In the past month, a sudden spike in the repo market drew concerns on the volatility of SOFR and increased discussions around using the averages of SOFR. The spike in the repo rates was driven by a cash shortage in the market and was mitigated by the Federal Reserve making a series of cash injections. Similar to previous spikes in the repo market, David Bowman reiterated during the ARRC’s office hours that although these spikes may have an impact on overnight SOFR, it is intended for the less volatile, three-month average SOFR to be used as the reference rate which remains stable.

FASB and IASB published exposure drafts which addressed the main hedge accounting issues directly affected by the interest rate benchmark reform. The guidance provides temporary accounting relief and helps prevent disruption to existing, impacted cash flow and fair value hedge accounting relationships.

Separately, 11 Federal Home Loan Banks have agreed to discontinue the purchase of LIBOR-related investments with a contractual maturity post 2021 marking a key milestone in the reform. The Federal Housing Finance Agency (FHFA) has taken a big stride in the transition by instructing the 11 Federal Home Loan Banks to end their LIBOR-related investments tied to all product types.
ARRC Office Hours Q&A with David Bowman (Federal Reserve Board)

This commentary does not represent the view of the Federal Reserve and are the personal views of David Bowman outside of his official capacity. Weekly office hour information can be found here. Below are some of the specific topics discussed:

**USD ICE Bank Yield Index**
- The ARRC does not have an official position regarding the use of the USD ICE Bank Yield Index parallel or separate to SOFR. The topic was discussed during the April 2019 ARRC meeting, which had presentations by the IBA and by David Bowman. The ARRC’s only official position is that the choice of SOFR was appropriate, and the ICE Bank Yield index would not have met the criteria that the ARRC set out when deciding on an alternative reference rate. It is still not clear how the ICE Bank Yield would behave or be published in times of market stress or if it will get hedge accounting status. The ARRC maintains that their recommendations are voluntary.

**Fallback Procedures for Debt Instruments and Securitizations**
- Many debt instruments and securitizations referencing LIBOR have fallbacks requesting polling at least 2 London and NY banks and then using the last published value of LIBOR, which would make it a fixed rate. Some newer issuances have put in the initial interest rate, which may be better the last rate is unknown. The ARRC is contemplating approaching the State of NY and other states to seek legislative relief for these and other legacy products.

**SOFR Based ARMs**
- Fannie Mae and Freddie Mac may be switching from LIBOR to SOFR based ARMs in 2020, but the infrastructure may take longer than expected. Original timing was thought to be 18 months to build the infrastructure, but that is likely to be adjusted. Freddie and Fannie have both said they will work to build the capacity to accept the SOFR ARM along the lines of the model released by the ARRC white paper.

**LIBOR Post-2021**
- The FCA stated in July that they expect a few panel banks to leave after 2021. It is possible that LIBOR will be declared non-representative of the market at that time. IBA is checking with banks to see their willingness to continue submitting and publishing LIBOR with a smaller number of panel banks even though no longer considered representative. The FCA update can be found here.

**Definitions for LIBOR**
- ISDA will be updating the 2006 definitions for LIBOR. These definitions will only apply to new issuances unless parties sign up for protocol. For prior versions of ISDA Master Agreements, signing up for the protocol will embed the definition into the agreements. There will be a couple months period in which parties can sign up for the protocol, but the new definitions will not apply. Once the window closes, the definitions will apply.

**Averages vs. Daily Overnight SOFR Rate**
- To address SOFR fluctuations, averages of SOFR are used rather than the actual day to day overnight rate. It was not the intent to use the daily overnight rates.

**SOFR Compounding Convention & Spread Adjustment**
- There were two presentations at the September 5 2019 ARRC meeting.
  - The first presentation discussed SOFR averages, and the plan is to use ISDA’s definition for compounded SOFR. This will allow for full alignment. The ARRC user guide has also normally used the ISDA formula. The formula compounds on business days but uses simple averages on weekends and holidays.
  - The second presentation discussed potential spread adjustments to use. If possible, the ARRC would prefer to use the ISDA spread, but the ARRC needs to determine what is best for cash markets.

Meeting minutes can be found here.
Replacement Rate Behavior

- Many consumer products use the wording “based on comparable information”. There is no guarantee that the replacement rate must move in lock step with the original rate. Over time, the correlation between most rates is extremely similar. Most move in line with fed monetary policy. The ARRC’s position is the spread adjustment makes the two rates comparable. Besides that, the rates tend to move tightly together.

SOFR Margins

- The margin charged in a new SOFR deal is left to the discretion of the two parties to determine the appropriate rate. For legacy agreements, the spread adjustment is needed for the fallback because once the fallback is triggered, it will be very difficult for the two parties to agree to what the spread adjustment should be. The goal of ISDA and ARRC is to have parties agree to the spread adjustment beforehand – agreeing on the method to calculate the number as opposed to a specific number.

ARRC Working Group

- ARRC extended the comment period on Fallback Contract Language Consultation for New Closed-End, Residential Adjustable-Rate Mortgages. The announcement and consultation information is available here.
- ARRC released a “Practical Implementation Checklist” to assist market participants with using SOFR. The press release is available here.
- ARRC released revised FAQs on September 19 2019. The FAQs are available here.
- ARRC August-September 2019 newsletter is available here.

ISDA Updates

- ISDA published a consultation on the Final Parameters for the Spread and Term Adjustments in Derivatives Fallbacks for Key IBORs. The consultation is available here.
  - A webcast of the call is available here.
  - From the 2018 and 2019 consultations, the following two options are being considered:
    - A median over five year lookback period from date of the announcement/publication regarding cessation.
    - A trimmed mean over ten year lookback period from the date of announcement/publication regarding cessation.
- ISDA published EURIBOR reform FAQs here.
- ISDA held a call to discuss the responses to the IBA consultation on the ICE Swap Rate on September 30 2019. Responses are due by October 14 2019.
- ISDA held a call on the Final Parameters Consultation on October 3 2019. The deadline for responses to the consultation is October 23 2019. The webcast is available here.

FASB and IASB Updates

- FASB has issued a proposed Accounting Standards Update to address the expected discontinuance of LIBOR and provide temporary, optional guidance to ease the potential burden in accounting for (or recognizing the effects of) reference rate reform on financial reporting. The exposure draft is available here.
- IASB recently published amendments to the IFRS 9, IAS 39 and IFRS 7 to address the hedge accounting issues arising before IBOR is replaced with an alternative RFR, i.e. the pre-replacement issues. Details on these changes can be found here.

Other News / Useful Reading

- The Federal Housing Finance Agency (FHFA) has instructed the 11 Federal Home Loan Banks to begin to stop purchasing investments tied to LIBOR with a contractual maturity beyond December 31 2021. As of March 31 2020, FHLBs should be not enter any LIBOR-based transactions. The article is available here.
- The CFTC Market Risk Advisory Committee approved plain English disclosures for new derivatives referencing LIBOR and other IBORs. The disclosures inform clients and counterparties about the implications of using such products – press release and disclosures available here.
- The NY Fed president urges banks to expedite their transition away from LIBOR. The article available here.
- The risks and opportunities with the LIBOR transition – available here.
- Part 1 of a 2 part series on the IBOR transition. Business world article is available here.
- CME has updated its proposal on SOFR discount and price alignment. The article is available here.
- CME Group to Launch SOFR Options on January 6 2020 – Press release is available here.
- A lack of awareness about benchmark reform and its impact on corporates and non-bank financial firms is a source of concern for banks in Asia. Article is available here.
- Repo-Market Tumult on September 16 and 17 Raises Concerns About New Benchmark Rate here.
- S&P Global Ratings FAQs on the LIBOR transition is available here.
- Ice swap rate failure disrupts exotics desks by not being published for 9 out of 22 working days in August. The article is available here.
Recent Volatility in the Repo Market and the Impact on SOFR
SOFR rose sharply on September 17, 2019 to 5.25% from 2.43% on the previous day indicating a jump of more than 100%. Although SOFR rose sharply, a 3-month average of SOFR only rose 2 basis points relative to the week before those fluctuations. While SOFR is inherently more volatile than term rates on a day-to-day basis, it is important to note that contracts referencing SOFR are based on averages of this daily rate. An average of SOFR remains very stable. SOFR futures and many of the SOFR floating rate notes that have been issued use either a linear or compound average of SOFR as the floating rate paid under the terms of the contract and do not represent a single day’s realization of SOFR.

Increase in Cumulative Debt Issuance Referenced to SOFR
The SOFR debt market is slowly gaining traction with the issuance of the first SOFR referenced bond in July 2018. During 2018, majority of the issuances were predominantly from government sponsored agencies. However, 2019 consisted of a greater participation from other financial institutions with both the issue size and number of issuances increasing steadily.

The cumulative issue size of SOFR bonds outstanding currently stands at $252.5 billion with 259 bonds (this excludes the matured bonds). The month of September 2019 consisted of a monthly issuance of roughly $52.0 billion with 43 new issuances. There have been 15 new issuances worth approximately $7.5 billion through October 15, 2019.

Federal agencies are the leading issuer with 126 issuances worth $204.9 billion.
Increase in Longer Dated Debt Issuance Referenced to SOFR

Majority of the SOFR bonds issued have a maturity less than 5 years. During the month of September 2019, bonds worth $7.7 billion which have a maturity greater than 5 years were issued. This is the largest monthly issuance for the notes with a term greater than 5 years since the first issuance of SOFR debt in July 2018.

During September of 2019, fixed-to-floating rate notes with an aggregate principal amount of $23.0 million and a ten-year term were issued. The notes bear interest at a fixed annual rate of 4.75% payable semi-annually in arrears, for the first five years of the term. Thereafter, the interest rate shall reset quarterly to an interest rate per annum equal to Three-Month Term SOFR plus 340.8 basis points, payable quarterly in arrears.

There are 13 issuances worth $10.3 billion with a maturity greater than or equal to 5 years till October 15, 2019. Included in this are 7 issuances worth $3.2 billion with a term greater than or equal to 10 years.

Cumulative SOFR Interest Rate Derivatives

**SOFR Swaps**
- SOFR swaps have shown a steady increase; the notional volume of SOFR-based interest rate and basis swaps totaled $19.7 billion through October 11, 2019.
- At the end of September 2019, the notional volume of SOFR-based interest rate and basis swaps totaled $34.1 billion.

**SOFR Futures**
- The existence of SOFR futures is an effective risk management tool for money market participants. The SOFR futures helped to hedge some of the volatility observed in the market with the recent spike in repo rate.
- On September 17, 2019, SOFR futures became a trillion-dollar market. Record single-day volume of $670 billion was traded with $1.17 trillion in Open Interest, in response to the upward pressure from the repo market.
United Kingdom

• The Bank of England’s discussion paper on risk management approach to collateral referencing LIBOR in the Sterling Monetary Framework was due on September 27 2019. The paper can be found here.
• The Risk-Free Reference Rate Working Group decided it would benefit from a Senior Advisory Group to provide strategic support and published terms of reference here.
• The UK’s Financial Conduct Authority is encouraging dealers to stream firm Sonia swap prices to lit venues as part of plans to create a term version of the new risk-free rate for sterling markets. The article is available here.
• The BoE Working Group published the newsletter for August 2019 available here.

European Union

• The Euro Short Term Rate (€STR) was published for the first time on October 2 2019, latest information published by the ECB here.
• The European Money Markets Institute (EMMI) confirmed publication for recalibrated EONIA on October 2 2019 here.
• The European Central Bank (ECB) published the agenda and minutes for the August 29 2019 meeting here. Meeting materials include updates on cash and derivative products, term rate methodologies, financial accounting and risk management, and communication issues. The past meeting agendas and minutes with supporting information can be found here.
• The second ECB Roundtable was held on September 25 2019, A video of the meeting is available here.
• The ECB conducted the first stress test of the €STR benchmark in the middle of September. The ECB reported that CSTR performed exactly as expected. Articles are available here and here.
• LCH plans to change the rate used when discounting euro-denominated swaps in June 2020. The clearing group’s SwapClear service will switch to the euro short-term rate (CSTR) from the doomed Eonia benchmark in a single step, applying a flat version of the new rate with no additional spread. The article is available here.
• Eurex will begin using the new euro short-term rate (CSTR) to discount Euribor-linked interest rate swaps in the second quarter of 2020. The article is available here.

Asia

• The BOJ plans to hold the next Cross-Industry Committee to review feedback on the Consultation Paper on November 1 2019.
• The “Task Force on Term Reference Rates” held their second meeting on September 20 2019 to discuss the transaction and quote data workflow of the TONIA OIS.
• Bank of China pioneers SOFR lending in Asia. Article available here.
• A lack of awareness about benchmark reform and its impact on corporates and non-bank financial firms is a source of concern for banks in Asia. Article is available here.
Increased Pressure on Addressing Hedge Accounting Policies
As expected, the FASB and IASB exposure drafts aim to avoid disruption to existing cash flow and fair value hedge accounting relationships directly impacted by the reform. While the guidance does indicate potential accounting relief, the guidance only addresses hedge accounting issues arising before IBOR is replaced which places a higher level of pressure on firms to take action on addressing accounting policies related to existing hedging relationships before end of 2021. Firms may want to conduct an efficient impact assessment across domestic and foreign hedge exposures and implement the appropriate accounting changes in a timely manner. It is also important to understand the differences between FASB and IASB hedge accounting policies while dealing with international investments.

Leveraging Average SOFR
As David Bowman noted in his ARRC Open Office hours, it is not a surprise that the overnight SOFR may be volatile, but market convention uses the average SOFR as the reference rate which is inherently more stable. The Federal Reserve intends to solicit feedback on their plans to publish average SOFR in the first half of 2020. We believe this is an integral step for the transition for transparency across the use of the rates which can be especially important for cash products and for firms that aren’t able to allocate resources needed to calculate average SOFR.

Potential Increased Liquidity in Alternative Rate Markets
The FHFA instructing the 11 Federal Home Loan Banks to stop purchasing investments tied to LIBOR and LIBOR instruments that mature past December 31 2021 represents a key milestone of the reform. The investments include LIBOR-based transactions involving advances, debt, derivatives and all other product types. The lack of liquidity in the alternative rate markets, especially for derivatives, has been a current obstacle in the transition away from LIBOR. The 11 Federal Home Loan Banks ending LIBOR-related investments may help provide increased liquidity in the alternative rate markets and provide an incentive for other market participants to follow the same path.

Contact Us
For further details on how we can help firms experience an effective transition away from LIBOR, please visit our website: DELOITTE LIBOR TRANSITION WEBSITE