Bankers’ Acceptance Yield Calculation:

**Formula:**

\[ IR_i = \left(100 - P_R_i\right) \times \left(\frac{365}{\text{Term}}\right) \]

Where:

- \( IR_i \) = money market yield to maturity, simple interest for Trade \( i \)
- \( P_R_i \) = clean price for Trade \( i \)
- \( \text{Term} \) = Maturity Date – Settlement Date, number of days

The convention for money market securities is to round yields to two (2) decimal places.

The data used to calculate the Bankers’ Acceptance rates are transactional based data delivered daily to IIROC via the Market Trade Reporting System (MTRS 2.0) as required by IIROC Rule 2800C.

**Observable Trade Data Calculation Method for BA 1mthT+0:**

**Formula:**

\[ BA \ 1mthT+0 = \frac{\sum_i N_V_i \times IR_i}{\sum_i N_V_i} \]

Where:

- \( N_V_i \) = Notional Value of Trade \( i \)
- \( IR_i \) = Interest Rate of Trade \( i \)

The calculated yield or rate is rounded to five (5) decimal places.

BA Trades [filter for BoC_Category marker = “BA”]
Canadian Currency
Secondary Market Trades [filter for PrimaryMarket marker = “N”]
Buy side (from the counterparty’s perspective) [filter for Side marker = “Buy”]
Only Non-Related Party trades are included [filter for RelatedParty marker = “N”]
Minimum Notional: $1,000,000,000 [Quantity marker > $1,000,000,000]
Maximum Notional: $10,000,000,000,000 [Quantity marker < $10,000,000,000,000]
Trades with yields must be with the following range: >90% * Median Rate and <110% * Median Rate

1 month Bucket: Trades with maturity within the range, inclusive of the Start and End Dates.

1 month Date: Execution Date + 1 month, if not a Business Day, then next Business Day
Formula: 1mth Date = WORKDAY(EDATE(Execution Date,1)-1,1,Holidays)

Start of Range: 1 month Date – 5 Business Days
Formula: Start of Range = WORKDAY(1mth Date,-5,Holidays)

End of Range: 1 month Date + 5 Business Days
Formula: End of Range = WORKDAY(1mth Date,+5,Holidays)

Minimum total notional volume threshold: $25,000,000
AND
Minimum number of trades used in calculation: 5

If both of the above criteria are not met, an Observable Trade Data Calculation Method is deemed not feasible for the given day, and the waterfall approach will be used to calculate a rate to be published for the BA 1mthT+0.

Formula:

\[ BA \text{ 3mth}T+0 = \left( \frac{\sum_{i} NV_i \times IR_i}{\sum_{i} NV_i} \right) \]

Where:

\[ NV_i = \text{Notional Value of Trade } i \]
\[ IR_i = \text{Interest Rate of Trade } i \]

The calculated yield or rate is rounded to five (5) decimal places.

BA Trades [BoC_Category marker = “BA”]
Canadian Currency
Secondary Market Trades [PrimaryMarket marker = “N”]
Buy side (from the counterparty’s perspective) [Filter for Side marker = “Buy”]
Only Non-Related Party trades are included [filter for RelatedParty marker = “N”]
Minimum Notional: $1,000,000 [Quantity marker > $1,000,000]
Maximum Notional: $10,000,000,000 [Quantity marker < $10,000,000,000]
Trades with yields must be with the following range: >90% * Median Rate and <110% * Median Rate

December 3rd, 2018
3 month Bucket: Trades with maturity within the range, inclusive of the Start and End Dates

3 month Date: Execution Date + 3 months, if not a Business Day, then next Business Day
Formula: 3mth Date = WORKDAY(EDATE(Execution Date,3)-1,1,Holidays)

Start of Range: 3 month Date – 10 Business Days
Formula: Start of Range = WORKDAY(3mth Date,-10,Holidays)

End of Range: 3 month Date + 10 Business Days
Formula: End of Range = WORKDAY(3mth Date,+10,Holidays)

Minimum total notional volume threshold: $25,000,000
AND
Minimum number of trades used in calculation: 5

If both of the above criteria are not met, an Observable Trade Data Calculation Method is deemed not feasible for the given day, and the waterfall approach will be used to calculate a rate to be published for the BA 3mth\(_{T+0}\).

As detailed above, this is referred to as calculation method #1.

In any instance where a rate cannot be derived using the Observable Trade Data Calculation Method, then the prior days rate will be republished as the current rate. This is referred to a calculation method #4.

\[
BA 1\text{mth}_{T+0} = BA 1\text{mth}_{T-1}
\]
\[
BA 3\text{mth}_{T+0} = BA 3\text{mth}_{T-1}
\]
BA Rate Calculation Waterfall (Future Release; date to be determined):

Waterfall approach for calculating a rate:

Stage 1: Observable Trade Data Calculation Method
As detailed above, this is referred to as calculation method #1.

Stage 2: Rate set using other tenor
In any instance where a rate cannot be derived using Observable Trade Data Calculation Method, then a rate will be calculated by taking the previous day's rate and adjusting it for absolute movement in the rate calculated for the other term using the Observable Trade Data Calculation Method. This is referred to as calculation method #2.

Formula:

\[
BA_{1mth}^{T+0} = BA_{1mth}^T - 1 + (BA_{3mth}^{T+0} - BA_{3mth}^{T-1})
\]

\[
BA_{3mth}^{T+0} = BA_{3mth}^T - 1 + (BA_{1mth}^{T+0} - BA_{1mth}^{T-1})
\]

Stage 3: Rate set using movement in BAX futures
In any instance where a rate cannot be derived using Stage 1 or 2, then a rate will be calculated by taking the previous day's rate and adjusting it for absolute movement in the daily closing price of the active Three-Month Canadian Bankers' Acceptance Futures (BAX) contract that trades on the TMX Montreal Exchange. This is referred to as calculation method #3.

Formula:

\[
BA_{1mth}^{T+0} = BA_{1mth}^T - 1 + ((100 - BAX^{T+0}) - (100 - BAX^T))
\]

Where \(BAX\) refers to the price of the active Three-Month Canadian Bankers' Acceptance Futures (BAX) contract that trades on the TMX Montreal Exchange.

\[
BA_{3mth}^{T+0} = BA_{3mth}^T - 1 + ((100 - BAX^{T+0}) - (100 - BAX^T))
\]

Where \(BAX\) refers to the price of the active Three-Month Canadian Bankers' Acceptance Futures (BAX) contract that trades on the TMX Montreal Exchange.

Stage 4: Revert to prior days BA rate
In any instance where a rate cannot be derived using Stage 1, 2 or 3, then the prior day's rate will be republished as the current rate. This is referred to as calculation method #4.

December 3rd, 2018
\[ BA_{1\text{mth}}^{T+0} = BA_{1\text{mth}}^{T-1} \]

\[ BA_{3\text{mth}}^{T+0} = BA_{3\text{mth}}^{T-1} \]