<u>S&P Global Market Intelligence's Submission to the</u> <u>Australian Energy Regulator</u>

Dear Esmond and team,

Thank you for the opportunity to make a written submission to the Australian Energy Regulator. This statement addresses only the change to our bond selection criteria, as the curve fitting methodology remains unchanged.

The AER's Draft Determination highlighted some anomalies in S&P Global Market Intelligence's bond curves. After a formal internal review, we identified that it would be necessary to better capture the active portion of the Australian bond market. We therefore conducted an analysis of other bond market pricing providers, and following due process, have identified a new third-party source of bond pricing data, and verified the integrity of the data.

The use of Australian bond data from this new vendor will result in the following changes in output available via the S&P Global Market Intelligence's MI Desktop service:

- The coverage of bonds which have been rated "A" and "BBB" by S&P Global Ratings¹ is materially wider than before including the data from this third-party data provider
 - The S&P Global Market Intelligence Australian-dollar-denominated yield curves maintain no-arbitrage across the system of ratings groups, hence adjacent ratings group curves within the same currency and sector do not cross each other, for example: broad-BBB yield curve produces yield estimates above the 'A' rated curves.
- The observed gap between S&P Global Market Intelligence's curves and those from other participants has been significantly reduced
- There is an ability to generate individual yield curves based on the 11 primary Global Industry Classification Standard (GICS) codes of an issuer. These include Consumer Discretionary, Consumer Staples, Energy, Financials, Healthcare, Industrials, Information Technology, Materials, Telecommunication Services, Utilities, and Real Estate
 - Curves include AUD-denominated domestic and Kangaroo bonds, and exclude Euro-AUD and foreign currency bonds
- Below is the range of coverage for various yield curves across issuer type and rating over 2018:

Yield curve	# Issuers	# Bonds
AUD All Corporates A Curve	75-90	175-185
AUD Non-Financials A Curve	25-35	50-65
AUD Utilities A Curve	4-6	9-12
AUD All Corporates BBB Curve	45-55	85-100
AUD Non-Financials BBB Curve	20-30	35-45
AUD Utilities BBB Curve	2-4	2-4

¹ Credit ratings are prepared by S&P Global Ratings, which is analytically and editorially independent from any other analytical group at S&P Global. S&P Global Ratings does not participate in the creation of the yield curves produced by S&P Global Market Intelligence.

Filtering and cleansing of data

Bond selection criteria:

- The bond must have a price that has been observed more than four times in the last 10 days.
- The bond must be AUD-denominated
- The bond must have a fixed rate coupon
- The issuer must have an Long Term rating from S&P Global Ratings
- The issuer must have a GICS sector classification

Eliminating stale prices:

- Stale prices are eliminated by excluding bonds that have been observed four or less times in the last 10 days
- Implementing an enhanced filtered trimmed-average applied on the levels at the bonds within a particular currency, sector and rating to minimize influence from outlier prices and focus on the price clusters within a particular combination of currency, sector and rating

Minimum number of bonds to construct an observed curve:

• The minimum number of bonds for a group curve to be considered observed is 12 bonds within a currency, sector and rating combination. Otherwise (<12 bonds) the curve is marked as derived

Conclusion

The overall change to S&P Global Market Intelligence's yield curve submission is the result of a change in the market data provider. There were no changes to the underlying methodology, and S&P Global Market Intelligence continues to employ the same process to derive curve shape, level aggregation and filtering across all currencies.

S&P Global Market Intelligence's Quantitative Analyst team and Product teams can be made available to respond to any questions or comments arising from this submission.

Regards,

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