ABA Policy Advocacy Committee Meeting

From Interbank Offered Rates to Alternative Reference Rates - Update

Position Paper by Erste Group Bank AG

Taipei, 13 November 2020



NOTE

- The following presentation is an update to my previous ABA Policy Advocacy Committee Position Paper dated 14 November 2019
- Please refer to my previous paper for Fundamental Problems with LIBOR, Key Differences between IBORs and ARR, How to use ARRs in Cash Products, etc.
- If you have any questions or need more details, please contact me at oliver.hoffmann@erstegroup.com



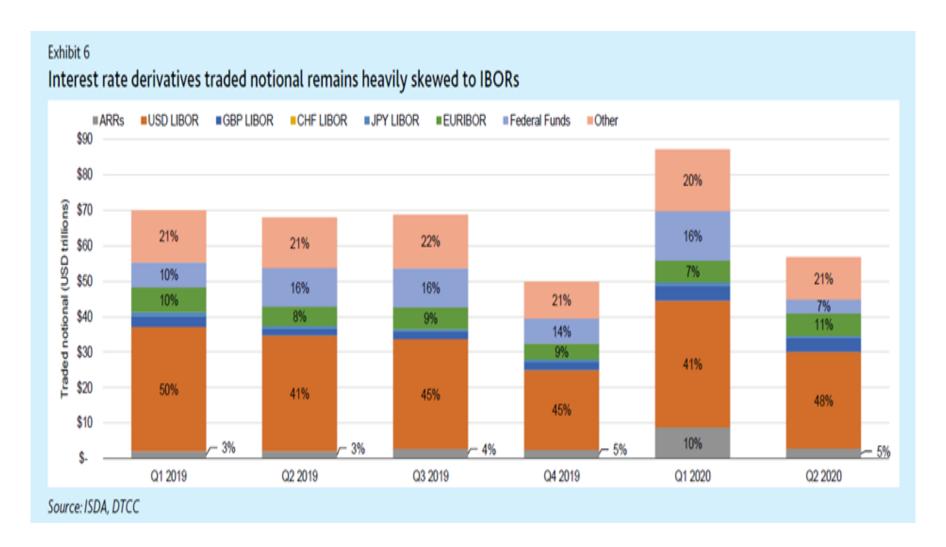
UPDATE ALTERNATIVE REFERENCE RATES (ARR)

CURRENCY	ARR	ADMINISTRATOR	NATURE	DATA SOURCE	O/N RATE AVAILABLE	TERM RATE AVAILABLE	WORKING GROUP
**** * _{**} * EUR	€STR	European Central Bank	Unsecured	MMSR transactions	✓	x Under consideration	Working Group on Euro Risk-Free Rates
GBP	SONIA	Bank of England	Unsecured	Unsecured overnight sterling transactions negotiated bilaterally and brokered in London by WMBA	✓	Under consideration for 2020	Working Group on Sterling Risk-Free Rates
USD	SOFR	Federal Reserve Bank of New York	Secured	Tri-party repo, FICC GC repo, FICC bilateral treasury repo	✓	X Planned for 2021	Alternative Reference Rates Committee (ARRC)
CHF	SARON	SIX Swiss Exchange	Secured	CHF repo transactions in the interbank market	✓	Not recommended	National Working Group on Swiss Franc Reference Rates
JPY	TONAR	Bank of Japan	Unsecured	Data provided by money market brokers	✓	X Planned for 2021	Cross-industry Committee on Yen Interest Rate Benchmarks

Note: A number of key Asian benchmarks are derived by applying a Forward FX curve to the USD LIBOR curve, notably SOR (Singapore), THBFIX (Thailand), MIFOR (India), and PHIREF (Philippines). Replacement rates also will need to be identified here



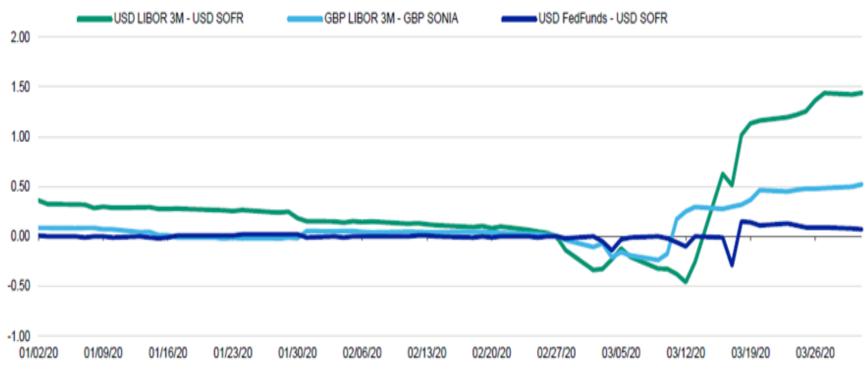
ARR VOLUMES STILL LIMITED





IMPACT OF COVID-19 CRISIS

Exhibit 9 Spread adjustments are essential because ARRs and IBOR tend to diverge in times of stress

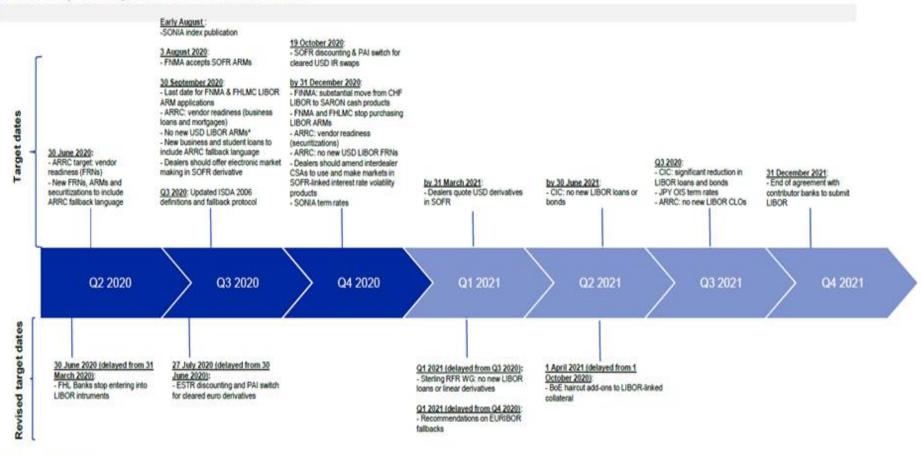


Source: IHS Markit OTC Derivatives Data



RECENT AND REMAINING MILESTONES

Exhibit 8 Timeline of key remaining milestones for benchmark transition



Source: Moody's Investors Service



EU BENCHMARK REGULATION REVIEW

EU Commission in August 2020 published proposal for BMR amendments:

- New powers granted to EU Commission allow designation of a statutory replacement benchmark. Commission will act if cessation/non-representativeness of a critical benchmark results in significant market disruption in EU
- Statutory replacement rate will be matter of law, contractual conflicts will be avoided
- Scope: contracts referencing a benchmark in cessation involving an EU supervised entity as counterparty. (mutually agreed opt out remain available, also for supervised entities)
- Replacement rate applies to those financial instruments, contracts or performance measurements that contain no suitable fallback provisions. Commission will consider recommendations for the replacement rate made by relevant industry working groups (important for application of adjustment spread)
- Contracts between non-regulated entities to be covered by legislation on national level (e.g. leasing companies)
- Time-line: Before end of 2020, due to Brexit

Note: It is less pressing for Euro-area loans to be migrated to new benchmarks, as the reformed Euro Interbank Offered Rate (EURIBOR) will be maintained beyond 2021. Reformed EURIBOR will provide term rates across the most-used funding frequencies, without necessarily having to switch to an unsecured overnight risk-free rate such as the Euro Short-Term Rate (€STR), the benchmark replacing Euro Overnight Index Average (EONIA) in January 2022



KEY CHALLENGES & POTENTIAL SOLUTIONS

- **Term Rate** IBORs are forward-looking, usually over various tenors, and therefore rates are known ex-ante. In contrast, ARRs are overnight rates and are only known ex-post, on the next day, which creates significant challenges in determining ARR term rates, in particular for cash products such as loans and mortgages
- ➤ In March 2020, the New York Fed started publishing SOFR averages and a SOFR index to facilitate the calculation of compounded averages for various tenors, while the ARRC expects a forward-looking, futures-based SOFR rate to be created by the end of June 2021 (if daily SOFR futures volume and liquidity have been sufficiently built up by then)
- In August 2020, the Bank of England started publishing a daily SONIA compounded index that will facilitate calculations of interest rates for loans over various tenors. In July 2020, exchange houses launched indicative term SONIA rates built from SONIA-linked overnight interest rate swaps (could also be developed for SOFR and €STR by the end of the year)
- Spread Adjustment minimize the difference between IBORs and ARRs. Risk-free rates such as SONIA and SOFR do not include a liquidity or credit risk premium, which lenders must add when they transition away from LIBOR to maintain their interest rate return. Spreads between IBORs and ARRs can widen in times of stress (see Page 4). Beyond 2021, the lack of credit spreads in new risk-free rates could still create risk of high interest margin volatility for banks, as widening bank credit spreads have tended to partly mitigate falling risk-free rates in times of market stress
- ➤ In June 2020 the ARRC recommended the same spread-adjustment approach for all cash products (except consumer loans) like ISDA's spread-adjustment methodology for derivatives, based on a five-year median difference between LIBOR and SOFR compounded in arrears, which should be calculated at the date of LIBOR cessation

Note: Bloomberg since July 2020 has been calculating and publishing daily-adjusted ARRs over several tenors as fallback rates for existing IBORs, including GBP LIBOR, USD LIBOR, EURIBOR, JPY LIBOR, BBSW, CAD Offered Rate and CHF LIBOR. They also produce compounded in arrears adjusted ARRs for various tenors, a spread adjustment calculated in line with ISDA and ARRC recommendations, which combined will form a fallback rate. Although indicative until final fallback rates are defined, these Bloomberg fallback rates should help market participants transition faster to ARRs



SITUATION UPDATE ASIAN BANKS

1. Transition plans for most banks on track, COVID-19 not expected to delay the IBOR phase-out

- · Robust stakeholder communication crucial, client engagement will start once final fallback protocols available
- · Most affected contracts have been inventoried, repapering and amendments ongoing
- Transition costs expected to be split between banks and their borrowers though some banks may decide to fully absorb the costs to mitigate conduct and reputational risks

2. Banks across regions have increased their exposure to new ARRs

• Growing number of banks have issued floating-rate debt indexed to ARRs and also increased their exposure to ARR-indexed derivatives and to SONIA, the most established and liquid risk-free rate

3. Banks' absolute exposures to IBOR-linked contracts are largely unchanged

- Most banks do not expect a decline in derivatives exposures (by far the largest) until final ISDA protocols and discounting for cleared swaps begins
- Banks' protracted exposures also reflect drawdowns on IBOR-linked facilities during COVID-19 lockdowns as well as government stimulus schemes
- Most of banks' exposure should be remediated by the end-2021 deadline, however, some "tough legacy exposure" will require more bespoke solutions

4. Key challenges: insufficient ARR liquidity, fallback implementation, systems and models update, valuation impact

- Main catalysts for liquidity are still forthcoming
- ISDA protocol will be adopted in coming weeks and central counterparty clearinghouses will finish migrating price alignment
- interest and discounting for cleared swaps to ARRs (SOFR and €STR)
- Most banks have adopted a mix of in-house and vendor solutions, but a main risk is that clients will not update their systems in time
- Many banks expect an adverse valuation impact on IBOR-linked securities, citing insufficient compensation on swaptions
 under the US and EU scheme, a switch in rates to compounded in arrears, and a lack of liquidity in IBOR-linked products
 toward the end of the transition



ARR READINESS INDICATORS ASIA

	Australia	China	Hong Kong	India	Indonesia	Malaysia	New Zealand	Pakistan	Singapore	Taiwan	Thailand	Vietnam
Convention for												
Interest Calculation	90%	90%	90%	50%	10%	50%	90%	10%	90%	50%	50%	50%
Observation Period												
	90%	90%	90%	50%	10%	50%	90%	10%	90%	50%	50%	50%
Length of the "Lag												
Period"	90%	90%	90%	50%	10%	50%	90%	10%	90%	50%	50%	50%
Availability of												
Primary Scree Rate	50%	10%	50%	10%	50%	50%	50%	10%	50%	10%	10%	10%



CHECKLIST FOR BANKS

No.	Торіс	Key Considerations
1	Program Governance	 Create working group to monitor market and regulatory developments and coordinate with all stakeholders, establish contact with official ARR working group Senior management sponsor with decision-making powers
2	Transition Management Program	 Project management framework Impact assessment Resources and budget needs
3	Communication Strategy	 External: clients, investors, counterparties, regulators, industry bodies Internal: regular updates to all stakeholders, staff training
4	Identify and Validate Exposures	 Product exposure analysis Identify and quantify IBOR-linked products maturing post 2021 Continuous monitoring
5	Develop Product Strategy	 Timeline for offering new ARR-linked products Risk and product approval requirements for ARR products
6	Risk Management	 Assess key risks from IBOR discontinuation incl. market readiness, business impacts, legal risk, operational risk, and financial risk such as accounting treatment and valuation Establish processes to monitor and mitigate material risks
7	Transition of Contracts	 Legal review of contracts maturing post 2021 Check for adequate fallback language in existing contracts and amend/renegotiate/replace/terminate if necessary Incorporate adequate fallback language in all new contracts (or switch to ARR right away)



CHECKLIST FOR BANKS CONT'D

No.	Торіс	Key Considerations
8	Operational and Technology Readiness	 Check if systems can accommodate ARR mechanics Incorporate new market data sources and calculation methodologies into IT system Testing and readiness of material operations and technology vendors
9	Accounting and Reporting	 Identify impact on fair value, impairment, P&L, credit allowances Identify changes needed to be made to current finance systems, operations, and control environment Update financial disclosures
10	Taxation	 Identify tax implications and update tax documentation Determine tax reporting requirements and jurisdictions Review amendments to existing contracts



CHECK NOW IN YOUR JURISDICTION

- Convention for Interest Calculation are there legal impediments for calculating or applying a compounded average to any notional sum, particularly given that such calculation can only be made in arrear (after the end of the relevant observation period)?
- **Observation Period** the observation period will commence a fixed number of days before the start of the interest period and will end the same number of days before the end of the interest period. Interest is therefore not calculated for precisely the same days as there are in the interest period. Is this acceptable? Do the actual interest rate and amount for a loan need to be known on drawdown?
- Length of the "Lag Period" The number of days between the beginning of the observation period and the beginning of the interest period (the "Lag Period") may be long or short but must in all circumstances permit sufficient time for the amount of interest due to be advised to the borrower and for the logistics of payment. Are there any legal or commercial considerations which may influence the length of the lag period?
- Availability of Primary Screen Rate Primary Screen Rate refers to an externally produced compounded or simple average RFR (or an RFR index) which is made available by an information provider. Does a Primary Screen Rate in respect of your local currency exist in your jurisdiction and would there be any issues under local law which may preclude a borrower in your jurisdiction from agreeing to use SOFR or any other RFR for any other currency?



SOURCES

- Erste Group Bank AG
- Working Group on Euro Risk Free Rates
- Alternative Reference Rate Committee (ARRC)
- International Swaps and Derivatives Association (ISDA)
- Asia Securities Industry and Financial Markets Association (ASIFMA)
- European Central Bank (ECB)
- Standard & Poor's (S&P)
- Bloomberg
- Moody's



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