

November 2022

LIBOR is phasing out. What does that mean for investors?

The London Interbank Offered Rate (LIBOR) is one of the world's most widely used interest rate benchmarks. The transition away from LIBOR is a dynamic process that requires careful planning, resources and focus. Preparing for the end of LIBOR is a priority for Nuveen, and our expertise in active management positions us well to manage the complexities.

KEY TAKEAWAYS

- Nuveen is committed to completing our LIBOR transition strategy in advance of the announced ending dates.
- After reviewing client portfolios on a security-by-security basis, we understand our LIBOR exposure.
- We believe the risks associated with Nuveen's LIBOR exposure are manageable, and we will continue monitoring industry developments.
- This complex transition lends itself to active management, to be addressed across all asset classes with in-depth research and selectivity.

WHAT IS LIBOR?

LIBOR represents the cost of short-term, unsecured, wholesale borrowing by large banks. It is a widely used floating-rate benchmark index, making it a critical component of the financial system. It is used as a reference rate in a broad spectrum of products ranging from residential mortgages to corporate bonds to derivatives, underpinning trillions of dollars of financial contracts.

LIBOR is regulated by the UK Financial Conduct Authority (FCA) and administered by the ICE Benchmark Administration (IBA). Prior to 2021 year end, LIBOR was calculated for five currencies (U.S. dollar, pound sterling, euro, Swiss franc and Japanese yen) and seven tenors (overnight, 1 week, 1 month, 2 months, 3 months, 6 months and 12 months). That meant 35 individual rates (one for each currency/tenor combination) are published every London business day.

The majority of LIBOR rates have ended and their settings have ceased or are permanently unrepresentative. The overnight, 1 month, 3 months, 6 months and 12 months U.S. dollar LIBOR settings are expected to continue until 30 Jun 2023.

OPINION PIECE. PLEASE SEE IMPORTANT DISCLOSURES IN THE ENDNOTES.

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

WHY IS LIBOR BEING RETIRED?

LIBOR has been a long-established global benchmark for interest rates, but its credibility has declined over time. It has behaved in sometimes unpredictable and volatile ways, particularly during the Global Financial Crisis. Since then, changes to bank capital rules and funding practices greatly reduced the amount of this type of unsecured interbank borrowing.

Due to such changes, LIBOR became a less robust benchmark, based in large part on estimates provided by contributing panel banks rather than actual transactions. A manipulation scandal involving several leading financial institutions in 2012 raised further questions about its reliability. As a result, the regulator of LIBOR called for the development of alternative risk-free benchmark rates supported by liquid and observable markets.

WHAT IS LIBOR BEING REPLACED WITH?

The financial industry has recommended alternative rates for each LIBOR currency and tenor. They are derived from actual transactions in large and liquid markets, increasing transparency and seeking to avoid potential market manipulation.

The Secured Overnight Financing Rate (SOFR) is the industry's preferred alternative to U.S. dollar LIBOR, the benchmark where Nuveen has the greatest exposure. The Alternative Reference Rates Committee (ARRC) – established by the Federal Reserve Board and the New York Fed to implement a smooth transition away from LIBOR – formally recommended SOFR in July 2017. SOFR is based on transactions in the overnight repurchase markets (repo), and the massive size of the underlying market makes SOFR a transaction-based rate, better reflecting current financing cost.



The industry has made significant advancements to encourage more widespread use of the recommended replacement rates.

In July 2021, the ARRC formally recommended term SOFR rates, which indicate the forward-looking measurement of overnight SOFR, based on market expectations implied from derivatives markets.

While Nuveen generally supports the transition to SOFR and the replacements for other currency-based LIBOR, we also continue to evaluate other reference rates, in the event they emerge as alternative benchmarks used by banks or other market participants.

WHAT ARE THE CHALLENGES FOR INVESTMENTS WITH LIBOR EXPOSURE?

Various asset classes use floating-rate instruments whose benchmark rates have historically been tied to LIBOR, including derivatives, business loans, consumer loans, floating-rate bonds and securitization securities.

For instruments that rely on LIBOR, the transition process may bring increased volatility or illiquidity. The potential effects depend on the existing replacement and termination provisions in individual contracts, as well as how and when industry participants adopt new reference rates and fallback language. Fallback language addresses the methodology to be used for setting rates if LIBOR is not available.

It is difficult to predict the full impact of the transition, particularly when certain replacement rates like SOFR do not have a long performance history. Nevertheless, Nuveen believes the industry has made significant advancements to encourage more widespread use of the recommended replacement rates. We expect to see the full impact of the transition over an extended period of time.

HOW ARE THE INDUSTRY AND NUVEEN PREPARING FOR THE TRANSITION?

Regulators, agencies and working groups across U.S. and non-U.S. jurisdictions have been collaborating for several years to provide recommendations and best practices to help

the industry prepare for the end of LIBOR. Additionally, lawmakers recently enacted legislation that may provide a solution for LIBOR-linked securities where fallback language does not exist, is unclear or does not contemplate the end of LIBOR. This legislation seeks to provide more clarity around how to transition such securities away from LIBOR.

At Nuveen, we've taken several key steps:

- Established a robust transition management program sponsored by senior leadership with active participation from key stakeholders across all investment teams and business functions.
- Aggregated an inventory of LIBOR exposures across all relevant investments, products, models, leverage facilities, benchmarks and service providers.
- Developed a transition plan on a security-by-security basis for investments tied to LIBOR.
- Reviewed relevant contract language for sufficient fallback references.
- Participated regularly in industry working groups to obtain the latest information on transition efforts and proposed legislation, and provided input on relevant regulatory and industry proposals.



We believe that actively managing LIBOR-related risks should be a priority for client portfolios.

WHERE IS NUVEEN'S LIBOR EXPOSURE MOST CONCENTRATED?

Nuveen's highest concentrations of LIBOR exposure are in preferred securities, senior loans, middle market loans, collateralized loan obligations (CLOs), corporate bonds, securitized credit, private credit, and derivatives. The vast majority of our LIBOR exposure is tied to tenors that are set to expire on 30 Jun 2023.

While Nuveen is carefully planning for a smooth LIBOR transition across all asset classes, here we highlight additional considerations for our preferred securities and senior and middle market loan investments.

Preferred securities can be issued with a variety of coupon structures: fixed rate, fixed-to-fixed rate, fixed-to-floating rate and floating-rate coupons. The latter two categories could have coupons that reference LIBOR, which would be impacted by the phaseout.

Nuveen's preferred securities investment team has dedicated significant resources to reviewing the disclosure of all holdings to understand our LIBOR exposure, how LIBOR will transition and the risks clients may face.

We have found that fallback language is inconsistent across securities, and may not adequately explain how LIBOR will transition. Moreover, the industry continues to evolve – as evidenced by extending the phaseout of certain LIBOR tenors, passing federal legislation and using alternative rates – further impacting how LIBOR-related risks are managed.

Given these circumstances, we believe that actively managing LIBOR-related risks should be a priority for client portfolios. As we move to a market environment without LIBOR, we will continuously reassess the risk profile of every impacted holding to further inform its transition strategy.

Senior loans pay a floating interest rate tied to a benchmark market rate, typically LIBOR. Similar to the preferred sector, senior loan investment teams have carefully reviewed fallback language to understand where LIBOR exposure exists, determine how LIBOR will transition and manage the associated risks. This is particularly important for loans with insufficient fallback language.

The senior loan sector has a well-established process for revising loan documents. Because senior loans can only be funded by large institutional investors, the pool of lenders for each loan is well known, which eases the process. For senior loans with insufficient fallback language, we expect that the administrative agent for the loan would drive the process for replacing LIBOR with an alternative market rate, generally through a simple majority vote.

Thus far in 2022, the vast majority of new senior loan issuance has been linked to SOFR. This segment of the market has been actively transitioning away from LIBOR, and the investment teams expect this trend to continue.

Middle market loans include both floating- and fixed-rate structures. Most pay a floating interest rate tied to a benchmark market rate, which is typically LIBOR. Although a smaller market than traditional senior loans, middle market loans have a well-established process for revising loan documents because most of these loans are invested in by larger institutional investors including alternative credit funds. The middle market investment team under Churchill Asset Management, an investment-specialist affiliate of Nuveen, has a dedicated working group that carefully assessed preferred fallback language, compiled an inventory of transactions across their platform and analyzed the existing fallback language.

In late 2021, the SOFR transition in private credit was expected to lag the broadly syndicated loan market. While many direct lenders began to originate SOFR-based loans at the start of 2022, some have continued to issue LIBOR-based loans in light of market conditions. Such loans generally contain robust fallback language clearly describing how LIBOR will be replaced. New issuance of SOFR-based private loans is expected to accelerate during 2022 as private equity sponsors adopt SOFR more broadly and lenders use amendments as opportunities to convert existing loans from LIBOR to SOFR.

Churchill began issuing new SOFR loans at the beginning of 2022. In addition, Churchill will seek to transition the existing LIBOR portfolio to SOFR or include the ARRC's recommended fallback language in the documentation when appropriate. Churchill expects to finalize all amendments prior to the end of LIBOR.

TRANSITION EFFORTS WILL CONTINUE

Although Nuveen had minimal exposure to LIBOR tenors that ended on 31 Dec 2021, all have been successfully transitioned. For the remaining tenors, Nuveen will continue to evaluate how LIBOR replacement rates are performing in the market and closely monitor industry, regulatory and legislative developments to inform our transition strategy. We believe the risks associated with our LIBOR exposure are manageable at this time.

For more information, please visit us at nuveen.com.

Endnotes

Sources

Alternative Reference Rates Committee, CME Group, U.K. Financial Conduct Authority (FCA), U.S. Federal Reserve and Intercontinental Exchange (ICE).

This material is not intended to be a recommendation or investment advice, does not constitute a solicitation to buy, sell or hold a security or an investment strategy, and is not provided in a fiduciary capacity. The information provided does not take into account the specific objectives or circumstances of any particular investor, or suggest any specific course of action. Investment decisions should be made based on an investor's objectives and circumstances and in consultation with his or her financial professionals.

The views and opinions expressed are for informational and educational purposes only as of the date of production/writing and may change without notice at any time based on numerous factors, such as market or other conditions, legal and regulatory developments, additional risks and uncertainties and may not come to pass. This material may contain "forward-looking" information that is not purely historical in nature. Such information may include, among other things, projections, forecasts, estimates of market returns, and proposed or expected portfolio composition. Any changes to assumptions that may have been made in preparing this material could have a material impact on the information presented herein by way of example. **Performance data shown represents past performance and does not predict or guarantee future results.** Investing involves risk; principal loss is possible.

All information has been obtained from sources believed to be reliable, but its accuracy is not guaranteed. There is no representation or warranty as to the current accuracy, reliability or completeness of, nor liability for, decisions based on such information and it should not be relied on as such. For term definitions and index descriptions, please access the glossary on nuveen.com. **Please note, it is not possible to invest directly in an index.**

Important information on risk

Investing involves risk; principal loss is possible. Debt or fixed income securities are subject to market risk, credit risk, interest rate risk, call risk, derivatives risk, dollar roll transaction risk, and income risk. As interest rates rise, bond prices fall. Foreign investments involve additional risks, including currency fluctuation, political and economic instability, lack of liquidity, and differing legal and accounting standards. These risks are magnified in emerging markets. Preferred securities are subordinate to bonds and other debt instruments in a company's capital structure and therefore are subject to greater credit risk. Certain types of preferred, hybrid or debt securities with special loss absorption provisions, such as contingent capital securities (CoCos), may be or become so subordinated that they present risks equivalent to, or in some cases even greater than, the same company's common stock. Asset-backed and mortgage-backed securities are subject to additional risks such as prepayment risk, liquidity risk, default risk and adverse economic developments. Non-investment-grade and unrated bonds with long maturities and durations carry heightened credit risk, liquidity risk, and potential for default. Senior loans are subject to loan settlement risk due to the lack of established settlement standards or remedies for failure to settle. These investments are subject to credit risk and potentially limited liquidity, as well as interest rate risk, currency risk, prepayment and extension risk and inflation risk.

Nuveen provides investment advisory solutions through its investment specialists.

This information does not constitute investment research as defined under MiFID.

NOT FDIC INSURED | NO BANK GUARANTEE | MAY LOSE VALUE

nuveen

A TIAA Company