SOFR Disclosure

Disclosure for Rates Transactions

This Disclosure supplements and should be read in conjunction with the Disclosure Annex for Interest Rate Transactions. NOTHING IN THIS DISCLOSURE AMENDS OR SUPERSEDES THE EXPRESS TERMS OF ANY TRANSACTION BETWEEN YOU AND US OR ANY RELATED GOVERNING DOCUMENTATION. Accordingly, the information provided in this Disclosure is subject in all cases to the actual terms of a Rates Transaction executed between you and us and its governing documentation (whether or not such qualification is expressly stated).

Disclosure for SOFR-based Obligations and Investments

This Disclosure is provided for Rates Transactions where SOFR is an Underlier, but also provides information that may be useful in connection with other SOFR-based Obligations and Investments, including those for which Rates Transactions are entered into or acquired for hedging, risk management or investment purposes.

As used herein:

“SOFR” refers generally to the Secured Overnight Financing Rate provided by the Federal Reserve Bank of New York (or a successor) without necessarily referring to a specific definition used in a financial instrument (including, without limitation, the definition in the 2006 ISDA Definitions).

“SOFR-based Obligations and Investments” means transactions, contracts, loans, securities, debt instruments, derivatives or other obligations or investments that include or reference a SOFR-based rate, whether or not related to a Rates Transaction or constituting a Rates Transaction.

Understanding SOFR

Because SOFR definitions vary, it will be important for you to understand such definitions along with the other interest rate provisions when you enter into or acquire SOFR-based Obligations and Investments. For example, if you enter into or acquire a SOFR-based Obligation or Investment and hedge the SOFR with a derivative, there could be differences in the respective SOFR definitions and/or their interest rate fallback provisions. If the result is a material interest rate mismatch between the two financial products, this could expose you to “basis risk” and otherwise undermine the effectiveness of the derivative as a hedge.

You should familiarize yourself with the composition and characteristics of SOFR. You may also wish to consider how SOFR is determined (including the transparency of the methodology used and the process for making changes to such methodology), the governance of, and accountability for, the SOFR determination process, and other factors affecting the operation and market acceptance of SOFR. Information regarding SOFR, such as that published by the Federal Reserve Bank of New York, is publicly available, including on the Federal Reserve Bank of New York's website.

Whether SOFR is appropriate to meet your financial needs, objectives and hedging strategies should be part of any suitability analysis that you conduct in entering into or acquiring any SOFR-based Obligation or Investment and, depending upon your circumstances, may be important for you to assess periodically as your financial needs, objectives and hedging strategies change, or as methodological or other changes take place with respect to SOFR.

Very Limited History; Past Performance

Publication of SOFR began on April 3, 2018 and it therefore has a very limited history. In addition, neither we nor you can predict the future performance of SOFR based on historical performance. The level of SOFR over the term of a SOFR-based Obligation or Investment may bear little or no relation to the historical level of SOFR. Prior observed patterns, if any, in the behavior of market variables, such as correlations, may change in the future. While some pre-publication historical data have been released by the Federal Reserve Bank of New York, you should be aware that any such analysis inherently involves assumptions, estimates and approximations. You should also understand that the future performance of SOFR is impossible to predict and therefore no future performance of SOFR or any SOFR-based Obligation or Investment may be inferred from any of the historical simulations or historical performance. Hypothetical or historical performance data are not indicative of, and have no bearing on, the potential performance of SOFR or any SOFR-based Obligation or Investment.

Market Acceptance

SOFR may fail to gain market acceptance. SOFR was developed for use in certain U.S. dollar derivatives and other financial contracts as an alternative to USD LIBOR in part because it is considered a good representation of general funding conditions in the overnight Treasury repo market. However, as a rate based on transactions secured by U.S. Treasury securities, it does not measure bank-specific credit risk and, as a result, is less likely to correlate with the unsecured short-term funding costs of banks. This may mean that market participants would not consider SOFR a suitable substitute or successor for all of the purposes for which LIBOR historically has been used (including, without limitation, as a representation of the unsecured short-term funding costs of banks), which may, in turn, lessen market acceptance of SOFR. Any failure of SOFR to gain market acceptance could adversely affect SOFR-based Obligations and Investments and their economics, including the price, value or liquidity of SOFR-based Obligations and Investments, their usefulness for your intended purpose, the timing or amount of payments or deliveries and, if applicable, the likelihood that you will be able to exercise any option rights.

LIBOR-Equivalency and Risks

In June 2017, the Federal Reserve Bank of New York's Alternative Reference Rates Committee announced SOFR as its recommended alternative to USD LIBOR. However, the composition and characteristics of SOFR are not the same as those of any LIBOR. SOFR is a broad Treasury repo financing rate that represents overnight secured funding transactions. This means that SOFR is not the economic equivalent of any LIBOR (or any other alternative reference rate to LIBOR) for two key reasons. First, SOFR is a secured rate, while LIBOR is an unsecured rate. Second, SOFR is currently only an overnight rate, while LIBOR is published with different maturities. As a result, there can be no assurance that SOFR will perform in the same way as any 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 the same reasons, there is no guarantee that SOFR is suitable as a substitute for any LIBOR.

While the terms of a SOFR-based Obligation or Investment may include spreads or other adjustments to SOFR to approximate a LIBOR-equivalent rate, such rate may be only an estimate or approximation of the relevant LIBOR, may not be subject to continued verification against the relevant LIBOR if it is suspended, discontinued or unavailable, and may not result in a rate that is the economic equivalent of any LIBOR. In addition, it may be necessary to make such spreads or other adjustments permanent in response to the suspension, discontinuance or unavailability of the relevant LIBOR, in which case such spreads or other adjustments may reflect an historical correlation or relationship between the relevant rates without taking into account future changes.

SOFR Modification and Discontinuance Risk

The Federal Reserve Bank of New York (or a successor), as administrator of SOFR, may make methodological or other changes that could change the value of SOFR, including changes related to the method by which SOFR is calculated, eligibility criteria applicable to the transactions used to calculate SOFR, or timing related to the publication of SOFR. In addition, the administrator may alter, discontinue or suspend calculation or dissemination of SOFR (in which case a fallback method of determining the reference rate may apply, if specified in the relevant SOFR-based Obligation or Investment). The administrator has no obligation to consider your interests in calculating, adjusting, converting, revising or discontinuing SOFR.

Moreover, if a fallback method of determining the reference rate applies and such fallback method involves determining the reference rate by reference to a rate other than SOFR, there is no guarantee that such rate will be suitable for each SOFR-based Obligation or Investment or type as a substitute or successor for SOFR, that the composition or characteristics of such rate will be similar to those of SOFR (including having the same term or credit structure), or that such rate will be the economic equivalent of SOFR used in your SOFR-based Obligations and Investments.

Other Risks and Considerations

This Disclosure is not a complete statement of risks and other considerations concerning its subject matter, nor is it intended to address tax, accounting, or legal issues or risks unless otherwise noted. You should not construe the content of this Disclosure as legal, financial, tax, accounting or other advice, and you should consult your own attorneys, financial advisors, tax advisors and accountants as to legal, financial, tax, accounting and related matters concerning any SOFR-based Obligations and Investments, including the impact on your business and the risks, requirements and results of SOFR-based Obligations and Investments.

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