A Primer on New Benchmark Rates

Selena Ling
Head of Research and Strategy
+65 6530 4887
LingSSSelena@ocbc.com

Terence Wu
FX Strategist
+65 6530 4367
TerenceWu@ocbc.com

Background

Since the LIBOR manipulation scandal broke in 2012, the reduction of the reliance on the IBOR family of benchmarks was effectively inevitable. In 2017, the UK Financial Conduct Authority (FCA) announced that it will support the IBOR benchmarks only until 2021. As such, the survival of LIBOR would not be guaranteed and hence it was in market participants' interests to develop and transit to other risk-free rates accordingly.

With this announcement, the focus shifted towards establishing IBOR-alternatives. The ICE Benchmark Administration (IBA, administrator of the IBOR benchmarks) floated the ICE Bank Yield Index (BYI) as a possible replacement in January 2019. However, given the long-time gap between the initial announcement and the ICE BYI report, this alternative is not expected to gain significant traction. The respective central banks were, by then, deep into the process of developing their own reference rates in replacement of the IBOR benchmarks.

Meeting the replacements

	Alternative Rate	**Administrator**
United States	Secured Overnight Financing rate (SOFR)	Federal Reserve Bank of New York
United Kingdom	Sterling Overnight Index Average (SONIA)	Bank of England
Eurozone	Euro Short Term Rate (€STR)	European Central Bank
Switzerland	Swiss Average Overnight Rate (SARON)	Swiss Infrastructure and Exchange
Japan	Tokyo Overnight Average Rate (TONAR)	Bank of Japan

Fundamentally, the differences between the IBOR benchmarks and the new set of replacements can be summarized into:

1. Construction methodology: Historically, IBOR benchmarks are set through submissions by a panel of banks. This methodology implied that the door was open to game theory-esque issues. This was subsequently (if only partially) addressed by the adoption of the "waterfall methodology" by 1Q 2019. The replacement benchmarks are likely to be fully transaction-based.

2. Inherent risk premium: By definition, the IBOR benchmarks are how much the major banks charge one another for short term loans. This includes elements of credit risk between the major banks. The replacement benchmarks are generally derived from secured (except SONIA and €STR) and overnight transactions, limiting the impact of credit risk.

3. Term periods: The IBOR benchmarks covering seven maturities (O/N to 12M) are set at the start of the term. The replacement benchmarks are currently overnight, with term equivalents retroactively calculated by compounding. The impact of this is beyond administrative, as retroactive calculation implies that the actual rate can only be available at the end of the period.

At this juncture, the various regulatory bodies and organizations are deep in the process of producing loan templates, contractual fall-back terms and other standardized documentation to facilitate the transition. While legal issues have yet to be fully ironed out, progress has definitely been made on this front.

Apart from the typical inertia and gamesmanship in the hope that regulators kick the can down the road, it appears that the main holdback from greater adoption is the lack of forward-looking term equivalents in the replacement benchmarks.

Note that while the US and UK authorities are targeting a complete transition from LIBOR to suggested alternatives by end-2021, many other jurisdictions have adopted a “multiple-rate” approach.

The experience in the US, UK and Europe

In the **United States**, the Alternative Reference Rate Committee (ARRC) recommended the **SOFR** as the preferred benchmark in replacement of the USD LIBOR in June 2017. The daily SOFR is calculated based on transactions in the overnight Treasury repo market. The Fed has been publishing the rate since April 2018 as part of an effort to replace LIBOR. State-linked entities and financial institutions have started issuing debt securities tied to the SOFR since 2H 2018. However, there is still a lack of acceptance by the wider business community beyond state-linked entities and financial institutions.

The traders, however, have taken to SOFR products reasonably well. The open interest in the trading of SOFR futures traded on the CME and ICE platforms reached $2.1 trillion in nominal terms in December 2019, compared to just $250 billion at the start of 2019. This reflects about 22% and 19% of the open interest in Fed fund futures and Eurodollar futures on CME respectively. On the swaps front, the outstanding notional of SOFR swaps on LCH SwapClear and CME have also picked up significantly over the course of 2019. However, these still only represent 3% and 1% of Fed funds swap and USD LIBOR swaps respectively.

The reformed **SONIA** was launched in April 2018 in the **United Kingdom** to replace the GBP LIBOR. The SONIA is based on actual transactions and is the average interest rate that banks pay to borrow GBP from the interbank market overnight. The first corporate loan referenced to SONIA was launched in July 2019, and there have been successful cases of conversion of existing bonds from a LIBOR-based coupon to a SONIA-based coupon.

While the adoption of SONIA products in the derivative market is less aggressive than the SOFR counterparts, there is still a sizable trading volume in SONIA derivatives. In particular, open interest in SONIA futures have picked up steadily over the course of 2019. The SONIA swaps volume is sizable compared to GBP LIBOR swaps, but the proportion has not increased in 2019.

However, the **Eurozone** is generally lagging behind in this search for new benchmark rates. The earmarked successor to the EONIA, **€STR**, is first published by the European Central Bank (ECB) only in October 2019. The €STR is a volume weighted average of the borrowing costs of euro area banks on their transactions in the wholesale market on the previous business day. However, it is still early days for the €STR in the derivative market, with the notional outstanding in €STR swaps still miniscule compared to EONIA and Euribor swaps.

Singapore: Issue is with SOR, not SIBOR

In **Singapore**, the discussion is slightly different. The **SIBOR** is likely to persist in the enhanced **SIBOR+** guise. The construction of SIBOR+ will migrate to a "waterfall methodology" that places actual transactions in the underlying wholesale funding market at highest priority, then actual transactions in related markets (ie. the current **SOR**), and finally expert judgement.

The main issue is the current **SOR** has USD LIBOR as an input in its computation methodology. With the cessation of the LIBOR benchmark, the calculation of the SOR value becomes impossible. This has obvious follow-through effects on the derivatives and cash products referencing the SOR. It also weakens the waterfall methodology in SIBOR+ computation. Thus, the decision was made by the Association of Banks in Singapore (ABS) to replace the SOR with the **Singapore Overnight Rate Average (SORA)** by the end of 2021, which is in line with the global deadline for the phasing out of the IBOR benchmarks. The SORA has been published by the MAS since 2005, and is derived by using the volume-weighted average of all SGD overnight transactions in Singapore's interbank market.

SORA may be subject to some volatility as an overnight rate, but given that financial products would usually utilise an average rate for a period of time, this may address some of the concerns attached to an overnight rate. The transition and market acceptance may take a bit of time until there is greater familiarity by all stakeholders including commercial and retail customers. In particular, the phasing out of legacy SOR contracts could potentially be complex, but clear communication and public education will go a long way to ensure a smooth transition.

In November 2019, OCBC and Standard Chartered Bank completed an overnight indexed swap (OIS) transaction using the SORA as the benchmark. This marks the SORA's maiden involvement in the SGD derivatives market, and also a step towards the "multiple rate approach" for Singapore. The existing outlook postulates SORA (and the subsequent development of **Term-SORAs**) as the reference for all SGD derivative products, and an attractive alternative to the SIBOR+ as the reference for the cash market. In this situation, the SIBOR+ will likely remain as the dominant interest rate in the cash markets for the medium term, but its long-term viability will be pending changes in bank funding structures and international developments. Overall, the multiple rate approach should add to financial market stability to reduce the reliance on a single benchmark.

Treasury Research & Strategy

Macro Research

Selena Ling
Head of Research & Strategy
LingSSSelena@ocbc.com

Tommy Xie Dongming
Head of Greater China Research
XieD@ocbc.com

Wellian Wiranto
Malaysia & Indonesia
WellianWiranto@ocbc.com

Terence Wu
FX Strategist
TerenceWu@ocbc.com

Howie Lee
Thailand, Korea & Commodities
HowieLee@ocbc.com

Carie Li
Hong Kong & Macau
carierli@ocbcwh.com

Dick Yu
Hong Kong & Macau
dicksnyu@ocbcwh.com

Credit Research

Andrew Wong
Credit Research Analyst
WongVKAM@ocbc.com

Ezien Hoo
Credit Research Analyst
EzienHoo@ocbc.com

Wong Hong Wei
Credit Research Analyst
WongHongWei@ocbc.com

Seow Zhi Qi
Credit Research Analyst
ZhiQiSeow@ocbc.com

Co.Reg.no.:193200032W