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LIBOR SCHMIBOR: What's Next?
SOFR Part II

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In *LIBOR SCHMIBOR: What's Next? SOFR Part I* we covered the following topics:

- Explanation of LIBOR
- Potential replacements
- Repurchase agreements (repos) and Tri-party Repo
- International benchmarks
- Looking ahead

This article looks to:

- Define SOFR
- Discuss applications and new products
- Update international benchmarks

Secured Overnight Financing Rate (SOFR): Definition and Features

As discussed in Part I of this article, the Alternative Rates Committee in the United States chose Secured Overnight Financing Rate (SOFR) to be the new money market benchmark in the U.S.

SOFR is calculated from different segments of the repo (repurchase agreements) market:

1. Tri-Party Repo Market
2. General Collateral Financing (GCF) Repo Market
3. Bilateral repo

These markets have the advantage of over $700 billion of secured transactions compared to LIBOR, which is under USD one billion.[1]

The Federal Reserve will publish three new "overnight" Treasury Repo rates:

1. **Tri-Party General Collateral Rate (TGCR)**

   As the title states, this is the rate based on tri-party repos (see part I of this series for an explanation of tri-party repos at https://www.gfmi.com/articles/libor-schmibor-whats-next-sofr-part/) but will exclude General Collateral Finance (GCF) that have been cleared through the FICC (Fixed Income Clearing Corporation). What is GCF? According to the FICC website: "Dealers execute GCF Repos through inter-dealer brokers, who are also members of FICC, on an anonymous, or 'blind,' basis. FICC guarantees settlement as soon as it receives the data from the broker and compares the transaction. GCF Repo transactions settle on a tri-party basis, which requires dealer participants to have an account with the participating clearing bank: The Bank of New York Mellon." In addition, any transaction in which the Federal Reserve is a counterparty will also be excluded.

2. **Broad General Collateral Rate (BGCR)**

   This will include the TGCR plus GCF repos. (See above)

3. **Secured Overnight Financing Rate (SOFR)**

   This rate is the BGCR plus bilateral repo transactions that are settled via delivery vs. payment (DVP). These transactions include trades that are considered "special" in the repo market. The term "special" refers to the collateral implying that market participants, such as dealers, are trying to obtain a specific security. In a repo, when buying the security, the same counterparty lends the cash. In this case, they are willing to receive an interest rate that is below current market rates because they really, really need the security. Since the goal for SOFR is to provide unbiased market rates, these transactions that trade "special" should not be included in the SOFR calculation. Therefore, the rule that has been established is for the bottom quartile within this category of the DVP transactions to be excluded in the SOFR calculation. Please note, SOFR is determined based on a volume-weighting of all transactions.

   Therefore, SOFR is a combination of the three different segments of the repo market and is the broadest measure representing the cost of financing Treasury securities overnight based on actual transactions. The rates, for all three rate options, are volume-weighted medians as opposed to an average, which should remove the potential for erroneous data. [2]

Market Applications and New Products

Newly issued floating rate securities using SOFR as the coupon already have been issued by Fannie Mae, World Bank, Credit Suisse, and Wells Fargo. In the muni space, the Triborough Bridge and Tunnel Authority issued a 30-year floating rate bond. Not a bad start!

The CME group has created a 1-month and 3-month SOFR and SONIA futures contract. The 3-month SOFR futures contract very closely mimics the 3-month Eurodollar futures contract (ED) where the underlying is 3-month LIBOR! The 3-month Eurodollar futures contract forms the backbone of valuations for derivatives, such as interest rate swaps at the short end of the yield curve. The ED contract may have over $14,000,000,000,000 (that is 14 trillion) of face amount outstanding at any one time. It is no wonder the CME has closely replicated the SOFR contract around the ED contract!

LCH SwapClear offers clearing services for SONIA swap and CME now offers OTC SOFR swaps clearing.

International Benchmarks

Europe has decided on ESTER or Euro Short-Term Rate and this will replace EONIA. The ECB website provides the full definition: [3]

> “ESTER will reflect the wholesale euro unsecured overnight borrowing costs of euro area banks and will complement existing benchmark rates produced by the private sector, serving as a backstop reference rate.”

Note, similar to SONIA, ESTER is an unsecured rate but SOFR is a secured rate.

Conclusion

So, it is time to sit back and watch as SOFR and the other benchmarks work their way into the financial markets. There are, however, many uncertain aspects and questions such as:

- How will instruments tied to LIBOR be handled when LIBOR is no longer around? More specifically, how will the potential change in valuation be handled?
- How will central counterparty discounting be impacted?

On second thought, maybe sitting back isn’t a prudent option given all the changes!

References

[1] The Transition to a Robust Reference Rate Regime, May 24, 2018 William C. Dudley: https://www.newyorkfed.org/newsevents/speeches/2018/dud180524

[2] Federal Register/Vol. 82, No. 237/Tuesday, December 12, 2017/ Notices: https://www.gpo.gov/fdsys/pkg/FR-2017-12-12/pdf/2017-26761.pdf

[3] https://www.ecb.europa.eu/paym/initiatives/interest_rate_benchmarks/euro_short-term_rate/html/index.en.html

About the Author: Kenneth Kapner

Ken Kapner, CEO and President, started Global Financial Markets Institute, Inc. (GFMI) a NASBA certified financial learning and consulting boutique, in 1998. For over two decades, Ken has designed, developed and delivered custom instructor led training courses for a variety of clients including most Federal Government Regulators, Asset Managers, Banks, and Insurance Companies as well as a variety of support functions for these clients. Ken is well-versed in most aspects of the Capital Markets. His specific areas of expertise include derivative products, risk management, foreign exchange, fixed income, structured finance, and portfolio management.

He has been a Risk Management Advisor to a Mutual Fund's Board of Trustees and has served as an Expert Witness using knowledge of derivatives, trading and risk management.

Prior to starting GFMI in 1998, Ken spent 14 years with the HSBC (Hong Kong and Shanghai Banking Corporation) Group in their Treasury and Capital markets area where he traded a variety of instruments including interest rate derivatives, spot and forward foreign exchange, money markets; managed the balance sheet; sat on the Asset Liability Committee; and was responsible for the overall Treasury activities of the bank. He later headed up HSBC's Global Treasury and Capital Markets Product training for two years in Hong Kong. Specifically, his responsibilities included developing new courses and delivering courses to traders, support staff and relationship managers. In New York, he established a training department for the firms' Securities Division where he was in charge of the MBA Associates Program, continuing education and Section 20 license.

He has co-authored/co-edited seven books on derivatives including *The Swaps Handbook and Understanding Swaps.*

Publications

Articles

"Doing Your Homework on Individual Equity Futures"; Futures Magazine, March 2002 (with Robert McDonough)

Books

1996 Como Entender Los Swaps, (co-author: John Marshall), published by CECSA (a Mexican publishing firm). This is a translated edition of our book Understanding Swaps, but with adaptations to fit the Mexican markets. (289 pages)

1993 The Swaps Market: 2nd edition, Kolb Publishing, 288 pages (co-author: John Marshall, copyright 1993). This book is directed to the graduate business student.

1993 Understanding Swaps, John Wiley & Sons, 270 pages (co-author John Marshall, copyright 1993). This book is directed to the practitioner market and is published as part of Wiley's Finance Series.

1993 1993-94 Supplement to the Swaps Handbook, New York Institute of Finance, a Simon & Schuster Company, 494 pages, (co-authors John Marshall and Ellen Lonergan, copyright 1993). This book is directed to a practitioner audience and is a supplement to The Swaps Handbook. My role was largely that of editor.

1991 1991-92 Supplement to The Swaps Handbook, New York Institute of Finance (Simon & Schuster Professional Information Group), 300+ pages (co-author: John Marshall copyright 1992). This book is directed to a professional practitioner audience and is an annual supplement to The Swaps Handbook.

1990 The Swaps Handbook: Swaps and Related Risk Management Instruments, New York: New York Institute of Finance, a Simon & Schuster Company, 543 pages. (co-author: John Marshall). This book is directed to derivative product professionals.

1988 Understanding Swap Finance, Cincinnati: South Western publishing Company, 155 pages. (co-author John Marshall, copyright 1990). This was the first academic text published on the swaps markets.

Affiliations

International Association of Financial Engineers
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