CANDEAL Benchmark Solutions

Term CORRA Rates During Periods of High Volatility

March 5, 2025

CanDeal Benchmark Administration Services Inc. (**CBAS**) examined the quality of Term CORRA rates during the annual methodology review completed in September 2024.[1]

Using historical swap rates as a proxy for CORRA futures observations, the analysis conducted in the context of the methodology review determined that the impact of a sharply declining rate environment such as that observed during the first half of the calendar year 2020 would have a modest impact on Term CORRA since the model continues to fit the market reasonably well. Specifically, CBAS found that:

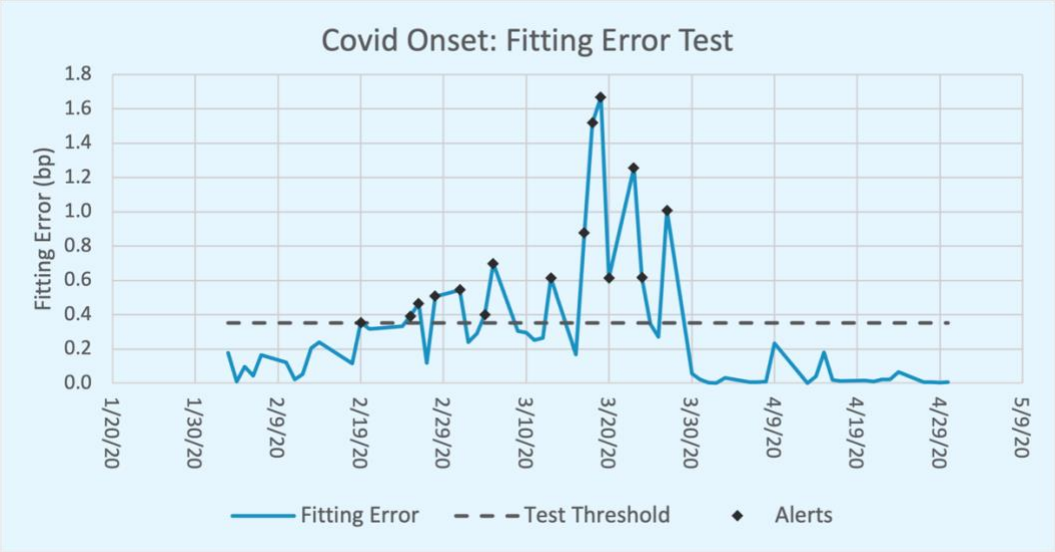
- Term CORRA rates derived using the methodology are expected to be valid during periods of increased market volatility, including the period when the Bank of Canada makes rates changes that are not on Fixed Action Dates (**FAD**). This conclusion depends on the availability of futures trades or markets to make observations for price inputs.
- In the recent history of the published Term CORRA rates, observed daily changes in Term CORRA rates have been below 5 bps, whereas the day-to-day changes in the 1-month and 3-month overnight interest swap rates were as large as 10-20 bps in early 2020 at the onset of the COVID pandemic.
- The model fitting error (**fitting error**) for Term CORRA (which acts as a reasonable estimate of the uncertainty in the estimate of the Term CORRA rates) is typically 0.1 - 0.2 bps and during early 2020 it was as large as 1.7bp. Therefore, despite increased market volatility it is expected that the uncertainty in Term CORRA remains modest.

Background

The Term CORRA calculations are based on the Hetfield and Park (**H&P**) model that assumes that future changes in the CORRA rate are only possible on previously announced dates such as FAD in Canada. A CORRA forecast curve is chosen that best reproduces the futures prices input to the calculation, which are derived from trade and order book data provided by TMX. In normal markets, the resulting forecast curve fits the futures prices (on average) to better than 0.35 bps.

[1] Two updates to the methodology were made further to this review and implemented on February 18, 2025. A notice describing the changes is available on the CBAS website at the following link: Updates to Term CORRA Methodology.

When the market is expecting unplanned changes, then the input yields will ***not*** be consistent with H&P assumptions, leading to a much larger fitting error, estimated to be as large as 1.7bps. This estimate arose from an analysis of the onset of the COVID pandemic in early 2020, when the Bank of Canada made unplanned rate cuts of 50 bps on March 16th and March 27th.



Please see the chart above reflecting the fitting error during early 2020, calculated using swap rates as a proxy for futures prices. It is observed that an increase in the fitting error provides a reliable signal of the upcoming unscheduled rate cuts that were expected at the onset of the COVID pandemic. This is useful to help identify market conditions where the H&P assumption breaks down.

CBAS tested the performance of other controls using data from this period and found that multiple alerts would be raised as expected, leading to increased scrutiny of the published rates.

In a similar scenario, CBAS would consider the fitting error and Term CORRA rates within the context of the increased market volatility and wider bid-ask spread likely to accompany such an event. CBAS will issue a notice advising the market participants of higher uncertainty in the Term CORRA rates uncertainty when the fitting error exceeds 1 bp for more than three consecutive days[2]. The model will still provide reasonable Term CORRA values when volatility is high in CORRA futures because the fitting error is expected to be relatively low compared to the bid-offer spread and daily price fluctuations.

In conclusion, CBAS expects that the Term CORRA rates will be fit for purpose during a volatile market environment.

For more information

Please contact benchmarks@candeal.com if you have any questions.

[2] 1bp is the materiality threshold used for determining whether republication is required in the event that an error in the reported rates has been detected.