May 16, 2022

Consultation on a potential new term interest rate to replace CDOR in certain financial instruments

1. Overview

The Canadian Alternative Reference Rate work group (CARR) was established in March 2018 to help guide benchmark reform efforts in Canada. CARR members include the Bank of Canada and 22 firms, evenly split between buy-side and sell-side institutions (e.g. borrowers and investors). In December 2021, CARR published a White Paper recommending that the administrator of the Canadian Dollar Offered Rate (CDOR), Refinitiv Benchmark Solutions (UK) Limited (RBSL), cease the publication of CDOR after the end of June 2024. After reviewing CARR's recommendation and findings, RBSL launched a public consultation on the potential cessation of the publication of CDOR. Today, RBSL has announced that CDOR's publication will be discontinued after June 28, 2024.

CARR recommended a two-staged transition to move Canadian financial products away from CDOR. In the first stage, all new Canadian dollar interest rate derivative[1] and cash security transactions would move to referencing Canada's risk-free rate, the Canadian Overnight Repo Rate Average (CORRA), published by the Bank of Canada, by the end of June 2023. The second stage provided an additional year for bilateral and syndicated loans to transition to alternative rates, including CORRA. CARR's White Paper acknowledged the potential complexities for some Canadian institutions to move to using overnight CORRA in their loan agreements and agreed to consult on the potential need for a forward-looking interest rate to replace CDOR in certain loan agreements. Further, a majority of responses to RBSL's consultation on the potential cessation of CDOR pointed to the importance of having a term rate in place should CDOR cease to be published. As a result, this consultation has been launched to determine the need for the development of a Term CORRA rate.

With CDOR's cessation, Canadian companies will have to migrate their financial contracts, as well as their systems and processes, to alternative reference rates. This will be a significant task, as CDOR is currently the most widely used interest rate benchmark in Canada, serving as the reference rate for over $20 trillion worth of financial contracts ranging from derivatives to the discounting of trade receivables. Similar transitions have taken place in other jurisdictions with the cessation of the publication of LIBOR.[2]

As has occurred with LIBOR, the bulk of exposures to CDOR (i.e. derivatives and cash securities) are expected to transition to a "compounded-in-arrears" approach using CORRA. The Financial Stability Board has stressed the importance of ensuring key markets, such as interest rates derivatives and floating rate notes, transition to more robust overnight risk-free rates like CORRA. The "compounded-in-arrears" methodology for using CORRA has existed since the late 1990s, similar to other jurisdictions, in certain type of derivative products known as overnight index swaps. "Compounded-in-arrears" rates calculate

[1] This includes all derivative instruments referencing CDOR, including over-the-counter, centrally cleared and exchange-traded derivatives.
[2] All GBP, EUR, CHF, and JPY LIBOR settings, as well as 1-week and 2-month USD LIBOR, ceased being published at end-2021. The remaining USD LIBOR tenors will cease publication at end-June 2023.

the interest payments due for a given period by compounding a daily rate over the period. The exact value of the interest payments is therefore not fully known until a few days before the payment is due. This is in contrast to a forward-looking “term” rate like CDOR, where the interest payment for the period is known at the start of the period.

CARR has formed a Term CORRA subgroup comprised of various stakeholders in the Canadian lending and derivatives market to review the need for a complementary term rate to overnight CORRA for loan and related hedging products, as well as to develop its methodology. In its review, the subgroup consulted with a number of additional financial and non-financial companies to understand their need for a forward-looking term rate. The subgroup found that many companies have either a strong desire or a need for a term rate to replace CDOR, given term rates make it easier to forecast cash flows and are easier to implement operationally, as they require fewer changes to their systems. Additionally, the discounting of trade receivables can only be done with a term rate.

The demand for a term rate option in Canadian dollar loan facilities has been further strengthened by the increasing use of Term SOFR to replace the LIBOR borrowing option in US dollar loans. Most US dollar loans have moved to reference Term SOFR instead of LIBOR, with the balance referencing overnight SOFR or other alternative rates. Many larger Canadian borrowers have a multi-currency borrowing option in their loan facilities, with at least the option to draw in either CAD or USD and would prefer to have a term rate available in both currencies.

The Term CORRA subgroup believes that it may be possible to develop a robust term rate from CORRA based futures if, or when, sufficient liquidity develops in these futures. Given that it is uncertain how quickly this liquidity will develop, the subgroup proposes to limit the published tenors, at least initially, to only the key 1- and 3-month tenors used currently for lending. Historically, close to 90% of loan drawdowns reference the 1-month CDOR tenor. Any term benchmark would need to comply with the global standards for financial benchmark construction (the IOSCO Principles[3]) and adhere with Canadian benchmark regulation and global best practices.

2. Instructions

This consultation document describes and seeks feedback on the need for a potential term rate (i.e. Term CORRA) to replace CDOR in certain loan and hedging agreements. The target audience is all financial and non-financial corporations that use or reference CDOR. CARR has not yet made final decisions on any aspect of Term CORRA and will fully consider all feedback received.

Please submit your responses to the consultation questions below, along with any other comments to CARR-TARCOM-Consultation@bank-banque-canada.ca by June 13, 2022. A consultation response template can be found here. A summary of consultation responses will be made publicly available.

3. Background

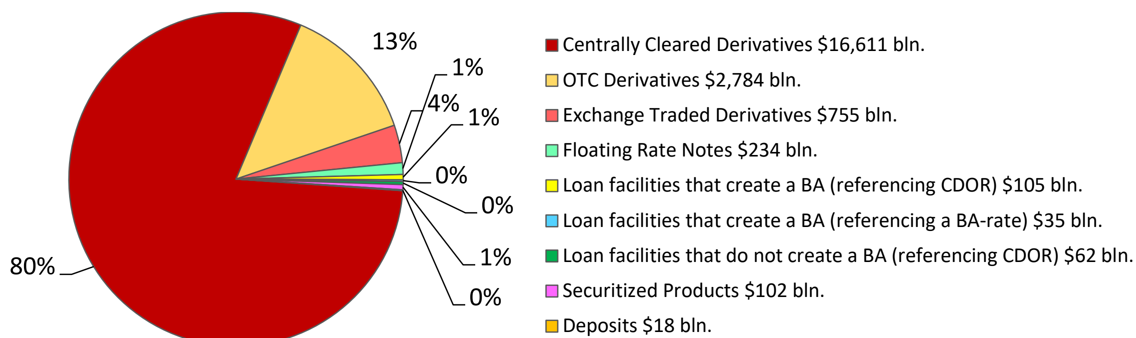
CDOR is currently the primary commercial interest rate benchmark in Canada. It is a survey-based benchmark measuring the average rate at which the six Canadian surveyed banks are willing to lend to

[3] See the Glossary.

corporate borrowers with existing committed BA credit facilities. However, it is used in a much wider array of financial contracts (Figure 1) and is currently published for three tenors: 1-, 2-, and 3-months.[4]

CORRA, in contrast, is solely calculated from actual transactions. It measures the cost of overnight secured funding in Canadian dollars using Government of Canada treasury bills and bonds as collateral for repurchase (repo) transactions.[5] This overnight funding market is large, with $10 to $20 billion in daily transactions being used to calculate the rate by the Bank of Canada.[6] CORRA has been published since 1997 and has been primarily used as the reference rate for Canadian dollar overnight index swaps. However, with the global move to increase the usage of overnight risk-free rates, it is expected that CORRA's usage will broaden to other financial products. For example, since early last year, a number of banks have issued CORRA based floating rate notes (FRNs), and in May, the Canada Housing Trust (CHT) will move their Canada Mortgage Bond (CMB) FRN issuance from CDOR to CORRA. CHT is the largest FRN issuer in Canada. This shift to CORRA is expected to increase further with today's announcement that CDOR will cease to be published.

Figure 1 – Total gross notional value of products referencing CDOR



Source: Survey results, LCH, CME, CMHC, Bloomberg

Last observation: 31/10/2020

Most Canadian loan facilities also allow the borrower to draw funds using the issuing or agent bank's Prime Rate as the underlying reference rate. The Prime Rate, similar to CORRA, is an overnight rate. However, the Prime Rate usually only changes if there is an interest rate policy move by the Bank of Canada. In addition, Prime Rate drawdown options in loan facilities can be more expensive than the corresponding CDOR-based rate, given they are not tied to a specific drawdown tenor and therefore can be drawn and repaid at any point in time.

While CDOR is a forward-looking term rate (i.e. 1-month CDOR tells you the interest rate that will apply over the *next* month), CORRA is an overnight rate, reflecting activity occurring over the previous day. To transform an overnight rate like CORRA into a rate that spans a period of, for example, one month, the daily CORRA settings would need to be compounded over the one-month interest period (see Figure 2).[7]

[4] RBSL ceased the publication of 6- and 12-month CDOR tenors in May 2021.

[5] Please see the Bank of Canada's CORRA website for more information.

[6] CORRA is based on transaction-level repo data that government securities distributors and the six largest federally regulated financial institutions in Canada submit to the Investment Industry Regulatory Organization of Canada (IIROC) through the Market Trade Reporting System (MTRS).

[7] CARR has recommended the use of a lookback period when using overnight CORRA in loan agreements, which means that the CORRA rate used to determine the interest payment is calculated over a reference period which

Term CORRA, like CDOR, would be a forward-looking rate (i.e. known at the start of the period). The rate would reflect market expectations of the daily compounded average of overnight CORRA over a pre-defined period (e.g. over the next month). This is equivalent to the overnight index swap (OIS) rate for the specific term.[8]

The other key difference between CORRA (both overnight and Term CORRA) and CDOR is the risks accounted for in the rate. Since CORRA does not incorporate a bank credit or term premium, it is a lower-yielding rate than the equivalent term CDOR. The degree of the difference between the two is a function of the demand and supply conditions in the short-dated bank funding market and therefore varies with time. During periods of financial stress CDOR can be substantially higher than either overnight CORRA or Term CORRA. Figure 3 illustrates this historical difference for 1-month CDOR and 1-month CORRA-based OIS. Loans and other financial contracts moving from referencing CDOR to referencing CORRA can account for this difference by adjusting the borrowing spread.

Figure 2 – Difference between forward-looking rates (like CDOR) and in-arrears rates (like CORRA)

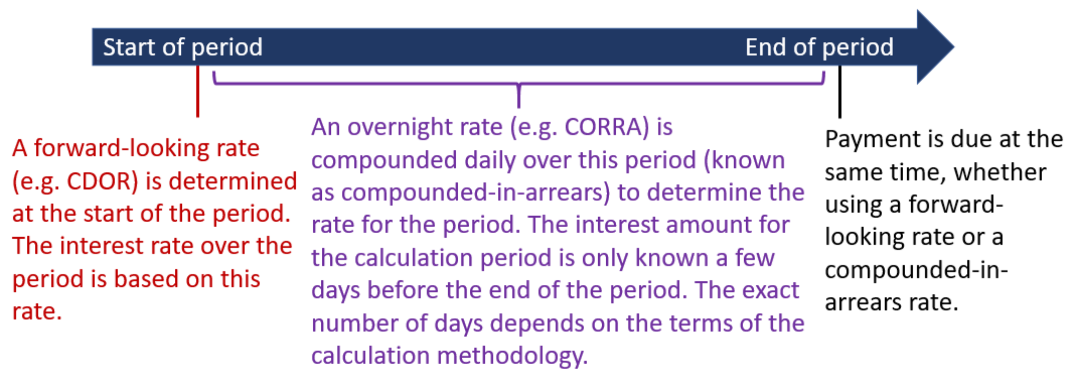
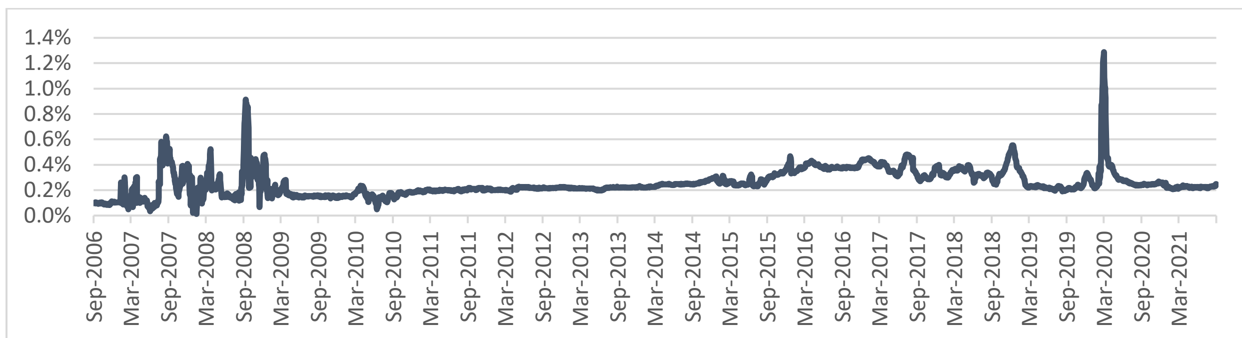


Figure 3 – Spread between 1-month CDOR and 1-month OIS (similar to 1-month Term CORRA)



starts a certain number of business days prior to the start of the interest period and ends a certain number of business days prior to the end of the interest period. Please see CARR's recommended terms for CORRA-based loans, which include a recommended five-day lookback period.

[8] Another difference between CDOR and Term CORRA relates to the calculation day. CDOR is a T+0 rate, meaning that the rate published each business day reflects market conditions at the time of publication (the same day). Term CORRA would be a T+1 rate, meaning that the rate published each business day would reflect market conditions occurring on the prior business day.

4. Potential uses of a CORRA term rate

CARR expects that a majority of current exposure to CDOR can reference overnight CORRA calculated in-arrears, and that the only clear use cases for Term CORRA are lending products (plus associated hedges) and trade finance. This expectation aligns with the experience and guidance in LIBOR jurisdictions where derivative and securities products (e.g. floating rate notes) transitioned to primarily using overnight rates, with the use of the term rate being restricted to primarily loan products and associated hedges. Overnight risk-free rates have also been adopted in the standardized fallback documentation[9] for derivatives contracts referencing CDOR and other similar global term rates, that was developed by the International Swaps and Derivatives Association. This means that with today's announcement that RBSL will cease the publication of CDOR on June 28, 2024, most derivative contracts under ISDA documentation will move from referencing CDOR to referencing CORRA compounded-in-arrears (plus the applicable spread adjustment) upon CDOR's cessation.

To determine whether there were any potential use cases for a term rate, the Term CORRA subgroup surveyed a wide range of financial and non-financial companies of varying sizes and sectors, and with a diverse range of requirements. These companies came from a number of different industries including, but not limited to, energy, telecommunications, asset management, infrastructure, insurance, real estate, manufacturing, public sector entities, automotive and aviation.

Most of the companies surveyed indicated a need for Term CORRA, and while some also indicated an ability to manage using the overnight rate, they highlighted that doing so could initially be operationally difficult and costly. Companies found Term CORRA compelling because it would provide interest rate certainty, which would make it easier to forecast and manage cash flows. Additionally, switching to the use of an overnight rate such as CORRA compounded-in-arrears was seen as costly because of the additional administrative burden required, including changes to conventions and systems. The responses were broadly similar across companies irrespective of size and sector. For trade finance, it was noted that there was a clear need for a forward-looking term rate in order to permit the discounting of trade receivables.

Given CARR's findings, the two anticipated recommended use cases for a potential Term CORRA are: bank lending to companies (e.g. credit facilities, securitization), including any related derivative hedging of those facilities, and trade finance (see Figure 4). To promote liquidity in products referencing the more robust overnight CORRA benchmark, CARR contemplates potentially having the use of Term CORRA restricted through licensing agreements to only include these activities, similar to the restrictions imposed on the use of Term SOFR by the CME. Based on the current use of CDOR in the Canadian loan market, with close to 90% of the draws referencing the 1-month CDOR term and a majority of the balance referencing 3-months, CARR is considering recommending that Term CORRA be limited to only the 1- and 3-month tenors. In other jurisdictions, with larger financial markets, benchmark administrators have been able to offer a larger number of tenors. However, given the smaller size of Canada's financial markets and the more limited liquidity in our futures markets, at least initially, CARR does not believe the creation of additional tenors that are robust and meet with regulatory standards is currently possible. Should

[9] Fallback documentation is legal language that explains what happens to a contract if the main reference rate ceases to be published.

sufficient liquidity develop in the future, Term CORRA's administrator may consider providing additional tenors.

Figure 4 – Potentially permitted uses of Term CORRA for end users

Licensed to use Term CORRA	• Bank lending to companies (e.g. credit facilities, securitizations) • Trade finance • OTC derivative products that are tied or linked to hedging strategy against exposure to cash products that references the same tenor Term CORRA.
Not licensed to use Term CORRA	• Floating rate notes • Capital securities • Derivatives, other than for hedging of bank lending to companies • Financial leasing • Money markets or securities lending • All other uses

CARR expects that most of the liquidity in Canadian dollar derivatives will transition to overnight CORRA, and therefore the cost of hedging using Term CORRA derivatives may potentially be higher compared to using overnight CORRA based derivatives. Therefore, those borrowers that actively hedge their loan exposures, and want to do it most cost effectively subject to any other considerations, could consider either referencing overnight CORRA in their borrowing facilities, or hedging their Term CORRA drawdowns using overnight CORRA derivatives.

Question 1) Does your institution need a Term CORRA rate? If so, for what purpose and how would you use Term CORRA? Please be as explicit as possible.

Question 2) Besides bank lending and trade finance, are there other products or activities for which you would need a Term CORRA? If so, what are the key factors driving your need. Please be as explicit as possible.

Question 3) How would your institution be affected if the use of Term CORRA was restricted to use in loans and trade finance only, and not to derivatives hedging those loans (i.e. derivatives would be restricted to overnight CORRA compounded in-arrears)? Please be as explicit as possible.

Question 4) CARR is considering recommending that Term CORRA be limited to only the 1- and 3-month tenors. If only one of these tenors was available, which would you need and why?

Question 5) If Term CORRA was not available, would your institution use overnight CORRA? If not, could you please explain why and what other alternatives would you consider?

5. Potential design of a CORRA term rate

In designing Term CORRA, CARR is seeking to develop a rate that is robust, serves a clear purpose, and is economical to produce. First, Term CORRA would need to be robust, IOSCO compliant and adhere to both Canadian regulatory standards and global best practices for financial benchmark design. Second, the rate would have to meet the needs of Canadian borrowers.

The rate CARR is contemplating would be calculated from CORRA futures on the Montreal Exchange. It would take into account both executed futures transactions and the central limit order book (CLOB) of executable CORRA futures bids and offers and would be published on a next-day (i.e. T+1) basis (see Footnote 7), similar to term SOFR.

While the current CORRA futures liquidity and transaction volumes are low, CARR expects them to grow as we approach the cessation of CDOR. In order to facilitate the calculation of Term CORRA, CARR is working with the TMX to develop the additional new type of CORRA futures contracts (calendar one-month serial futures) that would need to be in place before the rate could be calculated. CARR expects these additional monthly serial futures contracts to be launched by the end of the year. The viability of any term rate calculated from CORRA futures will depend on their liquidity and transacted volume, and therefore will depend on their usage increasing to the level currently experienced in the BA futures market.

CARR is currently working on the design of the exact calculation methodology for determining Term CORRA. If, based on this consultation, CARR deems that a Term CORRA rate is necessary, CARR may launch a request for proposal (RFP) process later this summer for a third-party administrator to calculate and publish the rate. The administrator would be expected to begin publishing Term CORRA by the end-of-Q3 2023, allowing for liquidity to develop in the CORRA futures market.[10] This would still provide those firms that specifically need a Term CORRA for their loan facilities, nine months to transition away from CDOR.[11]

Term CORRA and its administrator may be designated by members of the Canadian Securities Administrators (CSA) under Multilateral Instrument 25-102 *Designated Benchmarks and Benchmark Administrators.* The rule, which is similar to the benchmark regulation introduced in EU, sets out requirements that apply to benchmark administrators, contributors, and certain regulated users of benchmarks that have been designated by Canadian securities regulators. The design of Term CORRA will therefore need to take into account these stringent regulatory requirements in its construction in order to be used as a Canadian benchmark. In light of this, market participants using Term CORRA would need to have robust fallbacks in place should the required futures liquidity not develop as expected and the benchmark was no longer deemed viable.

Question 6) Are there any aspects of the potential design of Term CORRA that you would like to comment on?

[10] The actual published Term CORRA should closely align with the 1- and 3-month OIS rates, which have been available for illustrative purposes since the early 2000s.

[11] Those borrowers that do not need a Term CORRA rate or prefer to use overnight CORRA in order to minimize the hedging costs can start to transition away from CDOR as soon as their lenders provide them with an overnight CORRA-based alternative lending option.

6. Next steps

CARR will collect responses from this consultation until June 13, 2022 and will subsequently make a summary of them public. Your responses will be used in the design and permissible use cases of a potential Term CORRA.

7. General feedback

Question 7) Are there any aspects of Term CORRA not specifically asked about in this consultation that you would like to comment on?

Glossary

Central limit order book – A centralized database of all limit orders (i.e. orders to buy or sell at certain prices) in an entire market.

CORRA futures – A derivatives contract that pays out the daily CORRA rate over the period of the futures contract. For example, a 3-month CORRA futures contract pays out the compounded daily CORRA rates that occur over the next 3 months. For more details see the Montreal Exchange website.

IOSCO Principles – The IOSCO Principles are a set of global best practices for how financial benchmarks should be designed. Although they are just best practices, they are reflected in regulation in several major jurisdictions. They provide standards for how to address governance issues, benchmark quality, quality of benchmark methodology, and accountability. These principals are reflected in Canadian benchmark regulation, and thus would apply to Term CORRA.

OIS – An overnight index swap is a derivative in which two parties agree to exchange a fixed interest rate for a floating interest rate (i.e. CORRA) over a pre-determined period of time. OIS can be used, for example, to effectively turn a floating rate bond into a fixed rate bond. The fixed payment from an OIS contract can be used to estimate the expected value of the floating payment (i.e. CORRA).

SOFR – The Secured Overnight Finance Rate. SOFR is the American equivalent of CORRA: an interest rate that reflects the cost of borrowing cash overnight, via repo transactions, collateralized by US Treasury securities.