



## Virtual Workshop – Series 1 LIBOR / SOFR Transition

Presentation by  
Blue Rose Capital Advisors



January 21, 2021

# Presenters



**Erik Kelly**  
*President*



**Scott Talcott**  
*Senior Vice President*



**Brandon Lippold**  
*Assistant Vice President*

- Blue Rose is a full-service, independent Municipal Advisor firm with our headquarter offices located in Minneapolis ([www.blueroseadvisors.com](http://www.blueroseadvisors.com)).

# Table of Contents

Section I	Transition History
Section II	LIBOR Transition for Loans
Section III	LIBOR Transition for Swaps
Section IV	Transition Preparation
Section V	Questions
Section VIII	Contact Information & Disclosures

# Transition History



# Why Replace LIBOR?

- LIBOR is the most widely utilized benchmark for short-term interest rates in the world.
- Approximately \$200 trillion U.S. dollar denominated market share.

## Uses

- Debt instruments
  - Corporate and municipal bonds
- Derivative instruments
  - Interest rate swaps
- Student loans
- Mortgages
- Credit cards

## Shortcomings

- Based on bank's estimates
- Unsecured
- Illiquid underlying market
- Vulnerable to manipulation
- Difficult to compel banks to submit LIBOR estimates

## Scandal

- Banks submitted misstated interbank rates as early as 1991
- Bankers received advanced information on LIBOR's movements from within their organization
- Banks colluded with each other to move rates
- Billions of dollars in fines have been paid by multiple institutions in relation to LIBOR "rigging"

# Primary Financial Instruments with LIBOR Exposure

## Loans / Bonds

- Taxable variable rate loans
- Tax-exempt variable rate direct purchase bonds
- Floating Rate Notes (FRNs)
- Lines of credit
- Lease agreements

## Derivatives / Swaps

- Interest rate swaps
- Rate locks
- Swaptions
- Basis swaps
- Caps / Floors

# Timeline



## 2014

- The Federal Reserve Bank of NY and the Federal Reserve Board formed the Alternative Reference Rates Committee (ARRC).



## 2017

- ARRC selected the Secured Overnight Financing Rate (SOFR), a rate based on fully collateralized overnight repo transactions.
- UK Financial Conduct Authority (FCA) announces LIBOR was not expected to last beyond YE 2021.



## 2020

- ARRC calls for new LIBOR-linked syndicated and bilateral loans to have refreshed “hardwired” fallback language.
- ISDA releases IBOR Fallbacks Protocol and Supplement.

- ICE Benchmark Administration (IBA) announces its expectation to consult on its intention to cease publication of 1-week and 2-month USD-LIBOR after December 31, 2021 and 1-, 3-, 6-, and 12-month USD-LIBOR after June 30, 2023.

# What is SOFR?

ARRC selected the Secured Overnight Financing Rate (SOFR), a rate based on fully collateralized overnight repo transactions, to replace USD-LIBOR.

- Features:
  - Fully transaction based.
  - Has an underlying market more robust than LIBOR.
  - Based on collateralized loans.
  - Has exhibited a strong historical correlation to other money market rates.
- The Federal Reserve Bank (NY) began publishing SOFR on April 3, 2018.
  - For comparison purposes they've also published historical values back to August 2014.

# Secured Overnight Financing Rate

- LIBOR to SOFR – Key Differences

## LIBOR Features

- Forward setting (i.e., rate set today)
- Structured as a term rate (e.g., 1 month, 3 months)
- Unsecured (panel bank risk)
- Friendly for systems (take today's known rate and apply for interest period)
- Friendly for borrowers (know your cash flows and your financial ratios)

## SOFR Features

- “In arrears” rate (rate known at end of interest period)
- Overnight rate (need to compound or average over an interest period)
- Risk-free, collateralized rate
- Less friendly to systems (e.g., compounding, lookbacks, lockouts, payment delays)
- Less friendly for borrowers (cash flows unknown and financial ratio compliance unclear up front)

# Transition Economics

- For existing LIBOR products, a move to SOFR will require a series of adjustments.



**“Term adjustment”** converts a LIBOR rate by compounding or averaging a SOFR rate for a given period (e.g., 1M LIBOR vs. 30 day compounded SOFR).



**“Spread adjustment”** is an estimation of the historical difference (or spread) between an unsecured LIBOR rate and a “riskless” compounded or averaged SOFR rate.

# LIBOR Transition for Loans



# Loan Transition

- For **new contracts** recommended fallback language exists and has been published by the ARRC.
  - Reference to LIBOR in new loans is currently expected to stop December 31, 2021.
- **Existing contracts** have a wide variety of LIBOR fallback language depending upon vintage.
  - No fallback, inadequate fallback, amendment approach, or hardwired approach.
  - Dominant fallback may be daily simple SOFR + Spread (Fallback Rate).
- Although SOFR is currently expected as the LIBOR replacement index, it is not the only variable rate index that institutions may transition to.

# Loan Adjustments / Mechanics

- Loans hedged with swaps present difficult cross-market issues:
  - Different SOFR/other index rate, different conventions (lookback, observation shift, payments), implication for floors.
  - Banks may have loan system issues with compounded SOFR in arrears; may be wrong rate given principal flows.
  - Potential implementation timing differences
  - Basis risk possible.
- It's not yet clear how ratios and credit spreads will be applied to compounded SOFR rates.
- Applying credit spreads and tax-exempt ratios before or after compounding SOFR rates, can lead to very different results.
  - **70%** of 1M LIBOR  $\neq$  **70%** of (Term Adjusted) SOFR

# LIBOR Transition for Swaps

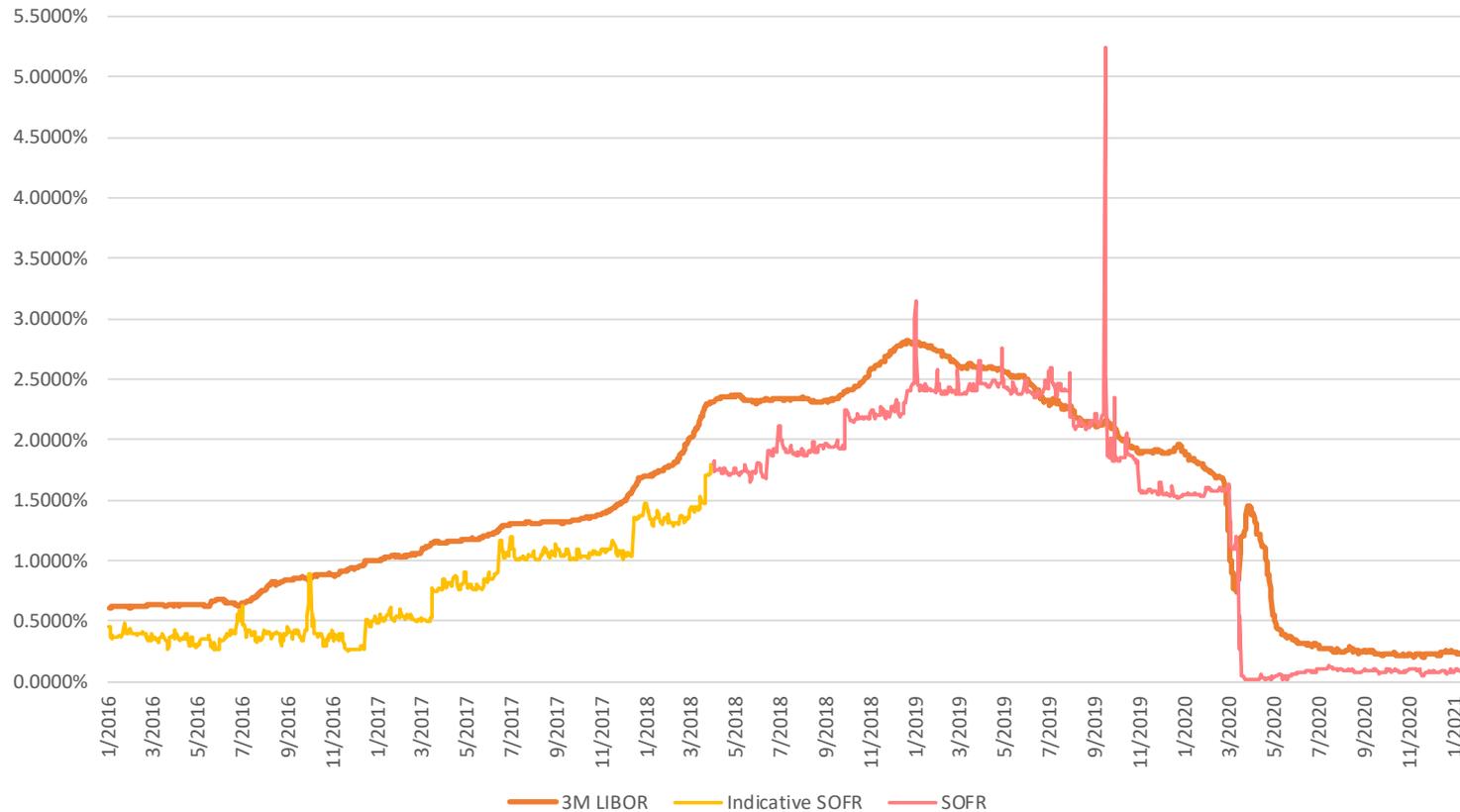


# Swap Transition

- Exchange Traded Derivatives
    - Moved to SOFR collateralization and discounting in October 2020.
  - OTC Derivatives
    - ISDA 2006 Definitions Supplement – deals with **new swaps** referencing LIBOR and same SOFR fallback.
    - ISDA 2020 IBOR Fallbacks Protocol – deals with **legacy swaps** and fallback to term adjusted SOFR + Spread Adjustment (Fallback Rate).
      - Bilateral amendments may be executed to preserve alignment with existing loans.
- Protocol and Supplement effective January 25, 2021.

# LIBOR vs. SOFR Historically

## 5-Year Historical SOFR and LIBOR



\*Source: Bloomberg

# SOFR Swap Curve

- Currently, the SOFR swap curve as anticipated by the ISDA Protocol is not in sync with the LIBOR swap curve.
  - As a result, value transfer risk exists
- The spread between curves is anticipated to converge as we move closer to LIBOR cessation.

Term	LIBOR	SOFR	Spread
5 yrs	0.523%	0.340%	0.183%
7 yrs	0.790%	0.590%	0.200%
10 yrs	1.086%	0.869%	0.217%
20 yrs	1.490%	1.253%	0.237%
30 yrs	1.574%	1.331%	0.243%

*\* Based upon market as of January 15, 2021.*

# Transition Preparation



# LIBOR Transition Do's & Don'ts

## Do's

- Recognize that LIBOR will go away...eventually!
- Inventory your institution's LIBOR exposure.
- Understand that various market participants are impacted differently as a result of the LIBOR transition.
- Recognize there are different implications for financial instruments with a market valuation (derivatives) versus those without (variable rate loans / bonds).
- Rely on your financial and legal advisors to ensure proper transition occurs for your institution.

## Don'ts

- Assume that LIBOR transition will occur at the same time for all financial instruments.
- Assume that SOFR, as a replacement index for LIBOR, even with a spread adjustment will make your institution whole as value transfer risk remains a legitimate concern.
- Assume that adopting "standard" LIBOR replacement language or ISDA fallback protocols is automatically the best approach.
- Assume the LIBOR transition process is solved, as many market and regulatory developments are expected during 2021.

Questions?



# Contact Information & Disclosures



# Contact Information

## Minneapolis (HQ)

6400 Flying Cloud Drive, Suite 212, Minneapolis, MN 55344  
Main: (952) 746-6050 / Fax: (952) 460-5776



**B.J. “Johan” Rosenberg**

*Chairman*

Direct: (952) 746-6030

Cell: (612) 839-7627

[bjrosenberg@bluroseadvisors.com](mailto:bjrosenberg@bluroseadvisors.com)



**Erik T. Kelly**

*President*

Direct: (952) 746-6055

Cell: (612) 599-9758

[ekelly@bluroseadvisors.com](mailto:ekelly@bluroseadvisors.com)



**Ann Bolin**

*Director of Accounting  
and Administration*

Direct: 952-746-6051

Cell: 612-554-1047

[abolin@bluroseadvisors.com](mailto:abolin@bluroseadvisors.com)



**Scott A. Talcott**

*Senior Vice President*

Direct: (952) 746-6042

Cell: (605) 759-0881

[stalcott@bluroseadvisors.com](mailto:stalcott@bluroseadvisors.com)



**Justin Krieg, Ph.D.**

*Senior Vice President*

Direct: (952) 746-6045

Cell: (425) 737-8763

[jkrieg@bluroseadvisors.com](mailto:jkrieg@bluroseadvisors.com)



**Emily K. Stolp**

*Vice President /  
Chief Compliance Officer*

Direct: (952) 746-6052

Cell: (612) 387-5494

[estolp@bluroseadvisors.com](mailto:estolp@bluroseadvisors.com)



**Brandon H. Lippold**

*Assistant Vice President*

Direct: (952) 746-6054

Cell: (763) 486-9653

[blippold@bluroseadvisors.com](mailto:blippold@bluroseadvisors.com)



**Maxwell S. Wilkinson**

*Assistant Vice President*

Direct: (952) 746-6048

Cell: (651) 324-3826

[mwilkinson@bluroseadvisors.com](mailto:mwilkinson@bluroseadvisors.com)

### New Jersey



**Samuel M. Gruer**

*Managing Director*

Main: (973) 671-1741

Cell: (862) 206-9548

[sgruer@bluroseadvisors.com](mailto:sgruer@bluroseadvisors.com)

### Chicago



**James M. McNulty, CFA**

*Managing Director*

Direct: (312) 332-0082

Cell: (773) 398-4177

[jmcnulty@bluroseadvisors.com](mailto:jmcnulty@bluroseadvisors.com)

### Buffalo



**Georgina M. Walleshauser**

*Associate*

Cell: (716) 480-8291

[gwalleshauser@bluroseadvisors.com](mailto:gwalleshauser@bluroseadvisors.com)



[www.bluroseadvisors.com](http://www.bluroseadvisors.com)



[www.linkedin.com/company/blue-rose-capital-advisors](http://www.linkedin.com/company/blue-rose-capital-advisors)

# About the Blue Rose / Disclaimer



## About the Blue Rose

The blue rose, which does not exist in nature, symbolizes that which is rare and difficult to obtain. The color blue represents opportunities and new beginnings, and so the blue rose conveys the excitement and possibilities of a new venture. Blue also is the color associated with those who are analytical, intelligent, responsible, optimistic and practical, traits we value and encourage in our professionals. At Blue Rose Capital Advisors, it is our goal to seek out new opportunities for our clients, and with meticulous and enthusiastic service, help them create optimal solutions and overcome their most formidable challenges.

## Disclaimer

Blue Rose Capital Advisors (Blue Rose) is an independent financial advisory firm that is registered with the Securities and Exchange Commission (SEC) and the Municipal Securities Rulemaking Board (MSRB) as a Municipal Advisor. The information and materials contained herein should not be construed as “advice” within the meaning of the Securities Exchange Act of 1934, and the information and materials contained in any report or correspondence from Blue Rose are not intended to be “advice” unless the recipient has engaged Blue Rose to provide advisory services. Information contained in any of our reports, website pages, presentations or correspondence is for use by the person or entity that has requested such information or contracted with us for services. When using this information, you must use your own judgment and expertise to evaluate and assess the value of the information presented for its particular purposes. The information cannot be substituted for the proper exercise of independent business judgment and analysis. Blue Rose is not an accounting firm and does not provide accounting advice.

# Disclosures of Conflicts of Interest and Other Information Pursuant to MSRB Rule G-42

---

Pursuant to Municipal Securities Rulemaking Board (“MSRB”) Rule G-42, in connection with the provision of certain materials or conversations that may constitute advice, Blue Rose Capital Advisors, LLC (the “Capital Advisor”) is required to provide certain disclosures (the “Disclosures”) to you related to potential or actual conflicts of interest, as well as to any legal or disciplinary events, as set forth below.

Capital Advisor expects to manage and mitigate any conflicts primarily by adherence to the fiduciary duty which it owes to municipal entities which require it to put the interests of the municipal entity ahead of its own or the duty of fair dealing that it owes to obligated person clients, as applicable.

## **Conflicts Associated with Affiliated Companies**

Conflicts of interest may arise when any affiliate of Capital Advisor provides to or on behalf of a client any advice, service, or product that is directly related to the municipal advisory activities to be performed by Capital Advisor. MuniPriceTracker, LLC (“MPT”), HedgeStar, LLC (“HedgeStar”), and Edelweiss Fund, LLC (“Edelweiss”) are affiliates under common ownership with Capital Advisor.

MPT provides bond pricing transparency for business and tax compliance purposes and may provide these services either to you directly or to bond counsel or another market participant in connection with your publicly sold bond transaction. In connection with these services, MPT receives a separate fee.

HedgeStar provides valuations for derivatives and fixed income instruments, financial reporting, and hedge accounting services, and may provide these services to you under separate contract. Any recommendation by Capital Advisor to enter into, modify, transfer, novate, or terminate an interest rate swap or other derivative, or to select one type of investment versus another, to a client who contracts with HedgeStar may result in additional or decreased fees payable to HedgeStar. In addition, valuations provided by HedgeStar may be reported in your audited financial statements and may affect a creditor’s or investor’s assessment of your financial position or credit strength.

Edelweiss was formed in order to pursue court action against a number of financial institutions, which may include banks with which your organization does business. The litigation asserts those institutions engaged in certain fraudulent and/or illegal activities related to variable rate demand obligations issued by municipal entities and obligated persons. Capital Advisor, MPT and HedgeStar are not parties to these cases.

## **Legal or Disciplinary Events**

The Capital Advisor is required by the Municipal Securities Rulemaking Board Rule G-42 to disclose any legal or disciplinary events related to the Capital Advisor or its Municipal Advisor Representatives. Information regarding such legal or disciplinary events is filed from time to time with the SEC on Form MA (with respect to the Capital Advisor) or Form MA-I (with respect to an individual Municipal Advisor Representative), and currently can be found online by searching for Blue Rose Capital Advisors at <http://www.sec.gov/edgar/searchedgar/companysearch.html>. As of the date of this document, there are no such events to disclose.