australia take-up of AOFM issued Treasury securities is excluded from the Indices. Reserve Bank of New Zealand take-up of NZGB issued securities is excluded from the indices.
- **AUD:** Australian dollar.
- **BICS:** Bloomberg Industry Classification System for Fixed Income (BICS FI) is a hierarchical system that classifies fixed income security issuers.
- **BVAL:** The Bloomberg Valuation Service algorithmically combines a wealth of market data, sophisticated analytics and asset class specific relative value models to produce independent, credible and defensible valuations for securities.
- **Convexity:** The second derivative of a security's price with respect to its yield, divided by the security's price. A security exhibits positive convexity when its price rises more for a downward move in its yield than its price declines for an equal upward move in its yield.
- **Country of Risk:** The International Organization for Standardization (ISO) country code of the issuer's country of risk. Methodology consists of four factors listed in order of importance: management location, country of primary listing, country of revenue and reporting currency of the issuer.
- **Coupon:** The interest rate stated on a bond when it's issued. The coupon is typically paid semiannually. This is also referred to as the "coupon rate" or "coupon percent rate. For fixed-income indices, this is the par-weighted average coupon of the index members.
- **CRA:** Credit rating agency. The Indices use S&P Global, Moody's and Fitch.
- **Currency:** A security's currency of denomination as described in the prospectus.
- **Duration:** This is the Macaulay duration of a bond or index. The weighted average maturity of the security's cash flows, where the present values of the cash flows serve as the weights. The greater the duration of a security, the greater its percentage price volatility.
- **Expected maturity date:** Refers to the planned early maturity date or refinance date, as published in the prospectus, in relation to mortgage securities.
- **Face value:** The value of a financial instrument, as stated on the instrument. Interest is calculated on face value. Also called Par Value or Nominal Value.
- **IAC:** Index Advisory Council.
- **Indices:** refers to the indices in the Bloomberg AusBond and NZBond index family.
- **Index Ratings:** The ratings of securities adopted for the purpose of the Indices based on a set methodology outlined in this document.

- **Maturity Date:** This is the date on which the principal amount of the bond becomes due and is repaid to the investor. The Indices supplement maturity dates with call dates for callable bonds and the expected maturity date for mortgages in the indices.
- **Modified Duration:** The percentage price change of a security for a given change in yield. The higher the modified duration of a security, the higher its risk.
- **NZD:** New Zealand dollar.
- **Sector Classification:** This is a categorization of a bond by its industry, government affiliation, or related characteristic of its issuer. The Indices are divided into four main and supplemented by Bloomberg Industry Classification System for Fixed Income (BICS FI). BICS FI is a hierarchical system that classifies fixed income security issuers.
- **Projected Universe:** The Projected Universe membership is defined by applying the security eligibility rules daily and setting constituent weights based on daily closing prices.
- **Returns Universe:** The Returns Universe membership is defined by applying the security eligibility rules at each monthly rebalancing date and holding the resulting list of securities constant over the month.

Environmental, Social and Governance Disclosures

EXPLANATION OF HOW ESG FACTORS ARE REFLECTED IN THE KEY ELEMENTS OF THE BENCHMARK METHODOLOGY	
Item 1. Name of the benchmark administrator.	Bloomberg Index Services Limited ("BISL")
Item 2. Type of benchmark or family of benchmarks.	Other
Item 3. Name of the benchmark or family of benchmarks.	Bloomberg AusBond and NZBond Index Family
Item 4. Does the benchmark methodology for the benchmark or family of benchmarks take into account ESG factors?	No
<p>Item 5. Where the response to Item 4 is positive, please list below, for each family of benchmarks, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816.</p> <p>Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.</p> <p>The ESG factors shall be disclosed at an aggregated weighted average value at the level of the family of benchmarks.</p>	
(a) List of environmental factors considered:	Not applicable
(b) List of social factors considered:	Not applicable
(c) List of governance factors considered:	Not applicable
<p>Item 6. Where the response to Item 4 is positive, please list below, for each benchmark, those ESG factors that are taken into account in the benchmark methodology, taking into account the ESG factors listed in Annex II to Delegated Regulation (EU) 2020/1816, depending on the relevant underlying asset concerned.</p> <p>Please explain how those ESG factors are used for the selection, weighting or exclusion of underlying assets.</p> <p>The ESG factors shall not be disclosed for each constituent of the benchmark, but shall be disclosed at an aggregated weighted average value of the benchmark.</p> <p>Alternatively, all of this information may be provided in the form of a hyperlink to a website of the benchmark administrator included in this explanation. The information on the website shall be easily available and accessible. Benchmark administrators shall ensure that information published on their website remains available for five years.</p>	
(a) List of environmental factors considered:	Not applicable
(b) List of social factors considered:	Not applicable

(c) List of governance factors considered:	Not applicable
Hyperlink to the information on ESG factors for each benchmark:	Not applicable
Item 7. Data and standards used	
(a) Data input. <i>(i) Describe whether the data are reported, modelled or sourced internally or externally.</i> <i>(ii) Where the data are reported, modelled or sourced externally, please name the third party data provider.</i>	Not applicable
(b) Verification and quality of data. <i>Describe how data are verified and how the quality of those data is ensured.</i>	Not applicable
(c) Reference standards <i>Describe the international standards used in the benchmark methodology.</i>	Not applicable
Date on which information has been last updated and reason for the update:	November 2022, publication

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