LIBOR's Sunset and Interest Rate Swap Hedges

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CURRICULUM: Accounting and Auditing, Management

LEVEL: Advanced

DESIGNED FOR: CPAs in industry, and public practice and finance managers of public and private businesses

OBJECTIVES: To expound the implications of LIBOR transition to SOFR in derivatives and other contracts in non-financial institution corporate environments

KEY TOPICS: LIBOR, SOFR, derivatives and LIBOR transition

PREREQUISITES: None

ADVANCED PREPARATION: None

The U.S. and other countries are planning to replace the London Interbank Offered Rate (LIBOR) by late 2021. LIBOR is the daily benchmark for floating short-term interest rates, which is currently the benchmark for over $400 trillion in financial contracts worldwide. In 2014, the U.S. Federal Reserve commissioned the Alternative Reference Rate Committee (ARRC) to recommend a new benchmark interest rate to replace LIBOR.

ARRC recommended the Secured Overnight Financing Rate (SOFR) as a replacement for LIBOR. SOFR is a measure of the cost of borrowing cash overnight, collateralized by U.S. Treasury securities. The U.S. regulators plan to completely phase out LIBOR by the end of 2021 and replace it with SOFR. As a result, most of the U.S. companies with dollar-dominated loans, debts and derivatives will move from LIBOR to SOFR by the end of 2021 at the latest. Nevertheless, that timeline is not set in stone and remains fluid since it is possible that LIBOR rates will continue to be published after 2021, but it is also possible for LIBOR to end before the end of 2021.

The transition from LIBOR has stirred the financial markets across the globe. A slow and meticulously planned transition from LIBOR is already in the works, but it will begin gathering more steam as we approach the end of 2021.

Most corporations and borrowers have a vague sense of LIBOR since odds are that they have a few loans and assets tied to it. This article expounds the implications of LIBOR transition to SOFR in derivatives and other contracts in a non-financial institution corporate environment and exhorts the management of these companies to plan for LIBOR transition as early as possible. It explicates, in particular, the application of LIBOR in an interest rate swap fair value hedge that pays-floating and receives-

fixed interest based on LIBOR. However, the application of LIBOR goes far beyond fair value hedges and encompasses many other derivatives and prevailing contracts in corporations.

LIBOR Challenges

Both lending and borrowing contracts have used LIBOR since the mid-1980s. LIBOR is a published and calculated daily rate based on hypothetical borrowing transactions submitted by a few banks. Since the transactions are hypothetical and not market based, it may have only a few submissions and as a result, it is not fully supported by an active market of observable transactions by market participants.

The global financial markets have grown in size and complexity in recent decades, but LIBOR calculation methodology has hardly changed to reflect the new economic trends and many economists consider it outdated in the best of circumstances. Furthermore, the LIBOR manipulation scandal of 2008, where one banker manipulated LIBOR lower (the opposite direction expected during a credit squeeze), confirmed the lack of observable market inputs and resulted in LIBOR's loss of credibility.

The application of LIBOR goes far beyond fair value hedges and encompasses many other derivatives and prevailing contracts in corporations.

Fannie Mae and Freddie Mac have indicated that they would stop accepting adjustable-rate mortgages tied to LIBOR by the end of 2020. However, the viability of SOFR has been a question for many users and remains to be an issue. The temporary breakdown of U.S. Treasury markets in March 2020 due to COVID-19 led some to question the stability of SOFR, which is based on the cost of transactions in the market for overnight repurchase agreements of U.S. Treasuries.

However, if SOFR is not the viable alternative (this is not a view that carries that much weight at this time), then the transition from LIBOR becomes even more complicated.

SEC's Guidance

The SEC staff does not endorse any substitute for LIBOR; however, it strongly encourages market participants to begin assessing their risks associated with the LIBOR contracts and transactions if they have not already done so. Furthermore, the staff has indicated that it actively monitors participants' progress with their risk identification and risk management efforts related to LIBOR transition.

In July 2019, the SEC issued a public statement, *Staff Statement on LIBOR Transition* (hereinafter Statement or the Statement) and this article will discuss its provisions in more detail.

The transition from LIBOR to SOFR could impose challenges despite some similarities. There are differences between LIBOR and SOFR:

- SOFR relies entirely on transaction data, whereas LIBOR is partially based on market data.
- SOFR is based entirely on overnight rates, whereas LIBOR rates vary on terms of one day to one year.
- SOFR represents a risk-free rate based on Treasury securities, whereas LIBOR represents the average cost of borrowing by a bank and it has a built-in credit risk component.

As a result of these differences, companies need to make some appropriate adjustments to swap out LIBOR and replace it with SOFR in their contracts. For example, regulators encourage that companies include fallback clauses in all of their new contracts that reference LIBOR to outline exactly how differences between SOFR and LIBOR should be mitigated.

Additionally, recently many institutions have already begun, albeit slowly, issuing securities and writing contracts that reference SOFR. The tipping point for SOFR is the end of next year (2021), when central clearing houses start using SOFR for discounting on all dollar-denominated interest rate swaps, and as more and more derivatives begin to reference SOFR, the process will most likely spur a broader effort to embrace SOFR.

An Application of LIBOR

LIBOR is pervasive in today's markets as a benchmark or reference rate in contracts such as derivatives (e.g., interest rate swaps), corporate and consumer loans and mortgages, and corporate and municipal bonds. Interest rate swaps (IRSWs) are agreements between two parties to exchange one stream of interest payments for another. IRSWs are derivatives and trade in the over-the-counter

Figure 1. LIBOR'S Benchmark Interest Rates				
Year Ending Jan. 2, _____	LIBOR Swap Fixed Leg	LIBOR Swap Variable Leg	LIBOR Rate Plus 1% Variable Leg	Fair Value Adjustment of IRSW (1)
2020 (effective for 2021)	7%	6%	7%	$0 (2)
2021 (effective for 2022)	7%	5%	6%	($1,833) (3)
2022 (effective for 2023)	7%	8.5%	9.5%	$2,383 (4)
2023 (effective for 2024)	7%	7%	8%	($450) (5)
2024		Settlement		

(1) The fair value is based on the present value of cash flows derived from benchmark interest rates at the beginning and end of the period.
(2) Contract's fixed rate and LIBOR plus rate are both equal to 7%; therefore, fair value is nil.
(3) ($7,000 x [(1-(1-1.06)$^{-2}$ x (0.06) $^{-1}$] + $100.000 x (1.06) $^{-2}$] = $1,833 + $100,000 = $101,833
(4) ($7,000 x [(1-(1-1.095)$^{-2}$ x (0.095) $^{-1}$] + $100.000 x (1.095) $^{-1}$] = ($2,283) + $101,833 = $99,550
(5) ($7,000 x [(1-(1-1.07)$^{-0}$ x (0.07) $^{-0}$] + $100.000 x (1.07) $^{-0}$] = $450 + $99,550 = $100,000

Figure 2. Journal Entries

The following illustrate the journal entries for the transaction.

Year 2020

Cash $100,000
Debt $100,000
Initiation of the debt on January 2, 2020

Year 2021

Interest expense $7,000
Cash $7,000
(7% x $100,000) fixed interest payment for Year 2020 paid on January 2, 2021

Swap $1,833
Debt $1,833
To record the fair value of the debt and swap (marked to market)

Cash $1,000
Interest $1,000
Paid-float $6,000 less received-fixed $7,000

Year 2022

Interest expense $7,000
Cash $7,000
(7% x $10,000) fixed interest payment for 2021 paid on January 2, 2022

Debt $2,383
Swap $2,383
To record the fair value of the debt and swap (marked to market)

Interest expense $2,500
Cash $2,500
Paid-float $9,500 less received-fixed $7,000

Year 2023

Interest expense $7,000
Cash $7,000
(7% x $10,000) fixed interest payment paid on January 2, 2023 for 2022
Debt $450
Swap $450
To record the fair value of the debt and swap (marked to market)

Interest expense $1,000
Cash $1,000
Paid-float $8,000 less received-fixed $7,000

Year 2024

Debt $100,000
Cash $100,000
Settlement of the debt on January 2, 2024

If the debt was callable and was settled on January 2, 2022, the settlement journal entry would have been as follows:

Debt $98,167
Swap $1,833
Cash $100,000
Settlement of the debt on January 2, 2022

as fair value or cash flow hedges. (The other type of hedge is the net investment hedge.)

The most common form of IRSWs are "vanilla" swaps that comprise the majority of the market – they exchange fixed-rate payments for floating-rate payments based on LIBOR. (If this exchange was to receive-floating and pay-fixed rates – that is floating rate to fix IRSW – the hedge would have been a cash flow hedge since the economic risk is cash flow rather the fair value.)

The following is an illustration of accounting for an IRSW fair value hedge. Entity A has a fixed rate obligation and enters into a "receive-fixed, pay-floating" interest rate swap, with the variable leg of the swap set on LIBOR to avoid volatility in its earnings as a result of fluctuation

in the fair value of its obligation due to interest rate changes.

On January 2, 2020, Entity A issues a $100,000, non-callable, 7% fixed-rate note at par value. The note is due on January 2, 2024, with annual interest payments due each on January 2nd until maturity. On the same day, Entity A enters into an interest rate swap contract for $100,000 notional amount. The swap receives interest at a fixed rate of 7% for its fixed leg throughout the term of the swap and pays interest at a variable rate equal to LIBOR plus 1% for the variable leg of the swap

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throughout its term, with annual interest rate reset days due on January 2nd until maturity. The note is settled on January 2, 2024.

The variable rate of the interest rate swap resets each year on January 2nd for the payment due the following year. The present value of the debt discounted at the hedge inception benchmark rate is equal to the par value of the debt. In this example, the maturity of contract is beyond LIBOR's sunset date at the end of 2021. See Figure 1 and Figure 2 on the previous page for LIBOR's benchmark interest rates and the journal entries for this transaction.

The above IRSW illustration reflects how deeply LIBOR can be ingrained in a derivative contract. Companies may need to renegotiate with their business partners and counterparties when transitioning from LIBOR in a derivative contract such as IRSW.

Furthermore, companies are likely to experience some degree of value transfer as they transition from LIBOR to SOFR. For example, the counterparties to a LIBOR-indexed contract may agree to switch to SOFR plus or minus a fixed spread. This can be a perplexing process and stakeholders need to start their analysis for transition as early as possible before the end of 2021 LIBOR sunset.

SEC's Statement

In July 2019, the SEC issued the Statement to address the expected discontinuation of LIBOR use and provide "how to" guidance in transition from LIBOR that may significantly affect financial markets and market participants (including public companies, investment companies and advisers, and broker-dealers).

The Statement notes that many existing contracts "did not contemplate the permanent discontinuation of LIBOR and, as a result, there may be uncertainty or disagreement over how the contracts should be interpreted. In addition, in circumstances where the contractual interpretation is clear, the adjustment may be inconsistent with expectations of the affected parties." Some of the highlights of the Statement include:

- Companies need to assess their exposure to LIBOR transition in their existing contracts that extend beyond 2021 to avoid any potential business disruptions and accounting complications.
- Companies need to assess the effect of LIBOR discontinuation on the effectiveness of their hedging strategies in their LIBOR-based contracts.
- Companies need to assess the materiality of their LIBOR-based contracts individually and in the aggregate for risk management and disclosure purposes.
- Companies need to determine whether contracts have fallback provisions that are triggered by the unavailability of LIBOR. They need to assess whether there is a need to mitigate any risks (e.g., if there is a need to renegotiate with the counterparties).
- Companies need to assess whether there is a need to adjust the SOFR (e.g., by adding or adjusting the credit spread) to maintain the same economics that exist for LIBOR-based affected contracts.
- Companies that enter into new contracts need to assess whether such contracts should refer to SOFR instead of LIBOR or should incorporate fallback provisions that take into account the LIBOR transition.
- Companies need to determine if discontinuation of LIBOR may affect other aspects of their business, including their "strategy, products, processes and information systems."
- Finally, SEC registrants need to be mindful of their disclosure obligations under SEC rules and regulations (prior to and during LIBOR transition) and ensure that their disclosures are transparent and timely.

Furthermore, the SEC considers discontinuation of LIBOR as a significant market risk, at the level of Brexit and cybersecurity that it continues to monitor. The SEC and its staff have been quite vocal regarding the need for registrants to disclose material company-specific risks

and their risk-mitigation plans associated with LIBOR transition.

FASB's Guidance

Background ASUs

In August 2017, FASB issued ASU 2017-12, *Targeted Improvements to Accounting for Hedging Activities*," which amends ASC 815, *Derivatives and Hedging*. This guidance changed the recognition and presentation of changes in the fair value of the hedging instrument, and eliminated the concept of recognizing periodic hedge ineffectiveness for cash flow and net investment hedges.

However, the guidance retained the highly effective threshold and benchmark interest rate concept for fair value hedges (hedges of fixed-rate financial instrument) but eliminated the benchmark interest rate concept for variable-rate instruments in cash flow hedges.

In November 2018, FASB issued ASU 2018-16, *Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes*, which amends certain provisions of ASC 815. This ASU permits companies to use SOFR OIS as a U.S. benchmark interest rate for hedge accounting purposes under ASC 815.

ASU 2020-04

In March 2020, FASB issued ASU 2020-4, *Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. FASB issued this guidance, codified under ASC 848, *Reference Rate Reform*, due to the concern expressed by constituents because of the changes to GAAP necessitated by the market-wide transition away from LIBOR (including the transition of existing hedging relationship referencing LIBOR).

The SEC considers discontinuation of LIBOR as a significant market risk, at the level of Brexit and cybersecurity ...

This ASU provides companies with optional expedients in Subtopic 848-20 to ease the potential accounting burden as a result of transition from LIBOR. The guidance is applicable to all entities and will only be available for a limited time through December 31, 2022.

ASU 2020-04 could be a relief and a game-changer for many companies facing LIBOR discontinuation. Following are some highlights of this guidance.

Fair Value Hedges

Discontinuation of LIBOR, per se, does not cause termination of hedging relationship. Companies may continue to apply the "shortcut method" for their existing hedging relationships regardless of the fact that certain requirements might not have been met due to discontinuation of LIBOR.

ASC 815 outlines certain criteria for IRSWs that, if met, permit that either an IRSW fair value or cash flow hedge be designated as highly effective. FASB refers to this as the shortcut method (as opposed to the "long-haul method"), which allows companies to pursue a significantly simplified method for a perfectly effective hedge.

Companies can use the shortcut method only for benchmark or contractually specified interest rate hedging relationships involving a recognized interest-bearing asset or liability (or a firm commitment arising on the trade pricing date to purchase or issue an interest-bearing asset or liability).

Cash Flow Hedges

With cash flow hedges:

- Companies may disregard discontinuation of LIBOR when assessing the probability of hedged forecasted interest payment (ASC 815-20-25-15).

- Companies may continue hedge accounting when the hedge risk changes (e.g., from LIBOR to SOFR) as long as the hedge is highly effective. (ASC 815-20-25-75 requires that both fair value and cash flow hedges be highly effective at the inception of the hedge and on an ongoing basis.)

- Companies may disregard a potential mismatch in the variable rate indexes between the hedge item and a hedge instrument when assessing the effectiveness of the hedge relationship. (For example, in IRSWs, the floating leg resets periodically; thereby, when the floating leg is set in advance of the next swap payment, changes in the present value of this payment may create a mismatch with the hedge item.)

- Companies may disregard the requirement that individual hedged transactions must share the same risk exposure for hedges of portfolios of forecasted transactions that reference a rate affected by discontinuation of LIBOR.

ASC 815 requires that if a hedge portfolio consists of a group of individual transactions, those individual transactions must share the same risk exposure for which they are designated as being hedged. Basis risk arises if two contracts that have similar payment terms no longer match. This could happen when a debt in one of the contracts and its associated derivative migrate from LIBOR to SOFR at different times or with different terms.

COVID-19 Relief

Companies need to consider many aspects of Topic 815, *Derivatives and Hedging*, when they contemplate the use of hedging. These considerations include, among several others, change in effectiveness of the hedge, probability of occurrence of forecasted transactions and performance under firm commitments.

FASB addressed COVID-19 related issues in Staff Questions & Answers (Q&A) published on FASB's website (tinyurl.com/y94ozxmg).

There is no doubt that COVID-19 has added an additional level of complexity to LIBOR transition. Even though this Q&A does not particularly pay that much heed to LIBOR transition, its provision may indirectly impact LIBOR transition accounting issues.

The following is a highlight/summary of FASB's answers that companies may need to consider in conjunction with the optional expedients in Subtopic 848-20 (discussed earlier in this article).

The FASB staff believes that companies may apply the exception in ASC 815-30-40-4 for COVID-19 that is applicable to rare cases caused by extenuating circumstances that are related to the nature of the forecasted transaction. These are outside the control or influence of an entity's management and may cause delays in the timing of the forecasted transactions – assuming that these delays were related to the COVID-19 pandemic.

Furthermore, the FASB staff argued that it would be acceptable for companies to ignore the related COVID-19 missed forecast when determining whether they have exhibited a pattern of missing forecasts that would call into question their ability to accurately predict forecasted transactions to determine the propriety of using cash flow hedge accounting in the future for similar transactions.

Planning for the Transition

The expectation is that publication of LIBOR will cease after 2021 and SOFR will replace it. Some have wondered whether the deadline for the transition will be pushed back, but the U.K. regulator in charge of overseeing LIBOR has made it clear that a deadline extension is not feasible. The shift away from the most widely used interest rate benchmark is a conspicuous change to the global financial market and U.S. economy, with far-reaching impacts.

SOFR has a different structure than LIBOR. U.S. dollar LIBOR is typically a forward-looking rate that implicitly includes bank credit risk, whereas SOFR is a backward-looking overnight rate and is secured by collateral. Thus, there may be some differences between the two benchmark rates that companies need to be aware of when they negotiate the legacy LIBOR rate contracts.

The SEC and other regulators around the world have cautioned about the obtrusive nature of this transition and potential market disruptions. Regulators in the U.S. are encouraging companies to plan proactively for a transition away from LIBOR to SOFR to avoid the vicissitude of this event. LIBOR exists as a reference rate in a variety of contracts, so as an initial step it is imperative that companies prepare a comprehensive inventory of such contracts and plan to negotiate with the borrowers and other counterparties, if needed, to accommodate for LIBOR transition.

Furthermore, regulators encourage companies to include fallback clauses in all new contracts, if their contracts reference LIBOR, to outline exactly how differences between SOFR and LIBOR should be accounted for. Reconciling the differences between SOFR and LIBOR may necessitate business changes and early communication to the board of directors, auditors and other stakeholders.

Moreover, companies need to plan for accounting and tax reporting by understanding FASB's guidance that provides optional expedients in Subtopic 848-20 and FASB's Q&A for an unrelated COVID-19 relief that may be applicable to LIBOR transition due to the timing of its occurrence. Finally, the SEC requires registrants to disclose material company-specific risks and their risk-mitigation efforts associated with LIBOR transition in their filings.

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