



# BBSW Fall-Back methodology

Consultation on stage three- Bank Bill  
Futures algorithm

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## Invitation to comment

ASX is seeking submissions in response to this consultation by 14<sup>th</sup> February 2020. Submissions should be sent to:

E: [ASXBpricing@asx.com.au](mailto:ASXBpricing@asx.com.au)

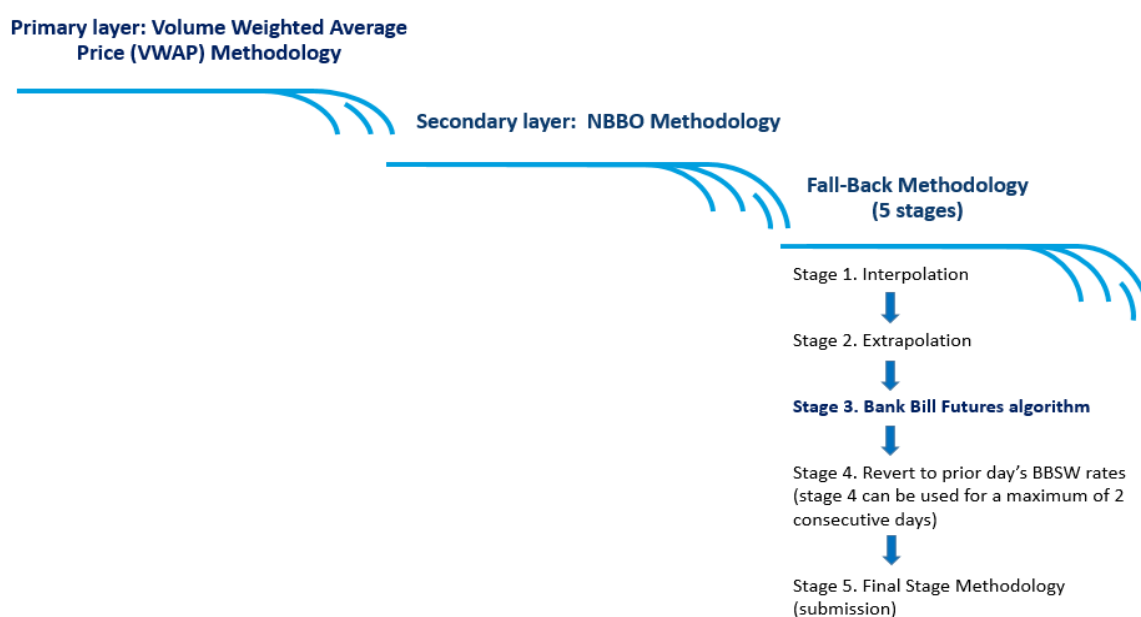
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## 1.0 Introduction

ASX Benchmarks is consulting on the continuing appropriateness of stage three of the BBSW Fall Back Methodology (Bank Bill Futures algorithm) with the introduction of cash settled 90 Day Bank Bill Futures from September 2020. The Bank Bill Futures will be settled using 3 month BBSW as the Expiry Settlement Price.

The Fall Back Methodology is comprised of five stages and is activated in the event that a BBSW rate or rates fail to form under either of the primary methodologies (VWAP or NBBO). The Bank Bill Futures algorithm forms stage three of the five stage Fall Back Methodology.



ASX Benchmarks is seeking feedback on the design of stage three of the Fall Back Methodology, specifically whether potential circularity between the inputs used to determine BBSW under stage three and the Bank Bill Futures Expiry Settlement Price is sufficiently addressed through the existing process.

The Bank Bill Futures algorithm extrapolates BBSW rates by assessing the move in the front Bank Bill Futures contract from one day to the next (T+0 and T-1). Questions around potential circularity arise in the event that stage three of the Fall Back Methodology is used to determine BBSW rates on the day of the Bank Bill Futures expiry.

ASX Benchmarks proposed position is that this is sufficiently addressed under the current formula which reverts to the second Bank Bill Futures contract on the Monday prior to the Bank Bill Futures expiry<sup>1</sup>.

### 1.1. Invitation to respond

ASX Benchmarks invites feedback from market participants on the proposals set out in this consultation and any risks or alternative approaches that respondents may wish to raise for consideration. The consultation will be open until 14th February 2020. Please submit your response to [ASXBpricing@asx.com.au](mailto:ASXBpricing@asx.com.au).

ASX Benchmarks will publish a market notice to confirm the approach by the end of Q1 2020.

<sup>1</sup> The spot Bank Bill Futures contract expires on the second Thursday of the expiry month, the expiry months being March, June, September and December.

## 2. Background

In Q1 of 2019, ASX released a [consultation paper](#) seeking feedback on proposed changes to the 90 Day Bank Bill Futures contract specification and functionality. The consultation was initiated in response to requests from market participants to change the expiry settlement method of the Bank Bill Futures contract from deliverable to cash settled using 3 month BBSW as the settlement price. The Bank Bill Futures contract is currently deliverable upon expiry, meaning position holders must physically deliver or take delivery of eligible Prime Bank Paper to close out the contract. The delivery settlement method restricts participation in the expiring contract, particularly in the week preceding expiry, due to the risk posed to market participants that may hold a position at expiry and be unable to partake in the delivery process.

In Q3 of 2019, ASX published a [response to consultation](#) confirming unanimous support for changing the Bank Bill Futures from deliverable to cash settled using 3 month BBSW as the settlement price. ASX expects the contract to be cash settled from September 2020, subject to regulatory approval.

## 3. BBSW waterfall methodology

As the administrator of a significant financial benchmark, ASX must use a methodology that ensures the quality, integrity, availability, reliability and credibility of the financial benchmark. Importantly, the methodology must be designed to generate, in the widest range of market conditions, a financial benchmark that is an accurate and reliable representation of the interest (ASIC Financial Benchmark (Administration) Rules section 2.2.3).

BBSW is formed using a robust and transparent waterfall methodology, comprised of three main layers.

1. A Volume Weighted Average Price (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.
2. 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.
3. 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 that is based on the expert judgement of authorised Submitters and Approvers from each of the Prime Banks.

Since taking on administration of BBSW in January 2017, BBSW rates have been calculated using either the VWAP or NBBO Methodology. To date, the Fall Back Methodology has not been used.

Stage three of the Fall Back Methodology is outlined below.

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

*In the event that no tenors are 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 (spot) 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 (spot) 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<sup>2</sup> 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 using the interpolation method described in Stage 1.

#### 4. Proposals for market consultation

ASX Benchmarks proposes, subject to feedback received through this consultation, to leave stage three of the Fall Back Methodology unchanged. ASX Benchmarks believes that potential circularity is sufficiently addressed in the existing methodology design by ensuring that the Bank Bill Futures algorithm reverts to the second (non-expiring) Bank Bill Futures contract on the Monday prior to the Bank Bill Futures expiry. This means in the event that stage three is activated during the Bank Bill Futures expiry period, there will be no direct overlap between the expiring Bank Bill Futures contract and the inputs used to determine the final BBSW rate.

Market participants are encouraged to consider the design of the existing BBSW Methodology in addition to the below questions and provide feedback to ASX on your organisations preferred approach.

**Question 1:** Do you believe that the existing BBSW methodology sufficiently addresses potential circularity in determining the Expiry Settlement Price for the 90 Day Bank Bill Futures?

**Question 2:** If the answer to the above is no, which of the below options do you prefer and why?

**Option A-** On the Monday prior to the Bank Bill Futures expiry, stage three of the Fall Back Methodology becomes inactive and remains so until the day after the spot contract expires.

**Option B-** Completely remove stage three of the Fall Back Methodology from the BBSW calculation waterfall.

When assessing the options outlined in question 2, note that in the event that BBSW rates cannot be formed using prior stages in the BBSW calculation waterfall (VWAP, NBBO, Fall Back stage 1 or Fall Back stage 2), the final BBSW rate would be determined using the prior days BBSW rate or Final Stage Methodology (i.e. submissions).

**Question 3:** Are there any other risks or options that you wish to raise for consideration?

<sup>2</sup> The spot Bank Bill Futures contract expires on the second Thursday of the expiry month, the expiry months being March, June, September and December.



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