

ABA Policy Advocacy Committee Meeting

From Interbank Offered Rates to Risk-Free Rates - Update






Position Paper by Erste Group Bank AG

Hong Kong, 30 August 2021

NOTE

- The following presentation is an update to the previous ABA Policy Advocacy Committee Position Papers dated 14 November 2019, 13 November 2020, and 28 March 2021
- Please refer to these previous papers for basics, such as Fundamental Problems with LIBOR, Key Differences between IBORs and RFR, How to use RFR in Cash Products, etc.

UPDATE RISK-FREE RATES (RFR)

CURRENCY	RFR	ADMINISTRATOR	NATURE	DATA SOURCE	O/N RATE	FORWARD TERM RATES	WORKING GROUP
 EUR	€STR	European Central Bank	Unsecured	MMSR transactions	✓ T+1, 08:00 CET	Under consideration for specific use cases	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	✓ T+1, 09:00 GMT	1M, 3M, 6M, 12M	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	✓ T+1, 08:00 ET	CME SOFR Term Rate	Alternative Reference Rates Committee (ARRC)
 CHF	SARON	SIX Swiss Exchange	Secured	CHF repo transactions in the interbank market	✓ T+0, 18:00 CET	Not recommended	National Working Group on Swiss Franc Reference Rates
 JPY	TONAR	Bank of Japan	Unsecured	Data provided by money market brokers	✓ T+1, 10:00 JST	1M, 3M, 6M	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

OLD WORLD VS. NEW WORLD AS OF 01 AUGUST 2021

Old World Benchmarks

CCY	Name	O/N	Forward-looking Term Rate						Cessation Date	No new business after
			1W	1M	2M	3M	6M	12M		
USD	LIBOR	✓	✓	✓	✓	✓	✓	✓	30.06.2023*	31.12.2021
EUR	EONIA	✓							03.01.2022	15.06.2020
JPY	LIBOR	✓	✓	✓	✓	✓	✓	✓	31.12.2021	30.06.2021
GBP	LIBOR	✓	✓	✓	✓	✓	✓	✓	31.12.2021	31.03.2021
CHF	LIBOR	✓	✓	✓	✓	✓	✓	✓	31.12.2021	30.06.2021

*USD LIBOR 1W and 2M will cease on 31.12.2021

New World Risk-Free Rates

CCY	Name	O/N	Forward-looking Term Rate						Backward-looking Comp. Rate					
			1W	1M	2M	3M	6M	12M	1W	1M	2M	3M	6M	12M
USD	SOFR	✓		✓		✓	✓			✓		✓	✓	
EUR	ESTR	✓							✓	✓		✓	✓	✓
JPY	TONA	✓		✓		✓	✓							
GBP	SONIA	✓		✓		✓	✓	✓						
CHF	SARON	✓	✗	✗	✗	✗	✗	✗	✓	✓	✓	✓	✓	✓

ARRC PACED TRANSITION PLAN FOR SOFR MARKET

	Step	Anticipated Date of Completion	Actual Date
1.	Infrastructure for futures and/or OIS trading in the new rate is put in place by ARRC members.	2018 H2	✔ Completed 2018 H1
2.	Trading begins in futures and/or bilateral, uncleared, OIS that reference SOFR.	By end 2018	✔ CME launched SOFR Futures on May 7, 2018
3.	Trading begins in cleared OIS that reference SOFR in the current (EFFR) PAI and discounting environment.	2019 Q1	✔ LCH began clearing SOFR swaps on July 18, 2018; CME began clearing SOFR swaps on October 1, 2018
4.	CME and LCH converts discounting and PAI/PAA from EFFR to SOFR on all outstanding cleared USD-denominated swap products. For CME, the conversion applies to all cleared USD interest rate swap products comprising fixed/float interest rate swaps, overnight index swaps, forward rate agreements, zero coupon swaps, basis swaps, and swaptions. For LCH, these products are USD LIBOR, USD fed funds, USD SOFR interest rate swaps, and USD CPI zero coupon inflation swaps. All new contracts after the conversion date uses SOFR for discounting and PAI for both CME and LCH.	2021 Q2	✔ CME and LCH converted discounting and PAI/PAA on all outstanding cleared USD-denominated swap products starting close of business on October 16, 2020 and finishing doing so before open of business on October 19, 2020
5.	Creation of a term reference rate based on SOFR-derivatives markets once liquidity has developed sufficiently to produce a robust rate.	Goal for completion in 2021 H1	✔ The ARRC announced its formal recommendation of the CME SOFR Term Rates on July 29, 2021

**In the original formulation of the ARRC's Paced Transition Plan set out in the ARRC's 2017 Second Report, there had been six steps, with a Step 4 that involved CCPs providing a choice between SOFR and EFFR PAI and discounting environments for new trades (by 2020 Q1), and a Step 5 in which the CCPs would move to only offer a SOFR PAI and discounting environment for new trades (by 2021 Q2). In consultation with stakeholders, both CME and LCH subsequently determined that it was appropriate to move to the model outlined in the current Step 4, involving an immediate switchover from EFFR to SOFR PAI and discounting in a single step for both cleared new trades and legacy instruments in October 2020.*

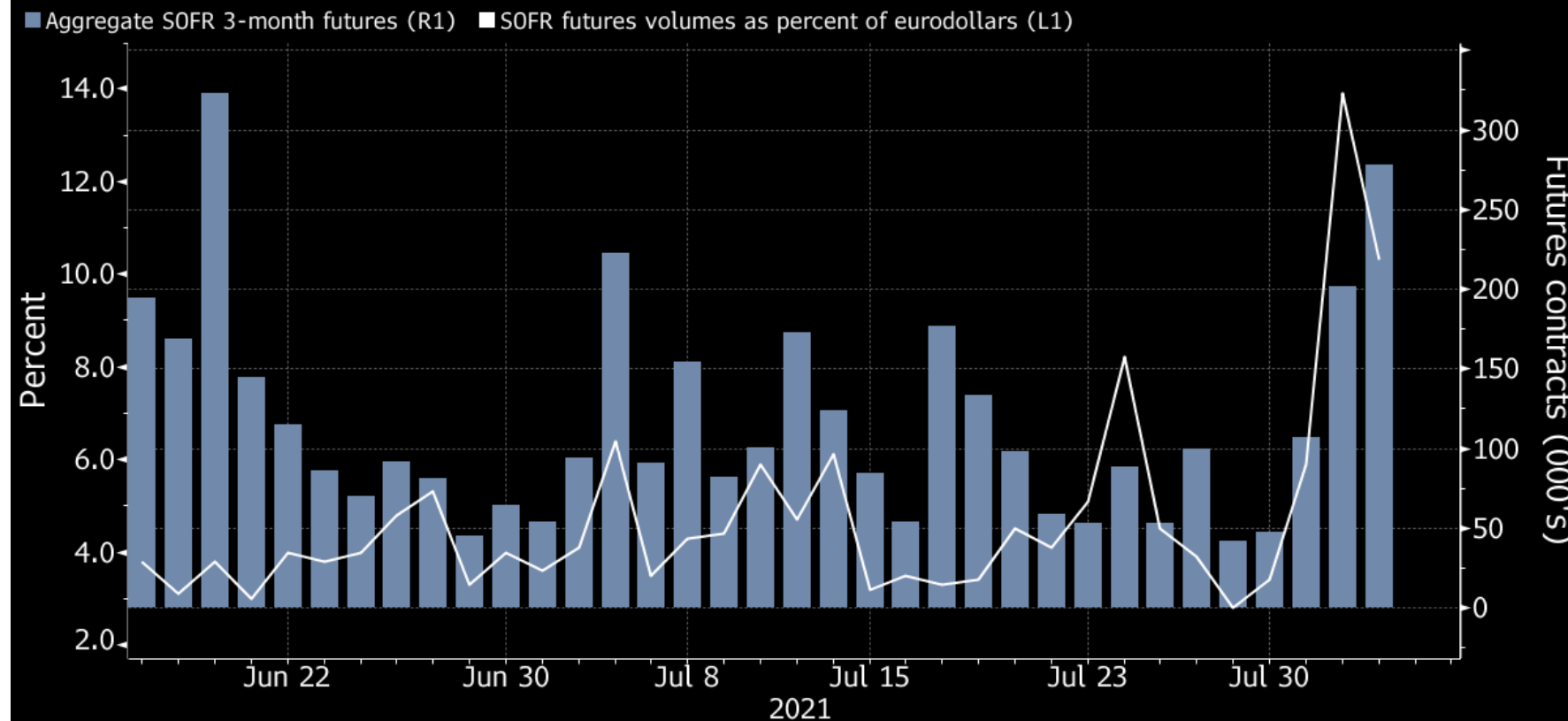
The original formulation of the Paced Transition Plan also had stated that the goal for the creation of a term reference rate was anticipated by the end of 2021. In line with the ARRC's 2020 Objectives, this was since adjusted to note that the goal for completion is in the first half of 2021. The ARRC announced its formal recommendation of the CME SOFR Term Rates in July 2021.

As of 07/29/2021

SOFR FUTURES VOLUMES

SOFR Striving

Activity in SOFR futures shows signs of picking up



Source: Bloomberg, CME

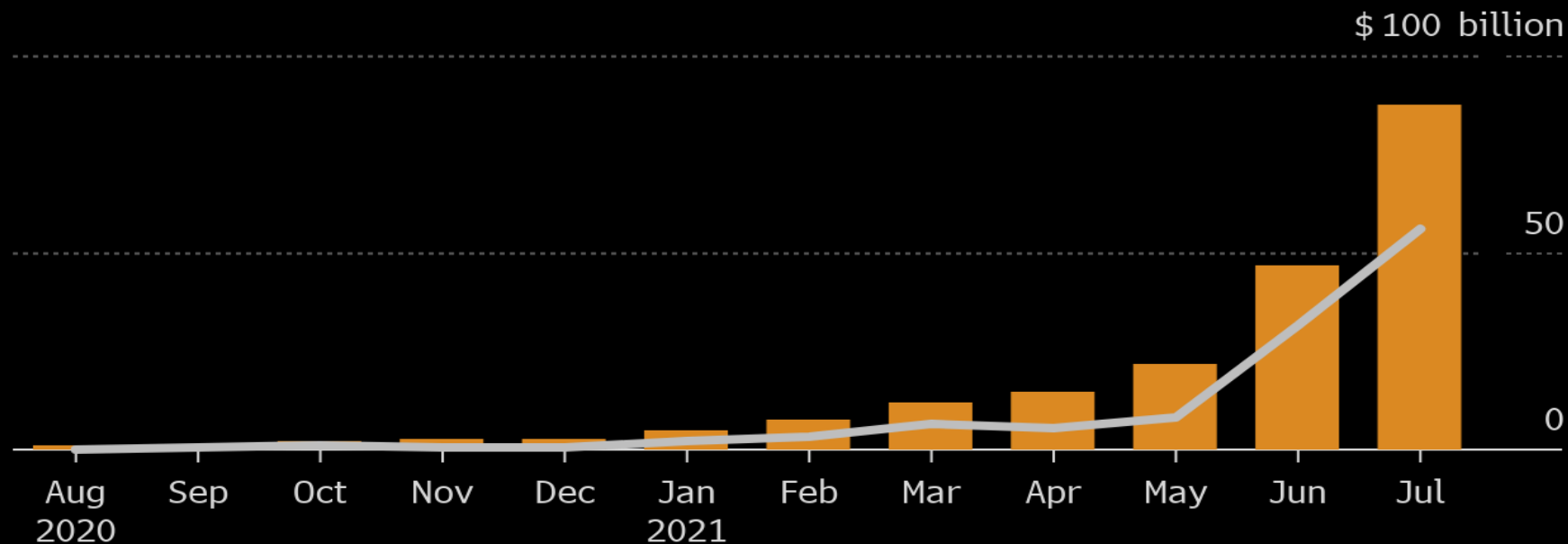
- **SOFR First Initiative** - CFTC MRAC on 26 July 2021 recommended interdealer brokers to change USD linear swap trading conventions from LIBOR to SOFR

SORA FUTURES VOLUMES

Accelerating Shift

Use of derivatives linked to Singapore's new benchmark rate surges

■ Outstanding amount / Registration volume



Sources: LCH, Bloomberg

Bloomberg

- **Note:** MAS since August 2020 has been issuing SORA-linked FRN around SGD10bn, supporting the move to SORA

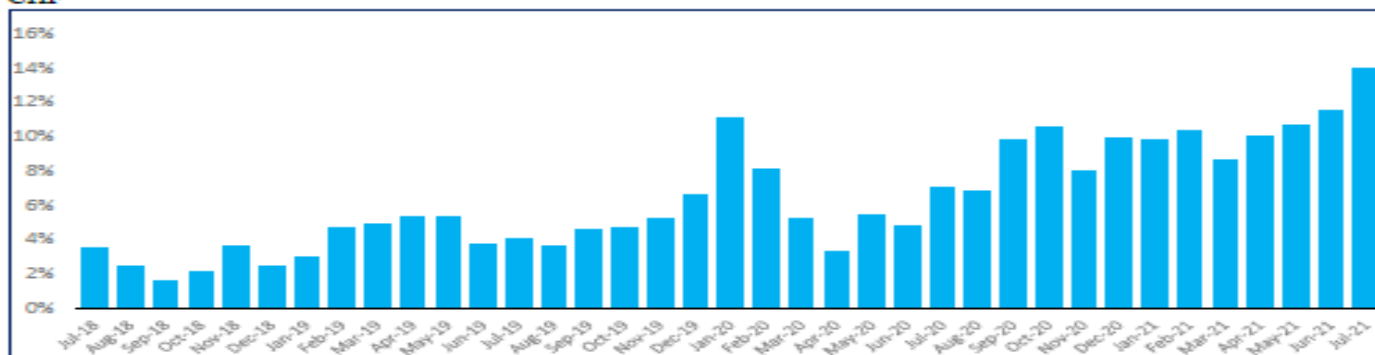
ISDA-CLARUS RFR ADOPTION INDICATOR 31 JULY 2021

RFR Adoption Indicator	
14.1% RFR Adoption Indicator vs. 11.7% last month (Chart 1).	12.3% RFR-linked notional as % of total IRD notional transacted vs. 11.4% last month (Chart 3).
DV01 of RFR-linked IRD was \$3.8 Bn vs. \$3.8 Bn last month (Chart 2).	RFR-linked IRD notional transacted was \$15.7 Tn vs. \$17.7 Tn last month (Chart 3).

RFR Risk by Currency		
GBP saw the largest percentage of RFR-linked IRD risk traded at 58.8% of total GBP IRD DV01 (Chart 5a).	7.4% of USD IRD DV01 was transacted in SOFR this month. (Chart 5b)	JPY saw the highest percentage of RFR-linked IRD DV01 executed as transactions with tenors >2Y (Chart 6).

Total IRD Activity		
\$26.6 Bn Total IRD DV01 transacted this month vs. \$32.2 Bn the prior month.	\$126.9 Tn Total IRD notional transacted this month vs. \$155 Tn the prior month.	\$22.8 Bn Other indices DV01 transacted this month vs. \$28.4 Bn the prior month.

Chart 1: RFR Adoption Indicator: % of DV01 Transacted as RFR-linked IRD Products in USD, EUR, GBP, JPY, AUD, CHF



Calculation: The sum of all DV01s for RFR-linked IRD products, including OTC and exchange-traded derivatives (ETD) for all six currencies, divided by the sum of DV01s for all indices (both RFR and other indices) across all IRD products.

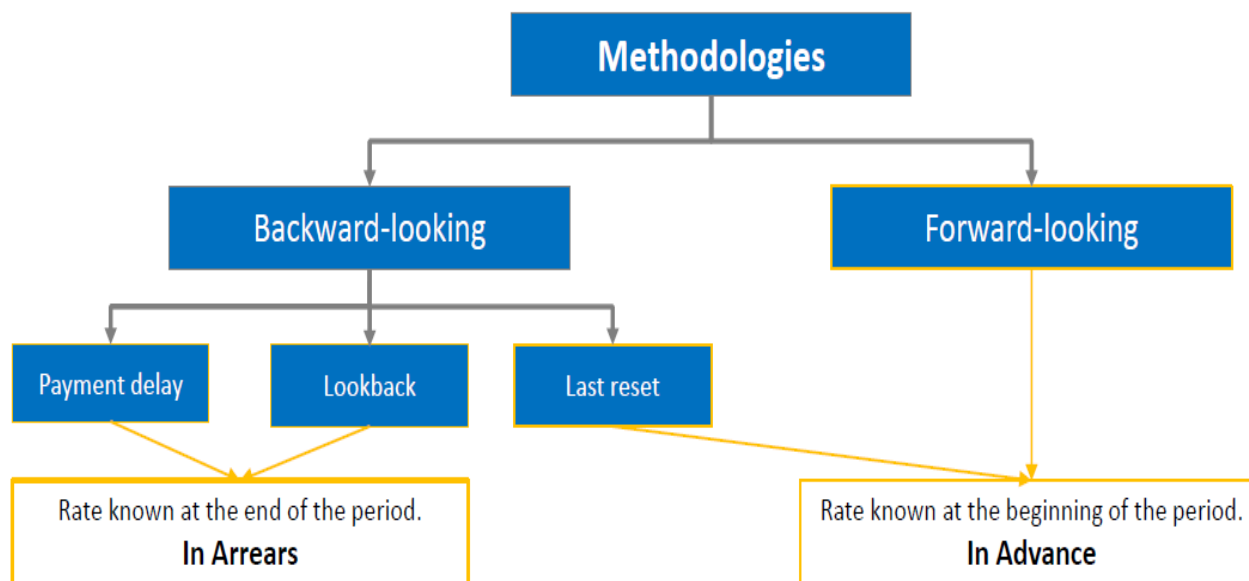
APAC FI SOFR BONDS (79 ISSUES)

Issuer Name	Ticker	Cty	Risk	Cpn	Maturity	Series	BBG Comp	Amt Issued	Mty Type	Ccy	Fl. Spread (bp)
Bank of China Ltd/Hong Kong	BCHINA	CN		0.530003	8/10/2024	EMTN	A	500,000,000	AT MATURITY	USD	48
Bank of China Ltd/Macau	BCHINA	CN		1	10/17/2022	EMTN	A	350,000,000	AT MATURITY	USD	95
Bank of East Asia Ltd/The	BNKEA	HK		0.2187	9/15/2021	FRCD	n/a	20,000,000	AT MATURITY	USD	17
Baoguan Holding Co	BKGM	CC		4.7	7/1/2031	n/a	n/a	20,000,000	CALLABLE	USD	413
China Construction Bank Corp/Hong Kong	CCB	CN		0.230001993	8/26/2021	FRCD	n/a	10,000,000	AT MATURITY	USD	19
Commonwealth Bank of Australia/New York NY	CBAAU	AU		0.16	7/21/2022	YCD	n/a	150,000,000	AT MATURITY	USD	11
Commonwealth Bank of Australia/New York NY	CBAAU	AU		0.24	9/10/2021	YCD	n/a		AT MATURITY	USD	19
Export-Import Bank of Korea	EIBKOR	KR		0.300003126	8/5/2024	GMTn	n/a	50,000,000	AT MATURITY	USD	25
Export-Import Bank of Korea	EIBKOR	KR		0	8/5/2024	GMTN	n/a	50,000,000	AT MATURITY	USD	n/a
Export-Import Bank of Korea	EIBKOR	KR		0.370003126	4/29/2024	n/a	n/a	400,000,000	AT MATURITY	USD	32
Export-Import Bank of Korea	EIBKOR	KR		0.27	10/14/2022	144A	NR	50,000,000	AT MATURITY	USD	22
Export-Import Bank of Korea	EIBKOR	KR		0.520003194	5/6/2026	GMTN	NR	200,000,000	AT MATURITY	USD	47
Export-Import Bank of Korea	EIBKOR	KR		0.63696	8/25/2021	EMTN	AA	100,000,000	AT MATURITY	USD	60
Export-Import Bank of Korea	EIBKOR	KR		0.344288136	3/11/2024	144A	NR	240,000,000	AT MATURITY	USD	30
Industrial Bank of Korea	INDKOR	KR		0.280003126	3/31/2022	EMTN	NR	25,000,000	AT MATURITY	USD	23
Kookmin Bank/Seoul	CITNAT	KR		0.500003	8/3/2022	144A	A+	250,000,000	AT MATURITY	USD	45
Korea Development Bank/The	KDB	KR		0.29341	3/9/2024	n/a	AA-	300,000,000	AT MATURITY	USD	25
Korea Development Bank/The	KDB	KR		0.32391	5/18/2025	GMTN	NR	200,000,000	AT MATURITY	USD	29
Korea Development Bank/The	KDB	KR		0.598726	3/21/2022	144A	AA	200,000,000	AT MATURITY	USD	55
Macquarie Group Ltd	MOGAU	AU		2.691	6/23/2032	144A	BBB+	1,000,000,000	CALLABLE	USD	144
Macquarie Group Ltd	MOGAU	AU		1.34	1/12/2027	144A	BBB+	1,250,000,000	CALLABLE	USD	106.9
Macquarie Group Ltd	MOGAU	AU		1.629	9/23/2027	144A	BBB+	950,000,000	CALLABLE	USD	91
Macquarie Group Ltd	MOGAU	AU		0.970003126	9/23/2027	144A	BBB+	300,000,000	CALLABLE	USD	92
Mitsubishi UFJ Trust & Banking Corp/NY	MUFG	JP		0.21	8/23/2021	YCD	n/a	100,000,000	AT MATURITY	USD	16
Mizuho Bank Ltd/New York NY	MIZUHO	JP		0.15	1/28/2022	YCD	n/a	30,000,000	AT MATURITY	USD	10
Mizuho Bank Ltd/New York NY	MIZUHO	JP		0.21	10/12/2021	YCD	n/a	50,000,000	AT MATURITY	USD	16
Mizuho Financial Group Inc	MIZUHO	JP		1.979	9/8/2031	n/a	A	800,000,000	CALLABLE	USD	153.161
Mizuho Financial Group Inc	MIZUHO	JP		2.201	7/10/2031	n/a	A	1,000,000,000	CALLABLE	USD	177.161
Mizuho Financial Group Inc	MIZUHO	JP		2.555	9/13/2025	n/a	A	600,000,000	CALLABLE	USD	136.161
Mizuho Financial Group Inc	MIZUHO	JP		1.241	7/10/2024	n/a	A	1,100,000,000	CALLABLE	USD	125.161
Mizuho Financial Group Inc	MIZUHO	JP		0.849	9/8/2024	n/a	A	900,000,000	CALLABLE	USD	87.161
Mizuho Financial Group Inc	MIZUHO	JP		2.839	7/16/2025	n/a	A	500,000,000	CALLABLE	USD	124.161
Mizuho Financial Group Inc	MIZUHO	JP		2.869	9/13/2030	n/a	A	500,000,000	CALLABLE	USD	157.161
Nomura International Funding Pte Ltd	NOMURA	JP		1.75147	7/10/2027	EMTN	n/a	600,000	AT MATURITY	USD	170
Nomura International Funding Pte Ltd	NOMURA	JP		1.80139	7/10/2026	EMTN	n/a	600,000	AT MATURITY	USD	175
Nomura International Funding Pte Ltd	NOMURA	JP		1.421090221	7/10/2027	EMTN	n/a	4,000,000	CALLABLE	USD	137
Norinchukin BK NY BR	NORBK	JP		0.23	11/18/2021	CD	n/a	300,000,000	AT MATURITY	USD	18
Norinchukin BK NY BR	NORBK	JP		0.15	1/7/2022	CD	n/a	250,000,000	AT MATURITY	USD	10
Sumitomo Mitsui Banking Corp	SUMIBK	JP		0.22	6/22/2022	YCD	n/a	200,000,000	AT MATURITY	USD	17
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.2	4/22/2022	YCD	n/a	460,000,000	AT MATURITY	USD	15
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.2	8/2/2022	YCD	n/a	650,000,000	AT MATURITY	USD	18
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.23	7/29/2022	YCD	n/a	500,000,000	AT MATURITY	USD	18
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.22	6/27/2022	YCD	n/a	400,000,000	AT MATURITY	USD	17
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.23	7/22/2022	YCD	n/a	260,000,000	AT MATURITY	USD	18
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.2	4/29/2022	YCD	n/a	550,000,000	AT MATURITY	USD	15
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.2	4/25/2022	YCD	n/a	200,000,000	AT MATURITY	USD	15
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.16	2/4/2022	YCD	n/a	200,000,000	AT MATURITY	USD	11
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.23	8/3/2022	YCD	n/a	230,000,000	AT MATURITY	USD	18
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.2	9/10/2021	Ycd	n/a	100,000,000	AT MATURITY	USD	15
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.14	1/21/2022	CD	n/a	50,000,000	AT MATURITY	USD	9
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.35	1/13/2023	CD	n/a	75,000,000	AT MATURITY	USD	30
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.16	12/1/2021	YCD	n/a	50,000,000	AT MATURITY	USD	11
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.16	1/21/2022	Ycd	n/a	150,000,000	AT MATURITY	USD	11
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.2	11/12/2021	YCD	n/a	350,000,000	AT MATURITY	USD	15
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.2	11/18/2021	YCD	n/a	50,000,000	AT MATURITY	USD	15
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.19	8/9/2021	YCD	n/a	50,000,000	AT MATURITY	USD	14
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.16	12/2/2021	YCD	n/a	250,000,000	AT MATURITY	USD	11
Sumitomo Mitsui Banking Corp/New York	SUMIBK	JP		0.21	10/7/2021	YCD	n/a	50,000,000	AT MATURITY	USD	16
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.15	1/19/2022	YCD	n/a	300,000,000	AT MATURITY	USD	10
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.15	2/0/2022	YCD	n/a	300,000,000	AT MATURITY	USD	10
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.15	2/2/2022	YCD	n/a	100,000,000	AT MATURITY	USD	10
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.15	2/1/2022	YCD	n/a	60,000,000	AT MATURITY	USD	10
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.14	1/18/2022	YCD	n/a	50,000,000	AT MATURITY	USD	9
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.15	1/4/2022	YCD	n/a	240,000,000	AT MATURITY	USD	10
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.21	10/19/2021	YCD	n/a	230,000,000	AT MATURITY	USD	16
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.21	10/12/2021	YCD	n/a	100,000,000	AT MATURITY	USD	16
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.2	11/12/2021	YCD	n/a	300,000,000	AT MATURITY	USD	15
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.15	1/11/2022	YCD	n/a	150,000,000	AT MATURITY	USD	10
Sumitomo Mitsui Trust Bank Ltd/ New York	SUMITR	JP		0.15	11/29/2021	YCD	n/a	200,000,000	AT MATURITY	USD	10
Westpac Banking Corp	WSTP	AU		0.563045789	6/3/2026	n/a	AA-	300,000,000	AT MATURITY	USD	52
Westpac Banking Corp/NY	WSTP	AU		0.18	7/15/2022	YCD	n/a	490,000,000	AT MATURITY	USD	13
Westpac Banking Corp/NY	WSTP	AU		0.21	5/17/2022	YCD	n/a	100,000,000	AT MATURITY	USD	16
Westpac Banking Corp/NY	WSTP	AU		0.22	4/19/2022	YCD	n/a	301,000,000	AT MATURITY	USD	17
Westpac Banking Corp/NY	WSTP	AU		0.18	7/8/2022	YCD	n/a	125,000,000	AT MATURITY	USD	13
Westpac Banking Corp/NY	WSTP	AU		0.17	6/22/2022	YCD	n/a	100,000,000	AT MATURITY	USD	12
Westpac Banking Corp/NY	WSTP	AU		0.22	5/5/2022	YCD	n/a	100,000,000	AT MATURITY	USD	17
Westpac Banking Corp/NY	WSTP	AU		0.21	5/13/2022	YCD	n/a	200,000,000	AT MATURITY	USD	16
Westpac Banking Corp/NY	WSTP	AU		0.22	4/28/2022	YCD	n/a	300,000,000	AT MATURITY	USD	17
Westpac Banking Corp/NY	WSTP	AU		0.21	5/18/2022	YCD	n/a	50,000,000	AT MATURITY	USD	16
Westpac Banking Corp/NY	WSTP	AU		0.22	4/19/2022	YCD	n/a	75,000,000	AT MATURITY	USD	17

DISCUSSION TOPICS

- **SOFR Term Rate** – constructed based on underlying SOFR-linked derivatives transactions, robustness depends on volume proportionality
- **New SOFR competitors** - BSBY, ICE Bank Yield Index, AMERIBOR
- **Credit Basis Risk** – falling SOFR rates in times of stress vs. rising banks' funding costs
- **Spread Adjustments** – fallback rates significantly higher than LIBOR rates, expect borrower pushback

HOW TO DERIVE TERM RATES FROM O/N RFR's



- **Backward-looking term structures:** based on simple mathematical calculations on the value of past realised daily fixings of the ON-rate over a given period of time. Within the **payment delay** and **lookback** methods, the term rate will only be known at the end of the period, while within **last reset** it will be known at the start of the period.
- **Forward-looking term structures:** based on the respective derivatives markets, reflecting market expectations on the evolution of the ON-rate during the upcoming interest rate period. Will be known at the start of the period.

COMPARISON LIBOR RATES VS. FALLBACK RATES (RFR + CAS)

Fallback Rates (compounded RFR + CAS)			
	1M	3M	6M
CHF Fallback	-78,21	-72,06	-64,51
GBP Fallback	8,14	16,83	32,82
JPY Fallback	-4,62	-1,03	3,27
USD Fallback	4,58	32,11	50,08

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RFR Benchmarks (compounded RFR)			
	1M	3M	6M
SARON (CHF)	-72,50	-72,37	-71,92
SONIA (GBP)	4,88	4,90	5,16
TONA (JPY)	-1,67	-1,87	-2,54
SOFR (USD)	3,13	5,95	7,26

As of 9.3.2021

+

Credit Adjustment Spreads (CAS)*			
	1M	3M	6M
CHF	-5,71	0,31	7,41
GBP	3,26	11,93	27,66
JPY	-2,92	0,84	5,81
USD	11,45	26,16	42,83

As of 5.3.2021, Source: Bloomberg

Fixed since 5th March, 2021

LIBOR Rates			
	1M	3M	6M
CHF LIBOR	-80,50	-75,44	-70,78
GBP LIBOR	4,59	7,71	9,56
JPY LIBOR	-7,17	-8,87	-5,10
USD LIBOR	10,71	17,73	18,95

As of 9.3.2021

Difference Fallback Rates vs LIBOR Rates			
	1M	3M	6M
CHF	2,29	3,38	6,27
GBP	3,55	9,12	23,26
JPY	2,55	7,84	8,37
USD	3,87	14,38	31,13

In the current market environment, fallback rates are significantly higher than the LIBOR → an adjustment is expected.

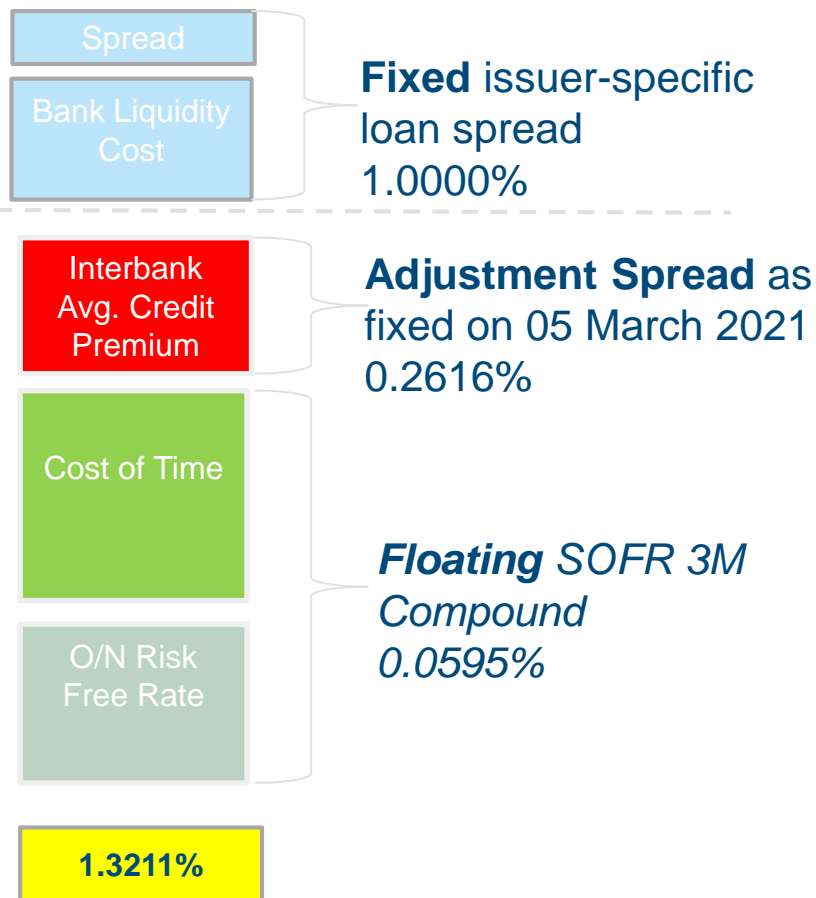
- All numbers in bps
- CAS based on ISDA methodology (= 5Y median of spread between LIBOR and respective compounded RFR)

EXAMPLE – FLOATING RATE USD LOAN WITH MATURITY 31.12.2023

As of 09 March 2021



Post USD Libor Cessation



USEFUL LINKS

RFR Working Groups:

EUR: https://www.ecb.europa.eu/paym/interest_rate_benchmarks/WG_euro_risk-free_rates/html/index.en.html

USD: <https://www.newyorkfed.org/arrc>

GBP: <https://www.bankofengland.co.uk/markets/transition-to-sterling-risk-free-rates-from-libor>

CHF: https://www.snb.ch/en/ifor/finmkt/fnmkt_benchm/id/finmkt_reformrates

RFR Calculators

SIX for SARON: <https://www.six-group.com/en/products-services/the-swiss-stock-exchange/market-data/indices/swiss-reference-rates/saron-calculator.html>

IHS Markit: <https://rfrcalculator.ihsmarkit.com/> (recommended)

ICE Benchmark Administration: <http://www.theice.com/iba/rfr-portal>

NatWest: <https://www.realisedrate.com/>

New RFR's

SONIA

<https://www.bankofengland.co.uk/boeapps/database/fromshowcolumns.asp?Travel=NIx&ShadowPage=1&SearchText=sonia&SearchExclude=&SearchTextFields=TC&Thes=&SearchType=&Cats=&ActualResNumPerPage=&TotalNumResults=12&XNotes2=Y&C=5JK&ShowData.x=41&ShowData.y=34>

SARON (license required!)

https://www.six-group.com/exchanges/indices/data_centre/swiss_reference_rates/values_de.html

SOFR

<https://apps.newyorkfed.org/markets/autorates/SOFR>

ISDA Microsite

<https://www.brattle.com/understanding-ibor-benchmark-fallbacks>

Erste Group Bank AG – Update on LIBOR

<https://youtu.be/RyB6RRGnh84>

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

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