

# CANADIAN IMPERIAL BANK OF COMMERCE US $\$ 10,000,000,000$ <br> <br> Senior Global Medium-Term Notes <br> <br> Senior Global Medium-Term Notes <br> <br> Terms of Sale 

 <br> <br> Terms of Sale}

Canadian Imperial Bank of Commerce (the "Bank" or "CIBC") may from time to time offer and sell notes, which we refer to as the "notes" in this prospectus supplement, with various terms, including the following:

- stated maturity of nine months or longer, except that indexed notes may have maturities of less than nine months
- fixed or floating interest rate, zero-coupon or issued with original issue discount; a floating interest rate may be based on commercial paper rate, U.S. prime rate, secured overnight financing rate ("SOFR"), London interbank offered rate ("LIBOR"), euro interbank offered rate ("EURIBOR"), treasury rate, constant maturity treasury rate ("CMT rate"), constant maturity swap rate ("CMS rate"), consumer price index ("CPI") rate; federal funds rate or any other rate specified in the relevant pricing supplement
- amount of principal and/or interest may be determined by reference to a market measure consisting of one or more securities, one or more currencies, one or more commodities, any other financial, economic or other measures or instruments including the occurrence or non-occurrence of any event or circumstance, and/or indices or baskets of any of these items
- book-entry form only through The Depository Trust Company
- ranked as senior indebtedness of the Bank
- redemption at the option of the Bank or the option of the holder
- interest on notes paid monthly, quarterly, semi-annually or annually
- unless otherwise set forth in the relevant pricing supplement, minimum denominations of $\$ 1,000$ and integral multiples of $\$ 1,000$ in excess thereof (except that non-U.S. investors may be subject to higher minimums)
- denominated in U.S. dollars unless otherwise set forth in the relevant pricing supplement
- settlement in immediately available funds

The final terms of each note will be included in a pricing supplement together with, in some cases, an applicable product supplement and/or an applicable underlying supplement. We refer to pricing supplements, applicable product supplements, if any, and applicable underlying supplements, if any, as "pricing supplements." See "Supplemental Plan of Distribution (Conflicts of Interest)" below for additional information about the agents' commissions. The aggregate initial offering price of the notes is subject to reduction as a result of the sale by the Bank of other debt securities pursuant to another prospectus supplement to the accompanying prospectus.

See "Risk Factors" on page 1 of the accompanying prospectus and beginning on page $\mathrm{S}-1$ of this prospectus supplement to read about factors you should consider before investing in any notes.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of the securities or passed upon the adequacy or accuracy of this prospectus supplement and the accompanying prospectus. Any representation to the contrary is a criminal offense.

The notes will not constitute deposits that are insured under the Canada Deposit Insurance Corporation Act (Canada) (the "CDIC Act") or by the United States Federal Deposit Insurance Corporation or any other Canadian or United States governmental agency or instrumentality.

Notes that are bail-inable notes (as defined herein) are subject to conversion in whole or in part - by means of a transaction or series of transactions and in one or more steps - into common shares of the Bank or any of its affiliates under subsection 39.2(2.3) of the CDIC Act and to variation or extinguishment in consequence, and subject to the application of the laws of the Province of Ontario and the federal laws of Canada applicable therein in respect of the operation of the CDIC Act with respect to the bail-inable notes.

The Bank may sell the notes directly or through one or more agents or dealers, as described under "Supplemental Plan of Distribution (Conflicts of Interest)" below. The agents are not required to sell any particular amount of the notes.

The Bank may use this prospectus supplement in the initial sale of any notes. In addition, CIBC World Markets Corp. ("CIBCWM") or any other affiliate of the Bank may use this prospectus supplement and accompanying prospectus in a market-making or other transaction in any note after its initial sale. Unless we or our agent informs the purchaser otherwise in the confirmation of sale or pricing supplement, this prospectus supplement and the accompanying prospectus are being used in a market-making transaction.

The date of this prospectus supplement is September 2, 2021.

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## ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus and, if applicable, a product supplement and/or an underlying supplement, provide you with a general description of the notes we may offer. Each time we sell notes we will provide a pricing supplement containing specific information about the terms of the notes being offered. Each pricing supplement may include a discussion of any risk factors or other special considerations that apply to those notes. The pricing supplement may also add, update or change the information in this prospectus supplement and any applicable product supplement and/or underlying supplement. If there is any inconsistency between the information in this prospectus supplement, any applicable product supplement and/or underlying supplement and any pricing supplement, you should rely on the information in that pricing supplement. In this prospectus supplement, when we refer to this prospectus supplement, we are also referring to any applicable product supplement and any applicable underlying supplement unless the context otherwise requires.

In this prospectus supplement, the "Bank," "CIBC," "we," "us" and "our" refer to Canadian Imperial Bank of Commerce, unless the context requires otherwise.

## RISK FACTORS

An investment in the notes is subject to the risks described below, as well as the risks described under "Risk Factors" in the accompanying prospectus and the relevant pricing supplement, and the risks identified and discussed in the management's discussion and analysis of financial condition and results of operations included in our Annual Report on Form 40-F for the fiscal year ended October 31, 2020. You should carefully consider whether the notes are suited to your particular circumstances. This prospectus supplement should be read together with the accompanying prospectus and the relevant pricing supplement. The information in the accompanying prospectus is supplemented by, and to the extent inconsistent therewith replaced and superseded by, the information in this prospectus supplement and the relevant pricing supplement. This section describes the most significant risks relating to the notes. We urge you to read the following information about these risks, together with the other information in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference therein, and the relevant pricing supplement, before investing in the notes.

## Structure Risks

## May Not Be Conventional Debt Securities

The notes may not be conventional debt securities. If specified in the relevant pricing supplement, the notes may provide no assurance that any of the principal amount of the notes will be paid at or before maturity. In addition, the notes may not provide holders with a return or income stream prior to maturity calculated by reference to a fixed or floating rate of interest determinable prior to maturity. The notes, unlike traditional debt obligations, may be speculative or uncertain in that they could produce no return on a holder's original investment or not repay any principal amount at or before maturity. Prospective purchasers are directed to the relevant pricing supplement for the specific terms of the relevant securities, including any risk factors set out therein.

## No Deposit Insurance

The notes will not constitute savings accounts, deposits or other obligations that are insured by the Federal Deposit Insurance Corporation, the Bank Insurance Fund or any other governmental agency or under the CDIC Act or any other deposit insurance regime designed to ensure the payment of all or a portion of a deposit upon the insolvency of the deposit taking financial institution. Therefore, you will not be entitled to insurance from the Federal Deposit Insurance Corporation or the Canada Deposit Insurance Corporation (the "CDIC") or other such protection, and as a result, you could lose all or a portion of your investment.

## The Notes Are Structurally Subordinated to the Liabilities of Our Subsidiaries

If we become insolvent, the Bank Act (Canada) (the "Bank Act") provides that priorities among payments of our deposit liabilities and payments of all of our other liabilities (including payments in respect of the notes) are to be determined in accordance with the laws governing priorities and, where applicable, by the terms of the indebtedness and liabilities. Because we have subsidiaries, our right to participate in any distribution of the assets of our banking or non-banking subsidiaries, upon a subsidiary's dissolution, winding-up, liquidation or reorganization or otherwise, and thus your ability to benefit indirectly from such distribution, is subject to the prior claims of creditors of that subsidiary, except to the extent that we may be a creditor of that subsidiary and our claims are recognized. In addition, there are regulatory and other legal limitations on the extent to which some of our
subsidiaries may extend credit, pay dividends or otherwise supply funds to, or engage in transactions with, us or some of our other subsidiaries. Accordingly, the notes will be structurally subordinated to all existing and future liabilities of our subsidiaries, and holders of notes should look only to the assets of the Bank and not those of our subsidiaries for payments on the notes.

## Credit Risks

## An Investment in the Notes Is Subject to Our Credit Risk

Any payment to be made on the notes depends on our ability to pay all amounts when they become due. Therefore, an investment in any of the notes issued under our medium-term note program is subject to our credit risk. The existence of a trading market for, and the market value of, the notes may be impacted by market perception of our creditworthiness. If market perception of our creditworthiness were to decline for any reason, the market value of your notes, and availability of the trading markets generally, may be adversely affected. If we default on our obligations under the notes, you may not receive any amounts owed to you under the notes.

## Public health issues, such as the COVID-19 virus, may have a materially adverse impact on CIBC's business, financial condition and results of operations

Recently the spread of coronavirus disease ("COVID-19") and the restrictions imposed by government bodies around the world to limit its spread, have disrupted the global economy, financial markets, supply chains and business productivity. The adverse economic conditions caused by the pandemic may have a materially adverse impact on CIBC's business, financial condition and results of operations. A substantial amount of CIBC's business involves extending credit or otherwise providing financial resources to individuals, companies, industries or governments that may be adversely impacted by the COVID-19 pandemic and unable to repay their loans. Likewise, as economic activity slows, demand for CIBC's products and services may decline. CIBC's business operations may also be disrupted if its key suppliers of goods and services are adversely impacted by the pandemic. Additionally, CIBC may be limited in its ability to service clients as it has closed or restricted operations in many of its offices and allowed employees to work from home to the extent possible, to protect the health and safety of its customers, its employees and the public. As a result, the business, financial condition and results of operations of CIBC could be materially and adversely impacted. To the extent that the COVID-19 pandemic, or any future epidemic or pandemic, causes material adverse impacts to our business and operations, the global economy, and/or financial markets, there may be an impact on any trading market for, or trading value of, your notes.

## Changes in Laws and Regulations, Including How They are Interpreted and Enforced in Applicable Jurisdictions, Could Have an Impact on Holders of the Notes.

The financial services industry is highly regulated, and we have experienced changes and increased complexity in regulatory requirements as governments and regulators around the world continue major reforms intended to strengthen the stability of the financial system and protect key markets and participants. As a result, there is the potential for higher capital requirements and increased regulatory and compliance costs which could lower our returns and affect our growth. Failure to comply with applicable legal and regulatory requirements may result in litigation, financial losses, regulatory sanctions, enforcement actions, an inability to execute our business strategies, a decline in investor and customer confidence and harm to our reputation.

## Liquidity Risks

## No Market for Notes

Unless otherwise specified in the relevant pricing supplement, there may be no market through which the notes may be sold, and holders may not be able to sell the notes. This may affect the pricing of the notes in the secondary market, the transparency and availability of trading prices and the liquidity of the notes. Even if a secondary market for the notes develops, it may not provide significant liquidity or trade at prices advantageous to you. We expect that transaction costs in any secondary market would be high. As a result, the difference between bid and asked prices for your notes in any secondary market could be substantial.

If you are able to sell your notes before maturity, you may have to do so at a substantial discount from the issue price, and as a result, you may suffer substantial losses.

## U.S. Tax Risks

## U.S. Foreign Account Tax Compliance Act Withholding May Affect Payments on the Notes

The Foreign Account Tax Compliance Act provisions of the U.S. Internal Revenue Code of 1986, as amended ("FATCA") may require U.S. tax withholding on certain payments made to custodians or intermediaries in the payment chain leading to the ultimate investor if any such custodian or intermediary generally is unable to receive payments free of FATCA withholding. It also may affect payment to any ultimate investor that is a financial institution that is not entitled to receive payments free of withholding under FATCA, or an ultimate investor that fails to provide its broker (or other custodian or intermediary from which it receives payment) with any information, forms, other documentation or consents that may be necessary for the payments to be made free of FATCA withholding. Investors should choose the custodians or intermediaries with care (to ensure each is compliant with FATCA or other laws or agreements related to FATCA) and provide each custodian or intermediary with any information, forms, other documentation or consents that may be necessary for such custodian or intermediary to make a payment free of FATCA withholding. Investors should consult their own tax adviser to obtain a more detailed explanation of FATCA and how FATCA may affect them. The Bank's obligations under the notes are discharged once it has made payment to, or to the order of, the common depositary or common safekeeper for the clearing systems (as bearer or registered holder of the notes) and the Bank has therefore no responsibility for any amount thereafter transmitted through the clearing systems and custodians or intermediaries.

## Risks Relating to Indexed Notes

We use the term "indexed notes" to mean notes whose value is linked to an underlying asset or index. Indexed notes may present a high level of risk, and those who invest in indexed notes may lose all or a portion of their investment and may receive no interest on their investment. Indexed notes are complex and involve risks not associated with an investment in ordinary debt securities. You should thoroughly review each of an indexed note's offering documents for a comprehensive description of the risks associated with the offering of such notes. In addition, the treatment of indexed notes for U.S. federal income tax purposes is often unclear due to the absence of any authority specifically addressing the issues presented by any particular indexed note.

Moreover, interest in respect of an indexed note, or any portion of the principal amount of an indexed note in excess of its issue price, may be subject to Canadian non-resident withholding tax. We or the applicable paying agent will deduct or withhold from a payment on a note any Canadian non-resident withholding tax exigible and will not pay any additional amounts to offset such deduction or withholding unless otherwise specified in the relevant pricing supplement. Thus, if you propose to invest in indexed notes, you should independently evaluate the U.S. and Canadian federal income tax consequences of purchasing an indexed note that apply in your particular circumstances. See "Material Income Tax Consequences" in the accompanying prospectus for a discussion of the material U.S. and Canadian federal income tax considerations generally applicable to an investment in the notes.

## Structure Risks

## Investors in Indexed Notes Could Lose Their Investment

The amount of any principal and/or interest payable on an indexed note and the cash and/or physical settlement value (if so indicated in the applicable pricing supplement) will be determined by reference to the price, value or level of one or more securities, currencies, commodities, indices, exchange traded funds or other properties, any other financial, economic or other measure or instrument, including the occurrence or non-occurrence of any event or circumstance, and/or one or more baskets of any of these items. We refer to each of these as an "index." The direction and magnitude of the change in the price, value or level of the relevant index will determine the amount of any principal and/or interest payable on an indexed note, and the cash and/or physical settlement value of an indexed note. The terms of a particular indexed note may or may not provide a fixed return of a percentage of the principal amount at maturity or a minimum interest rate. Thus, if you purchase a particular indexed note that does not provide a fixed return of the principal amount or other amount, you may lose all or a portion of the principal or other amount you invest and may receive no interest on your investment.

## The Return on Indexed Notes May Be Less Than the Return on Notes With a Similar Term That Are

 Not IndexedCertain indexed notes provide for the repayment of principal at maturity, subject to our credit risk.
Depending on the terms of an indexed note, as specified in the relevant pricing supplement, you may not receive any periodic interest payments or you may receive only very low payments on such indexed note. As a result, the overall
return on such indexed note may be less than the amount you would have earned by investing the principal or other amount you invest in such indexed note in a non-indexed debt security that bears interest at a prevailing market fixed or floating rate. For indexed notes that do not provide for the repayment of principal at maturity, see "Investors in Indexed Notes Could Lose Their Investment" above.

## Index Risks

The Issuer of a Security or Currency That Comprises an Index Could Take Actions That May Adversely Affect an Indexed Note

The issuer of a security that comprises an index or part of an index for an indexed note will have no involvement in the offer and sale of the indexed note and no obligations to the holder of the indexed note. Such an issuer may take actions, such as a merger or sale of assets, without regard to the interests of the holder of the indexed note. Any of these actions could adversely affect the value of a note indexed to that security or to an index of which that security is a component.

If the index for an indexed note includes a non-U.S. dollar currency or other asset denominated in a nonU.S. dollar currency, the government that issues that currency will also have no involvement in the offer and sale of the indexed note and no obligations to the holder of the indexed note. That government may take actions that could adversely affect the value of the note. See "Risks Relating to Notes Denominated or Payable in or Linked to a NonU.S. Dollar Currency" below for more information about these kinds of government actions.

## Investors in Indexed Notes Will Have No Ownership of the Underlying Assets

Investing in an indexed note will not entitle a holder to any direct or indirect ownership or entitlement to the underlying assets, except as specified in the relevant pricing supplement. A holder will not be entitled to the rights and benefits of a holder of the underlying assets, including any right to receive any underlying assets, any distributions or dividends on the underlying assets, or to vote at or attend any meetings of holders of the underlying assets.

## An Indexed Note May Be Linked to a Volatile Index, Which Could Hurt Your Investment

Some indices are highly volatile, which means that their value may change significantly, up or down, over a short period of time. The amount of any principal and/or interest that can be expected to become payable on an indexed note may vary substantially from time to time. Because the amounts payable with respect to an indexed note are generally calculated based on the value or level of the relevant index on a specified date or over a limited period of time, volatility in the index increases the risk that the return on the indexed note may be adversely affected by a fluctuation in the level of the relevant index. The volatility of an index may be affected by political or economic events, including governmental actions, or by the activities of participants in the relevant markets. Any of these events or activities could adversely affect the value of an indexed note.

## An Index to Which a Note Is Linked Could Be Changed or Become Unavailable

Some indices sponsored by us or our affiliates or third parties may consist of or refer to several or many different securities, commodities or currencies or other instruments or measures. The sponsor of such an index typically reserves the right to alter the composition of the index and the manner in which the value or level of the index is calculated. An alteration in an index to which a note is linked may result in a decrease in the value of or return on the indexed note. The indices for our indexed notes may include published indices of this kind or customized indices developed by us or our affiliates in connection with particular issues of indexed notes.

A published index may become unavailable, or a customized index may become impossible to calculate in the normal manner, due to events such as war, natural disasters, cessation of publication of the index, a suspension or disruption of trading in one or more index constituents or any other market disruption event described in the relevant pricing supplement. If an index becomes unavailable or impossible to calculate in the normal manner, the terms of a particular indexed note may allow us to delay determining the amount payable as principal or premium or interest on an indexed note, or we may use an alternative method to determine the value of the unavailable index. Alternative methods of valuation are generally intended to produce a value similar to the value resulting from reference to the relevant index. However, it is unlikely that any alternative method of valuation we use will produce a value identical to the value that the actual index would have produced. If we use an alternative method of valuation for a note linked to an index of this kind, the value of the note, or the rate of return on it, may be lower than it otherwise would be.

Some indexed notes are linked to indices that are not commonly used or that have been developed only recently. The lack of a trading history may make it difficult to anticipate the volatility or other risks associated with an indexed note of this kind. In addition, trading in these indices or their index constituents, or options or futures contracts on these indices or index constituents, may be limited, which could increase their volatility and decrease the value of the related indexed notes or the rates of return on them.

## Pricing Information About the Assets Underlying a Relevant Index May Not Be Available Due to Time Zone Differences

Special risks may also be presented because of differences in time zones between the United States and the market for the assets underlying the relevant index, such that the underlying assets are traded on a foreign exchange that is not open when the trading market for the notes in the United States, if any, is open or where trading occurs in the underlying assets during times when the trading market for the notes in the United States, if any, is closed. In such cases, holders of the notes may have to make investment decisions at a time when current pricing information regarding the assets underlying the relevant index is not available.

## Information About Indices Will Not Be Indicative of Future Performance

If we issue an indexed note, we may include historical information about the relevant index in the relevant pricing supplement. Any information about indices that we may provide will be furnished as a matter of information only, and you should not regard the information as indicative of the range of, or trends in, fluctuations in the relevant index that may occur in the future or indicative of any payment of principal or interest to be paid on the indexed notes.

## Conflicts of Interest

## We May Engage in Hedging Activities That Could Adversely Affect an Indexed Note

In order to hedge an exposure on a particular indexed note, we may, directly or through our affiliates or other agents, enter into transactions involving the index constituents, or involving derivative instruments, such as swaps, options or futures, on the index or any of its component items. To the extent that we enter into hedging arrangements with a non-affiliate, including a non-affiliated agent, such non-affiliate may enter into similar transactions. Engaging in transactions of this kind could adversely affect the value of an indexed note. It is possible that we or a hedging counterparty could achieve substantial returns from our hedging transactions while the value of the indexed note may decline. We are under no obligation to hedge our exposure under a particular indexed note. There can be no assurance that any hedging transactions we may choose to undertake will be maintained over the term of the note or will be successful. Regardless of whether we engage in hedging transactions, you have no claim to or in respect of any particular asset which we hold and depend upon our creditworthiness for payment of any amounts due under a note.

## We May Have Conflicts of Interest Regarding an Indexed Note

CIBCWM and our other affiliates and unaffiliated agents may have conflicts of interest with respect to some indexed notes. CIBCWM and our other affiliates and unaffiliated agents may engage in trading, including trading for hedging purposes, for their proprietary accounts or for other accounts under their management, in indexed notes and in the index constituents or in other derivative instruments related to the index or its component items. These trading activities could adversely affect the value of indexed notes. We and our affiliates and unaffiliated agents may also issue or underwrite securities or derivative instruments that are linked to the same index as one or more indexed notes. Introducing competing products into the marketplace in this manner could adversely affect the value of a particular indexed note.

CIBCWM or another of our affiliates or an unaffiliated entity that provides us a hedge in respect of indexed notes may serve as calculation agent and/or exchange rate agent for the indexed notes and may have considerable discretion in calculating the amounts payable in respect of the notes. To the extent that CIBCWM or another of our affiliates or such an unaffiliated entity sponsors, calculates or compiles a particular index, it may also have considerable discretion in performing the calculation or compilation of the index. Exercising discretion in this manner could adversely affect the value of an indexed note based on the index or the rate of return on the note.

## Risks Relating to Floating Rate Notes

## Structure Risks

## Floating Rates of Interest Are Uncertain and Could Be 0.0\%

If your notes are floating rate notes or otherwise directly linked to a floating rate for some portion of the notes' term, no interest will accrue on the notes with respect to any interest period for which the applicable floating rate specified in the relevant pricing supplement is zero on the related interest rate reset date. Floating interest rates, by their very nature, fluctuate, and may be as low as $0.0 \%$. Also, in certain economic environments, floating rates of interest may be less than fixed rates of interest for instruments with a similar credit quality and term. As a result, the return you receive on your notes may be less than a fixed rate security issued for a similar term by a comparable issuer. Even if your return on the notes is positive, and even if your notes have a specified fixed rate of interest for one or more interest periods, the return on your investment may not compensate you for the opportunity cost when you take into account factors, such as inflation, that affect the time value of money.

## Risks for SOFR and LIBOR

## The Regulation and Reform of "Benchmarks"Might Adversely Affect the Value of Investments in Notes Linked to or Referencing such "Benchmarks"

Interest rates and indices that are deemed to be "benchmarks" (including EURIBOR, or any other interest rates or indices) are the subject of recent national and international regulatory guidance and proposals for reform. Some of these reforms are already effective whilst others are still to be implemented. These reforms might cause such benchmarks to perform differently than in the past, to disappear entirely or have other consequences that cannot be predicted. Any such reforms might have a material adverse effect on any notes linked to or referencing such a "benchmark."

The Benchmarks Regulation was published in the Official Journal of the European Union ("EU") on June 29, 2016 and has applied from January 1, 2018. The Benchmarks Regulation applies to the provision of benchmarks, the contribution of input data to a benchmark and the use of a benchmark within the EU. It will, among other things: (a) require benchmark administrators to be authorized or registered (or, if non-EU-based, to be subject to an equivalent regime or otherwise recognized or endorsed) and (b) prevent certain uses by EU-supervised entities of "benchmarks" of administrators that are not authorized or registered (or, if non-EU based, not deemed equivalent or recognized or endorsed).

The Benchmarks Regulation as it forms part of domestic law by virtue of the EUWA and as amended by the Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 has applied in the United Kingdom since the end of the Brexit transition period on December 31, 2020 (the "UK Benchmarks Regulation"). The UK Benchmarks Regulation, among other things, applies to the provision of benchmarks and the use of benchmarks in the United Kingdom. Similarly, it prohibits the use in the United Kingdom by United Kingdom supervised entities of benchmarks of administrators that are not authorized by the United Kingdom's Financial Conduct Authority (the "FCA") or registered on the FCA register (or, if non-United Kingdom based, not deemed equivalent or recognized or endorsed).

The Benchmarks Regulation and/or the UK Benchmarks Regulation, as applicable could have a material impact on any notes linked to or referencing a "benchmark", in particular, if the methodology or other terms of the "benchmark" are changed in order to comply with the requirements of the Benchmarks Regulation or the UK Benchmarks Regulation. Such changes might, among other things, have the effect of reducing, increasing or otherwise affecting the volatility of the published rate or level of the "benchmark."

More broadly, any of the international or national reforms, or the general increased regulatory scrutiny of "benchmarks," might increase the costs and risks of administering or otherwise participating in the setting of a "benchmark" and complying with any such regulations or requirements. Such factors might have the following effects on certain "benchmarks" (including EURIBOR): (a) discourage market participants from continuing to administer or contribute to the "benchmark," (b) trigger changes in the rules or methodologies used in the "benchmark" and/or (c) lead to the disappearance of the "benchmark." Any of the above changes or any other consequential changes as a result of international or national reforms or other initiatives or investigations might have a material adverse effect on the value of and return on any investment in notes linked to or referencing a "benchmark."

To the extent interest payments on a Floating Rate Note are linked to a specific "benchmark" that is discontinued or is no longer quoted, the applicable base rate will be determined using the alternative methods described in "Description of The Notes We May Offer - Interest Rates - Floating Rate Notes." Any of these alternative methods may result in interest payments that are lower than or that do not otherwise correlate over time with the payments that would have been made on those notes if the relevant "benchmark" was available in its current form. Further, the same costs and risks that may lead to the discontinuation or unavailability of a "benchmark" may make one or more of the alternative methods impossible or impracticable to determine.

Under some of the base rates described herein (including base rates that are not subject to the Benchmarks Regulation), the final alternative method sets the interest rate for an interest period at the same rate as the immediately preceding interest period. The use of this final alternative method would have the effect of causing a Floating Rate Note to become a Fixed Rate Note for all succeeding interest periods. Any of the foregoing may have an adverse effect on the value of such notes.

Investors should consult their own independent advisers and make their own assessment about the potential risks imposed by the Benchmarks Regulation reforms in making any investment decision with respect to any notes linked to or referencing a "benchmark."

## If EURIBOR or CMS were to be Discontinued, the Replacement Rate may not be Favorable for Holders of EURIBOR Notes or CMS Notes

The fallback arrangements under "Description of the Notes We May Offer - Interest Rates - Floating Rate Notes - EURIBOR Notes" and "- CMS Rate Notes" below that would take effect in the event that EURIBOR or CMS, as applicable, is discontinued or no longer published following the issuance of a Floating Rate Note include the possibility that the rate of interest on the relevant ffloating rate notes could be set by reference to a successor rate or an alternative reference rate and that such successor rate or alternative reference rate may be adjusted (if required) in order to reduce or eliminate, to the extent reasonably practicable in the circumstances, any economic prejudice or benefit (as applicable) to holders arising out of the replacement of EURIBOR or CMS, as applicable. However, to the extent that EURIBOR or CMS, as applicable, is discontinued or no longer published, and no alternative, successor or replacement reference rate is identified or selected, then the rate of interest on the applicable floating rate notes will be determined by the fallback provisions provided for under "Description of the Notes We May Offer - Interest Rates - Floating Rate Notes - EURIBOR Notes" and "- CMS Rate Notes" below, although such provisions, being dependent, in the case of EURIBOR notes, in part upon the provision of quotations by reference banks, might not operate as intended depending upon market circumstances and the availability of interest rate information at the relevant time and might result in the effective application of a fixed rate based upon the rate that applied in the previous period when EURIBOR or CMS, as applicable, was available, in effect resulting in such EURIBOR notes or CMS Rate notes, as applicable, becoming fixed rate notes. Any of these alternative methods might result in interest payments that are lower than or that do not otherwise correlate over time with the payments that would have been made on the applicable floating rate notes if EURIBOR or CMS, as applicable, were available in its current form.

Notwithstanding any other provision of the indenture or the notes, the consent or approval of the holders is not required in the case of amendments to the notes pursuant to the benchmark discontinuation provisions or, in the case of EURIBOR and CMS, the fallback provisions, to vary the method or basis of calculating the rate(s) or amount of interest or the basis for calculating any interest payment in respect of the applicable notes or for any other variation of the notes and/or the indenture required to be made in the circumstances described in the benchmark discontinuation provisions or such fallback provisions. Any such amendment made pursuant to the benchmark discontinuation provisions or such fallback provisions might have unexpected commercial consequences and there can be no assurance that, due to the particular circumstances of each Holder, any such amendment will be favorable to each Holder.

In addition, due to the uncertainty concerning the availability of successor rates and alternative reference rates and our involvement and/or the Designee (as defined below) in accordance with the benchmark discontinuation provisions or fallback provisions, the relevant benchmark discontinuation provisions or fallback provisions might not operate as intended at the relevant time. More generally, any of the above matters or any other significant change to the setting or existence of EURIBOR, CMS or any other relevant benchmark might have a material adverse effect on the value or liquidity of, and the amount payable under, the applicable notes. No assurance may be provided that relevant changes will not be made to EURIBOR, CMS or any other relevant benchmark and/or that such
benchmarks will continue to exist. Investors should consider these matters when making their investment decision with respect to the notes.
Future Discontinuance of U.S. dollar LIBOR Might Adversely Affect the Value of Investments in Floating Rate Notes that Reference U.S. dollar LIBOR

On July 27, 2017, and in a subsequent speech by its chief executive on July 12, 2018, the FCA, which regulates LIBOR, confirmed that it will no longer persuade or compel banks to submit rates for the calculation of the LIBOR benchmark after 2021 and that, as a result, there can be no guarantee that LIBOR will be determined after 2021 on the same basis as at present, if at all. On March 5, 2021, ICE Benchmark Administration Limited, the LIBOR administrator, and the FCA issued an announcement on the future cessation and loss of representativeness of the LIBOR benchmarks. This will occur immediately after December 31, 2021 for 1-week and 2-month U.S. dollar LIBOR ("USD LIBOR"), and all non-USD LIBOR settings, and after June 30, 2023 for all other USD LIBOR settings. As a result, the FCA and other regulators are requiring financial institutions, their clients and other market participants to plan for the cessation of LIBOR by the end of 2021 and are encouraging a transition to using alternative so-called "risk-free" rates instead of LIBOR. These announcements constituted a "Benchmark Transition Event" and the dates identified are "Benchmark Replacement Dates" (each as defined below).

Investors should be aware that, when USD LIBOR is discontinued or otherwise unavailable, the rate of interest on floating rate notes that reference USD LIBOR will be determined for the relevant period by the fallback provisions applicable to such notes. If, during the term of any floating rate notes linked to USD LIBOR, USD LIBOR is no longer quoted on the designated LIBOR page described in "Description of The Notes We May Offer Interest Rates - Floating Rate Notes - LIBOR Notes" below, USD LIBOR will be determined using the alternative methods described in "Description of The Notes We May Offer - Interest Rates - Floating Rate Notes - LIBOR Notes" below. Any of these alternative methods may result in interest payments on the notes that are lower than or do not otherwise correlate over time with the interest payments that would have been made on the floating rate notes if Reuters page LIBOR01 had remained available or, if for any period of time, Reuters page LIBOR01 is available but the third Benchmark Transition Event under "Description of the Notes We May Offer - Interest Rates - Floating Rate Notes - LIBOR Notes - Effect of Benchmark Transition Event for LIBOR Notes - Benchmark Transition Event" below has occurred. Any of the foregoing may have an adverse effect on the value of and return on the floating rate notes.

Additionally, if during the term of the floating rate notes linked to USD LIBOR, we or an independent financial institution of international repute or other independent financial adviser with appropriate expertise in the international debt capital markets, in each case appointed by us, at our own expense (the "Designee") determines on or prior to the relevant Interest Determination Date that a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to USD LIBOR, then the provisions set forth below under the heading "Description of The Notes We May Offer - Interest Rates - Floating Rate Notes - LIBOR Notes - Effect of Benchmark Transition Event for LIBOR Notes," which we refer to as the benchmark transition provisions, will thereafter apply to all determinations of the rate of interest payable on the floating rate notes linked to USD LIBOR. The selection of a Benchmark Replacement, and any decisions, determinations or elections made by us or our Designee in connection with implementing a Benchmark Replacement with respect to such USD LIBOR notes in accordance with the benchmark transition provisions, could result in adverse consequences to the applicable interest rate on such USD LIBOR notes, which could adversely affect the return on, value of and market for such notes. Further, there is no assurance that the characteristics of any Benchmark Replacement will be similar to USD LIBOR, or that any Benchmark Replacement will produce the economic equivalent of USD LIBOR.

## Potential Conflicts of Interest in Connection with a Base Rate Replacement

In the event of a cessation of LIBOR, EURIBOR, CMS or SOFR, we or our Designee may make certain determinations in our or its own discretion, as described above and in the relevant replacement provisions in "Description of the Notes We May Offer" below, in connection with choosing and implementing a replacement rate. These determinations do not require the consent of the holders and, once made, may negatively affect the value of the notes and will be conclusive and binding on the holders.

## The Composition and Characteristics of SOFR are Not the Same as Those of USD LIBOR and There is no Guarantee that SOFR is a Comparable Substitute for USD LIBOR

The composition and characteristics of the SOFR are not the same as those of USD LIBOR. SOFR is a broad U.S. Treasury repo financing rate that represents overnight secured funding transactions. This means that

SOFR is fundamentally different from USD LIBOR for two key reasons. First, SOFR is a secured rate, while USD LIBOR is an unsecured rate. Second, SOFR is an overnight rate, while USD LIBOR represents interbank funding over different maturities. As a result, there can be no assurance that SOFR will perform in the same way as USD LIBOR would have at any time, including, without limitation, as a result of changes in interest and yield rates in the market, market volatility or global or regional economic, financial, political, regulatory, judicial or other events. For example, since publication of SOFR began in April 2018, daily changes in SOFR have, on occasion, been more volatile than daily changes in comparable benchmark or other market rates.
Because SOFR is Published by the Federal Reserve Bank of New York based on data Received from Other Sources, We Have no Control over its Determination, Calculation or Publication. There can be no Guarantee that SOFR will not be Discontinued or Fundamentally Altered in a Manner that is Materially Adverse to the Interests of Investors in the SOFR Notes

Under the benchmark transition provisions of the USD LIBOR notes, if a Benchmark Transition Event and its related Benchmark Replacement Date occur with respect to USD LIBOR, then the rate of interest on the USD LIBOR notes will be determined based on SOFR (unless a Benchmark Transition Event and its related Benchmark Replacement Date also occur with respect to the Benchmark Replacements that are linked to SOFR, in which case the rate of interest will be based on the next-available Benchmark Replacement). In the following discussion of SOFR, when we refer to SOFR-linked notes, we mean the floating rate notes at any time when the rate of interest on those notes is or will be determined based on SOFR.

SOFR is published by the Federal Reserve Bank of New York ("FRBNY") and is intended to be a broad measure of the cost of borrowing cash overnight collateralized by Treasury securities. FRBNY reports that SOFR includes all trades in the Broad General Collateral Rate, plus bilateral Treasury repurchase agreement ("repo") transactions cleared through the delivery-versus-payment service offered by the Fixed Income Clearing Corporation (the "FICC"), a subsidiary of The Depository Trust \& Clearing Corporation ("DTCC"). SOFR is filtered by FRBNY to remove a portion of the foregoing transactions considered to be "specials." According to FRBNY, "specials" are repos for specific-issue collateral which take place at cash-lending rates below those for general collateral repos because cash providers are willing to accept a lesser return on their cash in order to obtain a particular security.

FRBNY reports that SOFR is calculated as a volume-weighted median of transaction-level tri-party repo data collected from The Bank of New York Mellon, which currently acts as the clearing bank for the tri-party repo market, as well as General Collateral Finance Repo transaction data and data on bilateral Treasury repo transactions cleared through the FICC's delivery-versus-payment service. FRBNY notes that it obtains information from DTCC Solutions LLC, an affiliate of DTCC.

FRBNY currently publishes SOFR daily on its website at https://apps.newyorkfed.org/markets/autorates/ sofr. FRBNY states on its publication page for SOFR that use of SOFR is subject to important disclaimers, limitations and indemnification obligations, including that FRBNY may alter the methods of calculation, publication schedule, rate revision practices or availability of SOFR at any time without notice.

Because SOFR is published by FRBNY based on data received from other sources, we have no control over its determination, calculation or publication. There can be no assurance that SOFR will not be discontinued or fundamentally altered in a manner that is materially adverse to the interests of investors in the SOFR-linked notes. If the manner in which SOFR is calculated is changed, that change may result in a reduction of the amount of interest payable on the SOFR-linked notes, which may adversely affect the trading prices of the SOFR-linked notes. If the rate at which interest accrues on the floating rate notes on any day or for any interest period declines to zero or becomes negative, no interest will be payable on the relevant notes with respect to that day or interest period FRBNY started publishing SOFR in April 2018. FRBNY has also started publishing historical indicative SOFRs dating back to 2014, although such historical indicative data inherently involves assumptions, estimates and approximations. Investors should not rely on such historical indicative data or on any historical changes or trends in SOFR as an indicator of the future performance of SOFR. Since the initial publication of SOFR, daily changes in the rate have, on occasion, been more volatile than daily changes in comparable benchmark or market rates, and SOFR over the term of the notes may bear little or no relation to the historical actual or historical indicative data. In addition, the return on and value of the SOFR-linked notes may fluctuate more than floating rate debt securities that are linked to less volatile rates. An established trading market for the SOFR-linked notes may never develop or may not be very liquid. Market terms for debt securities that are linked to SOFR, such as the spread over the base rate reflected in the interest rate provisions, may evolve over time, and as a result, trading prices of SOFR-linked notes may be lower than those of later-issued debt securities that are linked to SOFR. Similarly, if SOFR does not prove to
be widely used in debt securities that are similar or comparable to the SOFR-linked notes, the trading price of the SOFR-linked notes may be lower than those of debt securities that are linked to rates that are more widely used. Investors in the SOFR-linked notes may not be able to sell the SOFR-linked notes at all or may not be able to sell the SOFR-linked notes at prices that will provide them with a yield comparable to similar investments that have a developed secondary market, and may consequently suffer from increased pricing volatility and market risk.

Under the benchmark transition provisions of the USD LIBOR notes, if a particular Benchmark Replacement or Benchmark Replacement Adjustment cannot be determined, then the next-available Benchmark Replacement or Benchmark Replacement Adjustment will apply. These replacement rates and adjustments may be selected or formulated by (i) the Relevant Governmental Body (such as the ARRC of the FRBNY), (ii) ISDA or (iii) in certain circumstances, us. In addition, the benchmark transition provisions expressly authorize us to make Benchmark Replacement Conforming Changes with respect to, among other things, the determination of interest periods and the timing and frequency of determining rates and making payments of interest. The application of a Benchmark Replacement and Benchmark Replacement Adjustment, and any implementation of Benchmark Replacement Conforming Changes, could result in adverse consequences to the amount of interest payable on USD LIBOR notes, which could adversely affect the return on, value of and market for the USD LIBOR notes. Further, there is no assurance that the characteristics of any Benchmark Replacement will be similar to the then-current Benchmark that it is replacing, or that any Benchmark Replacement will produce the economic equivalent of the then-current Benchmark that it is replacing.

Furthermore, interest on SOFR notes is only capable of being determined at the end of the relevant interest period and immediately or shortly prior to the relevant Interest Payment Date. It might be difficult for investors in SOFR notes to estimate reliably the amount of interest that will be payable on such notes, and some investors might be unable or unwilling to trade such notes without changes to their information technology systems, both of which might adversely impact the liquidity of such notes. This same lack of advanced notice of the amount of an interest payment would also apply in the event of an early redemption on a date other than an Interest Payment Date or upon an acceleration after an Event of Default.

## Risks Relating to Notes Denominated or Payable in or Linked to a Non-U.S. Dollar Currency

If you intend to invest in a non-U.S. dollar note - e.g., a note whose principal and/or interest is payable in a currency other than U.S. dollars or that may be settled by delivery of or reference to a non-U.S. dollar currency or property (if so indicated in the applicable pricing supplement) denominated in or otherwise linked to a non-U.S. dollar currency - you should consult your own financial and legal advisors as to the currency risks entailed by your investment. Notes of this kind may not be an appropriate investment for investors who are unsophisticated with respect to non-U.S. dollar currency transactions. The information in this prospectus supplement is directed primarily at investors who are U.S. residents. Investors who are non-U.S. residents should consult their own financial and legal advisors about currency-related risks particular to their investment in the notes.

## An Investment in a Non-U.S. Dollar Note Involves Currency-Related Risks

An investment in a non-U.S. dollar note entails significant risks that are not associated with a similar investment in a note that is payable solely in U.S. dollars and where settlement value is not otherwise based on a non-U.S. dollar currency. These risks include the possibility of significant changes in rates of exchange between the U.S. dollar and the various non-U.S. dollar currencies or composite currencies and the possibility of the imposition or modification of foreign exchange controls or other conditions by either the United States or non-U.S. governments. These risks generally depend on factors over which we have no control, such as economic and political events and the supply of and demand for the relevant currencies in the global markets.

## Changes in Currency Exchange Rates Can Be Volatile and Unpredictable

Rates of exchange between the U.S. dollar and many other currencies have been highly volatile, and this volatility may continue and perhaps spread to other currencies in the future. Fluctuations in currency exchange rates could adversely affect an investment in a note denominated in, or where value is otherwise linked to, a specified currency other than U.S. dollars. Depreciation of the specified currency against the U.S. dollar could result in a decrease in the U.S. dollar-equivalent value of payments on the note, including the principal payable at maturity. That in turn could cause the market value of the note to fall. Depreciation of the specified currency against the U.S. dollar could result in a loss to the investor on a U.S. dollar basis.

## We Will Not Adjust Non-U.S. Dollar Notes to Compensate for Changes in Currency Exchange Rates

Except as described above or in the relevant pricing supplement, we will not make any adjustment or change in the terms of a non-U.S. dollar note in the event of any change in exchange rates for the relevant currency, whether in the event of any devaluation, revaluation or imposition of exchange or other regulatory controls or taxes or in the event of other developments affecting that currency, the U.S. dollar or any other currency. Consequently, investors in non-U.S. dollar notes will bear the risk that their investment may be adversely affected by these types of events.

## Government Policy Can Adversely Affect Foreign Currency Exchange Rates and the Return on an Investment in a Non-U.S. Dollar Note

Foreign currency exchange rates can either float or be fixed by sovereign governments. From time to time, governments use a variety of techniques, such as intervention by a country's central bank or imposition of regulatory controls or taxes, to affect the exchange rate of their currencies. Governments may also issue a new currency to replace an existing currency or alter the exchange rate or exchange characteristics by devaluation or revaluation of a currency. Thus, a special risk in purchasing non-U.S. dollar notes is that their yields or payouts could be significantly and unpredictably affected by governmental actions. Even in the absence of governmental action directly affecting currency exchange rates, political or economic developments in the country issuing the specified currency for a non-U.S. dollar note or elsewhere could lead to significant and sudden changes in the exchange rate between the U.S. dollar and the specified currency. These changes could affect the value of the non-U.S. dollar note as participants in the global currency markets move to buy or sell the specified currency or U.S. dollars in reaction to these developments.

Governments have imposed from time to time and may in the future impose exchange controls or other conditions, including taxes, with respect to the exchange or transfer of a specified currency that could affect exchange rates as well as the availability of a specified currency for a note at its maturity or on any other payment date. In addition, the ability of a holder to move currency freely out of the country in which payment in the currency is received or to convert the currency at a freely determined market rate could be limited by governmental actions.

## Non-U.S. Dollar Notes May Permit Us to Make Payments in U.S. Dollars or Delay Payment If We Are Unable to Obtain the Specified Currency

Non-U.S. dollar notes may provide that, if the specified currency is subject to convertibility, transferability, market disruption or other conditions affecting its availability at or about the time when a payment on the notes comes due because of circumstances beyond our control, we will be entitled to make the payment in U.S. dollars or delay making the payment. These circumstances could include the imposition of exchange controls or our inability to obtain the specified currency because of a disruption in the currency markets. If we make payment in U.S. dollars, the value of the payment in U.S. dollars an investor would receive on the payment date may be less than the value of the payment the investor would have received in the specified currency if it had been available, or may be zero. In addition, a government may impose extraordinary taxes on transfers of a currency. If that happens, we may be required and will be entitled to deduct or withhold these taxes from any payment on notes payable in that currency.

## In a Lawsuit for Payment on a Non-U.S. Dollar Note, an Investor May Bear Currency Exchange Risk

The notes will be governed by New York law. Under Section 27 of the New York Judiciary Law, a state court in the State of New York rendering a judgment on a non-U.S. dollar note would be required to render the judgment in the specified currency. However, the judgment would be converted into U.S. dollars at the exchange rate prevailing on the date of entry of the judgment. Consequently, in a lawsuit for payment on a non-U.S. dollar note, investors would bear currency exchange risk until judgment is entered, which may take a significant period of time.

In courts outside of New York, investors may not be able to obtain judgment in a specified currency other than U.S. dollars. For example, a judgment for money in an action based on a non-U.S. dollar note in many other U.S. federal or state courts ordinarily would be enforced in the United States only in U.S. dollars. The date used to determine the rate of conversion of the currency in which any particular note is denominated into U.S. dollars will depend upon various factors, including which court renders the judgment.

## Historical Information About Exchange Rates May Not Be Indicative of Future Performance

If we issue a non-U.S. dollar note, we may include with the relevant pricing supplement a currency supplement that provides information about historical exchange rates for the relevant non-U.S. dollar currency or currencies. Any historical information about exchange rates that we may provide will be furnished as a matter of information only, and you should not regard such information as indicative of the further performance of currency exchange rates. That rate will likely differ from the exchange rate used under the terms that apply to a particular note.

## Determinations Made by the Exchange Rate Agent

All determinations made by the exchange rate agent will be made in its sole discretion (except to the extent expressly provided in this prospectus supplement or the relevant pricing supplement that any determination is subject to approval by the Bank). In the absence of manifest error, its determinations will be conclusive for all purposes and will bind all holders and us. The exchange rate agent will not have any liability for its determinations.

## Non-U.S. Investors May Be Subject to Certain Additional Risks

If we issue a U.S. dollar note and you are a non-U.S. investor who purchased such notes with a currency other than U.S. dollars, changes in rates of exchange may have an adverse effect on the value, price or income of your investment.

The accompanying prospectus contains a general description of certain U.S. and Canadian tax consequences relating to the notes. If you are a non-U.S. investor, you should consult your tax advisors as to the consequences, under the tax laws of the country where you are resident for tax purposes, of acquiring, holding and disposing of notes and receiving payments of principal or other amounts under the notes.

## Risks Relating to Bail-Inable Notes

The Notes Will Be Subject to Risks, Including Non-Payment in Full or, in the Case of Bail-Inable Notes, Conversion in Whole or in Part - by Means of a Transaction or Series of Transactions and in One or More Steps - Into Common Shares of the Bank or Any of Its Affiliates, Under Canadian Bank Resolution Powers

Under Canadian bank resolution powers, the CDIC may, in circumstances where the Bank has ceased, or is about to cease, to be viable, assume temporary control or ownership of the Bank and may be granted broad powers by one or more orders of the Governor in Council (Canada), each of which we refer to as an "Order," including the power to sell or dispose of all or a part of the assets of the Bank, and the power to carry out or cause the Bank to carry out a transaction or a series of transactions the purpose of which is to restructure the business of the Bank. As part of the Canadian bank resolution powers, certain provisions of, and regulations under, the Bank Act, the CDIC Act and certain other Canadian federal statutes pertaining to banks, which we refer to collectively as the "bail-in regime," provide for a bank recapitalization regime for banks designated by the Superintendent of Financial Institutions (Canada) (the "Superintendent") as domestic systemically important banks, which include the Bank. We refer to those domestic systemically important banks as "D-SIBs." See "Description of Senior Debt Securities Canadian Bank Resolution Powers" in the accompanying prospectus for a description of the Canadian bank resolution powers, including the bail-in regime.

If the CDIC were to take action under the Canadian bank resolution powers with respect to the Bank, this could result in holders or beneficial owners of the notes being exposed to losses and, in the case of bail-inable notes, conversion of the notes in whole or in part - by means of a transaction or series of transactions and in one or more steps - into common shares of the Bank or any of its affiliates, which we refer to as a "bail-in conversion." Subject to certain exceptions discussed in the accompanying prospectus under "Description of Senior Debt Securities Canadian Bank Resolution Powers," including for certain structured notes, senior debt issued on or after September 23, 2018, with an initial or amended term to maturity (including explicit or embedded options) greater than 400 days, that is unsecured or partially secured and that has been assigned a CUSIP or ISIN or similar identification number, is subject to bail-in conversion. We refer to notes that are subject to bail-in conversion as "bail-inable notes."

Upon a bail-in conversion, if your bail-inable notes or any portion thereof are converted into common shares of the Bank or any of its affiliates, you will be obligated to accept those common shares, even if you do not at the time consider the common shares to be an appropriate investment for you, and despite any change in the Bank or
any of its affiliates, or the fact that the common shares may be issued by an affiliate of the Bank, or any disruption to or lack of a market for the common shares or disruption to capital markets generally.

As a result, you should consider the risk that you may lose all of your investment, including the principal amount plus any accrued interest, if the CDIC were to take action under the Canadian bank resolution powers, including the bail-in regime, and that any remaining outstanding notes, or common shares of the Bank or any of its affiliates into which bail-inable notes are converted, may be of little value at the time of a bail-in conversion and thereafter.

## The Indenture Will Provide Only Limited Acceleration and Enforcement Rights for the Notes and Includes Other Provisions Intended to Qualify Bail-Inable Notes as TLAC

In connection with the bail-in regime, the Office of the Superintendent of Financial Institutions' ("OSFI") guideline (the "TLAC Guideline") on Total Loss Absorbing Capacity ("TLAC") applies to and establishes standards for D-SIBs, including the Bank, which became effective September 23, 2018. Under the TLAC Guideline, beginning November 1, 2021, the Bank is required to maintain a minimum capacity to absorb losses composed of unsecured external long-term debt that meets the prescribed criteria or regulatory capital instruments to support recapitalization in the event of a failure. Bail-inable notes and regulatory capital instruments that meet certain prescribed criteria, which are discussed in the accompanying prospectus under "Description of Senior Debt Securities - Canadian Bank Resolution Powers," will constitute TLAC of the Bank.

In order to comply with the TLAC Guideline, our indenture under which the notes may be issued provides that, for any notes of a series issued on or after September 23, 2018 (including notes that are not subject to bail-in conversion), acceleration will only be permitted (i) if we default in the payment of the principal of, or interest on, any note of that series and, in each case, the default continues for a period of longer than 30 business days, or (ii) certain bankruptcy, insolvency or reorganization events occur.

Holders and beneficial owners of bail-inable notes may only exercise, or direct the exercise of, the rights described in the accompanying prospectus under "Description of Senior Debt Securities - Events of Default Remedies If an Event of Default Occurs" where an Order has not been made under Canadian bank resolution powers pursuant to subsection 39.13(1) of the CDIC Act in respect of the Bank. Notwithstanding the exercise of those rights, bail-inable notes will continue to be subject to bail-in conversion until repaid in full. For greater certainty, no person may terminate or amend any agreement with the Bank that is in relation to any of the Bank's bail-inable notes, claim an accelerated payment or forfeiture of the term under such an agreement or demand payment of any amount under such an agreement, by reason only of a monetary default by the Bank in the performance of the Bank's bail-inable notes, when that default occurs after an order for bail-in conversion is made under paragraph 39.13(1)(d) of the CDIC Act but before such bail-in conversion.

The indenture also provides that holders or beneficial owners of bail-inable notes will not be entitled to exercise, or direct the exercise of, any set-off or netting rights with respect to bail-inable notes. In addition, where an amendment, modification or other variance that can be made to the indenture or the bail-inable notes as described in the accompanying prospectus under "Description of Senior Debt Securities - Modification and Waiver of the Senior Debt Securities" would affect the recognition of those bail-inable notes by the Superintendent as TLAC, that amendment, modification or variance will require the prior approval of the Superintendent.

## The Circumstances Surrounding a Bail-In Conversion Are Unpredictable and Can Be Expected to Have an Adverse Effect on the Market Price of Bail-Inable Notes

The decision as to whether the Bank has ceased, or is about to cease, to be viable is a subjective determination by the Superintendent that is outside the control of the Bank. Upon a bail-in conversion, the interests of depositors and holders of liabilities and securities of the Bank that are not converted will effectively all rank in priority to the portion of bail-inable notes that are converted. In addition, except as provided for under the compensation process, the rights of holders in respect of the bail-inable notes that have been converted will rank on parity with other holders of common shares of the Bank (or, as applicable, common shares of the affiliate whose common shares are issued on the bail-in conversion).

There is no limitation on the type of Order that may be made where it has been determined that the Bank has ceased, or is about to cease, to be viable. As a result, you may be exposed to losses through the use of Canadian bank resolution powers other than bail-in conversion or in liquidation. See "The Notes Will Be Subject to Risks, Including Non-Payment in Full or, in the Case of Bail-Inable Notes, Conversion in Whole or in Part - by Means of a

Transaction or Series of Transactions and in One or More Steps - Into Common Shares of the Bank or Any of Its Affiliates, Under Canadian Bank Resolution Powers" above.

Because of the uncertainty regarding when and whether an Order will be made and the type of Order that may be made, it will be difficult to predict when, if at all, bail-inable notes could be converted into common shares of the Bank or any of its affiliates, and there is not likely to be any advance notice of an Order. As a result of this uncertainty, trading behavior in respect of the bail-inable notes may not follow trading behavior associated with convertible or exchangeable securities or, in circumstances where the Bank is trending towards ceasing to be viable, other senior debt. Any indication, whether real or perceived, that the Bank is trending towards ceasing to be viable can be expected to have an adverse effect on the market price of the bail-inable notes, whether or not the Bank has ceased, or is about to cease, to be viable. Therefore, in those circumstances, you may not be able to sell your bailinable notes easily or at prices comparable to those of senior debt securities not subject to bail-in conversion.

## The Number of Common Shares to Be Issued in Connection With, and the Number of Common Shares That Will Be Outstanding Following, a Bail-In Conversion Are Unknown. It Is Also Unknown Whether the Shares to Be Issued Will Be Those of the Bank or One of Its Affiliates

Under the bail-in regime there is no fixed and pre-determined contractual conversion ratio for the conversion of the bail-inable notes, or other shares or liabilities of the Bank that are subject to a bail-in conversion, into common shares of the Bank or any of its affiliates, nor are there specific requirements regarding whether liabilities subject to a bail-in conversion are converted into common shares of the Bank or any of its affiliates. CDIC determines the timing of the bail-in conversion, the portion of bail-inable shares and liabilities to be converted and the terms and conditions of the conversion, subject to parameters set out in the bail-in regime, which are discussed in the accompanying prospectus under "Description of Senior Debt Securities - Canadian Bank Resolution Powers."

As a result, it is not possible to anticipate the potential number of common shares of the Bank or its affiliates that would be issued in respect of any bail-inable note converted in a bail-in conversion, the aggregate number of such common shares that will be outstanding following the bail-in conversion, the effect of dilution on the common shares received from other issuances under or in connection with an Order or related actions in respect of the Bank or its affiliates or the value of any common shares you may receive for your converted bail-inable notes, which could be significantly less than the principal amount of those bail-inable notes. It is also not possible to anticipate whether shares of the Bank or shares of its affiliates would be issued in a bail-in conversion. There may be an illiquid market, or no market at all, in the common shares issued upon a bail-in conversion and you may not be able to sell those common shares at a price equal to the value of your converted bail-inable notes and as a result may suffer significant losses that may not be offset by compensation, if any, received as part of the compensation process. Fluctuations in exchange rates may exacerbate those losses.

By Acquiring Bail-Inable Notes, You Are Deemed to Agree to Be Bound by a Bail-In Conversion and So Will Have No Further Rights in Respect of Your Bail-Inable Notes To the Extent Those Bail-Inable Notes Are Converted in a Bail-In Conversion, Other Than Those Provided Under the Bail-In Regime. Any Potential Compensation to Be Provided Through the Compensation Process Under the CDIC Act Is Unknown

The CDIC Act provides for a compensation process for holders of bail-inable notes who immediately prior to the making of an Order, directly or through an intermediary, own bail-inable notes that are converted in a bail-in conversion. Given the considerations involved in determining the amount of compensation, if any, that a holder that held bail-inable notes may be entitled to following an Order, it is not possible to anticipate what, if any, compensation would be payable in such circumstances. By acquiring an interest in any bail-inable note, you are deemed to agree to be bound by a bail-in conversion and so will have no further rights in respect of your bail-inable notes to the extent those bail-inable notes are converted in a bail-in conversion, other than those provided under the bail-in regime. See "Description of Senior Debt Securities - Canadian Bank Resolution Powers" in the accompanying prospectus for a description of the compensation process under the CDIC Act.

## Following a Bail-In Conversion, Holders or Beneficial Owners That Held Bail-Inable Notes That Have Been Converted Will No Longer Have Rights Against the Bank as Creditors

Upon a bail-in conversion, the rights, terms and conditions of the portion of bail-inable notes that are converted, including with respect to priority and rights on liquidation, will no longer apply as the portion of converted bail-inable notes will have been converted on a full and permanent basis into common shares of the Bank or any of its affiliates ranking on parity with all other outstanding common shares of that entity. If a bail-in
conversion occurs, then the interest of the depositors, other creditors and holders of liabilities of the Bank not bailed in as a result of the bail-in conversion will all rank in priority to those common shares.

Given the nature of the bail-in conversion, holders or beneficial owners of bail-inable notes that are converted will become holders or beneficial owners of common shares at a time when the Bank's and potentially its affiliates' financial condition has deteriorated. They may also become holders or beneficial owners of common shares at a time when the relevant entity may have received or may receive a capital injection or equivalent support with terms that may rank in priority to the common shares issued in a bail-in conversion with respect to payment of dividends, rights on liquidation or other terms although there is no certainty that any such capital injection or support will be forthcoming.

## We May Redeem Bail-Inable Notes After the Occurrence of a TLAC Disqualification Event

Unless otherwise specified in the relevant pricing supplement, we may, at our option, with the prior approval of the Superintendent, on not less than 20 business days' prior notice to the holders of the particular bailinable notes, redeem all but not less than all of those bail-inable notes prior to their stated maturity date on, or within 90 days after, the occurrence of a TLAC Disqualification Event (as defined herein), at a redemption price equal to $100 \%$ of the principal amount thereof, plus any accrued and unpaid interest to, but excluding, the date fixed for redemption. If we redeem your bail-inable notes, you may not be able to reinvest the redemption proceeds in securities offering a comparable anticipated rate of return. Additionally, although the terms of the bail-inable notes are anticipated to be established to satisfy the TLAC criteria within the meaning of the TLAC Guideline to which the Bank is subject, it is possible that any bail-inable notes may not satisfy the criteria in future rulemakings or interpretations. See "Description of the Notes We May Offer - Special Provisions Related to Bail-inable Notes TLAC Disqualification Event Redemption" herein and "Description of Senior Debt Securities - Canadian Bank Resolution Powers - TLAC Guideline" in the accompanying prospectus for additional information.

## USE OF PROCEEDS

Except as otherwise set forth in a pricing supplement, the net proceeds from the sale of any notes will be added to our general funds and will be used for general corporate purposes. We and/or our affiliates may use a portion of the proceeds in transactions intended to hedge our obligations under the notes.

## DESCRIPTION OF THE NOTES WE MAY OFFER

You should carefully read the description of the terms and provisions of our debt securities and our indenture under "Description of Senior Debt Securities" in the accompanying prospectus. That section, together with this prospectus supplement and the relevant pricing supplement, summarizes the material terms of our indenture and your notes. They do not, however, describe every aspect of our indenture and your notes. For example, in this section entitled "Description of the Notes We May Offer", the accompanying prospectus and the relevant pricing supplement, we use terms that have been given special meanings in our indenture, but we describe the meanings of only the more important of those terms. The specific terms of any series of notes will be described in the relevant pricing supplement. As you read this section, please remember that the specific terms of your notes as described in the relevant pricing supplement will supplement and, if applicable, may modify or replace the general terms described in this section. If the relevant pricing supplement is inconsistent with this prospectus supplement or the accompanying prospectus, the relevant pricing supplement will control with regard to your notes. Thus, the statements we make in this section may not apply to your notes.

## General

The notes will be issued under the indenture, dated as of September 15, 2012, between the Bank and Deutsche Bank Trust Company Americas, as trustee, as supplemented by the first supplemental indenture, dated as of November 6, 2018 and the second supplemental indenture, dated as of December 16, 2019, and as further amended from time to time, which we may refer to as the "indenture". The notes constitute a single series of debt securities of the Bank issued under the indenture. The term "debt securities", as used in this prospectus supplement, refers to all debt securities, including the notes, issued and issuable from time to time under the indenture. The indenture is subject to, and governed by, the U.S. Trust Indenture Act of 1939, as amended (the "Trust Indenture Act"). The indenture is more fully described below in this section. Whenever we refer to specific provisions or defined terms in the indenture, those provisions or defined terms are incorporated in this prospectus supplement by reference. Section references used in this discussion are references to the indenture. Capitalized terms which are not otherwise defined shall have the meanings given to them in the indenture.

The notes will be limited to an aggregate initial offering price of US $\$ 10,000,000,000$ or, at our option if so specified in the relevant pricing supplement, the equivalent of this amount in any other currency or currency unit, and will be our direct, unsecured obligations. This aggregate initial offering price is subject to reduction as a result of the sale by us of other debt securities pursuant to another prospectus supplement to the accompanying prospectus. The notes will not constitute deposits insured under the CDIC Act or by the United States Federal Deposit Insurance Corporation or any other Canadian or United States governmental agency or instrumentality.

We will offer the notes on a continuous basis through one or more agents. The indenture does not limit the aggregate principal amount of senior notes that we may issue. We may, from time to time, without the consent of the holders of the notes, provide for the issuance of notes or other debt securities under the indenture in addition to the US $\$ 10,000,000,000$ aggregate initial offering price of notes noted on the cover of this prospectus supplement. Each note issued under this prospectus supplement will have a stated maturity that will be specified in the relevant pricing supplement and may be subject to redemption or repayment before its stated maturity. As a general matter, each note will mature nine months or more from its date of issue, except that indexed notes may have a maturity of less than nine months. Notes may be issued at significant discounts from their principal amount due on the stated maturity (or on any prior date on which the principal or an installment of principal of a note becomes due and payable, whether by the declaration of acceleration, call for redemption at our option, repayment at the option of the holder or otherwise), and some notes may not bear interest. We may from time to time, without the consent of the existing holders of the relevant notes, create and issue further notes having the same terms and conditions as such notes in all respects, except for the issue date, issue price and, if applicable, the first payment of interest thereon.

Unless we specify otherwise in the relevant pricing supplement, currency amounts in this prospectus supplement are expressed in U.S. dollars. Unless we specify otherwise in any note and pricing supplement, the notes will be denominated in U.S. dollars and payments of principal, premium, if any, and any interest on the notes will be made in U.S. dollars. If any note is to be denominated other than exclusively in U.S. dollars, or if the principal of, premium, if any, or any interest on the note is to be paid in one or more currencies (or currency units or in amounts determined by reference to an index or indices) other than that in which that note is denominated, additional information (including authorized denominations and related exchange rate and exchange agent information) will be provided in the relevant pricing supplement. Unless we specify otherwise in any pricing supplement, notes
denominated in U.S. dollars will be issued in minimum denominations of $\$ 1,000$ and integral multiples of $\$ 1,000$ in excess thereof (except that non-U.S. investors may be subject to higher minimums).

Interest rates that we offer on the notes may differ depending upon, among other factors, the aggregate principal amount of notes purchased in any single transaction. Notes with different variable terms other than interest rates may also be offered concurrently to different investors. We may change interest rates or formulas and other terms of notes from time to time, but no change of terms will affect any note we have previously issued or as to which we have accepted an offer to purchase.

Each note will be issued as a book-entry note in fully registered form without coupons. Each note issued in book-entry form may be represented by a global note that we deposit with and register in the name of a financial institution or its nominee, that we select. The financial institution that we select for this purpose is called the "depositary". Unless we specify otherwise in the relevant pricing supplement, The Depository Trust Company, New York, New York ("DTC"), will be the depositary for all notes in global form. Except as discussed in the accompanying prospectus under "Description of Senior Debt Securities-Legal Ownership and Book-Entry Issuance," owners of beneficial interests in book-entry notes will not be entitled to physical delivery of notes in certificated form. We will make payments of principal of, and premium, if any and interest, if any, on the notes through the trustee or applicable paying agent to the depositary for the notes.

## Legal Ownership

## Street Name and Other Indirect Holders

Investors who hold their notes in accounts at banks, brokers or other financial institutions will generally not be recognized by us as legal holders of notes. This is called holding in street name. Instead, we would recognize only the bank or broker, or the financial institution the bank or broker uses to hold its notes. These intermediary banks, brokers and other financial institutions pass along principal, interest and other payments on the notes, either because they agree to do so in their customer agreements or because they are legally required to do so. If you hold your notes in street name, you should check with your own institution to find out:

- how it handles note payments and notices;
- whether it imposes fees or charges;
- how it would handle voting if it were ever required;
- whether and how you can instruct it to send you notes registered in your own name so you can be a direct holder as described below; and
- how it would pursue rights under the notes if there were a default or other event triggering the need for holders to act to protect their interests.


## Direct Holders

Our obligations, as well as the obligations of the trustee and those of any third parties employed by us or the trustee, under the notes are only to persons who are registered as holders of notes. As noted above, we do not have obligations to you if you hold your notes in street name or other indirect means, either because you choose to hold your notes in that manner or because the notes are issued in the form of global notes, as described below. For example, once we make a payment to the registered holder, we have no further responsibility for the payment, even if that holder is legally required to pass the payment along to you as a street name customer but does not do so.

## Global Notes

A global note is a special type of indirectly held security, as described under "-Legal Ownership—Street Name and Other Indirect Holders" above. If we choose to issue notes in the form of a global note, the ultimate beneficial owners of such global note can only be indirect holders. We require that the global note be registered in the name of a financial institution we select.

We also require that the notes included in the global note not be transferred to the name of any other direct holder except in the special circumstances described in the accompanying prospectus under "Description of Senior Debt Securities-Legal Ownership and Book-Entry Issuance." Any person wishing to own a global note must do so indirectly by virtue of an account with a broker, bank or other financial institution, known as a "participant", that in
turn has an account with the depositary. The relevant pricing supplement will indicate whether your series of notes will be issued only in the form of global notes.

Further details of legal ownership are discussed in the accompanying prospectus under "Description of Senior Debt Securities-Legal Ownership and Book-Entry Issuance."

In the remainder of this description, "you" or "holder" means direct holders and not street name or other indirect holders of notes. Indirect holders should read the subsection entitled "-Legal Ownership-Street Name and Other Indirect Holders" above.

## Types of Notes

We may issue the following types of notes:

- Fixed Rate Notes. A note of this type will bear interest at a fixed rate described in the relevant pricing supplement. This type includes zero-coupon notes, which bear no interest and are instead issued at a price lower than the principal amount.
- Floating Rate Notes. A note of this type will bear interest at rates that are determined by reference to an interest rate formula. In some cases, the rates may also be adjusted by adding or subtracting a spread or multiplying by a spread multiplier and may be subject to a minimum rate or a maximum rate. The various interest rate formulas and these other features are described under "-Interest Rates-Floating Rate Notes" below. If your note is a floating rate note, the formula and any adjustments that apply to the interest rate will be specified in the relevant pricing supplement.
- Fixed-to-Floating Rate Notes. A note of this type will bear interest at both a fixed rate for a certain period of time and at a floating rate for another certain period of time determined by reference to an interest rate formula, each as specified in the relevant pricing supplement. We refer to these notes as "fixed-to-floating rate notes." The rate for the floating-rate period(s) for a fixed-tofloating rate note will be set, calculated and paid in the same manner as for floating rate notes, as described in this prospectus supplement and as specified in the relevant pricing supplement. Any references to or discussion of floating-rate notes in this prospectus supplement also applies to the floating-rate period(s) of fixed-to-floating rate notes.
- Floating-to-Fixed Rate Notes. A note of this type will bear interest at both a floating rate for a certain period of time and at a fixed rate for another certain period of time determined by reference to an interest rate formula, each as specified in the relevant pricing supplement. We refer to these notes as "floating-to-fixed rate notes." The rate for the floating-rate period(s) for a floating-tofixed rate note will be set, calculated and paid in the same manner as for floating-rate notes, as described in this prospectus supplement and as specified in the relevant pricing supplement. Any references to or discussion of floating-rate notes in this prospectus supplement also applies to the floating-rate period(s) of floating-to-fixed rate notes.
- Indexed Notes. A note of this type provides that the amount payable at its maturity, and/or the amount of interest payable on an interest payment date, will be determined by reference to a "market measure" consisting of:
- one or more securities;
- one or more currencies;
- one or more commodities;
- one or more indices;
- one or more exchange traded funds;
- any other financial, economic or other measures or instruments, including the occurrence or non-occurrence of any event or circumstance; and/or
- one or more baskets of any of these items.

If you are a holder of an indexed note, you may receive an amount at maturity that is greater than, equal to or less than the principal amount of your note depending upon the value of the applicable index at maturity. That
value may fluctuate over time. If you purchase an indexed note, the relevant pricing supplement will include information about the relevant index and how amounts that are to become payable will be determined by reference to that index. In addition, the relevant pricing supplement will specify whether your note will be payable in cash or exchangeable for securities of an issuer other than the Bank or other property. In some cases, interest on indexed notes may be subject to Canadian non-resident withholding tax. See "Material Income Tax Consequences Canadian Taxation" in the accompanying prospectus. The relevant pricing supplement will describe the material U.S. federal income tax consequences of the purchase, ownership or disposition of an indexed note, and may supplement the description of Canadian federal income tax considerations with respect thereto in the accompanying prospectus. Before you purchase any indexed note, you should read carefully the section entitled "Risk FactorsRisks Relating to Indexed Notes" above.

## Original Issue Discount Notes

A note may be an original issue discount note. A note of this type is issued at a price lower than its principal amount and provides that, upon redemption or acceleration of its maturity, an amount less than its principal amount will be payable. An original issue discount note may be a zero-coupon note. A note issued at a discount to its principal may, for U.S. federal income tax purposes, be considered an original issue discount note, regardless of the amount payable upon redemption or acceleration of maturity. The relevant pricing supplement relating to any original issue discount notes will describe any special considerations and any material U.S. tax considerations relevant to the acquisition of such notes.

## Information in the Pricing Supplement

The relevant pricing supplement will describe one or more of the following terms of your note:

- the CUSIP number;
- the stated maturity;
- the specified currency or currencies for principal and interest, if not U.S. dollars;
- if other than $\$ 1,000$ and integral multiples thereof, the denominations in which the notes may be issued;
- the price at which we originally issue your note and the original issue date;
- whether or not your note is a bail-inable note;
- whether your note is a fixed rate note, a floating rate note, a fixed-to-floating rate note, a floating-to-fixed rate note, or an indexed note;
- if your note is a fixed rate note, the per annum rate at which your note will bear interest, if any, and the interest payment dates;
- if your note is a floating rate note, the interest rate basis, which may be one of the interest rate bases described under "-Interest Rates-Floating Rate Notes" below; any applicable index currency or maturity, spread or spread multiplier or initial, maximum or minimum rate; and the interest reset, determination, calculation and payment dates, all of which we describe under "Interest Rates-Floating Rate Notes" below;
- if your note is an indexed note, the principal amount, if any, we will pay you at maturity, the amount of interest, if any, we will pay you on an interest payment date or the formula we will use to calculate these amounts, if any, and whether your note will be exchangeable for cash, securities of an issuer other than the Bank or other property;
- if your note is an original issue discount note, the yield to maturity;
- if applicable, the circumstances under which your note may be redeemed at our option before the stated maturity, including any redemption commencement date, redemption price(s) and redemption period(s);
- if applicable, the circumstances under which you may demand repayment of your note before the stated maturity, including any repayment commencement date, repayment price(s) and repayment period(s);
- any material U.S. federal income tax consequences of the purchase, ownership or disposition of a particular issuance of notes;
- the use of proceeds, if materially different than those discussed in this prospectus supplement; and
- any other terms of your note, which could be different from those described in this prospectus supplement.


## Market-Making Transactions

If you purchase your note in a market-making transaction, you will receive information about the price you pay and your trade and settlement dates in a separate confirmation of sale. A market-making transaction is one in which an agent or other person resells a note that it has previously acquired from another holder. A market-making transaction in a particular note occurs after the original sale of the note.

## Redemption at the Option of the Bank; No Sinking Fund

If an initial redemption date is specified in the relevant pricing supplement, we may redeem the particular notes prior to their stated maturity date at our option on any date on or after that initial redemption date in whole or from time to time in part in increments of $\$ 1,000$ or any other integral multiple of an authorized denomination specified in the relevant pricing supplement (provided that any remaining principal amount thereof shall be at least $\$ 1,000$ or other minimum authorized denomination applicable thereto), at the redemption price or prices specified in that pricing supplement, together with unpaid interest accrued thereon to the date of redemption. Unless otherwise specified in the relevant pricing supplement, we must give written notice to registered holders of the particular notes to be redeemed at our option not less than 20 business days prior to the date of redemption.

If the relevant pricing supplement specifies that the notes are bail-inable notes, in the event that a redemption (for any reason) of such notes would lead to a breach of the Bank's TLAC requirements, such redemption would be subject to the prior approval of the Superintendent. See "Description of Senior Debt Securities - Canadian Bank Resolution Powers - TLAC Guideline" in the accompanying prospectus for additional information.

The notes will not be subject to, or entitled to the benefit of, any sinking fund.

## Repayment at the Option of the Holder

If one or more optional repayment dates are specified in the relevant pricing supplement, registered holders of the particular notes may require us to repay those notes prior to their stated maturity date on any optional repayment date in whole or from time to time in part in increments of $\$ 1,000$ or any other integral multiple of an authorized denomination specified in the relevant pricing supplement (provided that any remaining principal amount thereof shall be at least $\$ 1,000$ or other minimum authorized denomination applicable thereto), at the repayment price or prices specified in that pricing supplement, together with unpaid interest accrued thereon to the date of repayment. A registered holder's exercise of the repayment option will be irrevocable.

For any note to be repaid, the applicable trustee must receive, at its corporate trust office in the Borough of Manhattan, The City of New York, not less than 20 business days prior to the date of repayment, the particular notes to be repaid and, in the case of a book-entry note, repayment instructions from the applicable beneficial owner to the depositary and forwarded by the depositary. Only the depositary may exercise the repayment option in respect of global notes representing book-entry notes. Accordingly, beneficial owners of global notes that desire to have all or any portion of the book-entry notes represented thereby repaid must instruct the participant through which they own their interest to direct the depositary to exercise the repayment option on their behalf by forwarding the repayment instructions to the applicable trustee as aforesaid. In order to ensure that these instructions are received by the applicable trustee on a particular day, the applicable beneficial owner must so instruct the participant through which it owns its interest before that participant's deadline for accepting instructions for that day. Different firms may have different deadlines for accepting instructions from their customers. Accordingly, beneficial owners should consult their participants for the respective deadlines. In addition, at the time repayment instructions are given, each beneficial owner shall cause the participant through which it owns its interest to transfer the beneficial owner's
interest in the global note representing the related book-entry notes, on the depositary's records, to the applicable trustee.

We will comply with the applicable requirements of the U.S. Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the rules promulgated thereunder, and any other securities laws or regulations in connection with any repayment of notes at the option of the registered holders thereof.

## Open Market Repurchases

We may at any time purchase notes at any price or prices in the open market or otherwise. Notes so purchased by us may, at our discretion, be held, resold or surrendered to the applicable trustee for cancellation. Where our repurchase of bail-inable notes would result in the Bank not meeting the TLAC requirements applicable to it pursuant to the TLAC Guideline, we may only repurchase those notes if we have obtained the prior approval of the Superintendent.

## Interest

Each interest-bearing note will bear interest from its date of issue at the rate per annum, in the case of a fixed rate note, or pursuant to the interest rate formula, in the case of a floating rate note, in each case as specified in the relevant pricing supplement, until the principal thereof is paid. We will make interest payments in an amount equal to the interest accrued from and including the immediately preceding interest payment date in respect of which interest has been paid or from and including the date of issue, if no interest has been paid, to but excluding the applicable interest payment date or the maturity date, as the case may be (each, an "interest period").

Interest will be payable in arrears on each interest payment date and on the maturity date. Interest will be payable to the persons in whose names the notes are registered at the close of business on the business day immediately preceding the related interest payment date (the "regular record date"), and the final interest payable at maturity or upon an early redemption, as applicable, will be payable to the persons in whose names the notes are registered on the maturity date or the early redemption date, as applicable. For the purpose of determining the holder at the close of business on a regular record date when business is not being conducted, the close of business will mean 5:00 P.M., Eastern Standard Time, on that day. "Business day" is defined below under "-Interest RatesSpecial Rate Calculation Terms."

## Interest Rates

This subsection describes the different kinds of interest rates that may apply to your note, if it bears interest.

## Fixed Rate Notes

The relevant pricing supplement will specify the interest payment dates for a fixed rate note as well as the maturity date. Interest on fixed rate notes will be computed on the basis of a 360-day year consisting of twelve 30day months or such other day count convention set forth in the relevant pricing supplement. For the purposes of disclosure under the Interest Act (Canada), and without affecting the interest payable on any fixed rate note, whenever the interest rate on any fixed rate note is to be calculated on the basis of a period of less than a calendar year, the yearly interest rate equivalent for such interest rate will be the interest rate multiplied by the actual number of days in the relevant calendar year and divided by the number of days used in calculating the specified interest rate.

If any interest payment date, redemption date, repayment date or maturity date of a fixed rate note falls on a day that is not a business day, we will make the required payment of principal, premium, if any, and/or interest on the next succeeding business day unless otherwise specified in the relevant pricing supplement, and no additional interest will accrue in respect of the payment made on that next succeeding business day.

## Floating Rate Notes

In this subsection, we use several specialized terms relating to the manner in which floating interest rates are calculated. We define these terms under "-Special Rate Calculation Terms" below.

The following will apply to floating rate notes.
Interest Rate Basis. We currently expect to issue floating rate notes that bear interest at rates based on one or more of the following interest rate bases:

- commercial paper rate;
- U.S. prime rate;
- LIBOR;
- EURIBOR;
- $\quad$ SOFR (based on compounding or a weighted average);
- treasury rate;
- CMT rate;
- CMS rate;
- CPI rate; and/or
- federal funds rate.

We describe each of the interest rate bases in further detail below in this subsection. If you purchase a floating rate note, the relevant pricing supplement will specify the interest rate basis that applies to your note.

Calculation of Interest. Calculations relating to floating rate notes will be made by the calculation agent, an institution that we appoint as our agent for this purpose. That institution may include us or any affiliate of ours, such as CIBCWM. The pricing supplement for a particular floating rate note will name the institution that we have appointed to act as the calculation agent for that note as of its original issue date. We may appoint a different institution to serve as calculation agent from time to time after the original issue date of the note without your consent and without notifying you of the change.

For each floating rate note, the calculation agent will determine, on the corresponding interest calculation date or on the interest determination date, as described below, the interest rate that takes effect on each interest reset date. In addition, the calculation agent will calculate the amount of interest that has accrued during each interest period-that is, the period from and including the original issue date, or the last date to which interest has been paid or made available for payment, to but excluding the payment date. For each interest period, the calculation agent will calculate the amount of accrued interest by multiplying the face or other specified amount of the floating rate note by an accrued interest factor for the interest period. This factor will equal the sum of the interest factors calculated for each day during the interest period. The interest factor for each day will be expressed as a decimal and will be calculated by dividing the interest rate, also expressed as a decimal, applicable to that day by 360 or by the actual number of days in the year, as specified in the relevant pricing supplement. For the purposes of disclosure under the Interest Act (Canada), and without affecting the interest payable on any floating rate note, whenever the interest rate on any floating rate note is to be calculated on the basis of a period of less than a calendar year, the yearly interest rate equivalent for that interest rate will be the interest rate multiplied by the actual number of days in the relevant calendar year and divided by the number of days used in calculating the specified interest rate. In no event will the interest on any floating rate note be less than zero.

Notwithstanding the previous paragraph, unless specified otherwise in the applicable pricing supplement, interest on SOFR Notes will be calculated as described below under "-SOFR Notes."

Upon the request of the holder of any floating rate note, the calculation agent will provide for that note the interest rate then in effect-and, if determined, the interest rate that will become effective on the next interest reset date. The calculation agent's determination of any interest rate, and its calculation of the amount of interest for any interest period, will be final and binding in the absence of manifest error.

All percentages resulting from any calculation relating to a note will be rounded upward or downward, as appropriate, to the next higher or lower one hundred-thousandth of a percentage point, e.g., $9.876541 \%$ (or .09876541 ) being rounded down to $9.87654 \%$ (or .0987654 ) and $9.876545 \%$ (or .09876545 ) being rounded up to $9.87655 \%$ (or .0987655 ). All amounts used in or resulting from any calculation relating to a floating rate note will be rounded upward or downward, as appropriate, to the nearest cent, in the case of U.S. dollars, or to the nearest corresponding hundredth of a unit, in the case of a currency other than U.S. dollars, with one-half cent or one-half of a corresponding hundredth of a unit or more being rounded upward.

In determining the interest rate basis that applies to a floating rate note during a particular interest period, the calculation agent may obtain rate quotes from various banks or dealers active in the relevant market, as discussed below. Those reference banks and dealers may include the calculation agent itself and its affiliates, as well as any agent participating in the distribution of the relevant floating rate notes and its affiliates, and they may include our affiliates.

Initial Interest Rate. For any floating rate note, the interest rate in effect from the original issue date to the first interest reset date will be the initial interest rate. We will specify the initial interest rate or the manner in which it is determined in the relevant pricing supplement.

Spread or Spread Multiplier. In some cases, the interest rate basis for a floating rate note may be adjusted:

- by adding or subtracting a specified number of basis points, called the spread, with one basis point being $0.01 \%$; or
- by multiplying the interest rate basis by a specified percentage, called the spread multiplier.

If you purchase a floating rate note, the relevant pricing supplement will indicate whether a spread or spread multiplier will apply to your note and, if so, the amount of the spread or spread multiplier.

Maximum and Minimum Rates. The actual interest rate, after being adjusted by the spread or spread multiplier, may also be subject to either or both of the following limits:

- a maximum rate-i.e., a specified upper limit that the actual interest rate in effect at any time may not exceed; and/or
- a minimum rate-i.e., a specified lower limit that the actual interest rate in effect at any time may not fall below.

If you purchase a floating rate note, the relevant pricing supplement will indicate whether a maximum rate and/or minimum rate will apply to your note and, if so, what those rates are.

Whether or not a maximum rate applies, the interest rate on a floating rate note will in no event be higher than the maximum rate permitted by New York law, as it may be modified by U.S. law of general application and the Criminal Code (Canada). Under current New York law, the maximum rate of interest, with some exceptions, for any loan in an amount less than $\$ 250,000$ is $16 \%$ and for any loan made to a corporate borrower in the amount of $\$ 250,000$ or more but less than $\$ 2,500,000$ is $25 \%$ per year on a simple interest basis. These limits do not apply to loans of $\$ 2,500,000$ or more. The Criminal Code (Canada) limits the effective annual interest rate to $60 \%$, although any amounts payable in excess of this limit would be paid out over time to ensure that such payments do not exceed $60 \%$ per year.

The rest of this subsection describes how the interest rate and the interest payment dates will be determined, and how interest will be calculated, on a floating rate note.

Interest Reset Dates. The rate of interest on a floating rate note will be reset, by the calculation agent described below, daily, weekly, monthly, quarterly, semi-annually or annually. The date on which the interest rate resets and the reset rate becomes effective is called the "interest reset date". Except as otherwise specified in the relevant pricing supplement, the interest reset date will be as follows:

- for floating rate notes that reset daily, each business day;
- for floating rate notes that reset weekly and are not treasury rate notes, the Wednesday of each week;
- for treasury rate notes that reset weekly, the Tuesday of each week;
- for floating rate notes that reset monthly, the third Wednesday of each month;
- for floating rate notes that reset quarterly, the third Wednesday of each of the four months of each year as indicated in the relevant pricing supplement;
- for floating rate notes that reset semi-annually, the third Wednesday of each of the two months of each year as indicated in the relevant pricing supplement; and
- for floating rate notes that reset annually, the third Wednesday of the one month of each year as indicated in the relevant pricing supplement.
For a floating rate note, the interest rate in effect on any particular day will be the interest rate determined with respect to the latest interest reset date that occurs on or before that day. There are several exceptions, however, to the reset provisions described above.

If any interest reset date for a floating rate note would otherwise be a day that is not a business day, the interest reset date will be postponed to the next day that is a business day. For a LIBOR or EURIBOR note, however, if that business day is in the next succeeding calendar month, the interest reset date will be the immediately preceding business day.

Interest Determination Dates. The interest rate that takes effect on an interest reset date will be determined by the calculation agent by reference to a particular date called an interest determination date. Except as otherwise indicated in the relevant pricing supplement:

- for commercial paper rate, U.S. prime rate and federal funds rate notes, the interest determination date relating to a particular interest reset date will be the business day preceding the interest reset date;
- for LIBOR notes, the interest determination date relating to a particular interest reset date will be the second London business day preceding the interest reset date. We refer to an interest determination date for a LIBOR note as a LIBOR interest determination date;
- for EURIBOR notes, the interest determination date relating to a particular interest reset date will be the second euro business day preceding the interest reset date. We refer to an interest determination date for a EURIBOR note as a EURIBOR interest determination date;
- for treasury rate notes, the interest determination date relating to a particular interest reset date, which we refer to as a treasury interest determination date, will be the day of the week in which the interest reset date falls on which treasury bills-i.e., direct obligations of the U.S. government-would normally be auctioned. Treasury bills are usually sold at auction on the Monday of each week, unless that day is a legal holiday, in which case the auction is usually held on the Tuesday of that week, except that the auction may be held on the preceding Friday. If as the result of a legal holiday an auction is held on the preceding Friday, that Friday will be the treasury interest determination date relating to the interest reset date occurring in the next succeeding week;
- for CMT rate, CMS rate and CPI rate notes, the interest determination date relating to a particular interest reset date will be the second business day preceding the interest reset date;
- for SOFR Notes, the Interest Determination Date will be as set forth below under "-SOFR Notes."

The interest determination date pertaining to a floating rate note the interest rate of which is determined with reference to two or more interest rate bases will be the latest business day which is at least two business days before the related interest reset date for the applicable floating rate note on which each interest rate basis is determinable.

Interest Calculation Dates. As described above, the interest rate that takes effect on a particular interest reset date will be determined by reference to the corresponding interest determination date. Except for LIBOR notes, EURIBOR notes and SOFR notes, however, the determination of the rate will actually be made on a day no later than the corresponding interest calculation date. The interest calculation date will be the earlier of the following:

- the tenth calendar day after the interest determination date or, if that tenth calendar day is not a business day, the next succeeding business day; and
- the business day immediately preceding the interest payment date or the maturity, whichever is the day on which the next payment of interest will be due.

The calculation agent need not wait until the relevant interest calculation date to determine the interest rate if the rate information it needs to make the determination is available from the relevant sources sooner.

Interest Payment Dates. The interest payment dates for a floating rate note will depend on when the interest rate is reset and, unless we specify otherwise in the relevant pricing supplement, will be as follows:

- for floating rate notes that reset daily, weekly or monthly, the third Wednesday of each month;
- for floating rate notes that reset quarterly, the third Wednesday of each of the four months of each year as specified in the relevant pricing supplement;
- for floating rate notes that reset semi-annually, the third Wednesday of each of the two months of each year as specified in the relevant pricing supplement; or
- for floating rate notes that reset annually, the third Wednesday of the month as specified in the relevant pricing supplement.

Regardless of these rules, if a note is originally issued after the regular record date and before the date that would otherwise be the first interest payment date, the first interest payment date will be the date that would otherwise be the second interest payment date.

In addition, the following special provision will apply to a floating rate note with regard to any interest payment date other than one that falls on the maturity. If the interest payment date would otherwise fall on a day that is not a business day, then the interest payment date will be the next day that is a business day. If the maturity date of a floating rate note falls on a day that is not a business day, we will make the required payment of principal, premium, if any, and interest on the next succeeding business day, and no additional interest will accrue in respect of the payment made on that next succeeding business day. However, unless otherwise specified in the relevant pricing supplement, if the floating rate note is a LIBOR note, a EURIBOR note or a SOFR note and the next business day falls in the next calendar month, then the interest payment date or the date that the payment of principal and any premium will be made will be the immediately preceding business day.

If a Benchmark Transition Event and its related Benchmark Replacement Date occur with respect to USD LIBOR at any time when LIBOR Notes are outstanding, then the foregoing provisions concerning the calculation and payment of interest on the LIBOR Notes will be modified in accordance with the benchmark transition provisions described below under "-LIBOR Notes." If a Benchmark Transition Event and its related Benchmark Replacement Date occur with respect to SOFR at any time when SOFR Notes are outstanding, then the foregoing provisions concerning the calculation and payment of interest on SOFR Notes will be modified in accordance with the benchmark transition provisions described below under "-Effect of a Benchmark Transition Event for Compounded SOFR Notes." Similarly, if EURIBOR or CMS ceases publication at any time when EURIBOR Notes or CMS Rate Notes, as applicable, are outstanding, then the foregoing provisions concerning the calculation of payment of interest on the EURIBOR Notes or CMS Rate Notes, to the extent applicable, will be modified in accordance with the relevant final paragraph in the descriptions of EURIBOR Notes or CMS Rate Notes, as applicable, and as described below.

The following are summaries of anticipated interest rate bases:

## Commercial Paper Rate Notes

If you purchase a commercial paper rate note, your note will bear interest at an interest rate equal to the commercial paper rate and adjusted by the spread or spread multiplier, if any, indicated in the relevant pricing supplement.

The commercial paper rate will be the money market yield of the rate, for the relevant interest determination date, for commercial paper having the index maturity indicated in the relevant pricing supplement, as published in $\boldsymbol{H} .15$ (519) by 4:15 P.M., New York City time, on the interest calculation date corresponding to the relevant interest determination date, under the heading "Commercial Paper-Nonfinancial." If the commercial paper rate cannot be determined as described above, the following procedures will apply:

- If the rate described above does not appear in H. 15 (519) or another recognized electronic source by 4:15 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, the commercial paper rate will be the money market yield of the arithmetic mean of the following offered rates for U.S. dollar commercial paper that has the relevant index maturity and is placed for a non-financial issuer whose bond rating is "AA", or the equivalent, from a nationally recognized rating agency:
the rates offered as of 11:00 A.M., New York City time, on the relevant interest determination date, by three leading U.S. dollar commercial paper dealers in New York City selected by the calculation agent.
- If fewer than three dealers selected by the calculation agent are quoting as described above, the commercial paper rate for the new interest period will be the commercial paper rate in effect for the prior interest period. If the initial interest rate has been in effect for the prior interest period, however, it will remain in effect for the new interest period.


## U.S. Prime Rate Notes

If you purchase a U.S. prime rate note, your note will bear interest at an interest rate equal to the U.S. prime rate and adjusted by the spread or spread multiplier, if any, indicated in the relevant pricing supplement.

The U.S. prime rate will be the rate, for the relevant interest determination date, published in H .15 (519) by 3:00 P.M., New York City time, on the interest calculation date corresponding to the relevant interest determination date, opposite the heading "Bank Prime Loan." If the U.S. prime rate cannot be determined as described above, the following procedures will apply:

- If the rate described above does not appear in H. 15 (519) or another recognized electronic source by 3:00 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, then the U.S. prime rate will be the arithmetic mean of the following rates as they appear on the Reuters page $U S$
PRIME 1: the rate of interest publicly announced by each bank appearing on that page as that bank's prime rate or base lending rate, as of 11:00 A.M., New York City time, on the relevant interest determination date.
- If fewer than four of these rates appear on the Reuters page US PRIME 1, the U.S. prime rate will be the arithmetic mean of the prime rates or base lending rates, as of the close of business on the relevant interest determination date, of three major banks in New York City selected by the calculation agent. For this purpose, the calculation agent will use rates quoted on the basis of the actual number of days in the year divided by a 360-day year.
- If fewer than three banks selected by the calculation agent are quoting as described above, the U.S. prime rate for the new interest period will be the U.S. prime rate in effect for the prior interest period. If the initial interest rate has been in effect for the prior interest period, however, it will remain in effect for the new interest period.


## LIBOR Notes

If you purchase a LIBOR note, your note will bear interest at an interest rate equal to LIBOR, which will be the London interbank offered rate for deposits in U.S. dollars. In addition, when LIBOR is the interest rate basis the applicable LIBOR rate will be adjusted by the spread or spread multiplier, if any, indicated in the relevant pricing supplement. LIBOR will be determined in the following manner:

- LIBOR will be the offered rate appearing on the Reuters page LIBOR as of 11:00 A.M., London time, on the relevant LIBOR interest determination date, for deposits in U.S. dollars having the relevant index maturity beginning on the relevant interest reset date. The relevant pricing supplement will indicate the index maturity and the reference page that apply to your LIBOR note. If no reference page is mentioned in the relevant pricing supplement, Reuters page LIBOR01 will apply to your LIBOR note.
- If on a LIBOR interest determination date, such rate does not appear on the "Reuters page LIBOR" as of 11:00 A.M., London time, or if the "Reuters page LIBOR01" is not available on such date, the calculation agent will obtain such rate from Bloomberg L.P. page "BBAM."
- If the rate described above does not appear on "Reuters page LIBOR01" or Bloomberg L.P. page "BBAM", then LIBOR will be determined on the basis of the rates, at approximately 11:00 A.M., London time, on the relevant LIBOR interest determination date, at which deposits of the following kind are offered to prime banks in the London interbank market by four major banks in that market selected by the calculation agent: deposits in U.S. dollars having the relevant index
maturity, beginning on the relevant interest reset date, and in a representative amount. The calculation agent will request the principal London office of each of these banks to provide a quotation of its rate. If at least two quotations are provided, LIBOR for the relevant LIBOR interest determination date will be the arithmetic mean of the quotations.
- If fewer than two quotations are provided as described above, LIBOR for the relevant LIBOR interest determination date will be the arithmetic mean of the rates for loans of the following kind to leading European banks quoted, at approximately 11:00 A.M., New York City time, on that LIBOR interest determination date, by three major banks in New York City: loans in U.S. dollars having the relevant index maturity, beginning on the relevant interest reset date and in a representative amount.
- If fewer than three banks selected by the calculation agent are quoting as described above, LIBOR for the new interest period will be LIBOR in effect for the prior interest period. If the initial interest rate has been in effect for the prior interest period, however, it will remain in effect for the new interest period.
USD LIBOR notes will be calculated as the rate determined by the Calculation Agent as the London interbank offered rate for deposits in U.S. dollars having the relevant index maturity in amounts of at least U.S. $\$ 1,000,000$, as that rate appears on Reuters Page LIBOR01 at approximately 11:00 A.M., London time, on the relevant LIBOR Interest Determination Date, provided that if no such rate appears on Reuters Page LIBOR01 on that LIBOR Interest Determination Date at approximately 11:00 A.M., London time, then we or our Designee, after consulting such sources as we or it deems comparable to Reuters Page LIBOR01, or any such source as we or it deems reasonable from which to estimate the relevant London interbank offered rate for U.S. dollar deposits, shall determine LIBOR for the relevant index maturity in our sole discretion.

Notwithstanding the foregoing paragraph, if we or our Designee determines on or prior to the relevant LIBOR Interest Determination Date that a Benchmark Transition Event and its related Benchmark Replacement Date (each as defined below) have occurred with respect to USD LIBOR, then the provisions set forth below under the heading "- Effect of Benchmark Transition Event for LIBOR Notes," which we refer to as the benchmark transition provisions, will thereafter apply to all determinations of the rate of interest payable on such USD LIBOR note. In accordance with the benchmark transition provisions, after a Benchmark Transition Event and its related Benchmark Replacement Date have occurred, the amount of interest that will be payable for each interest period on the USD LIBOR note will be an annual rate equal to the sum of the Benchmark Replacement (as defined below) and the applicable margin.

## Effect of Benchmark Transition Event for LIBOR Notes

Benchmark Replacement. If we or our Designee determines that a Benchmark Transition Event and its related Benchmark Replacement Date have occurred prior to the Reference Time in respect of any determination of the Benchmark on any date, the Benchmark Replacement will replace the then-current Benchmark (initially, USD LIBOR) for all purposes relating to the USD LIBOR notes in respect of such determination on such date and all determinations on all subsequent dates.

Benchmark Replacement Conforming Changes. In connection with the implementation of a Benchmark Replacement, we or our Designee will have the right to make Benchmark Replacement Conforming Changes from time to time.

Decisions and Determinations. Any determination, decision or election that may be made by us or by our Designee pursuant to these benchmark transition provisions, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection:
$\square \quad$ will be conclusive and binding absent manifest error;
$\square$ if made by us, will be made in our sole discretion;
$\square$ if made by our Designee, will be made after consultation with us, and the Designee will not make any such determination, decision or election to which we reasonably object; and
$\square$ notwithstanding anything to the contrary in the indenture or the notes, shall become effective without consent from the holders of the notes or any other party.

If the Designee does not make any determination, decision or election hereunder, then we will make that determination, decision or election on the same basis as described above.

Certain Defined Terms. As used in this section "Effect of a Benchmark Transition Event for USD LIBOR Notes":
"Benchmark" means, initially, USD LIBOR; provided that if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to USD LIBOR or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement.
"Benchmark Replacement" means the Interpolated Benchmark; provided that if we or our Designee cannot determine the Interpolated Benchmark as of the Benchmark Replacement Date, then "Benchmark Replacement" means the first alternative set forth in the order below that can be determined by us or the Designee as of the Benchmark Replacement Date:
(1) the sum of: (a) Term SOFR and (b) the Benchmark Replacement Adjustment;
(2) the sum of: (a) Compounded SOFR and (b) the Benchmark Replacement Adjustment;
(3) the sum of: (a) the alternate rate of interest that has been selected or recommended by the Relevant Governmental Body as the replacement for the then-current Benchmark for the applicable Corresponding Tenor and (b) the Benchmark Replacement Adjustment;
(4) the sum of: (a) the ISDA Fallback Rate and (b) the Benchmark Replacement Adjustment;
(5) the sum of: (a) the alternate rate of interest that has been selected by us or our Designee as the replacement for the then-current Benchmark for the applicable Corresponding Tenor giving due consideration to any industry-accepted rate of interest as a replacement for the then-current Benchmark for U.S. dollar-denominated floating rate notes at such time and (b) the Benchmark Replacement Adjustment.
"Benchmark Replacement Adjustment" means the first alternative set forth in the order below that can be determined by us or our Designee as of the Benchmark Replacement Date:
(1) the spread adjustment, or method for calculating or determining such spread adjustment (which may be a positive or negative value or zero), that has been selected or recommended by the Relevant Governmental Body for the applicable Unadjusted Benchmark Replacement;
(2) if the applicable Unadjusted Benchmark Replacement is equivalent to the ISDA Fallback Rate, then the ISDA Fallback Adjustment;
(3) the spread adjustment (which may be a positive or negative value or zero) that has been selected by us or our Designee giving due consideration to any industry-accepted spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current Benchmark with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated floating rate notes at such time.
"Benchmark Replacement Conforming Changes" means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including changes to the definition of "interest period", timing and frequency of determining rates and making payments of interest, rounding of amounts or tenors, and other administrative matters) that we or our Designee decide may be appropriate to reflect the adoption of such Benchmark Replacement in a manner substantially consistent with market practice (or, if we or our Designee decide that adoption of any portion of such market practice is not administratively feasible or if we or our Designee determine that no market practice for use of the Benchmark Replacement exists, in such other manner as we or our Designee determine is reasonably necessary).
"Benchmark Replacement Date" means the earliest to occur of the following events with respect to the then-current Benchmark:
(1) in the case of clause (1) or (2) of the definition of "Benchmark Transition Event," the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the administrator of the Benchmark permanently or indefinitely ceases to provide the Benchmark; or
(2) in the case of clause (3) of the definition of "Benchmark Transition Event," the date of the public statement or publication of information referenced therein.
For the avoidance of doubt, if the event giving rise to the Benchmark Replacement Date occurs on the same day as, but earlier than, the Reference Time in respect of any determination, the Benchmark Replacement Date will be deemed to have occurred prior to the Reference Time for such determination.

## On March 5, 2021, Benchmark Replacement Dates were identified for all USD LIBOR tenors.

"Benchmark Transition Event" means the occurrence of one or more of the following events with respect to the then-current Benchmark:
(1) a public statement or publication of information by or on behalf of the administrator of the Benchmark announcing that such administrator has ceased or will cease to provide the Benchmark, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark;
(2) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark, the central bank for the currency of the Benchmark, an insolvency official with jurisdiction over the administrator for the Benchmark, a resolution authority with jurisdiction over the administrator for the Benchmark or a court or an entity with similar insolvency or resolution authority over the administrator for the Benchmark, which states that the administrator of the Benchmark has ceased or will cease to provide the Benchmark permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark; or
(3) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark announcing that the Benchmark is no longer representative.

On March 5, 2021, a Benchmark Transition Event occurred with respect to all USD LIBOR tenors.
"Compounded SOFR" means the compounded average of SOFRs for the applicable Corresponding Tenor, with the rate, or methodology for this rate, and conventions for this rate being established by us or our Designee in accordance with:
(1) the rate, or methodology for this rate, and conventions for this rate selected or recommended by the Relevant Governmental Body for determining compounded SOFR; provided that:
(2) if, and to the extent that, we or our Designee determine that Compounded SOFR cannot be determined in accordance with clause (1) above, then the rate, or methodology for this rate, and conventions for this rate that have been selected by us or our Designee giving due consideration to any industryaccepted market practice for U.S. dollar-denominated floating rate notes at such time.

For the avoidance of doubt, the calculation of Compounded SOFR shall exclude the Benchmark Replacement Adjustment and any applicable spread and/or spread multiplier on the notes.
"Corresponding Tenor" with respect to a Benchmark Replacement means a tenor (including overnight) having approximately the same length (disregarding business day adjustment) as the applicable tenor for the thencurrent Benchmark.
"Federal Reserve Bank of New York's Website" means the website of the FRBNY at www.newyorkfed.org, or any successor source.
"Interpolated Benchmark" with respect to the Benchmark means the rate determined for the Corresponding Tenor by interpolating on a linear basis between: (1) the Benchmark for the longest period (for which the Benchmark is available) that is shorter than the Corresponding Tenor and (2) the Benchmark for the shortest period (for which the Benchmark is available) that is longer than the Corresponding Tenor.
"ISDA Definitions" means the 2006 ISDA Definitions published by the International Swaps and Derivatives Association, Inc. or any successor thereto, as amended or supplemented from time to time, or any successor definitional booklet for interest rate derivatives published from time to time.
"ISDA Fallback Adjustment" means the spread adjustment (which may be a positive or negative value or zero) that would apply for derivatives transactions referencing the ISDA Definitions to be determined upon the occurrence of an index cessation event with respect to the Benchmark for the applicable tenor.
"ISDA Fallback Rate" means the rate that would apply for derivatives transactions referencing the ISDA Definitions to be effective upon the occurrence of an index cessation date with respect to the Benchmark for the applicable tenor excluding the applicable ISDA Fallback Adjustment.
"Reference Time" with respect to any determination of the Benchmark means (1) if the Benchmark is USD LIBOR, 11:00 A.M., London time, on the relevant LIBOR Interest Determination Date, and (2) if the Benchmark is not USD LIBOR, the time determined by us or our Designee in accordance with the Benchmark Replacement Conforming Changes.
"Relevant Governmental Body" means the Federal Reserve Board and/or the FRBNY, or a committee officially endorsed or convened by the Federal Reserve Board and/or the FRBNY or any successor thereto.
"SOFR" with respect to any day means the secured overnight financing rate published for such day by the FRBNY, as the administrator of the benchmark, (or a successor administrator) on the Federal Reserve Bank of New York's Website.
"Term SOFR" means the forward-looking term rate for the applicable Corresponding Tenor based on SOFR that has been selected or recommended by the Relevant Governmental Body.
"Unadjusted Benchmark Replacement" means the Benchmark Replacement excluding the Benchmark Replacement Adjustment.

## EURIBOR Notes

If you purchase a EURIBOR note, your note will bear interest at an interest rate equal to the interest rate for deposits in euro, designated as "EURIBOR" and sponsored jointly by the European Banking Federation and ACI the Financial Market Association, or any company established by the joint sponsors for purposes of compiling and publishing that rate. In addition, when EURIBOR is the interest rate basis the EURIBOR base rate will be adjusted by the spread or spread multiplier, if any, specified in the relevant pricing supplement. EURIBOR will be determined in the following manner:

- EURIBOR will be the offered rate for deposits in euros having the index maturity specified in the relevant pricing supplement, beginning on the second euro business day after the relevant EURIBOR interest determination date, as that rate appears on Reuters page EURIBOR01 as of 11:00 A.M., Brussels time, on the relevant EURIBOR interest determination date.
- If the rate described above does not appear on Reuters page EURIBOR01, EURIBOR will be determined on the basis of the rates, at approximately 11:00 A.M., Brussels time, on the relevant EURIBOR interest determination date, at which deposits of the following kind are offered to prime banks in the euro-zone interbank market by the principal euro-zone office of each of four major banks in that market selected by the calculation agent: euro deposits having the relevant index maturity, beginning on the relevant interest reset date, and in a representative amount. The calculation agent will request the principal euro-zone office of each of these banks to provide a quotation of its rate. If at least two quotations are provided, EURIBOR for the relevant EURIBOR interest determination date will be the arithmetic mean of the quotations.
- If fewer than two quotations are provided as described above, EURIBOR for the relevant EURIBOR interest determination date will be the arithmetic mean of the rates for loans of the following kind to leading euro-zone banks quoted, at approximately 11:00 A.M., Brussels time, on that EURIBOR interest determination date, by three major banks in the euro-zone selected by the calculation agent: loans of euros having the relevant index maturity, beginning on the relevant interest reset date, and in a representative amount.
- If fewer than three banks selected by the calculation agent are quoting as described above, EURIBOR for the new interest period will be EURIBOR in effect for the prior interest period. If the initial interest rate has been in effect for the prior interest period, however, it will remain in effect for the new interest period.

Notwithstanding the foregoing paragraphs if, on or prior to any EURIBOR interest determination date, the calculation agent determines that EURIBOR has been permanently discontinued, the calculation agent will use as a substitute for EURIBOR and for each future EURIBOR interest determination date, the alternative reference rate selected by the central bank, reserve bank, monetary authority or any similar institution (including any committee or working group thereof) in the jurisdiction of the applicable index currency that is consistent with accepted market practice (the "Alternative Rate for EURIBOR"). As part of such substitution, the calculation agent will make such adjustments to the Alternative Rate for EURIBOR or the spread thereon, as well as the business day convention, EURIBOR interest determination dates and related provisions and definitions ("EURIBOR Adjustments"), in each case that are consistent with accepted market practice for the use of such Alternative Rate for EURIBOR for debt obligations such as the notes; provided, however, that if there is no clear market consensus as to whether any rate has replaced EURIBOR in customary market usage, the Bank will appoint an independent financial advisor to determine an appropriate Alternative Rate for EURIBOR and any EURIBOR Adjustments, and the decision of the independent financial advisor will be binding on the Bank, the calculation agent and the holders of the notes. Notwithstanding anything to the contrary in the indenture or the notes, any EURIBOR Adjustments or the use of an Alternative Rate for EURIBOR shall become effective without consent from the holders of the notes or any other party. If EURIBOR has been permanently discontinued, but for any reason an Alternative Rate for EURIBOR has not been determined or there is no such market practice for the use of such Alternative Rate for EURIBOR (and an independent financial advisor has not determined an appropriate Alternative Rate for EURIBOR and any EURIBOR Adjustments), the rate of EURIBOR for the new interest period will be EURIBOR in effect for the prior interest period.

## SOFR Notes

If you purchase a SOFR note, your note will bear interest at a base rate equal to SOFR as adjusted by the spread or spread multiplier, if any, specified in the applicable pricing supplement.

SOFR notes will be either Compounded SOFR notes with Lookback, Compounded SOFR notes with Payment Delay, Compounded SOFR notes with Observation Period Shift, Compounded SOFR Index notes with Observation Period Shift or Weighted Average SOFR notes, each as indicated in the applicable pricing supplement and as described below.

The Interest Rate applicable for an interest period will be determined on the applicable SOFR Interest Determination Date, except that the Interest Rate for Compounded SOFR notes with Payment Delay will be determined on the applicable Interest Accrual Period End Date, with the Interest Rate for the final Interest Accrual Period being determined on the Rate Cut-off Date.

The amount of interest accrued and payable on the SOFR notes for each interest period will be calculated by the Calculation Agent and will be equal to the product of (i) the outstanding principal amount of the SOFR notes multiplied by (ii) the product of (a) the Base Rate plus the applicable spread or multiplied by the applicable spread multiplier for the relevant interest period multiplied by (b) the day count fraction. The day count fraction for all Compounded SOFR notes is Actual $/ 360$, being the actual number of days in the interest period divided by 360 , provided that for Compounded SOFR notes with Payment Delay, this calculation will be made in respect of each Interest Accrual Period, rather than each interest period.

The SOFR Interest Determination Date for Compounded SOFR notes with Lookback, Compounded SOFR notes with Observation Period Shift and Compounded SOFR Index notes with Observation Period Shift means the day that is the number of U.S. Government Securities Business Days prior to the Interest Payment Date in respect of the relevant interest period, as specified in the applicable pricing supplement. The Interest Payment Determination Date for Compounded SOFR notes with Payment Delay is the Interest Accrual Period End Date at the end of each Interest Accrual Period; provided that the SOFR Interest Determination Date with respect to the final Interest Accrual Period will be the Rate Cut-off Date.

For Compounded SOFR notes with Lookback, Compounded SOFR notes with Observation Period Shift and Compounded SOFR Index notes with Observation Period Shift, if any scheduled Interest Payment Date, other than the maturity date or redemption date, if applicable, falls on a day that is not a Business Day, such date will be
postponed to the following Business Day, except that, if that Business Day would fall in the next calendar month, the Interest Payment Date will be the immediately preceding Business Day. If the scheduled final Interest Payment Date (i.e., the maturity date or any redemption date) falls on a day that is not a Business Day, the payment of principal and interest will be made on the next succeeding Business Day, but the final Interest Payment Date will not be postponed and interest on that payment will not accrue during the period from and after the scheduled final Interest Payment Date. For Compounded SOFR notes with Payment Delay, if any scheduled Interest Accrual Period End Date falls on a day that is not a Business Day, such date will be postponed to the following Business Day, except that, if that Business Day would fall in the next calendar month, the Interest Accrual Period End Date will be the immediately preceding Business Day.

## Compounded SOFR Notes with Lookback

"Compounded SOFR with Lookback," with respect to any interest period, means the rate of return of a daily compound interest investment computed in accordance with the following formula:

$$
\left[\prod_{i=1}^{d_{0}}\left(1+\frac{S O F R_{i-y U S B D} x n_{i}}{360}\right)-1\right] x \frac{360}{d}
$$

where:
"d 0 ", for any Interest Period, means the number of U.S. Government Securities Business Days in the relevant interest period;
" $i$ " means a series of whole numbers from one to $\mathrm{d}_{o}$, each representing the relevant U.S. Government Securities Business Day in chronological order from, and including, the first U.S. Government Securities Business Day in the relevant interest period;
"SOFR $R_{i-y U S B D ", ~ f o r ~ a n y ~ U . S . ~ G o v e r n m e n t ~ S e c u r i t i e s ~ B u s i n e s s ~ D a y ~ " ~}^{i}$ " in the relevant interest period, is equal to SOFR in respect of the U.S. Government Securities Business Day that is " y " (the Lookback Number of U.S. Government Securities Business Days) prior to that day " $i$ ";
" $n_{i}$ ", for any U.S. Government Securities Business Day " $i$ " in the relevant interest period, is the number of calendar days from, and including, such U.S. Government Securities Business Day " $i$ " to, but excluding, the following U.S. Government Securities Business Day (" $i+1$ "); and
" $d$ " means the number of calendar days in the relevant interest period.
"SOFR", with respect to any U.S. Government Securities Business Day, means:
(1) the Secured Overnight Financing Rate published for such U.S. Government Securities Business Day as such rate appears on the SOFR Administrator's Website at 3:00 P.M. (New York time) on the immediately following U.S. Government Securities Business Day (the "SOFR Determination Time"); or
(2) if the rate specified in (1) above does not so appear, unless both a Benchmark Transition Event and its related Benchmark Replacement Date (as each such term is defined below under "-Effect of a Benchmark Transition Event for Compounded SOFR Notes") have occurred, the Secured Overnight Financing Rate as published in respect of the first preceding U.S. Government Securities Business Day for which the Secured Overnight Financing Rate was published on the SOFR Administrator's Website; or
(3) If a Benchmark Transition Event and its related Benchmark Replacement Date have occurred, the Benchmark Replacement, subject to the provisions described, and as defined, below under "-Effect of a Benchmark Transition Event for Compounded SOFR Notes".
where:
"Lookback Number of U.S. Government Securities Business Days" has the meaning specified in the applicable pricing supplement and represented in the formula above as " $y$ ".
"SOFR Administrator" means the Federal Reserve Bank of New York (or a successor administrator of the Secured Overnight Financing Rate); and
"SOFR Administrator's Website" means the website of the Federal Reserve Bank of New York, or any successor source.

## Compounded SOFR Notes with Observation Period Shift

"Compounded SOFR with Observation Period Shift", with respect to any interest period, means the rate of return of a daily compound interest investment computed in accordance with the following formula:

$$
\left[\prod_{i=1}^{d_{0}}\left(1+\frac{\operatorname{SOFR}_{i} x n_{i}}{360}\right)-1\right] x \frac{360}{d}
$$

where:
" $d$ ", for any Observation Period, means the number of U.S. Government Securities Business Days in the relevant Observation Period;
" $i$ " means a series of whole numbers from one to $\mathrm{d}_{0}$, each representing the relevant U.S. Government Securities Business Day in chronological order from, and including, the first U.S. Government Securities Business Day in the relevant Observation Period;
"SOFR", for any U.S. Government Securities Business Day " $i$ " in the relevant Observation Period, is equal to SOFR (as defined above under "- Compounded SOFR Notes with Lookback") in respect of that day " $i$ ";
" $n{ }_{i}$ ", for any U.S. Government Securities Business Day " $i$ " in the relevant Observation Period, is the number of calendar days from, and including, such U.S. Government Securities Business Day "i" to, but excluding, the following U.S. Government Securities Business Day (" $i+1$ "); and
" $d$ " means the number of calendar days in the relevant Observation Period.
"Observation Period" means, in respect of each interest period, the period from, and including, the date that is the number of U.S. Government Securities Business Days specified in the applicable pricing supplement preceding the first date in such interest period to, but excluding, the date that is the same number of U.S. government securities Business Days so specified and preceding the Interest Payment Date for such interest period.

## Compounded SOFR Notes with Payment Delay

"Compounded SOFR with Payment Delay" with respect to any Interest Accrual Period means the rate of return of a daily compound interest investment computed in accordance with the following formula:

$$
\left[\prod_{i=1}^{d_{0}}\left(1+\frac{\operatorname{SOFR}_{i} \times n_{i}}{360}\right)-1\right] x \frac{360}{d}
$$

where:
" $d$ ", for any Interest Accrual Period, means the number of U.S. Government Securities Business Days in the relevant Interest Accrual Period;
" $i$ " means a series of whole numbers from one to do, each representing the relevant U.S. Government Securities Business Day in chronological order from, and including, the first U.S. Government Securities Business Day in the relevant Interest Accrual Period;
"SOFRi", for any U.S. Government Securities Business Day "i" in the relevant Interest Accrual Period, is equal to SOFR (as defined above under "- Compound SOFR Notes with Lookback") in respect of that day "i";
" $n_{i}$ ", for any U.S. Government Securities Business Day " i " in the relevant Interest Accrual Period, is the number of calendar days from, and including, such U.S. Government Securities Business Day "i" to, but excluding, the following U.S. Government Securities Business Day ("i+1"); and
" $d$ " means the number of calendar days in the relevant Interest Accrual Period.
"Interest Accrual Period" means each quarterly period, or such other period as specified in the applicable pricing supplement, from, and including, an Interest Accrual Period End Date (or, in the case of the first Interest Accrual Period, the issue date) to, but excluding, the next Interest Accrual Period End Date (or, in the case of the final Interest Accrual Period, the maturity date or, if we elect to redeem the Compounded SOFR notes with Payment Delay on any earlier redemption date, the redemption date).
"Interest Accrual Period End Dates" means the dates specified in the applicable pricing supplement, ending on the maturity date or, if we elect to redeem the Compounded SOFR notes with Payment Delay on any earlier redemption date, the redemption date.
"Interest Payment Date" means the second Business Day, or such other Business Day as specified in the applicable pricing supplement, following each Interest Accrual Period End Date; provided that the Interest Payment Date with respect to the final Interest Accrual Period will be the maturity date or, if we elect to redeem the Compounded SOFR notes with Payment Delay on any earlier redemption date, the redemption date.
"Interest Payment Determination Date" means the Interest Accrual Period End Date at the end of each Interest Accrual Period; provided that the Interest Payment Determination Date with respect to the final Interest Accrual Period will be the Rate Cut-off Date.
"Rate Cut-Off Date" means the second U.S. Government Securities Business Day, or such other U.S. Government Securities Business Day as specified in the applicable pricing supplement, prior to the maturity date or redemption date, as applicable. For purposes of calculating Compounded SOFR with respect to the final Interest Accrual Period, the level of SOFR for each U.S. Government Securities Business Day in the period from and including the Rate Cut-Off Date to but excluding the maturity date or any earlier redemption date, as applicable, shall be the level of SOFR in respect of such Rate Cut-Off Date.

## Compounded SOFR Index Notes with Observation Period Shift

"SOFR Index," with respect to any U.S. Government Securities Business Day, means:
(1) the SOFR Index value as published by the SOFR Administrator as such index appears on the SOFR Administrator's Website at the at 3:00 P.M. (New York time) on such U.S. Government Securities Business Day (the "SOFR Index Determination Time"); provided that:
(2) if a SOFR Index value does not so appear as specified in (1) above at the SOFR Index Determination Time, then:
(i) if a Benchmark Transition Event and its related Benchmark Replacement Date (each as defined below under "-Effect of a Benchmark Transition Event for Compounded SOFR Notes") have not occurred with respect to SOFR, then Compounded SOFR shall be the rate determined pursuant to the "SOFR Index Unavailable" provisions below; or
(ii) if a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to SOFR, then Compounded SOFR shall be the rate determined pursuant to the "Effect of a Benchmark Transition Event for Compounded SOFR Notes" provisions below.
where:
"SOFR" means the daily secured overnight financing rate as provided by the SOFR Administrator on the SOFR Administrator's Website.
"Compounded SOFR," with respect to any interest period, means the rate computed in accordance with the following formula:

$$
\left(\frac{\text { SOFR Index }_{\text {End }}}{\text { SOFR Index }_{\text {Start }}}-1\right) \times \frac{360}{d_{c}}
$$

where:
"SOFR Indexstart" is the SOFR Index value for the day which is two U.S. Government Securities Business Days, or such other number of U.S. Government Securities Business Days as specified in the applicable pricing supplement, preceding the first date of the relevant interest period;
"SOFR Index End" is the SOFR Index value for the day which is two U.S. Government Securities Business Days, or such other number of U.S. Government Securities Business Days as specified in the applicable pricing supplement, preceding the Interest Payment Date relating to such interest period; and
"d ${ }_{\mathrm{c}}$ " is the number of calendar days from (and including) SOFR Index ${ }_{\text {start }}$ to (but excluding) SOFR Index $\mathrm{End}_{\text {End }}$ (the number of calendar days in the applicable Observation Period).
"SOFR Index Unavailable" means, if a SOFR Index Start or SOFR Index End is not published on the associated SOFR Interest Determination Date and a Benchmark Transition Event and its related Benchmark Replacement Date (each as defined below under "-Effect of a Benchmark Transition Event for Compounded SOFR Notes") have not occurred with respect to SOFR, "Compounded SOFR" means, for the applicable interest period for which such index is not available, the rate of return on a daily compounded interest investment calculated in accordance with the formula for SOFR Averages, and definitions required for such formula, published on the SOFR Administrator's Website at www.newyorkfed.org/markets/treasury-repo-reference-rates-information. For the purposes of this provision, references in the SOFR Averages compounding formula and related definitions to "calculation period" shall be replaced with "Observation Period" and the words "that is, $30-$, 90 -, or 180 - calendar days" shall be removed. If the daily SOFR ("SOFR ${ }_{i}$ ") does not so appear for any day, " $i$ " in the Observation Period, SOFR $_{i}$ for such day " $i$ " shall be SOFR published in respect of the first preceding U.S. Government Securities Business Day for which SOFR was published on the SOFR Administrator's Website.

## Effect of a Benchmark Transition Event for Compounded SOFR Notes

If we or our Designee determine on or prior to the relevant Reference Time that a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to the then-current Benchmark, the Benchmark Replacement will replace the then-current Benchmark for all purposes relating to the SOFR notes in respect of all determinations on such date and for all determinations on all subsequent dates.

In connection with the implementation of a Benchmark Replacement, we or our Designee will have the right to make Benchmark Replacement Conforming Changes from time to time.

Any determination, decision or election that may be made by us or our Designee pursuant to this section, including any determination with respect to a tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection:
(1) will be conclusive and binding absent manifest error;
(2) will be made in our or our Designee's sole discretion, as applicable; and
(3) notwithstanding anything to the contrary in the indenture or the SOFR notes, shall become effective without consent from the Holders or any other party.
"Benchmark" means, initially, the Base Rate (Compounded SOFR or Weighted Average SOFR, as applicable) as specified in the applicable pricing supplement, as such terms are defined above; provided that if we or our Designee determine on or prior to the Reference Time that a Benchmark Transition Event and its related Benchmark Replacement Date have occurred with respect to the Base Rate (or the published daily SOFR used in the calculation thereof) or the then-current Benchmark, then "Benchmark" means the applicable Benchmark Replacement.
"Benchmark Replacement" means the first alternative set forth in the order below that can be determined by us or our Designee as of the Benchmark Replacement Date.
(1) the sum of: (a) the alternate rate of interest that has been selected or recommended by the Relevant Governmental Body as the replacement for the then-current Benchmark and (b) the Benchmark Replacement Adjustment;
(2) the sum of: (a) the ISDA Fallback Rate and (b) the Benchmark Replacement Adjustment; or
(3) the sum of: (a) the alternate rate of interest that has been selected by us or our Designee as the replacement for the then-current Benchmark giving due consideration to any industry-accepted rate of interest as a replacement for the then-current Benchmark for U.S. dollar-denominated floating rate notes at such time and (b) the Benchmark Replacement Adjustment.
"Benchmark Replacement Adjustment" means the first alternative set forth in the order below that can be determined by us or our Designee as of the Benchmark Replacement Date:
(1) the spread adjustment, or method for calculating or determining such spread adjustment, (which may be a positive or negative value or zero) that has been selected or recommended by the Relevant Governmental Body for the applicable Unadjusted Benchmark Replacement;
(2) if the applicable Unadjusted Benchmark Replacement is equivalent to the ISDA Fallback Rate, the ISDA Fallback Adjustment; or
(3) the spread adjustment (which may be a positive or negative value or zero) that has been selected by us or our Designee giving due consideration to any industry-accepted spread adjustment, or method for calculating or determining such spread adjustment, for the replacement of the then-current Benchmark with the applicable Unadjusted Benchmark Replacement for U.S. dollar-denominated floating rate notes at such time.
"Benchmark Replacement Conforming Changes" means, with respect to any Benchmark Replacement, any technical, administrative or operational changes (including changes to the timing and frequency of determining rates and making payments of interest, rounding of amounts or tenors, and other administrative matters) that we or our Designee decides may be appropriate to reflect the adoption of such Benchmark Replacement in a manner substantially consistent with market practice (or, if we or our Designee decides that adoption of any portion of such market practice is not administratively feasible or if we or our Designee determine that no market practice for use of the Benchmark Replacement exists, in such other manner as we or our Designee determine is reasonably necessary).
"Benchmark Replacement Date" means the earliest to occur of the following events with respect to the then-current Benchmark (including the daily published component used in the calculation thereof):
(1) in the case of clause (1) or (2) of the definition of "Benchmark Transition Event," the later of (a) the date of the public statement or publication of information referenced therein and (b) the date on which the administrator of the Benchmark permanently or indefinitely ceases to provide the Benchmark (or such component); or
(2) in the case of clause (3) of the definition of "Benchmark Transition Event," the date of the public statement or publication of information referenced therein.

For the avoidance of doubt, if the event that gives rise to the Benchmark Replacement Date occurs on the same day as, but earlier than, the Reference Time in respect of any determination, the Benchmark Replacement Date will be deemed to have occurred prior to the Reference Time for such determination.
"Benchmark Transition Event" means the occurrence of one or more of the following events with respect to the then-current Benchmark (including the daily published component used in the calculation thereof):
(1) a public statement or publication of information by or on behalf of the administrator of the Benchmark (or such component) announcing that such administrator has ceased or will cease to provide the Benchmark (or such component), permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark (or such component); or
(2) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark (or such component), the central bank for the currency of the Benchmark (or such component), an insolvency official with jurisdiction over the administrator for the Benchmark (or such component), a resolution authority with jurisdiction over the administrator for the Benchmark (or such
component) or a court or an entity with similar insolvency or resolution authority over the administrator for the Benchmark, which states that the administrator of the Benchmark (or such component) has ceased or will cease to provide the Benchmark (or such component) permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark (or such component); or
(3) a public statement or publication of information by the regulatory supervisor for the administrator of the Benchmark announcing that the Benchmark is no longer representative.
"Reference Time" with respect to any determination of the Benchmark means (1) if the Benchmark is Compounded SOFR or Weighted Average SOFR, the SOFR Determination Time, (2) if the Benchmark is Compounded SOFR Index, the SOFR Index Determination Time; and (3) if the Benchmark is not Compounded SOFR, Weighted Average SOFR or Compounded SOFR Index, the time determined by us or our Designee after giving effect to the Benchmark Replacement Conforming Changes.

## Weighted Average SOFR Notes

"Weighted Average SOFR" means the arithmetic mean of SOFR in effect for each Business Day during the relevant Interest Period, calculated by multiplying the relevant SOFR by the number of calendar days such SOFR is in effect, determining the sum of such products and dividing such sum by the number of calendar days in the relevant Interest Period, provided however that during a Suspension Period, the SOFR for each day during that Suspension Period will be the value for the Business Day immediately prior to the first day of such Suspension Period. For purposes of this provision "Suspension Period" is the number of Business Days prior to the end of the relevant Interest Period as specified in the applicable pricing supplement.

## Treasury Rate Notes

If you purchase a treasury rate note, your note will bear interest at an interest rate equal to the treasury rate and adjusted by the spread or spread multiplier, if any, indicated in the relevant pricing supplement.

The treasury rate will be the rate for the auction, on the relevant treasury interest determination date, of treasury bills having the index maturity specified in the relevant pricing supplement, as that rate appears on Reuters page USAUCTION10 or USAUCTION11 under the heading "INVEST RATE" by 3:00 P.M., New York City time, on the interest calculation date corresponding to the relevant interest determination date. If the treasury rate cannot be determined in this manner, the following procedures will apply:

- If the rate described above does not appear on either page by 3:00 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from that source at that time, the treasury rate will be the bond equivalent yield of the rate, for the relevant interest determination date, for the type of treasury bill described above, as announced by the U.S. Department of the Treasury.
- If the auction rate described in the prior paragraph is not so announced by 3:00 P.M., New York City time, on the relevant interest calculation date, or if no such auction is held for the relevant week, then the treasury rate will be the bond equivalent yield of the rate, for the relevant treasury interest determination date and for treasury bills having the specified index maturity, as published in H.15(519) under the heading "U.S. Government Securities/Treasury Bills (Secondary Market)."
- If the rate described in the prior paragraph does not appear in H.15(519) by 3:00 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, then the treasury rate will be the rate, for the relevant treasury interest determination date and for treasury bills having a remaining maturity closest to the specified index maturity, as published in H .15 (519) or another recognized electronic source used for displaying that rate, under the heading "U.S. Government Securities/Treasury Bills (Secondary Market)."
- If the rate described in the prior paragraph does not appear in H. 15 (519) or another recognized electronic source by 3:00 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, the treasury rate will be the bond equivalent yield of the arithmetic mean of the following secondary market bid rates for the issue of treasury bills with a remaining maturity closest to the
specified index maturity: the rates bid as of approximately 3:30 P.M., New York City time, on the relevant treasury interest determination date, by three primary U.S. government securities dealers in New York City selected by the calculation agent.
- If fewer than three dealers selected by the calculation agent are quoting as described in the prior paragraph, the treasury rate in effect for the new interest period will be the treasury rate in effect for the prior interest period. If the initial interest rate has been in effect for the prior interest period, however, it will remain in effect for the new interest period.


## CMT Rate Notes

If you purchase a CMT rate note, your note will bear interest at an interest rate equal to the CMT rate and adjusted by the spread or spread multiplier, if any, indicated in the relevant pricing supplement.

The CMT rate will be the following rate as published in H.15(519) opposite the heading "Treasury constant maturities," as that rate is displayed on the designated CMT Reuters page by $4: 15$ P.M., New York City time, on the interest calculation date corresponding to the relevant interest determination date, under the heading ". . Treasury Constant Maturities", under the column for the designated CMT index maturity:

- if the designated CMT Reuters page is Reuters page FRBCMT, the rate for the relevant interest determination date; or
- if the designated CMT Reuters page is Reuters page FEDCMT, the weekly or monthly average, as specified in the relevant pricing supplement, for the week that ends immediately before the week in which the relevant interest determination date falls, or for the month that ends immediately before the month in which the relevant interest determination date falls, as applicable.
If the CMT rate cannot be determined in this manner, the following procedures will apply:
- If the applicable rate described above is not displayed on the relevant designated CMT Reuters page at 4:15 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from that source at that time, then the CMT rate will be the applicable treasury constant maturity rate described above-i.e., for the designated CMT index maturity and for either the relevant interest determination date or the weekly or monthly average, as applicable-as published in H. 15 (519) opposite the caption "Treasury constant maturities."
- If the designated CMT Reuters page is FRBCMT and the applicable rate described above does not appear in H. 15 (519) by 4:15 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, then the CMT rate will be the treasury constant maturity rate for the designated CMT index maturity and with reference to the relevant interest determination date, that:
- is published by the Board of Governors of the Federal Reserve System, or the U.S. Department of the Treasury; and
- is determined by the calculation agent to be comparable to the rate that would otherwise have been published in H .15 (519).
- If the designated CMT Reuters page is FEDCMT and the applicable rate described above does not appear in H. 15 (519) by 4:15 P.M, New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from that source at that time, the CMT rate will be the treasury constant maturity rate for the one-week or one-month rate, as applicable, for the designated CMT index maturity and with reference to the relevant interest determination date, that is otherwise announced by the Federal Reserve Bank of New York for the week or month, as applicable, immediately preceding that interest determination date.
- If the designated CMT Reuters page is FRBCMT and the rate described in the second preceding paragraph does not appear by 4:15 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, then the CMT rate will be the yield to maturity of the arithmetic mean of the following secondary market bid rates for the most recently issued treasury notes having an original maturity
equal to the designated CMT index maturity and a remaining term to maturity of not less than the designated CMT index maturity minus one year, and in a representative amount: the bid rates, as of approximately 3:30 P.M., New York City time, on the relevant interest determination date, of three primary U.S. government securities dealers in New York City selected by the calculation agent. In selecting these bid rates, the calculation agent will request quotations from five of these primary dealers and will disregard the highest quotation-or, if there is equality, one of the highest-and the lowest quotation-or, if there is equality, one of the lowest. If fewer than five but more than two such offered rates are provided, the CMT rate will be based on the arithmetic mean of the bid prices provided, and neither the highest nor lowest of such quotations will be eliminated. Treasury notes are direct, non-callable, fixed rate obligations of the U.S. government.
- If the designated CMT Reuters screen page is FEDCMT and the Federal Reserve Bank of New York does not publish a one-week or one-month rate, as applicable, for U.S. Treasury securities on the relevant interest determination date, unless the calculation is made earlier and the rate is available from one of those sources at that time, then the CMT rate will be the yield to maturity of the arithmetic mean of the following secondary market offered rates for the most recently issued treasury notes having an original maturity of approximately the designated CMT index maturity and a remaining term to maturity of not less than the designated CMT index maturity minus one year, and in a representative amount: the offered rates, as of approximately 3:30 P.M., New York City time, on the relevant interest determination date, of three primary U.S. government securities dealers in New York City selected by the calculation agent. In selecting these offered rates, the calculation agent will request quotations from five of these primary dealers and will disregard the highest quotation - or, if there is equality, one of the highest - and the lowest quotation - or, if there is equality, one of the lowest. If fewer than five but more than two such offered rates are provided, the CMT rate will be based on the arithmetic mean of the bid prices provided, and neither the highest nor lowest of such quotations will be eliminated.
- If the calculation agent is unable to obtain three quotations of the kind described in the prior two paragraphs, the CMT rate will be the yield to maturity of the arithmetic mean of the following secondary market bid rates for treasury notes with an original maturity longer than the designated CMT index maturity, with a remaining term to maturity closest to the designated CMT index maturity and in a representative amount: the bid rates, as of approximately 3:30 P.M., New York City time, on the relevant interest determination date, of three primary U.S. government securities dealers in New York City selected by the calculation agent. In selecting these bid rates, the calculation agent will request quotations from five of these primary dealers and will disregard the highest quotation (or, if there is equality, one of the highest) and the lowest quotation (or, if there is equality, one of the lowest).
- If fewer than five but more than two of these primary dealers are quoting as described in the prior paragraph, then the CMT rate for the relevant interest determination date will be based on the arithmetic mean of the bid rates so obtained, and neither the highest nor the lowest of those quotations will be disregarded. If two treasury notes with an original maturity longer than the designated CMT index maturity have remaining terms to maturity that are equally close to the designated CMT index maturity, the calculation agent will obtain quotations for the treasury note with the shorter remaining term to maturity.
- If two or fewer primary dealers selected by the calculation agent are quoting as described above, the CMT rate in effect for the new interest period will be the CMT rate in effect for the prior interest period. If the initial interest rate has been in effect for the prior interest period, however, it will remain in effect for the new interest period.


## CMS Rate Notes

If you purchase a CMS rate note, your note will bear interest at an interest rate equal to the CMS rate and adjusted by the spread or spread multiplier, if any, indicated in the relevant pricing supplement.

The CMS rate will be the rate for U.S. dollar swaps with a maturity for a specified number of years, expressed as a percentage in the relevant pricing supplement, which appears on the Reuters page ICESWAP1 as of 11:00 A.M., New York City time, on the interest determination date.

If the CMS rate cannot be determined as described above, the following procedures will be used:

- If the applicable rate described above does not appear by 11:00 A.M., New York City time, on the interest determination date, then the CMS rate will be a percentage determined on the basis of the mid-market, semi-annual swap rate quotations provided by five leading swap dealers in the New York City interbank market at approximately 11:00 A.M., New York City time, on the interest determination date. For this purpose, the semi-annual swap rate means the mean of the bid and offered rates for the semi-annual fixed leg, calculated on a 30/360 day count basis, of a fixed-forfloating U.S. dollar interest rate swap transaction with a term equal to the index maturity designated in the relevant pricing supplement commencing on the reset date and in a representative amount with an acknowledged dealer of good credit in the swap market, where the floating leg, calculated on an actual/ 360 day count basis, as such rate may be determined in accordance with the provisions set forth above under "-LIBOR Notes" with an index maturity of three months. The calculation agent will select the five swap dealers after consultation with us and will request the principal New York City office of each of those dealers to provide a quotation of its rate. If at least three quotations are provided, the CMS rate for that interest determination date will be the arithmetic mean of the quotations, eliminating the highest and lowest quotations or, in the event of equality, one of the highest and one of the lowest quotations.
- If fewer than three leading swap dealers selected by the calculation agent are quoting as described above, the CMS rate will remain the CMS rate in effect on that interest determination date or, if that interest determination date is the first reference rate determination date, the initial interest rate.

Notwithstanding the foregoing paragraphs if, on or prior to any CMS interest determination date, the calculation agent determines that CMS has been permanently discontinued, the calculation agent will use as a substitute for CMS and for each future CMS interest determination date, the alternative reference rate selected by the central bank, reserve bank, monetary authority or any similar institution (including any committee or working group thereof) in the jurisdiction of the applicable index currency that is consistent with accepted market practice (the "Alternative Rate for CMS"). As part of such substitution, the calculation agent will make such adjustments to the Alternative Rate for CMS or the spread thereon, as well as the business day convention, CMS interest determination dates and related provisions and definitions ("CMS Adjustments"), in each case that are consistent with accepted market practice for the use of such Alternative Rate for CMS for debt obligations such as the notes; provided, however, that if there is no clear market consensus as to whether any rate has replaced CMS in customary market usage, the Bank will appoint an independent financial advisor to determine an appropriate Alternative Rate for CMS and any CMS Adjustments, and the decision of the independent financial advisor will be binding on the Bank, the calculation agent and the holders of the notes. Notwithstanding anything to the contrary in the indenture or the notes, any CMS Adjustments or the use of an Alternative Rate for CMS shall become effective without consent from the holders of the notes or any other party. If CMS has been permanently discontinued, but for any reason an Alternative Rate for CMS has not been determined or there is no such market practice for the use of such Alternative Rate for CMS (and an independent financial advisor has not determined an appropriate Alternative Rate for CMS and any CMS Adjustments), CMS for the new interest period will be CMS in effect for the prior interest period.

## CPI Rate Notes

If you purchase a CPI rate note, your note will bear interest at an interest rate equal to the CPI rate and adjusted by the spread or spread multiplier, if any, indicated in the relevant pricing supplement.

Except as otherwise specified in the relevant pricing supplement, the CPI rate will be the rate, determined as of the relevant interest determination date, expressed as a percentage and calculated in accordance with the following formula:

$$
\text { CPI rate }=\frac{(\mathrm{C}-\mathrm{P})}{\mathrm{P}}-1
$$

- "C" means the CPI (as defined below) applicable for the calendar month which is one month preceding the month of the relevant interest determination date;
- "P" means the CPI applicable for the calendar month which is twelve months immediately preceding the calendar month for which C is determined; and
- "CPI" means the non-seasonally adjusted U.S. City Average All Items Consumer Price Index for All Urban Consumers, published monthly by the Bureau of Labor Statistics of the U.S. Department of Labor. For reference purposes only, the CPI is available on Bloomberg page CPURNSA or any successor service. In the event of an inconsistency between the CPI published on Bloomberg page CPURNSA and the CPI published by the Bureau of Labor Statistics, the CPI shall be the CPI published by the Bureau of Labor Statistics.


## Federal Funds Rate Notes

If you purchase a federal funds rate note, your note will bear interest at an interest rate equal to the federal funds rate and adjusted by the spread or spread multiplier, if any, indicated in the relevant pricing supplement.

The federal funds rate will be the rate for U.S. dollar federal funds as of the relevant interest determination date, as published in H .15 (519) by 3:00 P.M., New York City time, on the interest calculation date corresponding to the relevant interest determination date, under the heading "Federal Funds (Effective)", as that rate is displayed on Reuters page FEDFUNDS1 under the heading "EFFECT". If the federal funds rate cannot be determined in this manner, the following procedures will apply:

- If the rate described above is not displayed on Reuters page FEDFUNDS1 by 3:00 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from that source at that time, then the federal funds rate, as of the relevant interest determination date, will be the rate described above as published in H .15 (519), or another recognized electronic source used for displaying that rate, under the heading "Federal Funds (Effective)."
- If the rate described above is not displayed on Reuters page FEDFUNDS1 and does not appear in H. 15 (519) or another recognized electronic source by 3:00 P.M., New York City time, on the relevant interest calculation date, unless the calculation is made earlier and the rate is available from one of those sources at that time, the federal funds rate will be the arithmetic mean of the rates for the last transaction in overnight, U.S. dollar federal funds arranged, before 9:00 A.M., New York City time, on the business day following the relevant interest determination date, by three leading brokers of U.S. dollar federal funds transactions in New York City selected by the calculation agent.
- If fewer than three brokers selected by the calculation agent are quoting as described above, the federal funds rate in effect for the new interest period will be the federal funds rate in effect for the prior interest period. If the initial interest rate has been in effect for the prior interest period, however, it will remain in effect for the new interest period.


## Special Rate Calculation Terms

In this subsection entitled "-Interest Rates", we use several terms that have special meanings relevant to calculating floating interest rates. We define these terms as follows:

The term "bond equivalent yield" means a yield expressed as a percentage and calculated in accordance with the following formula:

$$
\text { bond equivalent yield }=\frac{\mathrm{D} \times \mathrm{N}}{360-(\mathrm{D} \times \mathrm{M})} \quad \times 100
$$

where
"D" means the annual rate for treasury bills quoted on a bank discount basis and expressed as a decimal;
"N" means 365 or 366 , as the case may be; and
"M" means the actual number of days in the applicable interest reset period.
The term "business day" means, for any note, a day that meets all of the following applicable requirements:

- for all notes (except Compounded SOFR notes), is a Monday, Tuesday, Wednesday, Thursday or Friday that is neither a legal holiday nor a day on which banking institutions are authorized or required by law or executive order to close in New York City or Toronto,
- if the note has a specified currency other than U.S. dollars or euros, is also a day on which banking institutions are not authorized or obligated by law, regulation or executive order to close in the applicable principal financial center;
- if the note is a LIBOR note, is also a London business day;
- if the note is a EURIBOR note or has a specified currency of euros, or is a LIBOR note for which the index currency is euros, is also a euro business day; and
- if the note is a Compounded SOFR note, is a U.S. government securities business day.

The term "designated CMT index maturity" means the index maturity for a CMT rate note and will be the original period to maturity of a U.S. treasury security-either $1,2,3,5,7,10,20$ or 30 years-specified in the relevant pricing supplement.

The term "designated CMT Reuters page" means the Reuters page mentioned in the relevant pricing supplement that displays treasury constant maturities as reported in H. 15 (519). If no Reuters page is so specified, then the applicable page will be Reuters page FEDCMT. If Reuters page FEDCMT applies but the relevant pricing supplement does not specify whether the weekly or monthly average applies, the weekly average will apply.

The term "euro business day" means any day on which the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET2) System, or any successor system, is open for business.

The term "euro-zone" means, at any time, the region comprised of the member states of the European Economic and Monetary Union that, as of that time, have adopted a single currency in accordance with the Treaty on European Union of February 1992, as it may be amended from time to time.
"H.15(519)" means " Selected Interest Rates (Daily) - H.15", or any successor publication as published weekly by the Board of Governors of the Federal Reserve System, available at https://www.federalreserve.gov /releases/h15/, or any successor site or publication.

The term "index currency" means, with respect to a LIBOR note, U.S. dollars.
The term "index maturity" means, with respect to a floating rate note, the period to maturity of the instrument or obligation on which the interest rate formula is based, as specified in the relevant pricing supplement.

The term "London business day" means any day on which dealings in the relevant index currency are transacted in the London interbank market.

The term "money market yield" means a yield expressed as a percentage and calculated in accordance with the following formula:

$$
\text { money market yield }=\frac{\mathrm{D} \times 360}{360-(\mathrm{D} \times \mathrm{M})} \quad \times 100
$$

where
"D" means the annual rate for commercial paper quoted on a bank discount basis and expressed as a decimal; and
"M" means the actual number of days in the relevant interest reset period.
The term "principal financial center" means the capital city of the country to which an index currency relates (or the capital city of the country issuing the specified currency, as applicable), except that with respect to U.S. dollars, Australian dollars, Canadian dollars, South African rands and Swiss francs, the "principal financial center" means New York City, Sydney, Toronto, Johannesburg and Zurich, respectively, and with respect to euros the principal financial center means London.

The term "Reference Time" with respect to any determination of the Benchmark means (1) if the Benchmark is LIBOR, 11:00 A.M., London time, on the relevant interest determination date, (2) if the Benchmark is

Compounded SOFR, the SOFR Index Determination Time, as such time is defined above, and (3) if the Benchmark is not LIBOR or Compounded SOFR, the time determined by the calculation agent in accordance with the Benchmark Replacement Conforming Changes.

The term "representative amount" means an amount that, in the calculation agent's judgment, is representative of a single transaction in the relevant market at the relevant time.

The term "Reuters page" means the display on the Reuters 3000 Xtra service, or any successor service, on the page or pages specified in this prospectus supplement or the relevant pricing supplement, or any replacement page or pages on that service.

The term "Reuters page EURIBOR01" the page designated as "EURIBOR01" on the Reuters service (or any successor service) (or such other page as may replace Page EURIBOR01 on the Reuters service or any successor service) on which EURIBOR rates of major banks for the euro are displayed.

The term "Reuters page FEDFUNDS1" means the page designated as "FEDFUNDS1" on the Reuters service (or any successor service) (or such other page as may replace Page FEDFUNDS1 on the Reuters service or any successor service) on which U.S. dollar federal funds rates are displayed.

The term "Reuters page ICESWAP1" means the page designated as "ICESWAP1" on the Reuters service (or any successor service) (or such other page as may replace Page ICESWAP1 on the Reuters service or any successor service) on which CMS rates are displayed.

The term "Reuters page LIBOR" means the display on the Reuters screen LIBOR01 page on the Reuters service (or any successor service) (or such other page as may replace Page LIBOR01 on the Reuters service or any successor service) on which London interbank rates of major banks for the relevant index currency are displayed.

The term "Reuters page USAUCTION10 or USAUCTION11" means the page designated as "USAUCTION10 or USAUCTION11" on the Reuters service (or any successor service) (or such other page as may replace Page USAUCTION10 or USAUCTION11 on the Reuters service or any successor service) on which U.S. Treasury auction rates are displayed.

The term "Reuters page US PRIME 1" means the page designated as "US PRIME 1" on the Reuters service (or any successor service) (or such other page as may replace Page US PRIME 1 on the Reuters service or any successor service) for the purpose of displaying prime rates or base lending rates of major U.S. banks.

The term "U.S. Government Securities Business Day" means any day except for a Saturday, a Sunday or a day on which the Securities Industry and Financial Markets Association recommends that the fixed income departments of its members be closed for the entire day for purposes of trading in U.S. government securities.

If, when we use the terms designated CMT Reuters page, H.15(519), Reuters page US PRIME 1, Reuters page FEDFUNDS1, Reuters page ICESWAP1, Reuters Page LIBOR01, Reuters page EURIBOR01, Reuters page USAUCTION10 or USAUCTION11, Reuters page US PRIME 1, or we refer to a particular heading or headings on any of those pages, those references include any successor or replacement heading or headings as determined by the calculation agent.

## Decisions and Determinations

Any determination, decision or election that may be made by the calculation agent or us pursuant to the benchmark replacement provisions described in this subsection entitled "Interest Rates," including any determination with respect to tenor, rate or adjustment or of the occurrence or non-occurrence of an event, circumstance or date and any decision to take or refrain from taking any action or any selection:

- will be conclusive and binding absent manifest error, may be made in the calculation agent's sole discretion, and, notwithstanding anything to the contrary in this pricing supplement and the accompanying prospectus supplement and prospectus relating to the notes;
- if made by us, will be made in our sole discretion;
- if made by the calculation agent, will be made after consultation with us, and the calculation agent will not make any such determination, decision or election to which we object; and
- shall become effective without consent from any other party.

Any determination, decision or election pursuant to the benchmark replacement provisions not made by the calculation agent will be made by us on the basis as described above. The calculation agent shall have no liability for not making any such determination, decision or election. In addition, we may designate an entity (which may be our affiliate) to make any determination, decision or election that we have the right to make in connection with the benchmark replacement provisions set forth in this pricing supplement.

Exchange Rate Agent. If we issue a note in a specified currency other than U.S. dollars, we will appoint a financial institution to act as the exchange rate agent and will name the institution initially appointed when the note is originally issued in the relevant pricing supplement or product supplement. We may select CIBCWM or another of our affiliates to perform this role. We may change the exchange rate agent from time to time after the original issue date of the note without your consent and without notifying you of the change.

All determinations made by the exchange rate agent will be at its sole discretion unless we state in the relevant pricing supplement or product supplement that any determination requires our approval. In the absence of manifest error, those determinations will be conclusive for all purposes and binding on you and us, without any liability on the part of the exchange rate agent.

## Payment When Offices or Settlement Systems Are Closed

If any payment is due on the notes on a day that would otherwise be a business day but is a day on which the office of a paying agent or a settlement system is closed, we will make the payment on the next business day when that paying agent or system is open. Any such payment will be deemed to have been made on the original due date, and no additional interest will be paid on account of the delay.

## Withholding

The Bank or the applicable paying agent will deduct or withhold from a payment on a note any present or future tax, duty, assessment or other governmental charge that the Bank determines is required by law or the interpretation or administration thereof to be deducted or withheld. Payments on a note will not be increased by any amount to offset such deduction or withholding, unless otherwise specified in the relevant pricing supplement.

## Defeasance

The defeasance described under "Description of Senior Debt Securities-Defeasance" in the accompanying prospectus will not be applicable to the notes offered hereby.

## Special Provisions Related to Bail-inable Notes

The indenture provides for certain provisions applicable to bail-inable notes. The relevant pricing supplement will specify whether or not your note is a bail-inable note.

## Agreement with Respect to the Exercise of Canadian Bail-in Powers

By its acquisition of an interest in any bail-inable note, each holder or beneficial owner of that note is deemed to (i) agree to be bound, in respect of the bail-inable notes, by the CDIC Act, including the conversion of the bail-inable notes, in whole or in part - by means of a transaction or series of transactions and in one or more steps into common shares of the Bank or any of its affiliates under subsection 39.2(2.3) of the CDIC Act and the variation or extinguishment of the bail-inable notes in consequence, and by the application of the laws the Province of Ontario and the federal laws of Canada applicable therein in respect of the operation of the CDIC Act with respect to the bail-inable notes; (ii) attorn and submit to the jurisdiction of the courts in the Province of Ontario with respect to the CDIC Act and those laws; and (iii) acknowledge and agree that the terms referred to in clauses (i) and (ii) above, are binding on that holder or beneficial owner despite any provisions in the indenture or the bail-inable notes, any other law that governs the bail-inable notes and any other agreement, arrangement or understanding between that holder or beneficial owner and the Bank with respect to the bail-inable notes.

Holders and beneficial owners of bail-inable notes will have no further rights in respect of their bail-inable notes to the extent those bail-inable notes are converted in a bail-in conversion, other than those provided under the bail-in regime, and by its acquisition of an interest in any bail-inable note, each holder or beneficial owner of that note is deemed to irrevocably consent to the principal amount of that note and any accrued and unpaid interest thereon being deemed paid in full by the Bank by the issuance of common shares of the Bank (or, if applicable, any of its affiliates) upon the occurrence of a bail-in conversion, which bail-in conversion will occur without any further action on the part of that holder or beneficial owner or the trustee; provided that, for the avoidance of doubt, this
consent will not limit or otherwise affect any rights that holders or beneficial owners may have under the bail-in regime.

## TLAC Disqualification Event Redemption

Unless otherwise specified in the relevant pricing supplement, we may, at our option, with the prior approval of the Superintendent, on not less than 20 business days' prior notice to the holders of the particular notes, redeem all but not less than all of those bail-inable notes prior to their stated maturity date on, or within 90 days after, the occurrence of a TLAC Disqualification Event, at a redemption price equal to $100 \%$ of the principal amount thereof, plus any accrued and unpaid interest to, but excluding, the date fixed for redemption.

A "TLAC Disqualification Event" means OSFI has advised the Bank in writing that the bail-inable notes issued under the relevant pricing supplement will no longer be recognized in full as TLAC under the TLAC Guideline as interpreted by the Superintendent, provided that a TLAC Disqualification Event will not occur where the exclusion of those bail-inable notes from the Bank's TLAC requirements is due to the remaining maturity of those bail-inable notes being less than any period prescribed by any relevant eligibility criteria applicable as of the issue date of those bail-inable notes.

## No Set-Off or Netting Rights

Holders and beneficial owners of bail-inable notes will not be entitled to exercise, or direct the exercise of, any set-off or netting rights with respect to their bail-inable notes.

## Approval of Redemption, Repurchases and Defeasance; Amendments and Modifications

Where the redemption, repurchase or any defeasance or covenant defeasance with respect to bail-inable notes would result in the Bank not meeting the TLAC requirements applicable to it pursuant to the TLAC Guideline, that redemption, repurchase, defeasance or covenant defeasance will be subject to the prior approval of the Superintendent.

Where an amendment, modification or other variance that can be made to the indenture or the bail-inable notes as described in the accompanying prospectus under "Description of Senior Debt Securities - Modification and Waiver of the Senior Debt Securities" would affect the recognition of those bail-inable notes by the Superintendent as TLAC, that amendment, modification or variance will require the prior approval of the Superintendent.

## Remedies If an Event of Default Occurs

Holders and beneficial owners of bail-inable notes may only exercise, or direct the exercise of, the rights described in the accompanying prospectus under "Description of Senior Debt Securities - Events of Default Remedies If an Event of Default Occurs" where an Order has not made under Canadian bank resolution powers pursuant to subsection $39.13(1)$ of the CDIC Act in respect of the Bank. Notwithstanding the exercise of those rights, bail-inable notes will continue to be subject to bail-in conversion until repaid in full. For greater certainty, no person may terminate or amend any agreement with the Bank that is in relation to any of the Bank's bail-inable notes, claim an accelerated payment or forfeiture of the term under such an agreement or demand payment of any amount under such an agreement, by reason only of a monetary default by the Bank in the performance of the Bank's bail-inable notes, when that default occurs after an order for bail-in conversion is made under paragraph 39.13(1)(d) of the CDIC Act but before such bail-in conversion.

## Subsequent Holders' Agreement

Each holder or beneficial owner of a bail-inable note that acquires an interest in the bail-inable note in the secondary market and any successors, assigns, heirs, executors, administrators, trustees in bankruptcy and legal representatives of any holder or beneficial owner is deemed to acknowledge, accept, agree to be bound by and consent to the same provisions specified herein to the same extent as the holders or beneficial owners that acquired an interest in the bail-inable notes upon their initial issuance, including, without limitation, with respect to the acknowledgement and agreement to be bound by and consent to the terms of the bail-inable notes related to the bailin regime.

## Governing Law; Submission to Jurisdiction

The indenture and the notes are governed by and construed in accordance with the laws of the State of New York, except that the ranking of the senior debt securities and the provisions relating to the bail-in acknowledgment
of holders and beneficial owners of bail-inable notes described in the first paragraph under "- Agreement with Respect to the Exercise of Canadian Bail-in Powers" above, are governed by and construed in accordance with the laws of the Province of Ontario and the federal laws of Canada applicable therein. By its acquisition of an interest in any bail-inable note, each holder or beneficial owner of that bail-inable note is deemed to attorn and submit to the jurisdiction of the courts in the Province of Ontario with respect to actions, suits and proceedings arising out of or relating to the operation of the CDIC Act and the laws of the Province of Ontario and the federal laws of Canada applicable therein in respect of the indenture and the bail-inable note.

## Other Provisions; Addenda

Any provisions relating to the notes, including the determination of the interest rate basis, calculation of the interest rate applicable to a floating rate note, its interest payment dates, any redemption or repayment provisions, or any other term relating thereto, may be modified and/or supplemented by the terms on the face of the applicable notes or in an addendum relating to the applicable notes, if so specified on the face of the applicable notes, and, in each case, in the relevant pricing supplement.

## SUPPLEMENTAL PLAN OF DISTRIBUTION (CONFLICTS OF INTEREST)

We and CIBCWM, as agent, have entered into a distribution agreement with respect to the notes. We may appoint agents, other than or in addition to CIBCWM, with respect to the notes. Any other agent will enter into a distribution agreement with us. The other agents may be affiliates or customers of the Bank and may engage in transactions with and perform services for the Bank in the ordinary course of business. CIBCWM may resell notes to or through another selling agent, which may include another of our affiliates. The agent or agents through whom the notes will be offered will be identified in the relevant pricing supplement.

Subject to certain conditions, an agent will use its reasonable efforts to solicit purchases of the notes. We have the right to accept offers to purchase notes and may reject any proposed purchase of the notes. An agent may also reject any offer to purchase notes. We will pay an agent a commission, which will be in such amount as may be agreed between the agent and the Bank and will be set forth in the relevant pricing supplement, on any notes sold through such agent.

We may also sell notes to an agent, who will purchase the notes as principal for its own account. In that case, the agent will purchase the notes at a price equal to the issue price specified in the relevant pricing supplement, less a discount to be agreed with us at the time of the offering.

An agent may resell any notes it purchases as principal to other brokers or dealers at a discount, which may include all or part of the discount the agent received from us. If all the notes are not sold at the initial offering price, the agent may change the offering price and the other selling terms.

We may also sell notes directly to investors. We will not pay commissions on notes we sell directly.
We have reserved the right to withdraw, cancel or modify the offer made by this prospectus supplement without notice and may reject orders in whole or in part, whether placed directly with us or with an agent. No termination date has been established for the offering of the notes.

An agent, whether acting as agent or principal, may be deemed to be an "underwriter" within the meaning of the U.S. Securities Act of 1933, as amended (the "Securities Act"). We have agreed to indemnify the agents against certain liabilities, including liabilities under the Securities Act, or to contribute to payments made in respect of those liabilities.

If an agent sells notes to dealers who resell to investors and the agent pays the dealers all or part of the discount or commission it receives from us, those dealers may also be deemed to be "underwriters" within the meaning of the Securities Act.

Unless otherwise indicated in any pricing supplement, payment of the purchase price of notes, other than notes denominated in a non-U.S. dollar currency, will be required to be made in funds immediately available in The City of New York. The notes will be in the Same Day Funds Settlement System at DTC and, to the extent the secondary market trading in the notes is effected through the facilities of such depositary, such trades will be settled in immediately available funds.

The notes are a new issue of securities, and there will be no established trading market for any note before its original issue date. We do not plan to list the notes on a securities exchange or quotation system. An agent may make a market in the notes offered through it. However, neither CIBCWM nor any of our other affiliates nor any other agent named in the relevant pricing supplement that makes a market is obligated to do so, and any of them may stop doing so at any time without notice. No assurance can be given as to the liquidity or trading market for the notes.

This prospectus supplement may be used by CIBCWM or any other agent in connection with offers and sales of the notes in market-making transactions. In a market-making transaction, an agent or other person may resell a note it acquires from other holders after the original offering and sale of the note. Resales of this kind may occur in the open market or may be privately negotiated, at prevailing market prices at the time of resale or at related or negotiated prices. In these transactions, such agent may act as principal or agent, including as agent for the counterparty in a transaction in which CIBCWM or another agent acts as principal, or as agent for both counterparties in a transaction in which CIBCWM does not act as principal. The agents may receive compensation in the form of discounts and commissions, including from both counterparties in some cases. Other affiliates of the Bank (in addition to CIBCWM) may also engage in transactions of this kind and may use this prospectus supplement for this purpose.

Unless the Bank or an agent informs you in your confirmation of sale that your note is being purchased in its original offering and sale, you may assume that you are purchasing your note in a market-making transaction.

The aggregate initial offering price specified on the cover of this prospectus supplement relates to the initial offering of new notes we may issue on and after the date of this prospectus supplement. This amount does not include notes that may be resold in market-making transactions. The latter includes notes that we may issue going forward as well as notes we have previously issued.

The Bank does not expect to receive any proceeds from market-making transactions other than those it undertakes on its own. The Bank does not expect that any agent that engages in these transactions will pay any proceeds from its market-making resales to the Bank.

Information about the trade and settlement dates, as well as the purchase price, for a market-making transaction will be provided to the purchaser in a separate confirmation of sale.

In this prospectus supplement, the term "this offering" means the initial offering of the notes made in connection with their original issuance. This term does not refer to any subsequent resales of notes in marketmaking transactions.

An agent may engage in over-allotment, stabilizing transactions, syndicate covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves syndicate sales in excess of the offering size, which creates a syndicate short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Syndicate covering transactions involve purchases of the notes in the open market after the distribution has been completed in order to cover syndicate short positions. Penalty bids permit reclaiming a selling concession from a syndicate member when the notes originally sold by such syndicate member are purchased in a syndicate covering transaction to cover syndicate short positions. Such stabilizing transactions, syndicate covering transactions and penalty bids may stabilize, maintain or otherwise affect the market price of the notes, which may be higher than it would otherwise be in the absence of such transactions. Agents are not required to engage in these activities, and may end any of these activities at any time.

In addition to offering notes through the agents as discussed above, other medium-term notes that have terms substantially similar to the terms of the notes offered by this prospectus supplement may in the future be offered, concurrently with the offering of the notes, on a continuing basis by the Bank. Any of these notes sold pursuant to the distribution agreement or sold by the Bank directly to investors will reduce the aggregate amount of notes which may be offered by this prospectus supplement.

## Conflicts of Interest

Because CIBCWM is an affiliate of the Bank, CIBCWM has a "conflict of interest" as defined in Rule 5121 of the U.S. Financial Industry Regulatory Authority, Inc. ("Rule 5121"). In addition, the Bank will receive the net proceeds from an initial public offering of the notes, thus creating an additional conflict of interest within the meaning of Rule 5121. Consequently, any such offering is being conducted in compliance with the provisions of Rule 5121. Neither CIBCWM nor any other agent is permitted to sell notes in any such offering to an account over which it exercises discretionary authority without the prior specific written approval of the account holder.

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# Senior Global Medium-Term Notes 

## Prospectus Supplement

September 2, 2021

