The Transition Away from LIBOR

1. What is LIBOR (London Interbank Offered Rate)?

- LIBOR is a series of interest rates that was created to better represent the true cost of bank borrowings, unlike some other benchmarks.
- Each business day, LIBOR is set based on submissions from a panel of 16 banks
- The panel banks submit estimates of their cost to borrow funds for various periods (known as tenors) such as one month, three month and others. The borrowing by the panel banks are made in wholesale, unsecured funding markets.
- For over 30 years, LIBOR has been used extensively world-wide to price financial.
- LIBOR currently serves as the benchmark interest rate for over $200 trillion of US Dollar financial contracts, such as the following:
    - Derivatives
    - Business loans
    - Consumer loans
    - Bonds
    - Securitizations

2. The Problem with LIBOR

- After the previous financial crisis, the amount of unsecured, wholesale borrowing among banks decreased significantly. As a result of the decrease in observable, underlying transactions, LIBOR became increasingly reliant upon the “expert judgment” of the panel banks.
- In the summer of 2012, LIBOR was found to have been manipulated by several of those panel banks.
- In 2014, the Board of Governors of the Federal Reserve System convened a group of private-market participants, the New York Fed and wide array of official-sector entities, including banking and financial sector regulators, as ex-officio members. This group is known as the Alternative Reference Rates Committee (ARRC). The ARRC’s initial objectives were to identify risk-free alternative reference rates for USD LIBOR, identify best practices for contract robustness, and create an implementation plan with metrics of success and a timeline to support an orderly adoption.
- In 2017, the ARRC selected SOFR as the rate that represents best practice for use in certain new USD derivatives and other financial contracts, representing the ARRC's preferred alternative to USD LIBOR. SOFR is a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities in the repurchase agreement (repo) market. This rate is robust, is not at risk of cessation, and it meets international standards. It is produced by the New York Fed in cooperation with the Office of Financial Research. The New York Fed publishes SOFR each business day at approximately 8:00 a.m. Eastern Time..
- In July 2017, the Financial Conduct Authority (FCA - the entity that regulates LIBOR) announced that it would neither persuade nor compel LIBOR panel banks to make LIBOR submissions beyond the end of 2021.

3. LIBOR Endgame – Final Timeline Set

- In November of 2020, the ICE Benchmark Administration (IBA), the FCA-regulated and authorized administrator of LIBOR, announced its intention to cease USD LIBOR for one-week and two-month tenors at the end of 2021, but extend the anticipated cessation date for the remaining USD LIBOR tenors to the end of June 2023.
- Regulators were supportive and issued a joint statement that communicated their expectation for banks to cease entering into new contracts that use USD LIBOR as a reference rate as soon as practicable and in any event **by December 31, 2021**.
- On March 5, 2021, the Financial Conduct Authority officially confirmed these changes.

4. LIBOR Alternative Reference Rates

- There are currently several viable alternative reference rates that we plan to make available to customers.
- There are two non-SOFR alternatives that are very similar to LIBOR in that they are forward-looking term rates, set in advance, and have a very high correlation to LIBOR. These will be the most easily adopted (in some sense "plug-and-play") alternatives which we believe our customers will prefer. We are monitoring market adoption of these indices and will choose one as our preferred rate as a clear winner emerges.
    - American Interbank Offered Rate ("Ameribor") (Both 30-day and 90-day tenors)
    - Bloomberg's Short-Term Bank Yield Index ("BSBY") (Both 30-day and 90-day tenors)
- There are two SOFR-based alternatives that we believe will be common in the market place. Similar in operation to Prime, each of these rates are overnight rates, reset daily, and the interest due at the next payment date is not known in advance. These two rates are:
    - Daily simple SOFR – this rate will be available, at the customer's preference, for BOKF direct commercial loans where the borrower is not hedging (or "swapping") the interest rate.
    - Daily compounded SOFR – this rate will likely be used for loans where BOKF acts as Agent for a syndicate of Lender, or if the borrower is hedging interest rate risk through an interest rate swap. We expect this to be the market-standard for many types of commercial loans.
- Please refer to our Frequently Asked Questions page for more information about these alternative reference rates.

5. What All of This Means for You

- **We currently plan to cease entering into LIBOR loans and derivatives later this year, and in any event, by December 31, 2021.**
    - After we cease using LIBOR, and no later than December 31, 2021, all newly originated loans, and all renewals of existing loans will have an interest set without reference to LIBOR. In addition, LIBOR related interest rate hedging (interest rate swaps) will not be

available. Until that time, we will continue to establish interest rates for new and renewing loans in reference to US Dollar LIBOR.

- If you currently have an **existing**, also known as "legacy", US Dollar LIBOR-based loan or interest rate hedge (interest rate "swap") that references to a 1-month, 3-month, 6-month or 12-month tenor, and such loan **matures before the end of June 2023**, nothing will change.
- If you currently have an **existing**, also known as "legacy", US Dollar LIBOR-based loan or interest rate hedge (interest rate "swap") that references to a 1-month, 3-month, 6-month or 12-month tenor, and such loan **matures after the end of June 2023**, we may need to amend the LIBOR fallback language of your loan and/or derivative (what happens if LIBOR becomes unavailable) in order to accommodate the cessation of LIBOR.
- Upon LIBOR's cessation in June 2023, BOKF will establish a Replacement Rate for your legacy loan in accordance with the provisions in your loan documents (using SOFR or other market index as outlined above).
- The Board of Governors of the Federal Reserve System has stated that for a bank to continue with LIBOR would result in the Fed having concerns regarding the safety and soundness of such bank. Therefore, BOKF's establishment of the Replacement Rate for your legacy loan is in your interests, in that no borrower will need to have any such concerns about BOKF.
- **Importantly, there will be no changes to your current interest rate calculation methodology for legacy LIBOR loans or interest rate swaps until the new Replacement Rate is established for such loans.**
- The triggers for establishing a Replacement Rate either are, or will be, set forth in your loan documents and are driven by market events.
- We currently expect market events to trigger the need for a Replacement Rate for legacy contracts at the end of June 2023.

6. Additional Resources

- Subject matter experts are available upon request through your Relationship Manager.
- You may also E-mail questions or concerns to either your Relationship Manager or LIBOR@bokf.com
- Additional helpful links
  - Alternative Reference Rates Committee (ARRC)
  - International Swap and Derivatives Association (ISDA)
  - Ice Benchmark Administration (ICE)
  - Financial Accounting Standards Board (FASB)
  - Internal Revenue Service
    - Proposed Regulation (Oct 2019)
    - Rev Proc 2020-44