BANK OF CANADA
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# Update from the Alternative Rates subgroup

CARR Alternative Rates subgroup
November 19th, 2018

# Important note

All analysis in this presentation should be considered preliminary and is subject to a number of important data limitations and assumptions.

A future Benchmark Administrator's calculation of Enhanced CORRA could deviate from the analysis presented here and will be dependent on the ultimate data source selected.

# Path to public consultation

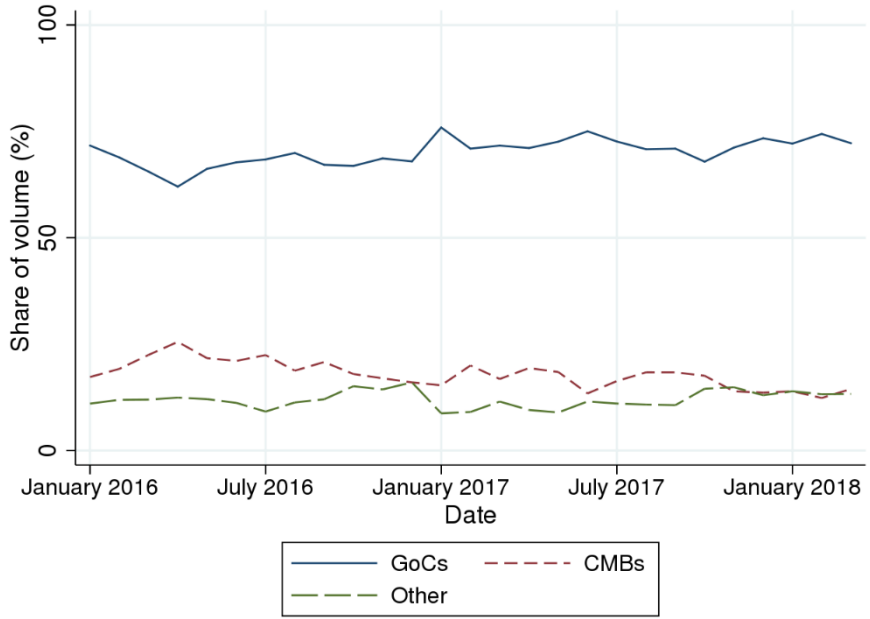
| | Deliverables | Date |
|---|---|---|
| September CARR | - Endorsed a focus on overnight transactions in Government of Canada (GoC) bonds and bills between all counterparty types (i.e. dealer to dealer and dealer to client)<br>- Endorsed expanded subgroup | September 17th |
| October CARR | - Discussed two options for a calculation methodology: 1) a Rate Median approach and 2) a Bond Rate approach<br>- Subgroup agreed to return with a methodology recommendation in November | October 15th |
| November CARR | - Set a near final direction for consultation paper: finalized recommended methodology and most outstanding issues (e.g. calibration and whether to include Bank of Canada / Receiver General operations) | November 19th |
| December CARR | - Discuss draft consultation paper including approach to integrating comments | December 17th |
| January CARR | - Approve consultation document for publication | January 21st |
| Publish consultation document | - Publicly release consultation document for comment | January/February 2019 |

# Background: Subgroup's objectives for Enhanced CORRA

- Enhanced CORRA should satisfy the below criteria.
  1. Risk-free
  2. Derive from more volume than CORRA today
  3. Represent General Collateral (GC) funding
  4. Simple and easy to explain
- Subgroup considered consistency with existing CORRA in the evaluation of the preferred RFR.

# Background: The recommended focus is on all repos in GoC bills and bonds

Volume shares for overnight repos for same-day settlement



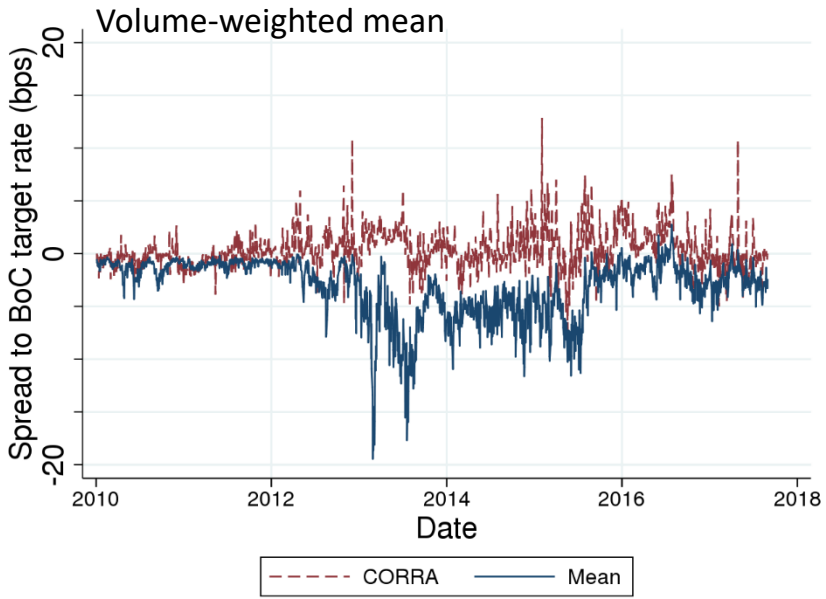

Source: Market Trade Reporting System (MTRS)
Collateral: All
Dates: Jan 2016 to Dec 2017
Filters: Outliers removed (data anomalies)

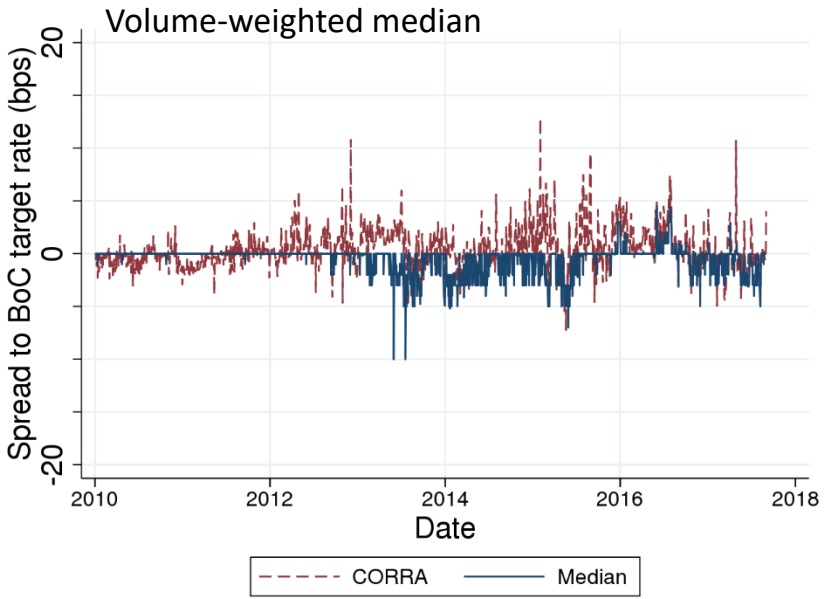
- Total overnight repo volumes for all collateral types, with same-day settlement of the opening leg, range between $40 and $55 billion per day (reported to Market Trade Reporting System).
- For Government of Canada (GoC) bonds and bills, the range is $30 to $40 billion per day (before any filters are applied – discussed later).
- The subgroup recommended a focus on GoC bills and bonds because they represent the largest share of this volume and fit today's definition of GC.
    - Including other collateral types may also introduce new sources of variability to the rate.
- Trades between all counterparties, where data is available, should be included.
    - Analysis showed an important share of volume would be lost by focussing only on inter-dealer trades.
    - No conclusive difference in rates was seen between counterparty types.

# Background: The impact of "specials" is an issue for Enhanced CORRA

- The large transaction set, proposed for Enhanced CORRA, exhibits mean and median daily rates that trend below existing CORRA and the Bank of Canada target rate.
- The subgroup attributed this trend to "specials" being included in the data.
- The subgroup opined that "specials" typically do not provide information on general collateral funding conditions and should therefore be excluded.
    - "Specials" are motivated by the need to source specific securities rather than to source cash.
- However, there is no industry accepted definition of "specials" or means to easily identify them in the data.

# Background: The impact of "specials" is an issue for Enhanced CORRA




| Spread to BoC target rate (bps) | CORRA | Mean | Median |
|---|---|---|---|
| Mean | 0.3 | -3.5 | -0.6 |
| Standard deviation | 1.8 | 3.1 | 1.2 |

Source: CDS/CDCC
Collateral: GoC bonds
Dates: Jan 2010 to Dec 2017
Filters: Outliers removed (data anomalies)

# Background: We discussed four methodologies to correct for "specials"

- The subgroup identified the need to correct for "specials" in Enhanced CORRA.
- Four filter methodologies were proposed:
  1. No filter at all

     Final rate includes "specials" and general collateral transactions
  2. "Rate method"

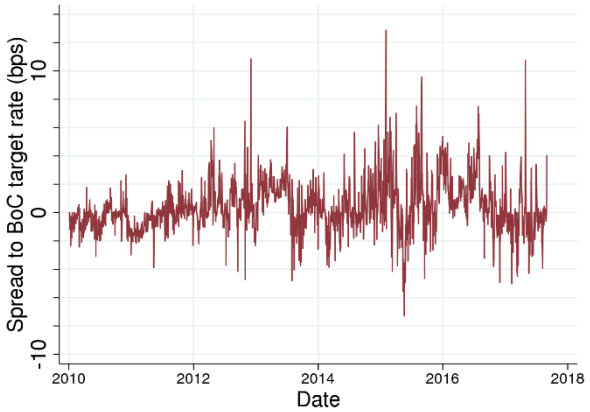
     Drop a fixed lower percentile of trades each day by rate
  3. "Bond/rate method"

     Drops a variable number of trades each day based on the rate at which a bond is pledged
  4. "Mixture method"

     Separate the distributions of specials and general collateral
- The Rate method and Bond Rate method were shortlisted by the subgroup.

# Background: Comparing rate vs bond / rate methods

CORRA




Rate method with median (trim 25th percentile)

Bond/rate method (70%, 10%)

Source: CDS/CDCC
Collateral: GoC bonds and bills
Dates: January 2010 to September 2017
Filters: Outliers (data anomalies)

# Recommendation: The Rate method with a median and 25% filter

- The subgroup has found consensus on its recommendation of a **Rate method with a median**.
  - Low volatility in the approach was seen as positive: hedgers will benefit from a rate that more closely tracks the Bank of Canada overnight rate and issuers will benefit from stability in payments.
  - In a market with extreme levels of "specials", the rate will trend lower to reflect a different nature of funding.
  - The Bond Rate approach was seen as too complex to govern and administer.
  - The Rate Median is simple and consistent with the US approach.
- The proposed calibration is to trim the bottom 25$^{th}$ percentile of transactions each day to account for "specials".
  - This calibration was based on historical analysis that looked at the spread and volatility of Enhanced CORRA to the Bank of Canada overnight rate and to current CORRA.

| | 2010-2017 | | 2016-2017 | |
|---|---|---|---|---|
| Spread to BoC target rate (bps) | CORRA | Recommendation: Median (trimmed 25%) | CORRA | Recommendation: Median (trimmed 25%) |
| Mean | 0.3 | 0.1 | 0.5 | 0.4 |
| Standard deviation | 1.8 | 0.7 | 1.9 | 1.1 |

Source: CDS/CDCC
Collateral: GoC bonds and bills
Dates: January 2010 to September 2017
Filters: Outliers (data anomalies)