

MONTRÉAL EXCHANGE

**3-Month
CORRA Futures**



As part of worldwide efforts by many jurisdictions to promote the development and adoption of alternative reference rates, the Montréal Exchange (MX) has expanded its interest rate derivatives product suite with the launch of the Canadian Overnight Repo Rate (CORRA) Futures contracts, to address global risk management needs.



Canadian Interest Rate Benchmark Transition

The Bank of Canada (through the Canadian Alternative Reference Rate [CARR] working group) is promoting the use of risk-free rate (RFR) benchmarks that are robust, reliable and resilient to market stress.

CORRA has been identified as the primary alternative reference rate for the Canadian marketplace and the Bank of Canada expects it to become increasingly adopted and to eventually become the dominant Canadian interest rate benchmark. The MX has developed a three-month CORRA Futures offering in light of these developments and in order to support the Canadian interest rate benchmark transition.

What is CORRA?

CORRA measures the average cost of overnight general Government of Canada collateral repo transactions (collateral funding). It is the volume-weighted average rate of these general collateral repo transactions conducted on screen through designated inter-dealer brokers.

CORRA is a representative measure of overnight funding rates. As part of the efforts to increase the robustness and representativeness of the benchmark rate, the Bank of Canada has implemented enhancements to the CORRA calculation methodology. The enhancements to CORRA result in a rate that is less volatile and closer to the Bank of Canada's target for the overnight rate, on average.

- Administered by the Bank of Canada
- Rate based on inter-dealer and client Government of Canada repo transactions
 - Approximately C\$12B average daily volume of underlying repo transactions
- Calculated as the trimmed median, after removing the lower volume-weighted 25th percentile of transactions (deemed as "Special" transactions)
- Published according to underlying repo trading convention (currently 2 decimals)

Montréal Exchange CORRA Futures

Product Benefits



Regulatory Friendly

- Centrally cleared at the Canadian Derivatives Clearing Corporation (CDCC)
- Trades within the MX regulatory environment



Capital & Margin Efficiencies

- Low initial margin
- Preferential cost and capital treatment vs OTC transactions



Operational Efficiencies

- Easy implementation and position management via the listed futures market
- Leverages the trading and clearing infrastructure of the Montréal Exchange



Trading Opportunities and Hedging Strategies

- Trades alongside MX's 3-Month Canadian Bankers' Acceptance Futures (BAX)
 - CORRA Futures vs BAX spread strategies
- More precise exposure to Bank of Canada monetary policy, as CORRA better tracks the Canadian key overnight target rate
- Trading relative cross-market views by spreading CORRA futures against other RFR futures
- Hedging repo risk
- Offsetting funding risk in cash versus futures basis trades
- Hedging existing bond portfolios
- Changing duration profiles



Facilitate Access to Canadian Overnight Index Swap (OIS) Market

- Accessible for participants that can't trade the Canadian OTC OIS market



Flexibility of Trading

- Price transparency provided via an on-screen electronic market
 - Central Limit Order Book (CLOB)
- Block, Exchange for Physical and Exchange for Risk transactions available
- Client anonymity

Key Contract Specifications of 3-Month CORRA Futures

(full specs available on MX website)

Trading Unit	Compounded daily CORRA during the Reference Quarter, such that each basis point per annum of interest = \$25 per contract. Contract size is C\$2500 x Index (see price quotation).
Reference Quarter	<p>Based on International Monetary Market (“IMM”) dates.</p> <p>For a given contract, it is the interval from (and including) the 3rd Wednesday of the Contract Reference Month, to (and excluding) the 3rd Wednesday of the Delivery Month. The Contract Reference Month is different from the Delivery Month.</p> <p>Contract Reference Month: For each contract, the Contract Reference Month is the month in which the Reference Quarter begins.</p> <p>Delivery Month: For each contract, the Delivery Month is the month in which the Reference Quarter ends.</p> <p>Example for a June contract: The Reference Quarter starts on IMM Wednesday of June, the Contract Reference Month, and ends with Termination of Trading on the business day before IMM Wednesday of September, the contract Delivery Month.</p>
Expiry Cycle	Nearest 12 quarterly Delivery Months
Price Quotation	Index: 100 – R R = the compounded daily CORRA for the Reference Quarter.
Minimum Price Fluctuation	0.005 = C\$12.50 for all quarterly contracts*. <small>*Note that the minimum price fluctuation for the nearest quarterly contract will be 0.005 = C\$12.50 until further notice. The Bourse expects to change this minimum price fluctuation to 0.0025 = C\$6.25 in the coming months.</small>
Contract Type	Cash-settlement
Last Trading Day	First business day preceding the 3rd Wednesday of the Delivery Month

Final Settlement Price

Index evaluated on the basis of realized CORRA values during the contract Reference Quarter. The final settlement price shall be 100 minus the compounded daily CORRA over the Reference Quarter. It is calculated in accordance with the following formula:

$$R = \left[\prod_{i=1}^d \left(1 + \frac{\text{CORRA}_i \times n_i}{365} \right) - 1 \right] \times \frac{365}{D} \times 100$$

Where:

“d”, the number of Business Days in the Reference Quarter;
“i” is a series of whole numbers from one to d, each representing the relevant Business Day in chronological order from, and including, the first Business Day in the relevant Reference Quarter;
CORRAⁱ = Canadian Overnight Repo Rate (“CORRA”) value calculated and representative of the ith day of the Reference Quarter;
“nⁱ” is the number of calendar days in the relevant Reference Quarter on which the rate is CORRAⁱ ;
“D” is the number of calendar days in the relevant Reference Quarter.

Block Thresholds

2:00 a.m. - 6:00 a.m. ET
100 contracts - 1h reporting time

6:00 a.m. - 4:30 p.m. ET
500 contracts - 15 minutes reporting time

Product Symbol

MX: CRA
Bloomberg: CORA Comdty
Refinitiv (Reuters): CRA

3-Month CORRA Futures and 3-Month Canadian Bankers’ Acceptance Futures (BAX): Contract Months and Reference Periods

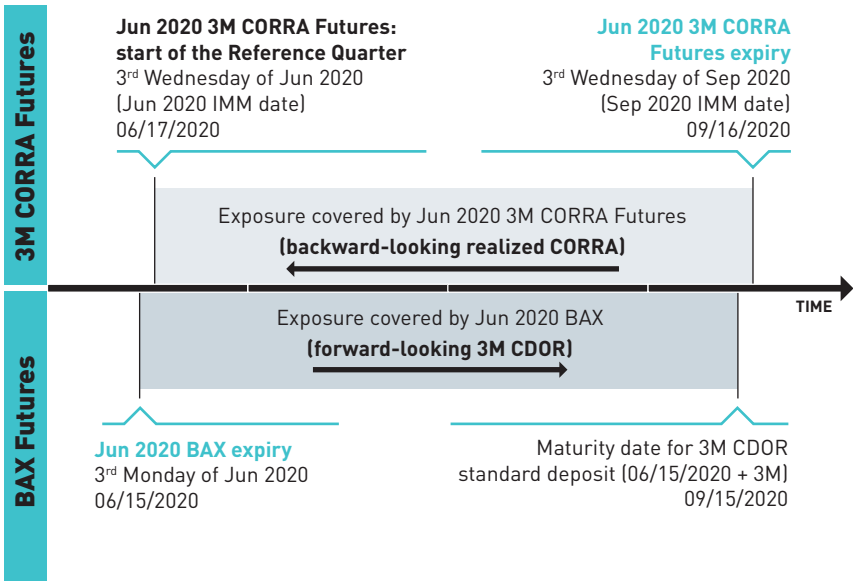
Trading the same Contract Month* in both contracts will cover the same exposure period. By construction, because 3-Month CORRA Futures final settlement price is backward-looking while BAX Futures final settlement price is forward-looking, the Delivery Month will be different.

Final settlement price (100 - R):

- 3-Month CORRA Futures: R is evaluated based on realized CORRA values during the contract Reference Quarter.
- BAX: R is based on the 3-Month CDOR value, which is a 3-month forward looking rate, on the expiry date.

* Representing the Contract Reference Month for the 3-Month CORRA Futures, which is different from the Delivery Month.

Example for June 2020 3-Month CORRA Futures and June 2020 BAX Futures:



3-Month CORRA Futures - June Contract

- Contract Reference Month: June
- Delivery Month: September
- Reference quarter: Based on IMM dates
 - Gives exposure to CORRA for the 3-month period from (and including) the 3rd Wednesday of the Contract Reference Month (in this case June), to (and excluding) the 3rd Wednesday of the Delivery Month (in this case September).

BAX Futures - June Contract

- Contract Month: June
- Delivery Month: June
- Gives exposure to 3-Month CDOR applicable from the second business day prior to the 3rd Wednesday of the contract month (in this case September) for a 3-month period.

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