



# ASX Bank Bill Swap (BBSW) Conventions and BBSW Methodology

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## Contacts

For general enquiries,  
please contact:

T 131 279  
E [benchmarks@asx.com.au](mailto:benchmarks@asx.com.au)

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## THE BBSW CONVENTIONS AND METHODOLOGY

### 1.0 Overview of BBSW

1. Consistent with other unsecured short term money market benchmarks used globally, the Bank Bill Swap Rate (BBSW) is characterised as an interest rate which includes a credit premium. In the case of BBSW, this represents the market assessment of the premium payable by the Prime Banks relative to a comparable risk-free interest rate curve.
2. The BBSW rate is calculated for 1, 2, 3, 4, 5 and 6 month tenors using a calculation waterfall as follows. The calculation waterfall is described in detail in Section 4 of these BBSW Conventions and Methodology (“BBSW Conventions”):



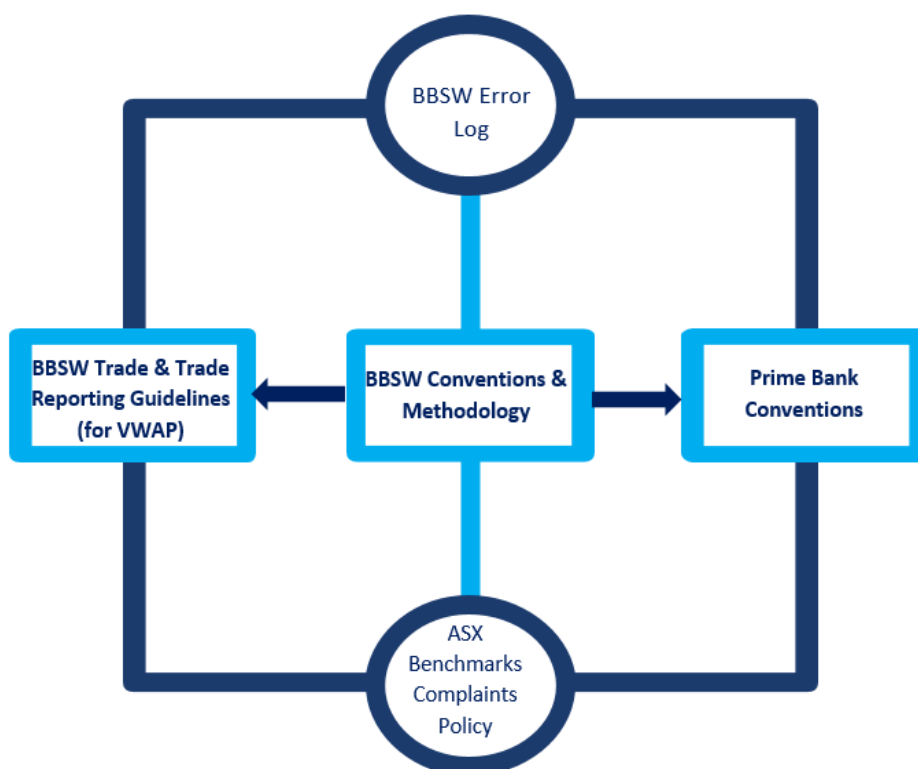
- A volume weighted average (VWAP) calculation methodology (“the VWAP Methodology”) based on Eligible Trades during the Rate Set Window is used as the primary methodology for determining the BBSW rate for each tenor.
- Where a BBSW rate cannot be formed under the VWAP Methodology for one or more tenors, the National Best Bid and Best Offer (“NBBO Methodology”) will be used to determine the BBSW rate for that tenor or tenors.
- Where a BBSW rate cannot be formed under the NBBO Methodology for one or more tenors, a fall-back comprising five stages is used to determine the BBSW rate for that tenor or tenors (“the Fall Back Methodology”). The fifth stage in the Fall Back Methodology is the Final Stage Methodology and Code of Conduct at Appendix C<sup>1</sup>.

### 1.1 Purpose

3. These BBSW Conventions articulate the operational aspects and calculation rules and methodology used in the determination of BBSW.

<sup>1</sup> See Rule 2.2.5 of the ASIC Financial Benchmark (Administration) Rules 2018.

4. These BBSW Conventions are supported by the following documents, available on the ASX Benchmark Administration website at <https://www.asx.com.au/services/benchmark.htm>:
- The [BBSW Trade and Trade Reporting Guidelines](#) (“BBSW Guidelines”): the primary purpose of this document is to ensure that a trusted, reliable and robust BBSW benchmark can be formulated based on Eligible Trades under the VWAP Methodology; to ensure that bids and offers for, and any transactions in Bank Paper, are not entered or undertaken for a purpose of seeking to influence the level at which BBSW is set or maintained; and to provide guidance for Market Participants and ATVs on the trading and reporting of Eligible Trades.
  - The [Prime Bank Conventions](#): this document describes the protocols which govern the selection of 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 one or more banks lose Prime Bank status.
  - The [ASX Benchmarks Complaints Policy](#) and [BBSW Error Log](#): described in Section 7.0 of these BBSW Conventions.



## 1.2 Governance

5. ASX, as the Administrator of BBSW, in consultation with the BBSW Advisory Committee (the “Committee”), has primary oversight of the governance of the BBSW process. This oversight includes the review of the methodology applied in the construction of BBSW. The Committee provides advice concerning the ongoing review and maintenance of the Conventions as set out in this document.

## 2.0 Core Elements of the traded market underpinning the calculation

6. BBSW rates, as calculated in accordance with the primary methodology (the VWAP Methodology), represent the price at which Eligible Trades in all specified tenors occur in the market on a Business Day. A key attribute of the securities is that all generally trade homogeneously.
7. The VWAP calculation is based on Eligible Trades. Eligible Trades are trades meeting the criteria specified in these BBSW Conventions, including that they must occur during the Rate Set Window. The Rate Set Window is defined as the period between 8:30am-10:00 AEST/AEDT. Eligible Trades are to be reported to the Administrator via ATVs in accordance with the BBSW Guidelines.
8. If the minimum criteria for the VWAP calculation as specified in Section 4 of these BBSW Conventions is not met for a particular tenor, the next stage in the calculation waterfall will apply until a BBSW rate can be formed for that tenor.

## 2.1 Approved Trading Venues (ATVs)

9. To participate in the BBSW benchmark rate set process, an ATV must be ratified for this purpose by the Administrator in consultation with the Committee.
10. ATVs must enter into and maintain an ATV Agreement with the Administrator, satisfy the operational requirements outlined in these BBSW Conventions and meet the conditions specified in Appendix A.
11. The Administrator will provide notice to the market through its website of a new ATV, with this notice being given at least two weeks in advance of the ATV’s prices being accepted as inputs for the BBSW benchmark rate set. Notification of other changes will be provided in a timely manner.
12. The two weeks’ notice will commence with notification from the Administrator to the market that the venue has met all relevant criteria. The current list of ATVs is provided in Appendix A.

## 2.2 Prime Banks

13. Prime Banks are a designated sub-set of the banks operating in Australia, whose short term securities trade as a homogeneous asset class in the interbank market 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 discovery of Australia's wholesale short term interest rates and in particular BBSW.

14. There are benefits in funding that accrue to banks that agree to participate in the markets as a Prime Bank and continue to meet the associated obligations as outlined in the Prime Bank Conventions. As an ongoing condition of accepting Prime Bank status, Prime Banks agree to price support the ATVs by making two-way markets during the Rate Set Window (see Prime Bank Conventions).

### **2.3 BBSY**

15. BBSY 'Bid' and 'Ask' rates for 1, 2, 3, 4, 5 and 6 month tenors are published on Thomson Reuters page 'BBSY' and on Bloomberg LLP page 'ASX29' using a set difference respectively of five basis points above and below the BBSW (MID) rate. For clarity, the BBSW rate is represented as the MID rate and the BBSY rates are represented as BID and ASK rates.
16. The bid and ask BBSY rates as published on these pages are used, amongst other things, by market participants to price floating rate loans. Being directly derived from BBSW and where the only difference is the predetermined and non-variable bid / ask spread to BBSW rates published on BBSY and ASX29 are a familial derivative of BBSW and not a separate benchmark.
17. The ten basis point spread between the bid and ask rates may not be changed without the express consent of the Administrator. This would be defined as a Material Change and consideration of any change to this spread must be subject to prior consultation with the Committee and market participants as per section 8.0.

### **3.0 BBSW Operational Aspects and Calculation Rules**

18. The BBSW rate setting calculation mechanism is determined by the Administrator in consultation with the Committee. The Administrator's BBSW service operates in accordance with the following rules:

#### **3.1 Removal of Stale Data**

19. The Administrator's system will ignore all ATV prices from previous days. ATV screens are required to be cleared of all prices by the ATVs at 8:30am each Business Day.

#### **3.2 Price and Volume Audit Log - ATVs**

20. The Administrator will maintain an audit log of all data inputs received from the ATVs for input into the VWAP and NBBO Methodology.

#### **3.3 BBSW Specified Tenors**

21. BBSW will be calculated in 1, 2, 3, 4, 5 and 6 month tenors. Any changes to the approved tenors would be considered a material change and must follow the process outlined in section 8.0.



### 3.4 Trade Reporting for VWAP Methodology

22. All Eligible Trades occurring during the Rate Set Window are to be reported to the Administrator via an ATV as set out in the BBSW Guidelines for inclusion in the calculation of BBSW<sup>2</sup>. All trades reported to the Administrator will be provided to Australian regulators upon request.
23. In accordance with the BBSW Guidelines, any Trade Reporting Errors, Trade Reporting Failures or Trade Reporting Permitted Cancellations (as those terms are defined in the BBSW Guidelines) in respect of Eligible Trades are to be advised to the Administrator prior to 10:20am AEST/AEDT.

### 3.5 BBSW Publication

24. The calculated BBSW rate for each tenor will be rounded to four decimal places and published at 10:30:00am AEST/AEDT via information vendors as described in Appendix B. If BBSW publication is delayed post 10:30am, the Administrator will place a notice on the [benchmarks page](#) advising of the delay and providing an estimated publication time.
25. BBSW for all tenors will be assumed as having been calculated using the VWAP or NBBO Methodology. The methodology used will be communicated in the daily BBSW spreadsheet emailed to subscribers and on the [website](#) with the 24 hour delayed publication data.

### 3.6 Published Tenor Value Dates

26. The tenor value dates published on Reuters pages 'BBSW' (and 'BBSY') and on Bloomberg LLP page 'ASX@342849' will reflect "modified following". Under this rule the value date as published represents the straight run date if it is a Business Day, or the following Business Day unless the straight run date crosses the end of the month, in which case the value date is the preceding Business Day.

### 3.7 Publication of Market Activity

27. Anonymised volume data is made public 1 week in arrears to provide additional transparency to the broader market. This represents the aggregate daily volume in Eligible Trades between 8:30:00am - 10:00:00am inclusive. This daily volume data is updated each Monday for the prior week and can be found at [asx.com.au/prices/asx-benchmark-rates.htm](http://asx.com.au/prices/asx-benchmark-rates.htm).

## 4.0 BBSW Methodology

### 4.1 BBSW Calculation Waterfall

28. VWAP is the primary calculation mechanism used to determine BBSW benchmark rates. In the event that BBSW cannot be formed under the VWAP Methodology for a tenor(s), the NBBO Methodology will be used to determine the rate for an unformed tenor. In the event that a rate cannot be formed under

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<sup>2</sup> All other trades in Bank Paper are to be reported to the Administrator as per section 6.6. of the BBSW Guidelines.

the NBBO Methodology for one or more tenors, the stages in the Fall-Back Methodology will be triggered.

29. The calculation waterfall is hierarchical, having primary, secondary and tertiary elements, each of which is subordinate to the former and its use dependent upon the former's failure to derive the BBSW rate for a tenor. For the purpose of this document,  $T_{+0}$  represents the current day, and  $T_{-1}$  represents the prior business day for which BBSW was published.

Waterfall Step	Description
<b>VWAP Methodology</b>	<p>The VWAP calculation is performed using all Eligible Trades reported to ASX, under the following equation:</p> $BBSW\ Rate_{Tenor} = \frac{\sum_i^{Eligible\ Trades} FV_i * Rate_i}{\sum_i^{Eligible\ Trades} FV_i}$ <p>Where:</p> <ul style="list-style-type: none"> <li>• <b>FV<sub>i</sub></b>: Face Value of Eligible Trade i.</li> <li>• <b>Rate<sub>i</sub></b>: Traded yield of Eligible Trade i.</li> </ul> <p><b>VWAP Eligibility Criteria</b></p> <p><b>Rolling Maturity Pool</b></p> <p>To be eligible for use in the calculation under the VWAP Methodology, a transaction must have a maturity date that falls within the rolling maturity pool. The rolling maturity pool is defined as being +/- 3 Business Days either side of the straight run date for the 1 month tenor and +/- 5 Business Days either side of the straight run date for tenors 2, 3, 4, 5 and 6. The straight run dates are defined as the same calendar date in the corresponding maturity month for tenors 1-6. Where the straight run date falls on a weekend or public holiday, modified following rules will apply unless that day falls in the next calendar month, in which case the straight run date will revert to the first preceding day that is a Business Day. The Business Days either side of the straight run date may fall in the previous or following calendar month. It is only the straight run date that is required to fall within the tenor's calendar month.</p> <p>Example 1- if today is the 11<sup>th</sup> January 2019 the straight run date for the 1 month tenor would be the 11<sup>th</sup> February 2019. Acceptable Bank Paper for the purpose of calculating BBSW would fall within the range of 6<sup>th</sup> February 2019 and 14<sup>th</sup> February 2019 (7 Business Days in total).</p> <p>Example 2- if today is the 11<sup>th</sup> January 2019 the straight run date for the 3 month tenor would be 11<sup>th</sup> April 2019. Acceptable Bank Paper for the purpose of calculating BBSW would fall within the range of 4<sup>th</sup> April 2019 and 18<sup>th</sup> April 2019 (11 Business Days in total).</p> <p>Anything quoted prior to 12pm Sydney time is assumed to be priced out of the same day (T+0) unless otherwise agreed. At 12pm Sydney time the straight run date will</p>

switch over to the following Business Day. Anything quoted post 12pm Sydney time will be priced out of T+1, unless otherwise agreed.

#### **Minimum Criteria for Eligible Trades**

The following minimum criteria govern which transactions which are Eligible Trades that can be used for the BBSW rate calculation under the VWAP Methodology:

- transactions in Bank Paper for maturities that fall within the rolling maturity pool;
- have a notional of greater than or equal to A\$10 million;
- have at least one counterparty in Australia; and
- were executed during the Rate Set Window,

other than where the BBSW Guidelines provide that they are not intended to apply to such trades or that those trades do not need to be reported (such as Internal Trades which occur within the same Market Participant).

In order for the VWAP Methodology to be used, the following minimum thresholds must be met:

	1M	2M	3M	4M	5M	6M
Minimum volume threshold (millions)	200	100	200	100	100	200
Minimum number of transactions	3	3	3	3	3	3
Minimum number of counterparties	4	4	4	4	4	4

#### **NBBO Methodology**

The Administrator determines the BBSW rate for each tenor by first sampling quotes from ATVs at three sample periods (or “sessions”) and then calculating the average mid-point for valid bid/offer spreads from each sample period. The sample periods are as follows:

Sample 1: 8:45:00 ± 5 seconds

Sample 2: 9:15:00 ± 5 seconds

Sample 3: 9:45:00 ± 5 seconds

At each sample period the following calculation steps are implemented:

- 1) Identify qualifying transactions based on the following rules
  - Quotes originated from an ATV.
  - Quotes must meet minimum transaction size of AUD \$20 million.
- 2) The National Best Bid and National Best Offer, denoted in terms of yield are calculated through the following equations:

$$\begin{aligned}
 \text{NationalBestBid}_{\text{Session}:i} &= \min(\text{All Valid Bids}_{\text{Session}:i}) \\
 \text{NationalBestOffer}_{\text{Session}:i} &= \max(\text{All Valid Offers}_{\text{Session}:i})
 \end{aligned}$$

- 3) Each sample period is then evaluated to determine if a qualifying NBBO rate can be calculated based on the following criteria:
  - There is a valid National Best Bid.

- There is a valid National Best Offer.
- The National Best Offer cannot be greater than the National Best Bid by more than 1 basis point.

The NBBO for the sample period is calculated through:

$$NBBO_{Session\ i}^{T+0} = \frac{NationalBestBid_{Session:i} + NationalBestOffer_{Session:i}}{2}$$

**If the sample period criteria is met then the sample is deemed to be valid.**

- 4) The BBSW rate is calculated if there is at least 1 valid sample using the following equation:

$$BBSW_x^{T+0} = \frac{\sum_i^n NBBO_{Session\ i}^{T+0}}{n}$$

**Where n is the number of qualifying sample periods**

- 5) The BBSW rate is rounded to 4 decimal places.

#### Maximum Spread for NBBO data

The three market types below assist in defining what are considered to be normal and dislocated markets. In normal markets, Prime Banks should endeavour to price at spreads as outlined in the Prime Bank Conventions. In accordance with the Prime Bank Conventions, Prime Banks will advise the Administrator if they consider markets to be dislocated. The Administrator will notify the market of any dislocation when publishing BBSW.

- **Type 1 (Normal markets)**  
For all tenors, a market will be a normal market where the maximum spread is 10 basis points, provided the sample National Best Bid is higher in yield than the sample National Best Offer.
- **Type 2 (Dislocated markets)**  
In any circumstance where type 1 (“normal market”) conditions are not met for NBBO data for one or more tenors (i.e. “dislocated markets”), then for the relevant tenor(s), samples will be valid provided the sample National Best Bid is higher in yield than the sample National Best Offer.
- **Type 3 (Inverted NBBO Samples)**  
For any tenor, where the National Best Bid is lower in yield than the National Best Offer for all samples, then samples where the National Best Bid is no more than 1 basis point lower in yield than the National Best Offer will be deemed to be valid samples.

#### Fall-back Methodology stages

The fall-back calculation is designed to calculate BBSW tenors which were unable to be formed under either of the VWAP or NBBO Methodologies.

The fall-back calculation is separated into four stages based on what tenors still require calculation and what neighbouring tenors have been set in previous stages.

**Stage 1: Tenors 2, 4, 5 month set off neighbouring tenors**

This calculation methodology is only applicable for the 2, 4 or 5 month tenors. Additionally a particular tenor is only calculated through this fall-back stage if there are valid BBSW rates set in either the VWAP or NBBO calculation stages for particular tenors either side as set out below. If the previous conditions are satisfied then that tenor will be calculated by interpolation as prescribed below:

- Interpolation of the 2 month tenor requires BBSW rates in the 1 month tenor ( $BBSW_{Earlier}^T$ ) and 3 month tenor ( $BBSW_{Later}^T$ );
- Interpolation of the 4 month tenor requires BBSW rates in the 3 month tenor, ( $BBSW_{Earlier}^T$ ), and either of the 5 month or 6 month tenor, the 6 month tenor being used in the event that no 5 month tenor exists ( $BBSW_{Later}^T$ );
- Interpolation of the 5 month tenor requires BBSW rates in the 6 month tenor ( $BBSW_{Later}^T$ ) and either of the 3 month or 4 month tenor, the 3 month tenor being used in the event that no 4 month tenor exists ( $BBSW_{Earlier}^T$ ).

The calculation used is specified through the following equation:

$$BBSW_x^{T+0} = BBSW_x^{T-1} + (BBSW_{avg}^{T+0} - BBSW_{avg}^{T-1})$$

**Where:**

$$BBSW_{avg}^T = \frac{BBSW_{Earlier}^T + BBSW_{Later}^T}{2}$$

**Stage 2: Tenors 1, 3, 6 month set off a single valid tenor**

A prerequisite for the implementation of this stage is that at least a single tenor has formed in either the VWAP or NBBO stages.

For 1 and 6 month, BBSW will be extrapolated from the daily absolute directional movement (T+0, T-1) in the nearest previously formed tenor ( $BBSW_n$ ) calculated through the following equation:

$$BBSW_x^{T+0} = BBSW_x^{T-1} + (BBSW_n^{T+0} - BBSW_n^{T-1})$$

The 3 month tenor is calculated as per Stage 1 with the exception that there is no requirement that the previously set tenors either side must be within two months of the 3 month tenor.

Once any missing 1, 3, 6 month tenors have been calculated, any previously uncalculated 2, 4 and 5 month tenors will thereafter be calculated using stage 1.

**Stage 3: Tenors 1, 3, 6 formed from movements in the spot month ASX 90 Day Bank Bill Futures**

In the event that no tenors were formed under the VWAP or NBBO stages in the waterfall, the 1, 3 and 6 month BBSW tenors will be extrapolated from the absolute movement in the Time Weighted Average Mid-Price of bids and offers in the front ASX 90 Day Bank Bill Futures contract, expressed as the implied yield, for the period 9.40am to 10:00am; T+0 as compared to T-1. The unformed BBSW tenors would be calculated as follows:

$$BBSW_x^{T+0} = BBSW_x^{T-1} + ((100 - IR_{Active}^{T+0}) - (100 - IR_{Active}^{T-1}))$$

Where  $IR_{Active}$  refers to the price of the front ASX 90 Day Bank Bill Futures contract.

The use of the ASX 90 Day Bank Bill Futures contract is subject to and provided that:

- i. On the Monday prior to the expiry day of the futures contract, the reference instrument reverts to the second contract. If the Monday is not a Business Day, then the change of futures reference month will occur on the previous Business Day. The unformed BBSW tenors would be calculated in the following way:

$$BBSW_x^{T+0} = BBSW_x^{T-1} + ((100 - IR_2^{T+0}) - (100 - IR_2^{T-1}))$$

Where  $IR_2$  refers to the price of the second ASX 90 Day Bank Bill Futures contract.

- ii. On the day following the futures expiry date, the reference change is based on the first contract (T+0) less the second contract for (T-1) i.e.; using the same underlying contract. The unformed BBSW tenors would be calculated as follows:

$$BBSW_x^{T+0} = BBSW_x^{T-1} + ((100 - IR_1^{T+0}) - (100 - IR_2^{T-1}))$$

- iii. ASX 90 Day Bank Bill Futures data will represent a Time Weighted Average Mid-Price of the best bid and best offer for the current Business Day and prior Business Day. The Time Weighted Average Price will be calculated from data observed between 9:40am and 10:00am.
- iv. A bid and an offer exists on both T+0 and T-1.

2, 4 and 5 month tenors will thereafter be calculated as described in Stage 1.

**Stage 4: Revert to prior days BBSW**

In any instance where the previous fall-back stages fail to derive any BBSW rates, then the prior day's BBSW rate will be republished as T+0 BBSW.

In the event of reliance on stage 4, the Administrator will inform the Council of Financial Regulators and Committee in a timely manner.

Reliance on stage 4 to derive BBSW will not extend beyond two consecutive Business Days.

**Stage 5: Final Stage Methodology**

If BBSW is not or will likely not be determined using prior stages in the BBSW calculation methodology<sup>3</sup>, the Final Stage Methodology will apply, as detailed in Appendix C<sup>4</sup>.

## 4.2 Calculation Contingency Arrangements

30. A technical problem with an ATV feed, or an Administrator system issue could prevent the transmission/receipt of Trade Reports or NBBO data and the automatic calculation of BBSW. In the event that a system or data error is detected the Administrator will follow its operational procedures to produce BBSW. This will be recorded in the internal BBSW incident register and raised at the following Committee meeting.

### **ATV adherence to service levels**

31. Trade Reports for use in the VWAP Methodology and bid and offer pricing for use in the NBBO Methodology will be taken only from ATV's that are operating satisfactorily as described within the service levels in the ATV agreements between the Administrator and the ATV, and with a working live connection to ASX's system.
32. Each ATV is required to have a primary (dual line) connection into the Administrator and offsite redundancy that provides for delivery of a backup file (format specified by the Administrator in ATV Agreements) to the Administrator. Each ATV will follow its internal business continuity processes in the event of disruption to the primary connection.

### **Trade reporting obligation**

33. There are two distinct lines of obligation for reporting Eligible Trades and Trade Reporting Errors, Trade Reporting Failures or Trade Reporting Permitted Cancellations (as those terms are defined in the BBSW Guidelines) which are set out in the BBSW Guidelines, being reporting from Trade Reporting Entities to Trade Reporting Agents (ATVs), and from Trade Reporting Agents to the Administrator.
34. There is no obligation on Trade Reporting Entities to ensure that Trade Reports successfully submitted to an ATV flow through to the Administrator. This is the responsibility of the ATV. Upon receipt of an acknowledgement message from the Administrator that the Trade Report has been received, ATVs can be satisfied that their reporting obligation has been met. If no such acknowledgement message has been

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<sup>3</sup> Note: Stage 5 may be used ahead of Stage 4 if required submission data is available.

<sup>4</sup> See Rule 2.2.5 of the ASIC Financial Benchmark (Administration) Rules 2018.

received, the ATV cannot assume that the Trade Report has been successfully submitted to the Administrator and should investigate immediately.

#### ***Inability to send/receive Trade Reports***

35. In the event that an ATV cannot submit Trade Reports to the Administrator or the Administrator cannot receive Trade Reports in the required format via the primary FIX connection, the ATV will provide the Administrator with a backup file (details specified in ATV Agreements) containing all relevant trade reporting details up until 10:20am, 11:30am and 4:30pm on the day of calculation.
36. If an ATV cannot submit Trade Reports to the Administrator via the primary FIX connection or backup mechanism or detects an issue that may impact trade reporting, the ATV must advise the Administrator as soon as possible, and Market Participants as soon as possible in order to give Market Participants the opportunity to trade report via an alternate ATV.
37. A VWAP BBSW rate will be calculated for that day provided at least one ATV's primary connection or back up delivery mechanism is working satisfactorily, and provided that sufficient Trade Reports are received to meet the VWAP calculation criteria.
38. In the event that all ATVs cannot submit Trade Reports, or the Administrator receives insufficient Trade Reports to meet the VWAP calculation criteria, a VWAP calculation will not be performed for that day. The calculation will fall to the next stage in the waterfall (the NBBO Methodology).

#### ***Interruption to direct stream of NBBO data***

39. ATV snaps (screen shots of each vendor page as at 8:45:00am, 9:15:00am and 9:45:00am) are emailed to the Administrator each day by 9:50am and will be used as the input to perform a manual calculation of the NBBO for BBSW (without the application of the randomization of the snaps), in the event that a BBSW rate cannot be formed under the VWAP Methodology and NBBO data cannot be accessed directly.
40. If due to technical issues the ATV snaps are not transmitted to the Administrator by email then the ATV prices, if available, will be obtained from the ATVs by telephone for manual entry into the ASX system or for manual calculation of BBSW.
41. If a manual calculation is performed, the inputs used and output calculated will be reviewed and approved by ASX's pricing department prior to the publication of BBSW. Subsequent to a manual calculation a report will be recorded in the internal BBSW incident register and raised with the Committee at the next meeting.
42. NBBO prices received for input into the system for the calculation of BBSW will be deemed sufficient for calculation purposes, provided at least one ATV's primary connection to the Administrator or back up



delivery mechanism is operating satisfactorily, and sufficient data is received to meet the NBBO calculation criteria.

43. In the event that the primary connection or manual backup does not produce a valid sample under the NBBO Methodology described in section 4.1, then the Fall-Back Methodology will be used.

## 5.0 Post Publication Amendment/ Intraday refix of BBSW

44. In the event that the Administrator identifies a system generated or other error in the calculation post publication of BBSW and the error is a material error, the Administrator will republish BBSW as an intraday refix. A material error is an error that would have a 3 basis point or greater impact on the final BBSW rate for that tenor. In determining the parameters for a refix, the Administrator considered the following:

- Global best practice
- Exposure of market participants to unnecessary basis risk
- The time and effort required to amend transactions in the event of a refix
- Transparency of error reporting
- Ensuring the rate is robust, reliable and reflective of the underlying interest

45. The cut off time for a request to review BBSW rate(s) is 11:00am Sydney time or 30 minutes post the publication. The cut off time for Trade Reporting Errors, Trade Reporting Failures or Trade Reporting Permitted Cancellations (as defined in the BBSW Guidelines) to be included as part of any intraday refix calculation is 11:30am Sydney time (see BBSW Guidelines, section 8.2).
46. The Administrator will post a message on vendor pages communicating BBSW is under review by this time. In the event that an intraday refix is required, the Administrator will republish the amended rate to vendor screens, along with email notification to all ASX BBSW subscribers by 12pm Sydney time.
47. The Administrator will not republish BBSW for errors outside of the 11:30am deadline regardless of materiality. The Administrator will publish an error log monthly in arrears on the website detailing any errors, the relevant tenor and the absolute magnitude of the error (non directional).

## 6.0 Event of Non-calculation of BBSW

48. BBSW will not publish in any instance where the criteria outlined in section 4.1 is not met for any stage in the BBSW methodology. In this instance, a footnote will be placed on vendor pages by 11:00am notifying users of the failure to calculate or derive BBSW for that day. The Administrator will also issue a notification to the Committee and the broader market advising of the failure to publish. For clarity, this announcement is **not** to be confused with a public statement or publication of information on behalf of the Administrator announcing that it has ceased or will cease to provide the BBSW benchmark

permanently or indefinitely. In that event, a separate public market notice would be issued announcing the cessation and confirming the cessation date.

## 6.1 Fall back provisions

49. Users should refer to their own contractual arrangements in the event of a failure to publish BBSW. Participants should have robust fall back provisions written into their contractual documentation to address the cessation of or Material Change to the BBSW Benchmark. Stakeholders should be aware that various factors beyond the control of the Administrator may necessitate changes to the benchmark. Users of BBSW are advised to periodically consider how they may be affected by the above and to review the suitability of the benchmark in meeting their requirements, giving consideration to the following:
- Methodology used to construct the Benchmark and alignment with the underlying market interest it seeks to represent
  - The integrity of the Benchmark calculation
  - Governance and oversight of the Benchmark
  - Independence of the Benchmark Administrator
  - Relevance of the Benchmark in representing underlying contractual obligations
  - Sufficiency of fall back provisions as detailed in contractual agreements
50. The Administrator maintains a Transitions Policy which is available to users upon request.

## 7.0 Complaints Procedures

51. Where a complaint involves a request for a review and possible republication of BBSW the complaint will be handled in accordance with the [ASX Benchmark Complaints Policy](#) as well as in accordance with the following procedures.
52. Any user can request a review of a BBSW rate if it believes that the rate is materially incorrect, such request to be investigated by the Administrator.
53. A request to review a BBSW rate must be lodged by telephone or email to the Administrator before 11:00am Sydney time or 30 minutes post publication. To dispute the calculation of BBSW please call +61 2 9227 0342 or email [ASXBPricing@asx.com.au](mailto:ASXBPricing@asx.com.au).
54. The Administrator will take steps to verify the basis of the complaint (for example, checking Trade Reports and ATV prices during the Rate Set Window). If it is identified that a recalculation is warranted then a recommendation will be made as per the procedures of section 5.
55. The Administrator will maintain a log of all requests to recalculate a BBSW rate, including the entities which requested it, the investigations undertaken, and the reasons for the decision taken by the

Administrator (the “BBSW Error Log”). This will be published to the market, one month in arrears as part of the BBSW Error Log.

### 7.1 Identification and reporting of suspicious transactions

56. A Trade Reporting Entity must have in place a mechanism to report suspicious BBSW financial benchmark data. This may include a complaints policy or a whistleblowing policy.
57. Where a Trade Reporting Entity has reasonable grounds to suspect that a person has engaged in activity in relation to BBSW financial benchmark data for the purpose of attempting to inappropriately influence the level at which BBSW rates are set or maintained, the Trade Reporting Entity should notify the Administrator at [benchmarksuspiciousactivity@asx.com.au](mailto:benchmarksuspiciousactivity@asx.com.au) (as specified in the [ASX Benchmarks Complaints Policy](#)) or ASIC at [markets@asic.gov.au](mailto:markets@asic.gov.au) without delay.
58. Activity that gives rise to a suspicion described above is referred to in this section as “**suspicious activity**”.
59. A Trade Reporting Entity will need to decide on a case by case basis whether activity is suspicious activity. Suspicious activity may include (either alone or in combination with other activities): unusual or unexpected transactions that do not make economic sense or that are significantly different to the prior day without cause of justification; or unusual communications between persons involved in the issuing and/or trading of Bank Paper; or unusual patterns in behaviour.
60. Trade Reporting Entities should have procedures in place to ensure that, where activity that may be suspicious activity is reported internally, each report is reviewed in a timely manner, and escalated to the Administrator or ASIC if there are reasonable grounds for suspicion.
61. Requirements in relation to the identification and reporting of suspicious BBSW rate submissions under the Final Stage methodology, are set out in section 2.3.3 of the Final Stage Methodology and Code of Conduct at Appendix C.

### 8.0 Changes to the BBSW Conventions, BBSW Guidelines or Prime Bank Conventions

62. Any Material Change to the BBSW Conventions, BBSW Guidelines or the Prime Bank Conventions will require:
  - Industry consultation on the scope of the proposed change;
  - Consultation with the Committee;
  - Administrator internal review and approval;
  - Advance notice of the change and implementation date via publication of a market notice and publication of draft documentation on the website, generally providing at least one calendar month advance notice if circumstances allow; and

- Promulgation of the change, once effective, via publication of a market notice and publication of updated documentation on the website ([benchmarks page](#)).

The above process for a proposed Material Change will not apply to a change where ASIC has given the Administrator a written notice requiring the Administrator to make that change, in accordance with the *ASIC Financial Benchmark (Compelled) Rules 2018*.

63. Any non-Material change to the BBSW Conventions, BBSW Guidelines or the Prime Bank Conventions will require:
- Consultation with the Committee;
  - Administrator internal review and approval; and
  - Advance notice of the change and implementation date via publication of a market notice and publication of updated (marked up) documentation on the website ([benchmarks page](#)), generally providing at least one calendar month advance notice if circumstances allow.

To receive ASX market notices, go to ASX online and subscribe to receive benchmark rates notices: <https://www.asxonline.com/public/subscribe.html>

## 9.0 Annual review of BBSW Conventions, BBSW Guidelines and Prime Bank Conventions

64. The Administrator, in consultation with the Committee, will conduct a review of the BBSW Conventions (including the BBSW methodology), the BBSW Guidelines and the Prime Bank Conventions at least once annually with regard to the following:
- The size, liquidity and dynamic of the underlying market for Bank Paper;
  - The effectiveness of the methodology in representing the interests of the market it seeks to represent;
  - The overall integrity of BBSW.

## 1. APPENDICES

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### Appendix A

65. ATVs currently participating in the BBSW rate set process in alphabetical order:
- |                            |         |                |                         |
|----------------------------|---------|----------------|-------------------------|
| ICAP (Australia)           | Reuters | ICAPAUMM01     | Bloomberg GDCO 4545 1 1 |
| Tullett Prebon (Australia) | Reuters | AUTTA2         | Bloomberg TTCB1         |
| Yieldbroker                | Reuters | 0#AUBILLS=YBAU | Bloomberg [N/A]         |
66. Changes to this list should be notified to the market with two weeks' notice.
67. The minimum defined threshold for inclusion in the BBSW rate set process is defined as: A\$750 million in notional volume reported to the Administrator and eligible for inclusion (see eligibility criteria in section 4.1) in the VWAP calculation over a one month period.
68. There is no restriction on the number of trades needed to achieve the total over the period; however, ATVs should submit Trade Reports on at least forty per cent of Business Days. Testing will be undertaken to demonstrate no market inefficiencies arise from the addition of a new ATV prior to connection.
69. After inclusion, ATVs have 180 days to reach A\$1.5 billion in notional volume reported to the Administrator and eligible for inclusion (see eligibility criteria in section 4.1) in the VWAP calculation over a one month period. Failure to reach or maintain this level will warrant a review and may result in the exclusion of an ATV from the BBSW rate set process by the Administrator.
70. ATVs must support live executable bid and offer pricing shown by the Prime Banks throughout the Rate Set Window and used by the Administrator in the daily calculation of NBBO. Inverse pricing will be closely monitored during the testing period and may preclude inclusion as an ATV.
71. The above criteria and volume thresholds will be reviewed annually as per section 9.0 and may change with the evolution of the bank bill market.

### Appendix B

72. Distribution agreements are in place with the information vendors and BBSW is published through Bloomberg, QUICK Corp, Sungard and Thomson Reuters. BBSW is published on Thomson Reuters page BBSW and Bloomberg page ASX29 and ASX@342849.



Appendix C

# BBSW Final Stage Methodology and Code of Conduct

Effective 29<sup>th</sup> April 2019

## Contacts

For general enquiries, please contact:

T 131 279  
E benchmarks@asx.com.au

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## Purpose

The purpose of the Final Stage Methodology is, to the extent reasonably practicable, to allow the Administrator to generate and administer BBSW where all prior steps in the BBSW calculation waterfall mechanism have failed or are likely to fail to produce a BBSW rate.

This Final Stage Methodology forms the fifth and last stage in the BBSW fall back calculation mechanism which is set out in the [BBSW Conventions and Methodology](#).

The Final Stage Methodology is based on the expert judgement of authorised Submitters and Approvers from each of the Prime Banks or entities eligible to be appointed as Prime Banks (**Contributor**). Under the Final Stage Methodology, Contributors are required to submit BBSW rates in accordance with the BBSW Final Stage Methodology and Code of Conduct as outlined in Annexure 1.

Expert judgement involves the exercise of discretion by Contributors' authorised Submitters and Approvers in determining BBSW rates. Expert judgement should be based on actual transactions in underlying or related markets where possible but may also include executable quotes in related markets and extrapolation of rates using historical data. These values may be adjusted to account for market events, credit quality and liquidity conditions.

The purpose of this document is to set out the Final Stage Methodology and provide guidance to Contributors on the procedures and practices to follow when submitting BBSW rates for inclusion in the calculation of BBSW under the Final Stage Methodology.



## 1.0 Final Stage Methodology - when are submissions required?

The Administrator will contact each Contributor if it is apparent that BBSW will not be or is likely not to be calculated for the following day using prior stages in the BBSW calculation methodology. The Administrator will notify Contributors if submissions are required to calculate BBSW under the Final Stage Methodology by 12pm on the day prior to submissions being required. Contributors will be notified of the requirement to submit rates post the publication of that day's BBSW, communicating to all subscribers the calculation method used (i.e. prior day).

In the event that Contributors are required to submit BBSW rates, Prime Bank market making obligations (as set out in the Prime Bank Conventions) will be suspended until notification from the Administrator, on advice from the regulators and Contributors, that market conditions are supportive enough to reinstate Prime Bank market making obligations (i.e. submissions are no longer required).

ASIC may compel BBSW Contributors to submit BBSW rates, even during periods of market stress, if it considers it to be in the public interest to do so. The circumstances in which the public interest test may be satisfied are outlined in *ASIC Regulatory Guide - Financial benchmarks: Licensing and other obligations*.

ASIC, in consultation with the RBA and on advice from the Administrator, may impose a requirement on BBSW Contributors to submit BBSW rates to the Administrator in accordance with the BBSW Final Stage Methodology and Code of Conduct.

Contributors under the Final Stage Methodology may comprise the ASX Prime Banks or an entity eligible to be appointed as a Prime Bank. The list of ASX Prime Banks, eligibility criteria and obligations are outlined in the [ASX Prime Bank Conventions](#).

## 2.0 Contributors to maintain Submission Guide

Contributors must maintain a Submission Guide that outlines the list of data inputs (including expert judgement) that may be used to determine BBSW rates where expert judgement is required. The Submission Guide is to be formulated in accordance with the BBSW Definition and input guidance provided in the Final Stage Methodology (Annexure 1). The Submission Guide should allow for sufficient flexibility when applying expert judgement including the ability to determine BBSW rates where all or a number of listed variables are not available.

The Submission Guide should be independently reviewed and approved by senior management within the risk and/or compliance function of the Contributor. Material changes to the Submission Guide should be shared with the Administrator prior to implementation, giving the Administrator an opportunity for review and feedback.

Each Contributor should provide an up to date copy of its Submission Guide to the Administrator, at a minimum, on an annual basis.

### 2.1 Authorisation of Submitters and Approvers

Each Contributor is to have a designated Submitter and Approver. Each submission is to be verified by an Approver prior to final lodgement with the Administrator. Submitters are to use expert judgement in accordance with their Submission Guide and follow the input guidance provided by the Administrator in the Final Stage Methodology (Annexure 1).

Approvers are responsible for checking the Submitter's quotes for reasonableness prior to final submission to the Administrator by 10:15am.



Contributors should have internal policies and procedures in place to cover the internal review, validation, sign off and final submission of BBSW rates under the Final Stage Methodology, including procedures to verify the authorisation and identity of the Submitters and Approvers.

### **2.1.1 Qualifications and responsibilities**

It is at the discretion of each Contributor to determine where the relevant expertise of Submitters and Approvers lies within the organisation. Submitters will often form part of the Treasury function responsible for directing the issuance of Bank Paper and contributing to the bank's liquidity management, however this is not a requirement. Submitters must possess the relevant expertise in, and knowledge of, the Contributors' funding sources and the underlying market.

Approvers should also have experience in the underlying market for Bank Paper and possess sufficient expertise and seniority to challenge the rates provided by the Submitter.

### **2.1.2 Staff Training**

Contributors must ensure Submitters and Approvers have received appropriate training to perform their function, including training on compliance with their legal obligations under applicable laws and regulations, having regard to the applicable legal framework for BBSW and the submission of BBSW rates in accordance with the *ASIC Financial Benchmark Rules*.

Contributors must provide all staff involved in the submission process with a copy of the BBSW Final Stage Methodology and Code of Conduct.

## **2.2 Managing conflicts of interest**

### **2.2.1 Conflicts of interest handling**

Contributors must have in place internal policies and procedures for managing conflicts of interest, acknowledging that there are likely to be inherent conflicts of interest. Contributors' internal policies and procedures should address any inherent conflicts in addition to perceived or actual conflicts arising in the submission of BBSW rates under the Final Stage Methodology.

Internal controls and procedures should be developed to identify, mitigate and where possible avoid perceived and actual conflicts of interest and potential incentives to manipulate or otherwise inappropriately influence the level at which BBSW is set or maintained. Where a conflict of interest is identified, internal procedures should be followed to ensure the conflict is dealt with appropriately.

Contributors should ensure that all Submitters and Approvers are aware of and fully compliant with the conflicts of interest policy.

### **2.2.2 Segregation of duties**

Submitters and Approvers must not have responsibility for derivatives trading that directly references BBSW, other than that associated with contributing to the bank's liquidity or liability management function (including for hedging purposes). Where conflicts of interest may exist, Submitters and Approvers are to follow internal policies and procedures to ensure that the submitted rates are an accurate and reliable reflection of the underlying funding market at that point in time.

Segregation within the Contributors should ensure that information on the bank's net exposure to BBSW is not divulged to Submitters and Approvers either within the Contributor's business or externally.



### 2.2.3 Communication and physical separation of staff

Submitters and Approvers, in their day to day course of business, must be physically separate from employees that actively deal in derivative products (other than dealing associated with contributing to the bank's liquidity or liability management function, including for hedging purposes) that reference BBSW and may have an interest in where BBSW is set each day. For clarity, physical separation in the day to day course of business should extend throughout the business day and should not be limited to the duration of the Rate Set Window. Submitters and Approvers may be in a position to actively seek information and inputs from employees as subject matter experts but must not be in a position that may result in those employees otherwise being indirectly and involuntarily exposed to information regarding BBSW rate set exposure.

Submitters and Approvers must not involve themselves in communication (internal or external) that may, in any way, be for the purpose of seeking to manipulate or otherwise inappropriately influence the level at which BBSW is set or maintained. Communication includes verbal communication, electronic messaging and email, physical documents and telephone communication.

## 2.3 Contributor Procedures and Processes

### 2.3.1 Submission procedures and controls

Contributors must provide their submissions, to the best of their knowledge, in accordance with the BBSW Definition in Annexure 1.

Contributors must have in place policies to support voluntary submission of all relevant data where the Final Stage Methodology applies and ASIC has not (or has not yet) compelled submissions under the *ASIC Financial Benchmark (Compelled) Rules*.

Internal policies and procedures should be in place to ensure that all Submissions are subject to internal two stage (Submitter and Approver) verification and are reviewed for reasonableness in terms of yield and data inputs prior to submission with the Administrator. Where the yield or data inputs used in determining BBSW rates do not appear reasonable, they should be investigated to confirm the accuracy and reasonableness of the rates prior to submission with the Administrator.

Contributors should be appropriately staffed to ensure sufficient coverage arrangements are in place where submissions are required under the Final Stage Methodology.

### 2.3.2 Procedures to verify the identity of the Submitter and Approver

Contributors should have in place procedures and processes to ensure that only authorised Submitters and Approvers have oversight of the rates submitted and access to the submission mechanism provided by the Administrator.

Contributors must provide a list of Submitters and Approvers to the Administrator and update this list as and when the details change. The Administrator will only accept submissions from authorised Submitters or Approvers for calculation.

### 2.3.3 Identification and reporting of suspicious submissions, inputs or transactions

A Contributor must have in place policies and procedures for the monitoring and surveillance of the Contributor's BBSW rate submissions under the Final Stage Methodology, along with a mechanism to detect, evaluate and report Contributor suspicious submissions, including suspicious inputs or transactions (including intergroup transactions). This may include a complaints policy.

Where a Contributor has reasonable grounds to suspect that a person has engaged in activity in relation to a submission, input or transaction for the purpose of attempting to manipulate or collude to manipulate or otherwise inappropriately influence BBSW rate submissions, the Contributor should notify the Administrator at [benchmarksuspiciousactivity@asx.com.au](mailto:benchmarksuspiciousactivity@asx.com.au) (as specified in the [ASX Benchmarks Complaints Policy](#)) or ASIC at [markets@asic.gov.au](mailto:markets@asic.gov.au) without delay.

Activity that gives rise to a suspicion described above is known as “**suspicious activity**”.

A Contributor will need to decide on a case by case basis whether activity is suspicious activity. Suspicious activity may include (either alone or in combination with other activities): unusual or unexpected submissions, inputs or transactions; inputs or transactions that do not make economic sense or that are significantly different to the prior day’s data; or unusual communications between persons within a Contributor.

Contributors should have procedures in place to ensure that, where activity that may be suspicious activity is reported internally, each report is reviewed in a timely manner, and escalated to the Administrator or ASIC if there are reasonable grounds for suspicion.

Contributors should have internal whistle blowing policies in place that help detect and prevent instances of actual or suspected wrongdoing, and allow for the anonymous reporting of suspicious behaviour relating to attempts to manipulate or collude to manipulate or otherwise inappropriately influence the level at which BBSW rates are set or maintained.

## 2.4 Record keeping policies

Contributors shall keep an auditable record of all submissions under the Final Stage Methodology for a minimum of seven years, including records of the following:

- Details of Submitters and Approvers;
- The inputs that were used in determining BBSW tenors for that day, including the use of expert judgement;
- Details of the submission and approval process;
- Relevant communication relating to submitted rates including communication with the Administrator;
- Queries received in relation to the submitted rates and responses to queries;
- Errors or reports of suspicious activity in relation to submissions;
- The identification and management of any conflicts of interest;
- Findings of any internal/external audits in relation to BBSW rate submission and the progress on implementing remedial actions.

Information used in the submission process, should be accessible and provided to the Administrator and Regulators upon request.

## 2.5 Quality of data submission

Submission of all defined BBSW tenors is required in a format as defined by the Administrator. Partial submissions (i.e. less than all defined tenors) will not be accepted by the Administrator for inclusion in the BBSW calculation.

Any failure of a Contributor to successfully submit BBSW rates for inclusion in that day’s calculation will be considered a significant breach of the BBSW Final Stage Methodology Code of Conduct and the Administrator will report the matter to ASIC.

## 3.0 Review of internal policies and procedures

Internal policies and procedures covering submission should be subject to independent internal review on an annual basis. Submission policies and procedures should also be made available to the Administrator and ASIC upon request.

## Final Stage Methodology

### 4.0 BBSW Definition

*Under the Final Stage Methodology, BBSW is defined as the rate at which a Prime Bank or an entity eligible to be appointed as a Prime Bank could reasonably fund itself in the underlying market for Bank Paper up until 10:00am on a Sydney business day.*

Contributors must only submit BBSW rates that solely reflect the above definition of BBSW. Contributors should follow their internal Submissions Guide, formulated in accordance with the BBSW Final Stage Methodology and Code of Conduct when submitting BBSW rates. For clarity, each Contributor is only required to submit rates that are reflective of their own cost of funding for that day.

#### 4.1 Guidance on selection and priority of inputs

Expert judgement involves the use of discretion by a Contributor when determining the data inputs to be used in rate submissions and adjusting these inputs where necessary to reflect current market conditions.

Contributors must identify a range of data inputs that may be used in determining BBSW submissions as part of their Submission Guide. Where possible, expert judgement should be supported by market data. In developing the Submission Guide, Contributors may have regard to the following:

- Contributor's genuine business purposes (where applicable in the context of submission) as detailed in section 3.1 of the BBSW Guidelines;
- Transactions in Bank Paper regardless of VWAP eligibility. Transactions that fall outside the rolling maturity pool may be interpolated to derive defined BBSW tenors;

and extrapolation of values using:

- Transactions in related funding markets (local and offshore, secured and unsecured);
- Contributors aggregate cost of raising wholesale funds for that day;
- Transactions or quotes in local interest rate derivative markets that are independent of BBSW<sup>5</sup>;
- Prior or historical BBSW data, accounting for current market conditions. A parallel shift may be applied to the data in order to reflect recent events/activity.

In addition to quantitative elements such as the above, the Submission Guide should also incorporate the use of qualitative elements (i.e. expert judgement) with sufficient flexibility where quantitative data is limited or unavailable.

In determining the priority of inputs, the below guidance should be observed:

- Transactional based data should be accorded the highest priority with transactional data that meets some or all the VWAP eligibility criteria receiving a relatively higher weighting;
- Executable quote data should be accorded higher priority than indicative quote data;
- The most recent transactions in Bank Paper should be given higher weighting relative to historical transactions.

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<sup>5</sup> Bank Bill futures and Interest Rate Swaps should not be considered when extrapolating values for BBSW rate submissions due to the circularity of these products.



## **4.2 Submission window and cut off time**

Submissions can be made to the Administrator from 08:30am in a format as specified by the Administrator. The cut off time for final submission is 10:15am Sydney time. Submitted rates may be amended and resubmitted during this time. Only the last submitted rates for each Contributor will be considered valid/active.

## **4.3 Primary and back up submission mechanism**

BBSW rates are to be submitted to the Administrator via the Administrator's online portal. Only authorised Submitters and Approvers are to be granted access to the portal.

In the event that the online portal is unavailable, BBSW rates can be emailed to the Administrator for inclusion in that day's calculation, using the template provided by the Administrator.

## **4.4 Defined BBSW tenors**

The defined tenors are 1 month, 2 month, 3 month, 4 month, 5 month and 6 month applying straight run maturity dates and modified following rules where that day falls on the weekend or a public holiday. Where the straight run date falls in the next calendar month, the straight run date will revert to the first preceding day that is a Business Day.

BBSW rates can be submitted up to four decimal places. BBSW is calculated and published to four decimal places.

## **4.5 Minimum number of Contributor Banks**

A minimum of 3 Contributor Banks must successfully submit BBSW rates for each defined tenor by 10:15am in order for BBSW to be calculated and published for that day. If less than 3 Contributor submissions are received, BBSW will not be published for that day.

Any failure of a Contributor to submit BBSW rates, notwithstanding some technical or other failure beyond the control of the Contributor, in accordance with the BBSW Final Stage Methodology and Code of Conduct will be considered a significant breach of the code and the matter will be referred to ASIC for further action.

## **4.6 BBSW Submission calculation**

Once all Contributor Bank submissions are received by the Administrator, an arithmetic average of the submissions will be calculated and rounded to four decimal places.

## **4.7 BBSW Publication**

BBSW will be published each day at 10:30am. If there is a delay in BBSW publication, the Administrator will follow the communication process outlined in the BBSW Conventions (sections 3.5 and 6.0).

## Appendix D

### Definitions

- Administrator - means the entity responsible for the calculation and publication of BBSW in accordance with Part 7.5B of the Corporations Act and the *ASIC Financial Benchmark (Administration) Rules*.
- Approver - means a person authorised by the Contributor to review and approve BBSW rates provided by the Submitter under the Final Stage Methodology, for inclusion in the BBSW calculation.
- Approved Trading Venue (ATV) - means those entities that facilitate trading and trade reporting of Bank Paper transactions. Also referred to as a Trade Reporting Agent in the BBSW Guidelines.
- ATV Agreement – means a contractual agreement between the Administrator and each ATV as a third party service provider in the reporting of trades and streaming of bid and offer rates for the VWAP and NBBO calculation.
- Bank Paper - means Bills of Exchange accepted or endorsed by Prime Banks or Negotiable Certificates of Deposit (NCDs) issued by Prime Banks, or their dematerialised versions (EBAs and ECDs), with a parcel size of A\$10 million or more, regardless of maturity date or tenor.
- BBSW – means Bank Bill Swap Rate as calculated in accordance with these BBSW Conventions.
- BBSW Conventions - means these ASX BBSW Conventions and Methodology which detail the calculation methodology and governance for BBSW.
- BBSW Definition- means the definition provided in section 4.0 to apply under the Final Stage Methodology.
- BBSW Guidelines - means the BBSW Trade and Trade Reporting Guidelines, which outline the obligations of Market Participants in connection with the generation and administration of BBSW and set out guidance for trading and reporting of trades in Bank Paper to the Administrator.
- Bill of Exchange - has the meaning given to that term in the AFMA NTI Conventions.
- Business Day – has the meaning given to that term in the AFMA NTI Conventions.
- Committee – means the BBSW Advisory Committee, a committee including representation from the Prime Banks, buy side investors, the regulators and AFMA and chaired by the Administrator.
- Contributor - means an entity appointed by, or eligible to be appointed by ASX as a Prime Bank in accordance with the Prime Bank Conventions and *ASIC Financial Benchmark (Compelled) Rules*.
- EBAs – has the meaning given in the Austraclear Regulations.





- ECDs – has the meaning given in the Austraclear Regulations.
- Eligible Trades means all trades in Bank Paper that occur in the Rate Set Window for A\$10 million or more and within the rolling maturity pool specified in these Conventions, as detailed in section 4.1 of these Conventions, other than where the BBSW Guidelines provide that they are not intended to apply to such trades or that those trades do not need to be reported.
- Fall-Back Methodology – the third layer in the BBSW calculation waterfall which comprises five stages, as detailed in the BBSW Conventions section 4.1.
- Final Stage Methodology - the methodology contained in Appendix C annexure 1, as defined in section 2.2.5 *ASIC Financial Benchmark (Administration) Rules*.
- Market Participants – means traders, issuers and investors in Bank Paper.
- Material Change - means a change in the BBSW Conventions, Prime Bank Conventions or BBSW Guidelines that could impact the level at which BBSW rates are set or the tenors for which BBSW rates are calculated.
- NBBO - National Best Bid and Best Offer.
- NBBO Methodology - the secondary layer in the BBSW calculation waterfall as detailed in the BBSW Conventions section 4.1.
- Negotiable Certificate of Deposit (NCD) - has the meaning given to that term in the AFMA NTI Conventions.
- Prime Bank - means a designated sub-set of banks operating in Australia as defined in the Prime Bank Conventions.
- Prime Bank Conventions - means the ASX Prime Bank Conventions which detail the eligibility and ongoing obligations of designated Prime Banks.
- Rate Set Window - means the period 8:30:00am to 10:00:00am AEST/AEDT during which Eligible Trades determine the BBSW rates under the VWAP Methodology.
- Submission Guide - means the document developed and maintained by Contributors for the purpose of providing guidance to Submitters and Approvers on the inputs that may be used (including expert judgement) when determining BBSW rate submissions under the Final Stage Methodology.
- Submitter - means a person authorised by the Contributor to submit BBSW rates under the Final Stage Methodology, to the Administrator on behalf of that Contributor for inclusion in the BBSW calculation.
- Trade Report – means the report of a Bank Paper transaction by a Trade Reporting Entity to a Trade Reporting Agent or by a Trade Reporting Agent to the Administrator, whether for an Eligible Trade or other trade in Bank Paper, other than where the BBSW Guidelines provide that they are not intended to apply to such trades or such trades do not need to be reported.



- Trade Reporting Agent - means the Approved Trading Venues (ATVs) who offer a service for reporting Bank Paper transactions to the Administrator.
- Trade Reporting Entities - means the Prime Banks or other Market Participants (as applicable) who are responsible for reporting Bank Paper transactions to a Trade Reporting Agent.
- Trade Reporting Officers - means those persons authorised to report Bank Paper transactions to a Trade Reporting Agent or to the Administrator on behalf of Trade Reporting Entities or Trade Reporting Agents (as applicable).
- Trade Reporting Window - means the period 8:30am-10:15am AEST/AEDT during which trades effected in the Rate Set Window must be reported to the Administrator.
- VWAP – Volume Weighted Average Price.
- VWAP Methodology - the primary layer in the BBSW calculation waterfall as detailed in these BBSW Conventions section 4.1.



## Change Control

This document has been revised according to the table below:

Author	Comment	Effective date
ASX	Conventions updated to reflect change in Administration from AFMA to ASX. AFMA to remain as calculation agent for an interim period.	1 <sup>st</sup> January 2017
ASX	Conventions updated to reflect ASX taking over as calculation agent from AFMA.	31 <sup>st</sup> July 2017
ASX	Change to NBBO sample times and replacement of early/late maturity pooling convention with a rolling maturity pool.	4 <sup>th</sup> December 2017
ASX	Changes to reflect implementation of an additional layer in the BBSW Calculation waterfall (VWAP) and trade reporting obligations. ATV criteria updated to reflect these changes (appendix A).	21 <sup>st</sup> May 2018
ASX	Annual review of BBSW Conventions. Alignment of BBSW Conventions, BBSW Guidelines and Prime Bank Conventions. Addition of definitions (appendix D), annual review of the BBSW Conventions, Prime Bank Conventions and BBSW Guidelines, and placeholder for BBSW Final Stage Methodology as per ASIC Financial Benchmark (Administration) Rules 2018.	25 <sup>th</sup> February 2019
ASX	Change to rolling maturity pool parameters for 1 month BBSW	25 <sup>th</sup> March 2019
ASX	BBSW Final Stage Methodology and Code of Conduct included in Appendix C	29 <sup>th</sup> April 2019
ASX	Conventions updated to include identification and reporting suspicious transactions (section 7.1) and contact details for reporting suspicious transactions under the Final Stage Method (appendix c section 2.3.3) in accordance with ASIC Financial Benchmark (Administration) Rules 2018.	1 <sup>st</sup> July 2019
ASX	Methodology updated to reflect change in NBBO sample times (section 4.1).	9 <sup>th</sup> September 2019



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