



AUSTRALIAN FINANCIAL MARKETS ASSOCIATION

AFMA BBSW
A Guide to the Bank Bill Swap (BBSW)
Benchmark Rate

September 2016



AUSTRALIAN FINANCIAL MARKETS ASSOCIATION

ABOUT AFMA

THE AUSTRALIAN FINANCIAL MARKETS ASSOCIATION (AFMA) is the leading industry association promoting efficiency, integrity and professionalism in Australia's financial markets, including short term interest rates, capital, credit, derivatives, foreign exchange and other specialist markets.

We have more than 120 members, from Australian and international banks, leading brokers, securities companies and state government treasury corporations to fund managers, energy traders and industry service providers. Our role is to provide a forum for industry leadership and to advance the interests of all these market participants.

Promoting best practice

AFMA promotes best practice in financial markets so they can continue to contribute to Australia's economic health. We do this by:

- encouraging responsible conduct and efficient markets through industry codes, conventions, guides and preparing and maintaining standard documentation;
- dealing with policy makers on effective regulation of Australia's financial markets to inspire investors' confidence; and
- encouraging high standards of professional conduct through our professional development and accreditation programs.

Our mission – advancing the interests of members

- Promote Australia as a global centre for financial services.
- Help members grow their businesses and contribute to Australia's economic wellbeing.
- Develop new markets for financial products.
- Encourage existing markets to reach their full potential.
- Lead and sustain effective management of OTC financial markets.
- Represent member participants in exchange-traded markets to ensure effective and efficient market processes and regulation.
- Encourage high standards of professional conduct.
- Develop individual expertise through professional development and accreditation programs; and
- Promote government policies and business conditions that support a strong financial sector.

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Foreword – Current BBSW Developments

AFMA administers the Bank Bill Swap (BBSW) rate, which is a benchmark interest rate that plays a prominent role in Australia’s financial infrastructure. It finds extensive application in both lending transactions and interest rate derivative products.

BBSW is currently calculated using *live and executable prices* in the market for Prime Bank Eligible Securities as the price discovery mechanism. Accordingly, BBSW is derived from a traded market.

In October 2015, the Council of Financial Regulators (CFR) consulted on the evolution of the methodology for BBSW, given observed changes in market practices and conditions. On 9 February 2016 the Council published a Discussion Paper, which summarised the feedback to the consultation and proposed options for revisions to the calculation methodology.

AFMA agrees that the Council’s principal recommended methodology change, to place primary reliance on a volume weighted average price (VWAP) calculation, should put BBSW on a sounder footing going forward. Under the new methodology, the current ‘NBBO’ methodology, which is based on live executable bid and offer prices, will continue and will serve as the primary fall-back mechanism to VWAP.

AFMA has previously advised the market that it intends to step away from benchmark administration and to transfer administrator responsibilities to an appropriately qualified entity (see Market Notice 2016_3). While AFMA is responsible for the design of the new methodology and is working on the detailed rules and procedures, the new administrator will be expected to take responsibility for implementation.

AFMA will inform the market of further significant developments in relation to the formulation of the detailed procedures and rules. These updates will be made available via the AFMA website.

This *Guide* will assist regulators, market users and others wishing to improve their understanding of the current BBSW rate set process. All benchmark rate sets encounter risks to their integrity. In this context, the *Guide* also provides information on the checks and balances incorporated into the BBSW process.

The BBSW Benchmark Rate Conventions fully describe the operational aspects and calculation methodology currently applied to determine BBSW rates.

David Lynch
Chief Executive Officer
Australian Financial Markets Association

What this Guide is about

The AFMA BBSW benchmark rates¹ represent the midpoint of the nationally observed best bid and best offer (NBBO)² for AFMA Prime Bank Eligible Securities. Thus, BBSW is derived from a traded and transparent market. AFMA administers the BBSW rate set process and publishes the BBSW rates.

As with all benchmark rates, there is market-wide interest in BBSW and its associated processes; particularly from member firms, market participants, other users of BBSW and domestic and international regulators. This interest stems from the importance of the rate in the financial system. It also reflects greater awareness in recent years of the need for sound management of rate set processes in order to maintain public confidence.

International regulatory bodies have developed standards to be used for benchmark construction. In particular, the International Organization of Securities Commission's (IOSCO) *Principles for Financial Benchmarks*, issued in July 2013, recognised the use of executable bids or offers as a means to construct Benchmarks where anchored in an observable, actively traded market consisting of bona fide, arms-length transactions. IOSCO has invited Administrators to provide public disclosure on the extent of their compliance with the principles and AFMA has accepted this invitation and reviewed its compliance with each of the IOSCO principles with respect to the BBSW benchmark, with conclusions as described on the AFMA website.

The purpose of this *Guide* is to describe the nature of BBSW and the effectiveness of the checks and balances that maintain its integrity. It also serves as an educational tool, providing an accessible, comprehensive overview of BBSW and its associated markets and its governance and procedures.

The Guide also provides context and information on the steps currently being undertaken to further strengthen the BBSW process through transparency and governance enhancements. It is divided in four parts:

- Part 1 – BBSW Methodology and its Key Features;
- Part 2 – Checks and Balances to Ensure BBSW Integrity;
- Part 3 – Benchmarks Committee Governance;
- Part 4 – Changes to the Methodology.

¹ In its July 2015 [Report 440](#) on Financial Benchmarks, the Australian Securities and Investments Commission (ASIC) determined that BBSW is a financial benchmark of potential systemic importance.

² Prior to 27 September 2013 BBSW was calculated using panellist observations of the mid-point rate at which Prime Bank Eligible Securities traded in the open market.

1. BBSW Methodology and its Key Features

1.1. The definition of BBSW

The AFMA BBSW rate is the mid-rate of the market for AFMA Prime Eligible Securities that have a remaining maturity of between one and six months,

- As sourced from Approved Trading Venues at and around 10.00am on a Business Day³ and
- As calculated using a process referred to as the National Best Bid and National Best Offer (or NBBO).

Prime Eligible Securities comprise bank accepted bills (BABs) and negotiable certificates of deposit (NCDs) issued by banks that, having met the eligibility criteria and conditions, are designated AFMA 'Prime Banks'. Prime bank paper is actively traded and Section 1.3 below provides more information on the Prime Bank concept and associated processes.

BBSW is an interest rate that;

- Includes a credit premium representative of where the market trades Prime Bank paper.
- Represents T+0 settlement and *modified following* half-month value date convention, the latter described in 1.8 *Pricing Influences*.

Trading in the market by participants is regulated by the Australian Securities and Investments Commission (ASIC). NCDs, which comprise approximately 85 per cent of the market, are a financial product under Australian legislation. BABs comprise the balance of the market.

Core elements of the traded market underpinning BBSW are as described in the following sections.

1.2. The design of the National Best Bid and National Best Offer (NBBO) rate

The BBSW benchmark rates represent the midpoint of the nationally observed best bid and best offer for AFMA Prime Bank Eligible Securities of all specified tenors. The Calculation rules are fully described in sections 3 and 4 of the [BBSW Benchmark Rate Conventions](#). However, the core elements are:

- Live, executable bids and offers in Prime Bank Eligible Securities are mechanically collected from Approved Trading Venues at three intervals at and around 10:00am, i.e. 9:59am, 10:00am and 10:01am;
- The best bid and best offer at each interval are averaged to form the midpoint NBBO for the sample;
- The average of all good midpoint NBBO⁴ samples is BBSW for the respective tenor.

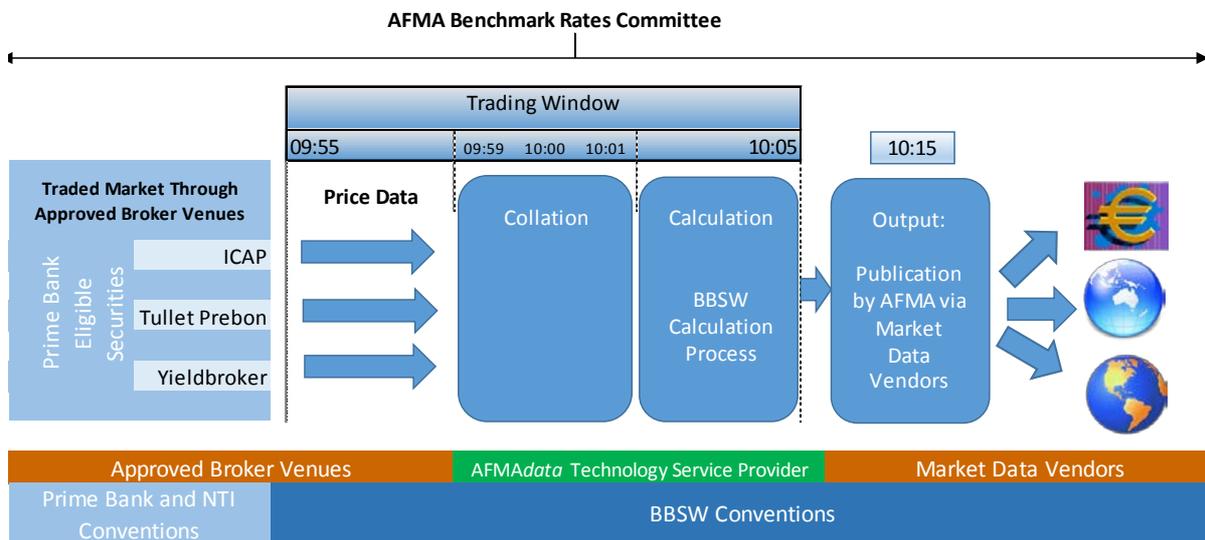
³ 'Business Day' is broadly defined as a day on which banks are open in Sydney.

⁴ A good NBBO sample requires both a bid and an offer.

Historically, most secondary trading in Prime Bank paper has occurred at and around 10:00am in the brokered market in the 1, 3 and 6 month tenors and, accordingly, this is the key period of price discovery during the trading day. Paper of 2, 4 and 5 month tenor trades less frequently; however, live and executable market rates exist and are transparent to market participants with access to brokered market data.

BBSW is calculated in accordance with the approved Calculation Mechanisms as prescribed within the BBSW Benchmark Rate Conventions. The process is illustrated as follows:

BBSW NBBO Workflow



1.3. The Prime Bank concept and its application

AFMA Prime Banks are a designated sub-set of banks operating in Australia, whose short term securities trade as a homogeneous asset class and are recognised as being of the highest quality with regard to liquidity, credit and consistency of relative yield. This homogeneity promotes market liquidity and provides the basis for effective price discovery in the market.

All Prime Banks are subject to an annual assessment of their ongoing eligibility as a Prime Bank. Banks that meet a set of *eligibility criteria* may nominate to be considered a Prime Bank. They then must achieve a minimum level of support from significant investors in bank short term paper for their inclusion on the Prime Bank list, as measured in a survey conducted by AFMA.

Regarding the *eligibility criteria* for Prime Banks, a bank must:

- Be an Authorised Deposit-taking Institution (ADI) as defined by the Australian Prudential Regulation Authority (APRA);
- Satisfy a credit rating benchmark, that is recommended by the AFMA NTI Committee and ratified by the AFMA MGC; currently it is a Standard & Poor’s short term rating of A1+ and a long term rating for senior unsecured debt obligations of at least AA-; and

- Have securities eligible for use in the RBA's open market operations and standing liquidity facilities.

The rules do not specify a minimum level of issuance but the [AFMA Prime Bank Conventions](#) state that Prime Banks should demonstrate a commitment to the market by endeavouring to maintain a minimum issuance level of \$5 billion and be prepared to support the market for all Prime Bank paper on issue.

A market survey is conducted annually to determine which banks will be afforded Prime Bank status. The survey, and the elections process embodied within it, is designed to strike a balance between maintaining the quality of Prime Bank status and promoting market effectiveness and development by supporting a reasonably diverse range of Prime Banks. Key features of the election of Prime Banks are:

- The survey polls the opinion of a broad section of the financial community active in the NCD and BABS markets;
- The hurdle to become a new Prime Bank is 80 per cent of the weighted survey vote;
- The hurdle for existing Prime Banks is 70 per cent of the weighted survey vote;
- If this process results in less than three Prime Banks being selected, then the 80 per cent hurdle for new Prime Banks would be progressively lowered until three Prime Banks are elected, provided a minimum hurdle rate of 70 per cent is maintained.

Should the process fail to elect 3 Prime Banks, the matter would then be referred to the MGC for a recommended course of action to then be considered by the Board.

A Prime Bank will automatically lose its status should it fail to meet any of the *eligibility criteria* (e.g. through a credit rating downgrade) or it requests in writing to AFMA that it be removed from the list of Prime Banks.

The expectation that a Prime Bank should have a minimum level of issuance would not exclude a bank from Prime Bank status, though it would likely affect its acceptance by the market in the annual survey.

AFMA's Prime Bank Conventions include contingency plans to respond to unexpected market developments, for example, in the event that Prime Bank Paper begins to trade on a non-homogenous basis. A scheduled survey may be brought forward⁵ provided that there is approval by both the MGC and the AFMA Board. Measures are in place to facilitate market continuity in the situation in which a major Prime Bank were to fail to meet the eligibility criteria (e.g. due to a credit downgrade).

The Prime Bank Conventions govern the eligibility criterion used by AFMA to ensure that an elected Prime Bank maintains a commitment to support the market through a process which also requires

⁵ If a survey is brought forward, subsequent surveys are conducted annually from the date the new Prime Bank list is promulgated.

each Prime Bank to make a two-way market in each actively traded tenor of Prime Bank Eligible Securities during a pre-determined time period each Sydney Business Day, and during which time a NBBO is calculated and subsequently published as the BBSW benchmark rate.

1.4. Prime Bank Eligible Securities

Prime Bank Eligible Securities, generally known as Prime Bank paper⁶, are comprised of NCDs issued by and BABs accepted by the AFMA Prime Banks, where the remaining maturity of the securities is six months or less, after consideration is given to the early-month and late-month pooling convention which provides flexibility in deliverability and issuance of securities within each tenor. A key attribute of this securities pool is that it supports broad homogeneous price formation and trading.

The Prime Bank Conventions describe the protocols which govern the selection of AFMA Prime Banks, the ongoing requirements that Prime Banks must adhere to in order to maintain Prime Bank status, Prime Bank reporting requirements and the contingency plan should a major bank or banks lose Prime Bank status. The Prime Banks are also named within these Conventions.

1.5. The market for Prime Bank paper

Banks trade funds between themselves on the interbank market, which facilitates the daily allocation of available liquidity across the banking system. The Prime Bank paper market is an important facility (along with banks' operations in the cash, repo and foreign exchange markets) through which banks can manage their liquidity. Institutional investors such as investment managers are significant buyers of these securities. Activity in the NCD market is regulated under Australian law, as outlined in section 2.1.

The most popular tenor for paper issued into the Australian market is three months, although paper is also issued regularly for six months and for terms as short as one month and as long as 12 months. Activity in the market is related to issuance patterns of the Prime Banks, which need to continually issue in sufficient volume in the range of traded tenors to sustain a liquid market.

1.6. Operational aspects of the market

The structure, depth and efficiency of the Prime Bank paper market are pertinent factors when it comes to design of the BBSW benchmarking process

The short term securities market, including Prime Bank paper, generally trades from 8:00am to 5:00pm DST/EST on Sydney Business Days; however it may operate in a reduced capacity where there is not a similarly gazetted holiday in Melbourne.

Trading is primarily facilitated by two voice brokers and one electronic venue, all posting firm bids and offers on screens available to market participants. Orders are executed either over the phone or via electronic means, trades time-stamped and confirmations sent to the counterparties.

⁶ The terms *Prime Bank Eligible Securities* and *Prime Bank paper* are interchangeable.

The most actively traded tenors are those of one, three and six month maturity. Tenors may trade differently depending on the supply of securities.

Many trades, particularly with institutional clients, are agreed prior to 10:00am at a price that references the yet-to-be-determined BBSW rate for the day. For example, a trade might be agreed at 9:00am with an interest rate of 'BBSW adjusted by agreed margin'. The actual rate would only be known to the parties once the relevant BBSW rate had been published for the day.

Trading activity in Prime Bank paper is generally concentrated around 10:00am, when the BBSW rates are calculated. The rate-set itself creates a liquidity event and leads to a concentration of trading within a short period. This is a common feature of many markets.

As established under the market conventions, paper from any AFMA Prime Bank should be accepted for delivery (with limited credit-based exceptions). The conventions also specify the maximum lines of stock per parcel size and the standard (or default) transaction size.

AFMA Prime Banks can issue their own paper into the market including (subject to settlement timing requirements) to deliver against their sales of paper in the market.

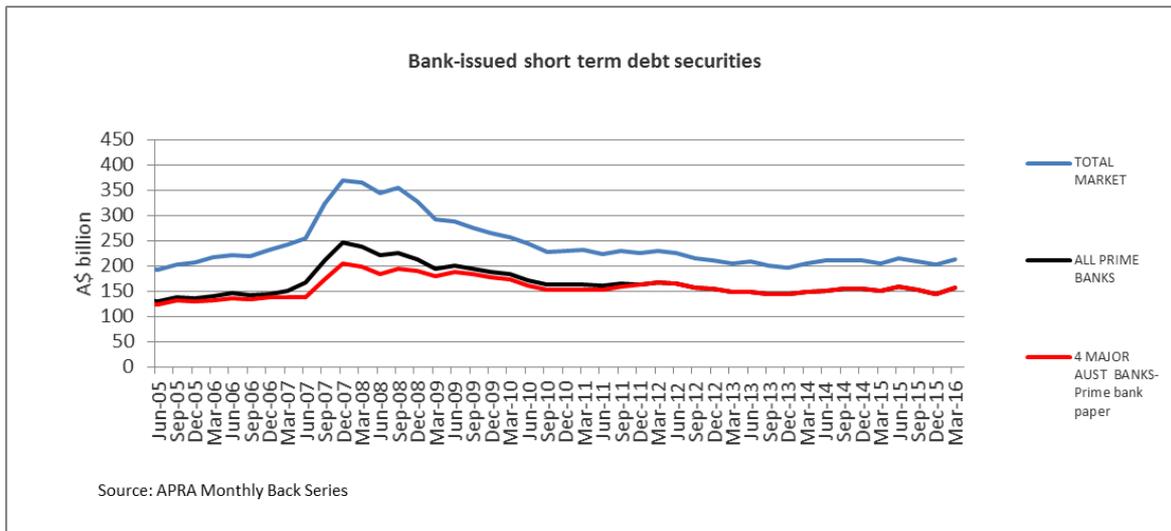
The market is physically settled; there is no net cash settlement. Unless mutually agreed otherwise, transactions negotiated before noon are for settlement on the same day and transactions negotiated after noon are for settlement on the following Business Day.

1.7. Size of the market

As at March 2016 the stock of paper issued and/or accepted by Prime Banks and categorised as Prime Bank Eligible Securities was approximately \$150 billion.

The volume of BABs and all NCDs on issue increased significantly between 2006 and 2008, in part due to the growth of foreign bank balance sheets – see Figure 1. Since then it has fallen back to, and generally maintained, the 2006 level for a variety of reasons, including industry consolidation post the global financial crisis (GFC), and the impact of the Basel III liquidity measures which has seen the debt issuance maturity profile extended.

Figure 1



AFMA’s 2015 Australian Financial Markets Report provides an indication of market turnover. Refer Table1.

The level of activity in the market can vary significantly from day to day, depending on economic news and market conditions. In recent years, turnover declined as banks began to extend the maturity profile of their funding as required to meet the Basel III liquidity requirements.

Table 1

Annual Turnover Summary (AUD million) - Bank Issued Paper									
Survey Year	Survey Respondents	Other Banks	Fund Managers	Government	Offshore Central Banks	Other Counterparties	Sub-total	Inhouse Transactions	Total
2007-08	634,129	430,339	631,004	131,478	238,147	1,708,790	3,773,887	861,192	4,635,079
2008-09	471,450	260,210	553,504	107,574	3,905	1,234,146	2,630,789	1,887,312	4,518,101
2009-10	449,519	223,430	638,930	167,336	11,701	575,495	2,066,411	1,347,595	3,414,006
2010-11	533,669	202,998	525,958	200,400	9,946	487,599	1,960,570	1,243,709	3,204,279
2011-12	503,618	260,752	606,729	185,218	11,315	526,215	2,093,847	1,211,224	3,305,071
2012-13	378,552	114,524	465,269	126,462	8,548	816,390	1,909,746	1,039,514	2,949,259
2013-14	294,507	76,365	422,623	123,436	8,887	730,420	1,656,238	909,494	2,565,731
2014-15	134,545	101,763	476,902	118,967	12,667	866,750	1,711,594	821,013	2,532,607

Source: AFMA 2015 Australian Financial Markets Report

A number of foreign banks have been Prime Banks at various times between 2006 and early 2012. However, while in aggregate foreign banks accounted for nearly 20 per cent of total paper on issue for a short period prior to the GFC, they generally accounted for only a modest proportion of Prime Bank paper on issue. Since February 2012, the four major Australian banks have been the only Prime Banks, and currently are deemed to account for approximately 75 per cent of the total bank issued short term paper on issue as at March 2016.

1.8. Pricing influences

Pricing of Prime Bank paper depends in part on the RBA's expected cash rate between purchase date and maturity of the security. The market also prices in a risk premium for credit for the Prime Banks and takes account of the term to maturity of the paper. Another important factor is the supply and demand factors specific to the market; for example, the stock of Prime Bank paper, the liquidity preference of investment funds, cost and availability of alternatives through deposits or overseas borrowing etc.

Technical aspects of the market also affect BBSW pricing, as explained in Box 1 in relation to so called 'Early' and 'Late' maturity buckets. These technical features of the market can increase the challenge for entities that are less familiar with the market in interpreting the patterns of price movements, especially around mid-month periods. While the impact is typically by its nature transient, it is nonetheless a relevant feature to users of BBSW rates.

In common with other interest rates, lead economic indicators affect market expectations about the forward funding environment and this will also be reflected in market pricing. The Basel III liquidity reforms are a good example of regulatory measures that have had an influence on the market.

BOX 1: The Influence of 'Early' and 'Late' Maturity Buckets on BBSW Rates

To promote liquidity in Prime Bank Eligible Securities, maturities are concentrated and trading occurs in half-month periods. 'Early' instruments mature from the 1st to the 15th day of a month, with maturities from the 16th to the last day of a month designated 'Late'.

This pooling convention, referred to in the BBSW Benchmark Rate Conventions as the Straight Run Maturity Pool, means that on any given day, Prime Bank paper being delivered may have a maturity which is not directly correlated to the tenor maturity as defined by the modified following half-month value date convention. To illustrate, paper delivered into a six month maturity could potentially extend to the fifteenth day or the last day of the straight-date month (modified following half month basis), dependent upon the date in the current month. For example on 16 May 2014 Prime Bank Paper with a maturity date of 28 November 2014 would be classified as Prime Bank Eligible Securities of six month tenor, trading in the late-month pool, and so be delivered notwithstanding a day-count of 196 days.

These measures to promote an active and liquid market can influence the pricing of BABs/NCDs on two fronts:

- i. Sellers will generally deliver securities which are the cheapest to deliver within the particular half-month and buyers will factor this into the interest rate at which they are prepared to deal. While the effect is less pronounced when the short term yield curve is flat, it nonetheless is a subtlety reflected on the Approved Trading Venues screens and therefore is reflected in the BBSW benchmark rates; and
- ii. Intra-month liquidity is largely aligned to the pool that represents the current maturity period; i.e. the pool against which the BBSW rates are set. Once trading moves into the new period the stock purchased in the prior period generally becomes less liquid. For example, BABs/NCDs purchased on the 15th of a month would be less liquid the following day, due to the market focus on the late-month maturity pool.

Since many market participants hold bank issued securities including Prime Bank paper to manage their liquidity positions, these participants will hold stock that is of highest liquidity, and will manage their book in a manner which optimises their liquidity position within the parameters of the two maturity bands. Towards the end of either an early or late period (i.e. the 14th/15th and 28th/31st) participants may sell the stock they have accumulated to avoid holding illiquid stock, and this increased selling can put upward pressure on the traded rates and consequently the rate-set. In contrast, on the initial trading days of a new period (i.e. 1st/2nd and 16th/17th) participants may be inclined to purchase additional stock to hold over the coming period to manage their liquidity, which carries with it the potential to put downward pressure on the traded rates and the rate-set.

However, this behaviour is not the case for all participants. Some investors do not require utmost liquidity for all their holdings, and may buy at the end of periods to take advantage of any potential increase in yields. Similarly, at the start of any half month period the Prime Banks may take advantage of any increased buying interest and the potentially lower rates accompanying this to generate lower cost funding. This market interaction between issuers and investors generally serves to reduce the volatility between periods.

While these patterns of buying and selling may be likely to continue to be a feature of the Prime Bank paper market it is important to note that this pattern does not occur every period or always to the same extent.

1.9. The published rates

1.9.1. BBSW

The average of all good NBBO midpoint samples, rounded to four decimal places, are published at approximately 10:15am on Thomson Reuters page BBSW, and on Bloomberg LLP page 'AFMB' as the BBSW benchmark rate, for each tenor.

BBSW mid rates are published on the AFMA website on the following Business Day, thus making them available to the general public.

Financial news media outlets regularly report on BBSW rates in tabular form and in commentary.

1.9.2. BBSY

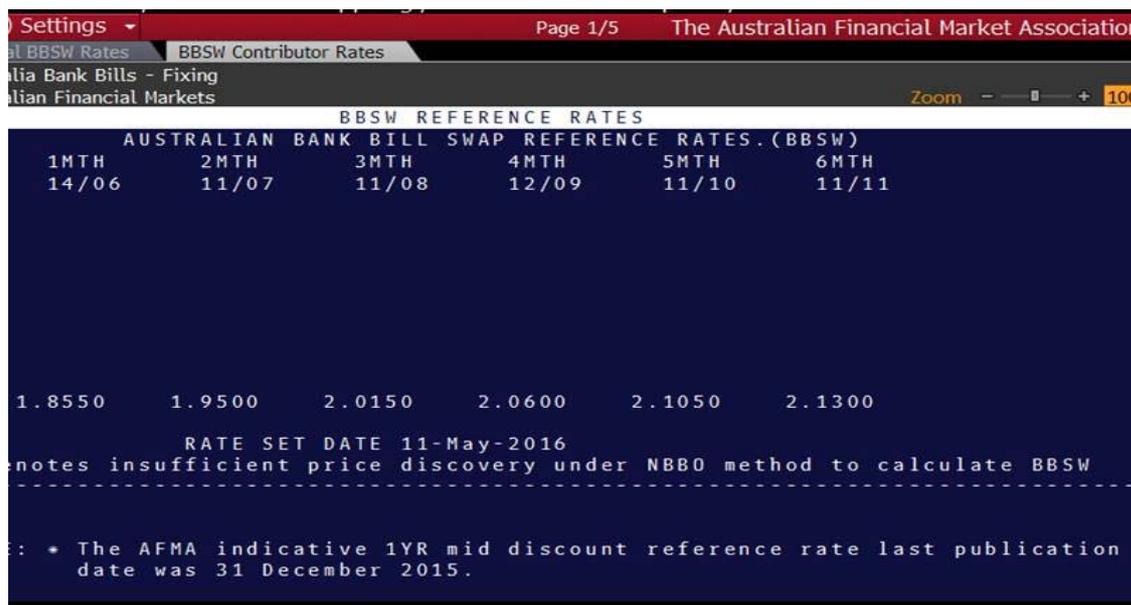
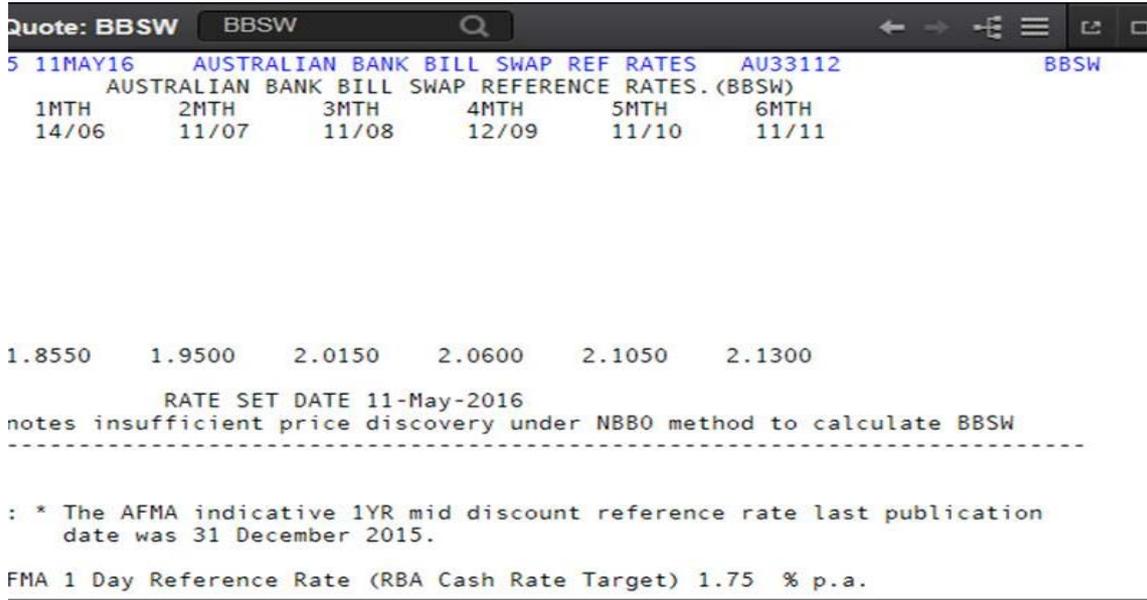
'Bid' and 'Ask' (offer) values for each tenor are published at approximately 10:15am on Thomson Reuters page "BBSY" and on Bloomberg LLP page 'AFRS' with a margin of five basis points above and below the BBSW rate.

The Bid and Ask values of BBSW as published on page BBSY are used, amongst other things, by market participants to price floating rate loans. Rates published on BBSY are a familial derivative of BBSW and not a separate benchmark. They are directly derived from BBSW where the only difference is the predetermined and non-variable bid/ask spread to BBSW.

The ten (10) basis point spread between the Bid and Ask values may not be changed without the express consent of both the AFMA Benchmarks Committee and the MGC, and consideration of any change to this spread must be subject to prior consultation with market participants.

Sample Thomson Reuter’s pages ‘BBSW’ and ‘BBSY’ and Bloomberg LLP pages are shown in Figure 2.

Figure 2



Quote: BBSY BBSY

AUSTRALIAN BANK BILL SWAP REF RATES AU33112 BBSY					
AVERAGE MID RATE -	AVERAGE BID RATE -	AVERAGE ASK RATE			
1MTH	2MTH	3MTH	4MTH	5MTH	6MTH
14/06	11/07	11/08	12/09	11/10	11/11
1.8550	1.9500	2.0150	2.0600	2.1050	2.1300
1.9050	2.0000	2.0650	2.1100	2.1550	2.1800
1.8050	1.9000	1.9650	2.0100	2.0550	2.0800

RATE SET DATE 11-May-2016

notes insufficient price discovery under NBBO method to calculate BBSW
 further information please see Guide to the AFMA Bank Bill Swap Rate Rate
 tp://www.afma.com.au/data/bbsw.html

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Bill Swap Reference Rates

AFMA BBSW/BILL RATE FIXINGS 66) MSG Contributor 20:4
 Zoom - 100%

Australian Financial Market Association -> Pricing & History Monitors -> Bank Bill Swap Rates -> Bank Bill Swap Reference Rates

Reference Rates	Bid	Ask	Mid	Time Date
1month	1.9050	1.8050	1.8550	20:15 05/11/16
1month	2.0000	1.9000	1.9500	20:15 05/11/16
1month	2.0650	1.9650	2.0150	20:15 05/11/16
1month	2.1100	2.0100	2.0600	20:15 05/11/16
1month	2.1550	2.0550	2.1050	20:15 05/11/16
1month	2.1800	2.0800	2.1300	20:15 05/11/16
Day Ref	1.7500	20:05		

AFMA indicative 1YR mid discount reference rate and AFMA 1 Day reference rate are no longer published on www.afma.com.au but are updated daily on Berg BBSW pages (N.B. BBSW data is fee liable)
 For further info, please refer to Web Links >> BBSW Benchmark Rate
 Please note from 1 July 2014, BBSW will publish at 10:15am (Sydney Time)

2. Checks and Balances to Ensure BBSW Integrity

In common with other financial benchmarks which have an important role in the financial system, the integrity of BBSW must be protected. The main concern is that individuals may seek to gain advantage by inappropriately influencing the setting of benchmark rates but there are other significant risks such as that of an operational failure that leads to an error in the published rate. These risks must be effectively managed to ensure the continuous provision of an accurate guide to the economic price of Prime Bank paper in an impartial and efficient market.

Risk management of this type is as much an art as it is a science, as it depends on behavioural factors as well as technical operational matters. In practice, for BBSW this is achieved through a range of mechanisms that are individually effective, but in combination, are even more potent in managing the risks around BBSW.

The following are the most important checks and balances that protect the integrity of the BBSW process. They should not be viewed as a fixed set of measures, as environmental changes over time also impacts the risk profile of BBSW and may require refinement to its integrity protections.

1. Structural design of BBSW
2. BBSW administrator oversight
3. Official regulation
4. Industry governance
5. Operational risk management

2.1. Structural design of BBSW

The structural design of BBSW provides it with a number of strengths relative to other benchmark rate set processes. The relevant features include:

- Reliance on a transparent and traded market;
- The concept of Prime Bank and the homogeneous trading characteristic of Prime Bank paper;
- Mechanical selection of live and executable bids and offers for Prime Bank paper.

2.2. Prime Bank concept

The concept of Prime Bank promotes efficiency and integrity in the BBSW rate set through several means, the most important of which is reducing market fragmentation. Prime Bank paper trades homogeneously providing scale and depth to the market. Thus, rather than the four current⁷ Prime Banks each having \$30 to \$60 billion of Prime Bank paper on issue in their own specific 'market', there is one single market averaging approximately \$150 billion.

The Prime Bank benchmark design feature avoids reliance on estimates of 'own rate' funding costs and the attendant panel submissions that might otherwise be needed.

⁷ As at October 2015

2.3. Mechanical selection of live and executable prices

One of the key strengths of BBSW is that it is based on the mechanical selection of live and executable prices which are both observable and tradable on the screens of Approved Trading Venues. This gives transparency and accountability to the process, while the tight pricing evidenced on-screen provides reasonable assurance that the price making obligations of the Prime Banks are being met.

A benchmark based on the NBBO methodology, i.e., the extraction of live, observable and executable prices in an active market for homogeneously-traded Prime Bank paper, is still subject to the possibility of market conduct risk. This is the risk that an individual or firm may attempt to manipulate the underlying market by transacting in a manner that inappropriately influences Approved Trading Venues' market pricing and hence the rates extracted by the NBBO process. Mitigating this risk is the transparency of bid and offer rates to the market through broker screens and the fact that manipulation in a financial market is illegal under Australian law, falling under the market supervision powers of ASIC and carrying substantial criminal penalties for firms and individuals convicted of manipulation.

2.4. Administrator oversight

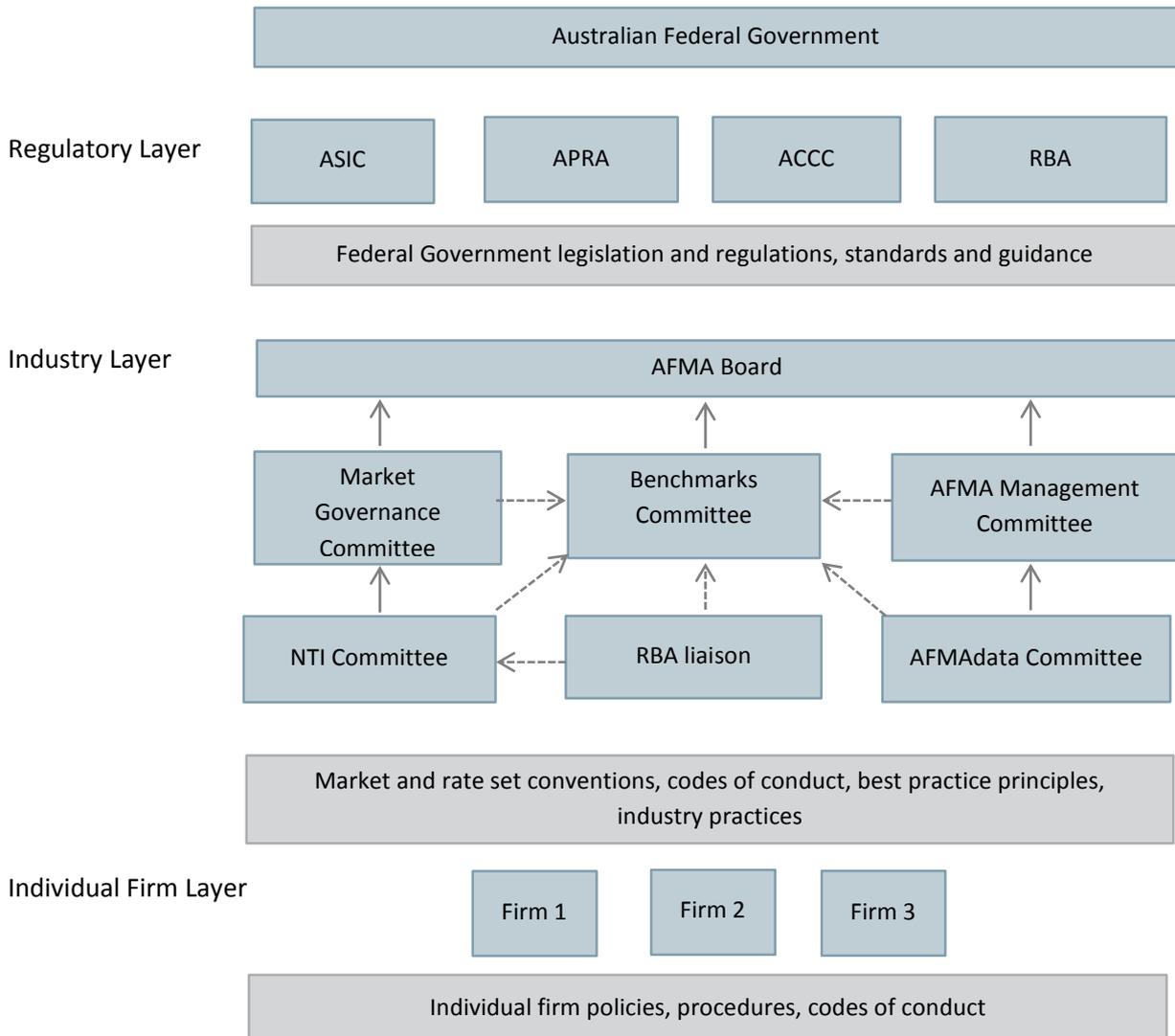
AFMA, as the administrator of BBSW, takes a number of steps to monitor the ongoing quality of the BBSW rate set process. These include the review of:

- The level of Prime Bank paper outstanding and its composition;
- Traded volumes as reported by the Approved Trading Venues;
- Volume Weighted Average Price (VWAP) as compared to BBSW rates;
- Incidences of choice NBBO prices across Approved Trading Venues;
- Basis point spread in the national best bid and national best offer;
- Aggregate and latent volume available to be traded on the bid and offer at the time of rate calculation;
- Prime Bank homogeneity;
- Prime Bank price making obligation;
- Operational issues encountered in the calculation process;
- Complaints received;
- BBSW comparison to the credit risk free interest rate curve (Overnight Index Swaps - OIS)

2.5. Official regulation

The regulation and governance arrangements for the markets, i.e. regulatory oversight, and for BBSW comprise a multi-layered structure, as summarised in Figure 3.

Figure 3



The first layer is the regulatory layer over financial markets participants and products. This is administered by the government bodies including ASIC, APRA, the Australian Competition and Consumer Commission (ACCC) and the RBA.

The second layer is the industry self-management layer consisting of industry conventions; codes of conduct; and best practice principles. This layer is coordinated through AFMA and brings industry knowledge and pressure to bear on the market itself and participants in the rate set process.

The final layer is individual firms applying their internal policies, procedures and codes of conduct with associated compliance and monitoring functions.

With regard to official regulation, Prime Bank paper trading practices generate outcomes that are capable of falling within the ambit of the prohibitions in Division 2 of Part 7.10 of the Corporations

Act. These provisions cover false trading and market rigging and dishonest conduct and are administered by ASIC.

Market participants engaged in trading Prime Bank paper must manage regulatory risk in relation to their trading activities, which is achieved by ensuring that trading and price making are representative of the parties' commercial interest and trading intent, and so does not breach the conduct provisions, such as the prohibition on market manipulation.

The result is three levels of supervision for firms engaged in making markets and trading in Prime Bank paper underpinning the BBSW rates.

The RBA is a Regulatory Observer on the NTI and AFMA Benchmarks Committees and there is regular liaison on OTC matters. It closely follows the markets underpinning BBSW and periodically produces analyses on the state of the market and its various aspects.

The RBA is also a Regulatory Observer on AFMA's Debt Securities, Cash and Repo Committees, and is a Member of the Debt Market Operations Committee and the Bank Treasurer's Forum.

2.6. Industry governance

AFMA coordinates industry self-management of the institutional OTC markets and brings peer pressure to bear to promote consistent practice and compliance in them. This activity is founded on the interest common amongst industry participants in the efficient and fair operation of the markets. AFMA is not in a position to enforce compliance with the industry standards and conventions. However peer pressure, a common economic interest, reputation risk and a backdrop of official regulation of the markets provide strong incentives for traders active in the Prime Bank paper market to comply. AFMA is not a self-regulatory organisation but the effect of its industry led process is a high degree of common practice and discipline being exhibited in the institutional OTC markets.

In relation to BBSW, this translates into effective industry self-management of the benchmark methodology and the market practices that apply to trading in Prime Bank paper. This approach facilitates flexibility and timeliness in responding to industry issues. Industry pressure, particularly in institutional OTC markets, can be very effective and experience over many years has shown it ensures the appropriate outcomes in the context of a regulated marketplace.

2.7. Internal organisational structure

AFMA industry governance is coordinated through its Board and committee structure.

The **AFMA Board** is elected at the annual general meeting and comprises the CEOs or heads of institutional banking of the leading financial institutions in Australia, state government treasury corporations and energy market participants. The Board provides strategic direction to AFMA and has ultimate oversight of all policy and commercial decisions. Under the [AFMA Constitution](#), the Chair of the MGC is appointed to the Board and regularly briefs members on relevant BBSW matters.

The **Benchmarks Committee** has primary oversight of the determination and dissemination methodology applied in the construction of BBSW and reports directly to the AFMA Board. The RBA is a regulatory observer on the Benchmarks Committee.

The **Market Governance Committee** (MGC) is elected at the annual general meeting and has responsibility for the effective operation of the Australian OTC financial markets including those markets that relate to BBSW. MGC membership comprises senior staff from a cross-section of AFMA member firms. Recognising the importance of benchmarks to the wider market, the MGC places a high priority on its role in its governance. In this capacity, the MGC:

- In concert with the Benchmarks Committee, regularly reviews the market conventions adopted by, and processes used by, the relevant Market Committees to ensure market integrity and efficiency are best served;
- Determines and approves changes to the OTC Market Conventions that place a part in the construction of BBSW, i.e. the Prime Bank and NTI Conventions, to ensure they remain relevant and effective in the context of a changing market environment;
- Considers quarterly reports by the relevant Market Committees on matters pertaining to the operation of BBSW and developments in related markets;
- Ensures internal AFMA processes and policies are in place to promote the widespread adoption of the AFMA conventions by market participants (including Market Committee Rules, transparency of convention changes etc.).

The **Negotiable Transferable Instruments Committee** (NTI) manages the conventions for trading in money market instruments (principally Prime Bank paper and other short term debt securities). As part of its remit, NTI is responsible for maintenance and implementation of the rules governing the AFMA Prime Banks as described in the Prime Bank Conventions. The RBA is a regulatory observer on the NTI Committee. .

Proposals involving material changes to all OTC conventions are communicated to member firms for their comment, with a grace period for member feedback prior to being promulgated.

Buy-side participation in the Market Committees has been actively encouraged in recent years, as these firms are significant users of the OTC markets.

2.8. Industry conventions and standards

AFMA has developed a range of industry conventions to support the BBSW process, including the BBSW calculation methodology, Prime Bank eligibility and trading in Prime Bank paper.

These conventions have evolved over the last twenty years as the market has developed. AFMA has reviewed and enhanced the conventions framework that supports the BBSW rate set process in light of international developments in relation to benchmark rates.

Market Committees for each of the main institutional OTC markets (for example, debt securities, swaps and electricity) are elected by market participants. They operate in accordance with defined procedural rules and have direct responsibility for the development and implementation of trading and operational protocols for their respective markets. Market committees follow a defined process when they wish to introduce or materially change a convention. This includes both consultation with members and a requirement that MGC must approve all of the convention changes agreed by the committee. Major changes to conventions or significant procedural matters (such as calling an out-of-schedule Prime Bank election) receive greater attention from MGC and in the important cases may also be notified to the Board.

The preferred outcome is that matters are decided by the committees on a consensus basis; however the AFMA Constitution and Market Committee Rules (each available on the AFMA website) provide for matters to be resolved by ballot – typically requiring 75 per cent of those eligible to vote being in favour for a motion to be carried. Where it is not specified a greater than 50 per cent rule generally applies.

The codes of conduct, principles and conventions that apply to the BBSW rate set process are listed in Figure 4.

Figure 4



The **BBSW Benchmark Rate Conventions** codify the procedures and calculation methodology to be used by AFMA in the construction and production of the BBSW benchmark rates.

The **AFMA Prime Bank Conventions** codify the eligibility criteria and market making obligations of AFMA Prime Banks, each a critical component in the maintenance of a deep and liquid market in Prime Bank paper, traded volumes at and around 10:00am anchoring the BBSW benchmark rates.

The **NTI Conventions** define the products of the NTI market which include those relevant to the BBSW rate set, dealing conventions including business days, market parcel size etc., and confirmation conventions.

Member firms are expected to observe the **AFMA Code of Conduct** as a condition of AFMA membership. The codes cover respect for rules and persons, confidentiality, honesty, fairness, managing conflicts of interest, competency and responsibility.

Market participants are expected to abide by the AFMA **Debt Instruments Trading Best Practice Principles**.

While BBSW benefits from an appropriate regulatory environment and sound industry governance structures and conventions, individual firms’ policies are essential to ensuring appropriate outcomes in trading and rate reporting. AFMA coordinates discussion of related issues through its Heads of Compliance Committee.

2.9. Regular qualitative review of the market

BBSW procedures including benchmark methodology are subject to quarterly review by the Benchmarks Committee, which reports to the Board on trends or circumstances observed which have the potential to undermine the benchmark.

The framework for assessing market conditions was placed within a more structured framework in 2010: Refer Table 2 for matters specifically considered by the relevant committees. Reviews may be accelerated should circumstances warrant immediate attention.

Table 2

Review	Secretariat	NTI Committee	Benchmarks Committee	MGC	Regulatory Authorities
Market liquidity	DAILY				
Market transparency	DAILY				O
Market professionalism on the buy/sell side		Q	Q	Q	N
Trade confirmation process		U	U	U	
Data sufficiency, trading volumes by tenor, debt levels outstanding		A	A	A	
NBBO/VWAP comparison, tenor viability	DAILY	R	R	R	R
Rates publication	DAILY	T	T	T	E
Confidence in Approved Trading Venues		E	E	E	Q
Homogeneity of Prime Bank paper		R	R	R	U
Operational Issues	DAILY	L	L	L	E
Complaints	AS RECEIVED	AS RECEIVED	AS RECEIVED	Y	S
		Y	Y	Y	T

In gathering its intelligence on market conditions, the Benchmarks Committee will review the outcomes of other committees’ monitoring of their respective OTC markets, which report regularly to the MGC on observed efficiency and integrity. In particular, the Benchmarks Committee, in monitoring the performance of the BBSW process, liaises closely with the NTI Committee, which maintains the conventions for trading Prime Bank paper and the Prime Bank process, and will provide

insights to the MGC in relation to the ongoing effectiveness of BBSW and the quality of the market underpinning it.

This process helps the committees identify at an early stage any cyclical and structural matters that may need to be managed by the market and provides an ongoing assessment of professionalism exhibited by traders in the market as a whole. Thus, all responsible committees are better placed to assess the quality of the market on an ongoing basis and then respond to any matters that require attention.

In addition to Board reporting as performed by the Benchmarks Committee, the MGC advises the Board of material developments in relation to the quarterly reports covering the various other markets. Any issue ranked as being of significant concern would be identified to the RBA as part of ongoing liaison with regulators.

2.10. Procedure to review a BBSW rate set

The BBSW Benchmark Rate Conventions include procedures to review a BBSW rate in circumstances where either AFMA personnel and/or an AFMA Financial Markets Member believes that the rate set may be materially incorrect⁸. The reasons for a perceived error may include, but are not restricted to, errors such as a failure/error in the BBSW calculation mechanism and the publication and display of incorrect maturity dates.

Where such request or complaint involves a request for a review and possible republication of BBSW, it will be handled in accordance with the AFMA Complaints Policy, as well as in accordance with the following procedures.

A request to review a BBSW benchmark rate set must be lodged by telephone or email to the offices of AFMA by 10:40am Sydney time in the first instance or within 25 minutes of rate publication, but not later than 11:00am under any circumstance.

The AFMA Secretariat will take steps to verify the basis of the request for review or complaint (for example, checking Approved Trading Venue prices and trades at and leading into the rate set). If the Secretariat identifies that a recalculation is warranted then a recommendation will be made to the AFMA Chief Executive Officer (or delegated alternative).

AFMA will maintain a log of all requests to recalculate a BBSW benchmark rate, including the entities which requested it, the investigations which the AFMA Secretariat undertook, and the reasons for the decision taken by the Chief Executive Officer.

⁸ Materially incorrect in this context means that the complainant must regard the published BBSW benchmark rate for that day to be incorrect to the magnitude of greater than one half of one basis point.

2.11. General procedures for handling inappropriate market behaviours

The institutional OTC markets work efficiently because industry participants generally observe the market conventions and trading protocols developed by the market through AFMA. Firms and individuals may from time to time raise matters of concern in relation to behaviours in the OTC market (including those related to BBSW) or a matter related to a benchmark rate compilation. While AFMA's OTC conventions are adopted voluntarily by market participants, the market expects firms to trade in accordance with them for normal business and applies peer pressure to promote this outcome.

AFMA has adopted a procedure to guide its management of concerns raised by members in this regard. For example, if a market participant fails to observe the market settlement protocols in relation to transactions in Prime Bank paper then there is a defined process through which this matter will be dealt with by AFMA, including by contact with the firm, its compliance officers and senior management.

It is relevant to note that in relation to matters that may involve a breach of the law, firms who identify an issue in the OTC markets may have reporting obligations under the *Anti-Money Laundering and Counter-Terrorism Financing Act 2006* (AML/CTF Act) and the *Financial Transaction Reports Act 1988* (FTR Act) which require reporting of matters directly to AUSTRAC. AUSTRAC in turn has a statutory obligation to report information to the market regulator, ASIC.

2.12. Operational risk management

There are two key areas of operational risk in the production of BBSW: (a) the non-delivery of BBSW rates at the specified time and (b) incorrect rates being published. These risks are recognised in the AFMA management process for data services and are mitigated as follows:

- AFMA uses a vendor-provided feed to connect the hosted system to the market and Approved Trading Venues, and has back up manual arrangements including multiple email and phone options to ensure the incoming vendor feed is not necessary for benchmark creation. The provision of reliable connections is effectively covered by AFMA's Service Level Agreements with the hosting vendor.
- A disaster recovery plan is in place and is tested twice a year and after any network or development changes take place on the host's operating systems. A summary of incidents and the reviewed plan is presented annually to the Audit & Risk Committee;
- A full Disaster Recovery Site backup is available for all relevant systems;
- An internal AFMAdata Committee meets monthly to consider operational issues relating to the production of AFMAdata, including the BBSW rates;
- A log of all issues that arise in the administration and publication of BBSW is maintained. It is reviewed by the AFMAdata Committee to determine whether any remedial/preventative actions are required. These are reported to the Benchmarks Committee and, if the event is significant, to MGC

2.13. Transition

Users of any financial benchmark should take into account the risk that future changes to economic conditions, new regulation or some other factor may affect the character and, ultimately, the viability of the financial benchmark. As the administrator of BBSW, AFMA must also consider this risk and manage it appropriately.

AFMA's Transition Policy provides guidelines for circumstances where a Benchmark operated by AFMA becomes unviable in the market and must be discontinued. Specifically, it describes actions required on an ongoing basis to ascertain the likelihood of the cessation of the current Benchmark with a transition to a new Benchmark that provides an equivalent standard for market participants.

The Transition Policy also provides a framework for the transition of a Benchmark operated by AFMA to either a new Administrator which would continue to be produced in fundamentally the same design as the current Benchmark, or with a transition to a new benchmark.

AFMA encourages BBSW Subscribers and other stakeholders who have financial instruments that reference BBSW to take steps to make sure that:

- a. Contracts, or other financial instruments that reference BBSW, have robust fall-back provisions in the event of material changes to, or cessation of, BBSW;
- b. Stakeholders are aware of the possibility that various factors, including external factors beyond the control of AFMA, might necessitate material changes to BBSW; and
- c. Are aware that on any given day for any given tenor a BBSW benchmark rate may not be published.

The Transition Policy will be made available to stakeholders upon request.

3. Benchmarks Committee Governance

3.1 Introduction

Trade associations can make an important, and in some cases essential, contribution to the efficiency and integrity of a Benchmark rate set process. In Australia's case, a key attribute of the BBSW rate set process is its reliance on a traded market and the Prime Bank concept. AFMA provides essential infrastructure for the effective operation of the rate. The fact that the benchmark is based on a traded market enhances its transparency, as the bid and offer rates are transparent to market participants (and to regulators). AFMA also publishes aggregate data on market transactions on a time-delayed basis.

The market for Prime Bank paper has a relatively small number of active participants compared to other markets, such as the share market which has literally millions of investors. Moreover, there are many technical aspects of the market (i.e. the 'early' and 'late' trading buckets) that may affect pricing and trading behaviour in the market, in addition to structural impacts like the Basel III liquidity reforms that must also be factored into considerations of the recent performance and likely future operation of the market. All of these factors serve to influence and reshape the conventions, risk controls and governance for BBSW.

Deep knowledge of the daily functioning of markets resides with those directly involved in the relevant markets. There is a particular benefit in aligning the process for determining trading conventions and practices in the underlying market with those for the BBSW rate set. AFMA is well positioned to promote timely and frank feedback from contributors and other market participants. This incorporates input from traders across the range of OTC markets and from a cross-section of the industry through AFMA's diverse membership. This is especially helpful in resolving matters that are not pertinent to formal market regulation or have not graduated to a point where intervention by the market regulators is required.

AFMA's experience is that, as a trade association, it generally gets line of sight across emerging issues in a timely way, as its industry self-management processes draw from a rich, ongoing dialogue between participants across a range of markets (which is especially important to BBSW as a benchmark rate that is used in many markets). Further, it can respond more rapidly and with greater flexibility than that of a process led by an official regulator. However, effective engagement with the regulators is an integral aspect of a trade association's role and this assists in the maintenance of an effective benchmark rate.

The common good of the market is a strong and effective motivating factor for those market participants involved in the governance of the markets. Moving to a governance structure that excludes people directly involved in the markets or as users of the benchmark would involve material risk to the ongoing effectiveness of BBSW.

AFMA, as a trade association, provides a unique venue through which the market can collectively assess and respond to the environmental factors that affect the efficiency and integrity of BBSW.

Reflecting this intricate and important role, the governance process for BBSW needs to enable this potential to be met in a manner that promotes the integrity and efficiency of the benchmark. The measures below describe the implementation process to achieve this outcome.

3.2 Serving the Benchmark Committee's Purpose

Reflecting the purpose of the Benchmarks Committee (the Committee) and benchmark reliance on an active and traded market, it is necessary for the Committee to include members who have a sound understanding of financial markets and collectively have the capability to incorporate the implications for relevant benchmarks of current market issues and developments into the work and discussions of the Committee. Absent this feature, the Committee could not effectively manage the ongoing quality of the benchmark (including its design, compilation and administration).

For example, inclusion of the Chair of the Negotiable and transferable Instruments Committee (NTI) is expected to bring specific knowledge and expertise of the conditions, operational aspects, efficiency and market integrity in the Prime Bank market to the table, which is essential to the Committee's evaluation of the performance and prospects of the BBSW benchmark.

To serve this purpose, a significant proportion of the Committee's membership should be active participants in the financial markets and/or be users of the benchmark. Thus, these members necessarily have a commercial or functional interest in the performance of the benchmark. The structure and operation of the Committee is designed to balance these interests.

In addition, members are asked to serve as an individual and must not be subject to instructions from the companies or organisations to which they belong. Nonetheless, the composition of the Committee is designed to ensure that no members or type of member has undue influence on the deliberations of the Committee.

3.3 Composition

3.1 Scope of Industry Knowledge

The composition of the Committee is designed to meet its objectives primarily in relation to the BBSW rate (AFMA's only systemically important benchmark) but also in relation to other potential benchmarks. The Benchmarks Committee Governance Framework⁹ requires the AFMA Board (the Board) to consider the suitability of members in the context of the collective capability of the Committee.

Inclusion of the Chairperson of the Market Governance Committee (MGC) provides knowledge, interest and expertise in a cross section of debt and derivatives products. Investment manager and corporate treasury representatives, reflecting the nature of their business, would have an understanding and interest in a cross section of products, including Prime Bank paper.

⁹ Also referred to as the Benchmarks Committee Terms of Reference

To ensure adequate access to current information on market developments, the Committee may invite input from relevant market committees and Approved Trading Venues may be invited to attend Committee meetings at the discretion of the Committee.

In addition, the Committee receives reports from the MGC and relevant market committees on the performance of the underlying markets, which is relevant information to assessing the ongoing suitability of a markets to support a benchmark and give early identification of any emerging issue.

3.2 Dispersion of Interests & Independence

All participants in the Committee, with the exception of the independent members, have an interest in the performance of benchmarks. However, the composition of the Committee reflects a dispersion of such interest both in terms of business usage (e.g. both buy and sell side are included) and function (including compliance and risk management functions within financial institutions that are structurally and operationally separate from trading areas in their firm) to contain the risk that any one institution or type of institution may have undue influence in the conduct of the Committee's affairs.

The greatest risk of undue influence in the Committee structure is from Prime Banks. Two specific additional measures are designed to ensure that Prime Banks' important contribution to the Committee can be delivered in an effective but proportionate manner. First, members from Prime Banks would generally be a clear minority interest on the Committee and according to its rules cannot exceed 40% of the Committee's membership (Schedule 1) and they cannot exceed 40% of the voting members in relation to Committee decisions.

To promote the independent assessment of benchmark matters, the Committee is appointed by the Board (not MGC or its markets committees), the Chairperson is independent and has the capacity to refer any decision of the Committee directly to the Board for its approval. Such a referral to the Board would likely be used only in exceptional circumstances but the availability of this option to the Chairperson enhances their standing and authority within the Committee, even though he/she is not a market participant, and promotes an environment where other members will seek to support the Chairperson in performing their duties.

The Board must have regard to the need for the Committee's membership to be diversified to support its independence from any particular group.

These factors all contribute to an outcome where there is a broad spectrum of views and interests to guide the work of the Committee and ask the kind of questions that promote effective review and assessment of matters before the Committee. They also promote the outcome that no specific interest group has undue influence on any decision made by the Committee.

The Committee receives reports from AFMA's Complaints Officer, which is another mechanism for the committee and AFMA's management to identify emerging efficiency or potential integrity issues with the benchmark.

3.3 Governance & Accountability

The Committee is given a broad brief, sufficient to enable it to meet its purpose to support the integrity, efficiency and reputation of the benchmark.

The Committee reports to the Board, so any matters of concern to it can be directed to the most senior group within AFMA. The Board itself is elected by a broad church membership (of which banks are a clear minority) and the Prime Banks are a small minority on the Board.

The Reserve Bank of Australia (RBA) is appointed as a Regulatory Observer, which enhances the accountability of the benchmark governance process. The RBA has responsibilities for systemic risk and is a participant in the debt financial markets for its liquidity management and monetary policy operations. Moreover, the RBA is a member of the Council of Financial Regulators, which is a venue through which regulators can collectively consider benchmark regulatory and operational issues. RBA's participation promotes consideration of benchmark issues from a broader market perspective that emphasises the importance of the integrity and efficiency of the benchmark, rather than narrow sectional interests dominating its considerations.

4. *Changes to the BBSW Methodology*

Treating the procedures for a significant financial benchmark rate as a ‘set and forget’ process would ultimately lead to failure. Structural changes to markets often emerge over the course of time and the viability and relevance of the benchmark rate set process must be assessed as this occurs.

This aspect of benchmark rates has long been incorporated into the management and governance of the BBSW rate set. One of the significant advantages of the BBSW rate set process is that it is subject to ongoing review and comment from traders and others who rely on BBSW rates as a financial benchmark and who have a strong economic and reputational motivation to ensure that the rate set process remains effective. The short term debt securities and related derivatives markets are highly competitive and, while the traders who substantially comprise the market have naturally opposing exposures to other traders in the rate sets, they have a strong collective interest in the market working fairly and efficiently.

Against this backdrop, the market conventions that underpin the rate setting process are regularly reviewed by the responsible AFMA committees in light of evolving market conditions and practices to ensure that market best-practice is maintained and the integrity and efficiency of the market is regularly reviewed.

The following details a selection of changes to the BBSW and related processes that have been adopted in recent years.

Date	Initiative	Comment
December 2008	<p>Following an internal review of BBSW, all Prime Banks were required to submit to an annual re-election process.</p> <p>If less than six Prime Banks were elected, the survey threshold for election was progressively reduced until there are six in total, subject to each bank receiving a minimum 70 per cent of the vote, and at least six banks nominating.</p>	<p>Improved integrity and resilience of Prime Bank Process.</p> <p>Supported diversification of Prime Bank names.</p>
January 2009	Collection and publication of nine and twelve month BBSW rates were discontinued due to difficulty in providing consistent reported rates.	Improved integrity of published data.

Date	Initiative	Comment
March 2009	Contingency process established to manage BBSW in the event that one or more of the major banks lost its Prime Bank status.	Market continuity measure.
Quarter 4, 2010	Internal market quality analysis for OTC markets, including BBSW, was enhanced.	Improved insights to market conditions and supported AFMA oversight.
End-2011	BBSW Committee composition revised to include buy side and broker representation. BBSW Committee tasked with giving more formal oversight of BBSW rate contributions.	Better stakeholder representation and more effective oversight of BBSW.
September 2013	AFMA adopted an automated process to extract rates used to calculate BBSW directly from Approved Trading Venues.	This eliminated the need for a submissions panel and the adequacy of the modified compilation process is recognised under the <i>IOSCO principles for financial benchmarks (July 2013)</i>
June 2014	AFMA refined the distressed markets fall back calculation methodology, eliminating the potential need for a second round of dealing (by the Prime Banks). At the same time the publication of the BBSW rates was moved to 10:15am from 10:06am.	The elimination of the second round of dealing removed the basis exposure inherent in the previous tertiary calculation methodology, while the slight delay in publication reduced operational risk.
September 2014	The AFMA Benchmarks Committee was established to provide governance oversight for all AFMA Benchmarks.	The Benchmarks Committee represents a range of key stakeholders in the BBSW process and reports directly to the AFMA Board.
July 2016	AFMA endorsed the Council of Financial Regulators proposal for the methodology to be evolved to base BBSW primarily on a VWAP calculation. The current NBBO methodology will continue and will serve as the primary fall-back mechanism.	The new methodology takes appropriate account of changes in market practices and conditions since 2013.

Date	Initiative	Comment
September 2016	An algorithmic fall-back calculation methodology was introduced as a measure to ensure that BBSW is able to be published in the event that the NBBO calculation methodology fails to calculate any or all BBSW tenors.	The use of an algorithm to calculate BBSW may not extend beyond two consecutive business days.

Annex 1 – Terms and Abbreviations

AFMA Board of Directors ("AFMA Board")	The AFMA Board comprises the CEOs or heads of institutional banking of the leading financial institutions in Australia, state government treasury corporations and energy market participants.
AFMA Code of Ethics and Code of Conduct	By clearly articulating ethical principles for acceptable standards of behaviour in the OTC markets, the AFMA Code of Ethics is intended to raise awareness of the issues and promote responsible decision-making. Its companion, the Code of Conduct, provides rules of behaviour derived from these principles.
AFMA Complaints Policy	The AFMA Complaints Policy describes the process under which any complaints received by AFMA in relation to the conduct of its activities are managed.
AFMA Constitution	The set of fundamental principles or established precedents according to which AFMA is governed.
AFMA Debt Instruments Trading Best Practices Principles	The Principles are supplemental to the AFMA Code of Ethics and Code of Conduct and provide additional guidance on market behaviour for parties which actively trade debt instruments.
AFMA Market Committee Rules	The rules establish the protocols for committee activities and operation.
AFMA Market Committees	Market Committees ensure the efficient operation of Australia's OTC markets by managing their conventions, practices and documentation.
AFMA Prime Banks	An AFMA designated sub-set of the banks operating in Australia, whose short term securities trade as a homogeneous asset class and are recognised as being of the highest quality with regard to liquidity, credit and consistency of relative yield.
Approved Trading Venues	Regulated voice and electronic broking houses which intermediate in the market for Prime Bank Eligible Securities and which are approved to participate in the BBSW benchmark rate set process by the Market Governance Committee.
ASIC	The Australian Securities and Investments Commission.
AUSTRAC	The Australian Transaction Reports and Analysis Centre. The Australian Government's anti-money laundering and counter-terrorism financing regulator and specialist financial intelligence unit.
Australian Competition and Consumer Commission ("ACCC")	The ACCC promotes competition and fair trade in markets to benefit consumers, businesses, and the community. It also regulates national infrastructure services. Their primary responsibility is to ensure that individuals and businesses comply with Australian competition, fair trading, and consumer protection laws - in particular the Competition and Consumer Act 2010.

Australian Financial Markets Association ("AFMA")	The Australian Financial Markets Association is the leading industry association promoting efficiency, integrity and professionalism in Australia's financial markets. AFMA's key mandate is to promote best practice in financial markets so they can continue to maximise their contribution to the economic health of Australia
Australian Financial Markets Report	The Australian Financial Markets Report (AFMR) is published annually by AFMA and provides comprehensive coverage and statistics on Australia's OTC market and the equity and futures exchanges.
Australian Prudential Regulation Authority ("APRA")	The Australian Prudential Regulation Authority (APRA) oversees banks, credit unions, building societies, general insurance and reinsurance companies, life insurance, friendly societies and most members of the superannuation industry. APRA is funded largely by the industries that it supervises. It was established on 1 July 1998
BAB	Bank Accepted Bills. This is one of the two instruments traded in the market that underpin BBSW (see also NCD).
BBSW Benchmark Rate, or BBSW	The AFMA published bank bill swap rate, constructed using live executable bids and offers anchored in an observable market, and representative of the average of all good NBBO samples.
BBSW Benchmark Rate Conventions, or BBSW Conventions	The BBSW Benchmark Rate Conventions describe the operational procedures and protocols which govern the construction and calculation of BBSW rates.
BBSW Guide	The Guide was developed by AMFA and designed to assist regulators, market users and other persons wishing to improve their understanding of the BBSW rate set process and gain an insight into the refinements that AFMA has adopted to further strengthen that process. Providing details of the nature of BBSW and the effectiveness of the checks and balances that maintain its integrity, it also serves as an educational tool, providing an accessible, comprehensive overview of BBSW and its associated markets and its governance and procedures.
BBSY	'Bid' and 'Ask' values for each tenor are published on Thomson Reuters page "BBSY" AND Bloomberg page 'AFRS' using a set difference respectively of five basis points above and below the BBSW rate. The ten (10) basis point spread between the Bid and Ask values may not be changed without the express consent of each of the BBSW and Market Governance Committees, and consideration of any change to this spread must be subject to prior consultation with market participants.
Benchmarks Committee ("the Committee")	The AFMA governance committee for Benchmark rates
Calculation Mechanisms	The calculation methodology as described in Section 4 of the BBSW Benchmark Rate Conventions.

"Early" and "Late" Maturity Buckets	To promote liquidity in Prime Bank Eligible Securities, maturities are concentrated and trading occurs in half-month periods. 'Early' instruments mature from the 1st to the 15th day of a month, with maturities from the 16th to the last day of a month designated 'Late'.
Financial Markets Member of AFMA	Financial Markets Members are the organisations that participate directly in Australia's financial markets and generally hold an Australian Financial Services Licence.
Global Financial Crisis ("GFC")	The financial crisis of 2007–2008, also known as the Global Financial Crisis and 2008 financial crisis, is considered by many economists the worst financial crisis since the Great Depression of the 1930s. It resulted in the threat of total collapse of large financial institutions, the bailout of banks by national governments, and downturns in stock markets around the world.
IOSCO	The International Organization of Securities Commissions has provided an overarching framework of principles for benchmarks used in the financial markets
Libor	The London Interbank Offered Rate. A benchmark rate that gives an indication of the average rate at which a contributor bank can obtain unsecured funding in the interbank market.
Market Governance Committee "MGC"	AFMA's Market Governance Committee. This has oversight of the self-management of many Australian OTC markets.
National Best Bid and National Best Offer ("NBBO")	The midpoint of the nationally observed best bid and best offer for AFMA Prime Bank Eligible Securities of all specified tenors, collected from Approved Trading Venues at three intervals at and around 10:00AM, i.e. 9:59AM, 10:00AM and 10:01AM, following which the best bid and best offer at each successful snap are averaged to form the midpoint NBBO for the snap, and the average of all good midpoint NBBO samples is BBSW for the respective tenor.
NCD	Negotiable Certificates of Deposit. This is one of the two instruments traded in the market that underpins BBSW (see also BAB).
NTI, or NTI Committee	AFMA's Negotiable and Transferable Instruments Committee.
NTI Conventions	Market conventions for which the NTI Committee is responsible.
OIS	Overnight Index Swap.
OTC	Over The Counter. Trades executed directly between parties and not through an exchange.

Prime Bank Conventions	The Prime Bank Conventions describe the protocols which govern the selection of AFMA Prime Banks, the ongoing requirements that Prime Banks must adhere to in order to maintain Prime Bank status, Prime Bank reporting requirements and the contingency plan should a major bank or banks lose Prime Bank status.
Prime Bank Eligible Securities	BABs and NCDs accepted or issued by the AFMA Prime Banks, where the remaining maturity of the securities is six months or less. Also referred to as Prime Bank paper.
Prime Bank paper	BABs and NCDs accepted or issued by the AFMA Prime Banks, where the remaining maturity of the securities is six months or less. Also referred to as Prime Bank Eligible Securities.
Regulatory Observer(s)	Personnel employed by Australian regulatory bodies including RBA who are invited to attend and observe AFMA Market Committee meetings.
Reserve Bank of Australia ("RBA")	The Reserve Bank of Australia conducts monetary policy, works to maintain a strong financial system and issues the nation's banknotes. The Reserve Bank commenced operations as Australia's central bank on 14 January 1960.
Sydney Business Day ("Business Day")	A day on which banks in the State of New South Wales (NSW) are generally open for business, or a day other than one on which banks in NSW are obliged or permitted to close, excluding Saturday and Sunday.
The Straight Run Maturity Pool ("Maturity Pool")	Means that on any given day, Prime Bank paper being delivered may have a maturity which is not directly correlated to the tenor maturity as defined by the modified following half-month value date convention.
Volume Weighted Average Price ("VWAP")	The average price in each BBSW tenor weighted by volume traded through the Approved Trading Venues between 9:55AM and 10:05AM. Under the new calculation methodology VWAP will be defined differently.