

DISCLOSURE RELATING TO DAILY MARK (pursuant to CFTC Regulation 23.431(d)(3))

INTEREST RATE SWAPS

The Northern Trust Company (“Northern Trust” or “we” or “us” or “our”) is a swap dealer registered with the Commodity Futures Trading Commission (“CFTC”). Under CFTC Regulation 23.431(d) (2), Northern Trust is required to provide each counterparty (other than a swap dealer, major swap participant, security-based swap dealer or major security-based swap participant) to an uncleared “swap” (as that term is defined in the Commodity Exchange Act, as amended (the “CEA”)) with a daily mark (the “Daily Mark”), which shall be the mid-market mark of the swap. CFTC Regulation 23.431(d)(3) requires Northern Trust to disclose to each counterparty the methodology and assumptions used to prepare the Daily Mark and any material changes during the term of the swap. This statement (this “Disclosure Statement”) is being delivered to you as a counterparty or potential counterparty to Northern Trust under one or more interest rate derivative transactions that constitutes a “swap” under the CEA (each such swap being a “Rates Transaction”). We are delivering this Disclosure Statement to you for the sole purpose of complying with our regulatory obligations as a swap dealer. Nothing in this Disclosure Statement amends, modifies or supersedes the terms of any transaction between you and us or any agreement between us regarding the same.

Northern Trust prepares the Daily Mark for each Rates Transaction by estimating cash flows, along with future cash flows that are known with certainty, such as payments based on a fixed interest rate on an ascertainable notional amount, and discounting such cash flows to their present value using discount factors derived from relevant market inputs to arrive at a current value. Spot and forward curves, correlation and volatility levels are determined on the basis of observable market inputs when available and on the basis of estimates when observable market inputs are not available. These spot and forward curves, correlation and volatility levels are used to estimate future cash flows that are uncertain, such as payments calculated based on a floating interest rate such as LIBOR and SOFR. In some cases, Northern Trust may use probabilistic models to determine the expected value of future cash flows. Discount rates used by Northern Trust for Rates Transactions rates are real-time in nature, change frequently, and are not obtainable prior to the execution of a trade. Such rates are determined at the time of each trade and may vary according to counterparty, transaction, and a number of other factors.

In Northern Trust’s sole discretion, Northern Trust may use a variety of methodologies to prepare the estimated cash flows described above, including without limitation, preparing Monte Carlo simulations and utilizing recognized mathematical pricing models. In Northern Trust’s sole discretion, Northern Trust may vary the inputs used in such simulations and modelling, with no obligation to disclose to you the methodology used or the inputs thereto. The assumptions and theoretical analyses underlying the pricing models used may not be appropriate for all possible outcomes and the parameters and inputs used in the pricing models may not be representative of all possible market conditions. The methodology and assumptions used to produce the Daily Mark of a Rates Transaction may change from time to time as our pricing models are updated.

The methodology used by the pricing models is confidential and proprietary information which we are not required to share with you. Certain inputs and assumptions that go into the pricing models are also confidential and proprietary, since disclosure of such inputs and assumptions would reveal confidential and proprietary information concerning the design and operation of the relevant pricing model. The information that we may provide to you concerning the pricing models is therefore necessarily limited and incomplete.

As provided in CFTC Regulation 23.431(d)(3), the Daily Mark provided to you

- (1) may not necessarily, and would often not be expected to be, a price at which either Northern Trust or you would agree to replace or terminate a Rates Transaction, or the amount that would be payable upon early termination as determined under any master netting agreement between us;
- (2) unless otherwise expressly agreed, is not the basis for margin calls and maintenance of collateral, it being understood that calls for margin or requirements for the maintenance of collateral generally are made or determined based on other considerations, including agreements contained in any collateral or other credit support documentation between us; and
- (3) may not necessarily be the value of the Rates Transaction that is marked on our books and records.

Pursuant to CFTC Regulation 23.431(d)(2), the Daily Mark is exclusive of several additional factors that may influence pricing of Rates Transactions, namely, profit, credit reserves, hedging costs, funding and liquidity or any other costs or adjustments. Northern Trust shall not have any duty or responsibility to provide you with any profit, credit reserves, hedging costs, funding and liquidity, costs or adjustments or other information related to the determination of the Daily Mark except as expressly provided herein.

Northern Trust provides Daily Marks to you only in respect of Rates Transactions that are not submitted for clearing. For cleared Rates Transactions, you have the right to receive the Daily Mark from the relevant derivatives clearing organization upon request.

Daily Marks take into account unsettled cash payments due from one party to the other. Daily Marks are provided only in respect of Rates Transactions which have not terminated or been novated or otherwise transferred to a third party, notwithstanding any unsettled cash payments that may remain in respect of such a terminated, novated or otherwise transferred Rates Transaction.

Each Daily Mark is provided only as of the market close on the date indicated, unless otherwise specified, and is not applicable at any other time. Each Daily Mark is expressed in terms of a position of a specified size, and is applicable only with respect to that size and may not reflect the mark that would be calculated in respect of a position or transaction of any other size.

The information presented in each Daily Mark is based on assumptions, historical information and pricing data that Northern Trust in its discretion considers appropriate. Northern Trust does not represent that any Daily Mark, or any methodology for determining any Daily Mark, is accurate, complete or current. Northern Trust makes no representation or warranty that any Daily Mark is suitable for any purpose whatsoever except as expressly required pursuant to CFTC Regulation 23.431. The Daily Mark does not constitute a valuation, appraisal or advisory service, and in providing the Daily Mark, Northern Trust is not acting as a fiduciary for or an advisor to you in respect of any transaction or potential transaction. We are providing the Daily Mark solely on the basis, and in reliance on your representation to us, that you are capable of assessing the merits of each transaction or potential transaction for which we provide a Daily Mark and capable of understanding on your own behalf or through independent professional advice the terms, conditions and risks of each such transaction or potential transaction. The Daily Mark is intended only as a reference and should not be relied upon for the maintenance of your books and records, for tax or accounting purposes, financial reporting purposes, or for any other purpose. By accepting any Daily Mark, you agree (i) that Northern Trust has no liability with respect to any Daily Mark provided to you, and (ii) to indemnify, defend, and hold Northern Trust harmless from and against any and all liability, claim, cost, loss, judgment, damage or expense (including reasonable attorneys' fees and expenses) that Northern Trust and its affiliates, and the officers, directors, agents, partners, members, controlling entities and employees of Northern Trust and its affiliates, incurs or suffers as a result of or arising out of any Daily Mark provided in material compliance with CFTC Regulation 23.431.