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Session 28: Loan Financing Options for borrowers

Controller's Department
and
Treasury Department

19-23 August 2024 | ADB Headquarters, Philippines



Outline

- Overview of Concessional OCR Loan (COL)
- Overview of Flexible Loan Product (FLP) – *Sovereign and Sovereign-guaranteed borrowers*
 - Main Features
 - Loan Charges
 - ALM – Repayment methods and loan term
 - Historical information on SOFR, TONA, EURIBOR and LIBOR
 - Conversion Options
- Appendix
 - LIBOR vs SOFR
 - Federal Funds Rate vs SOFR

ADB Products and Financing Modalities for Sovereign and Sovereign Guaranteed Loans and Grants

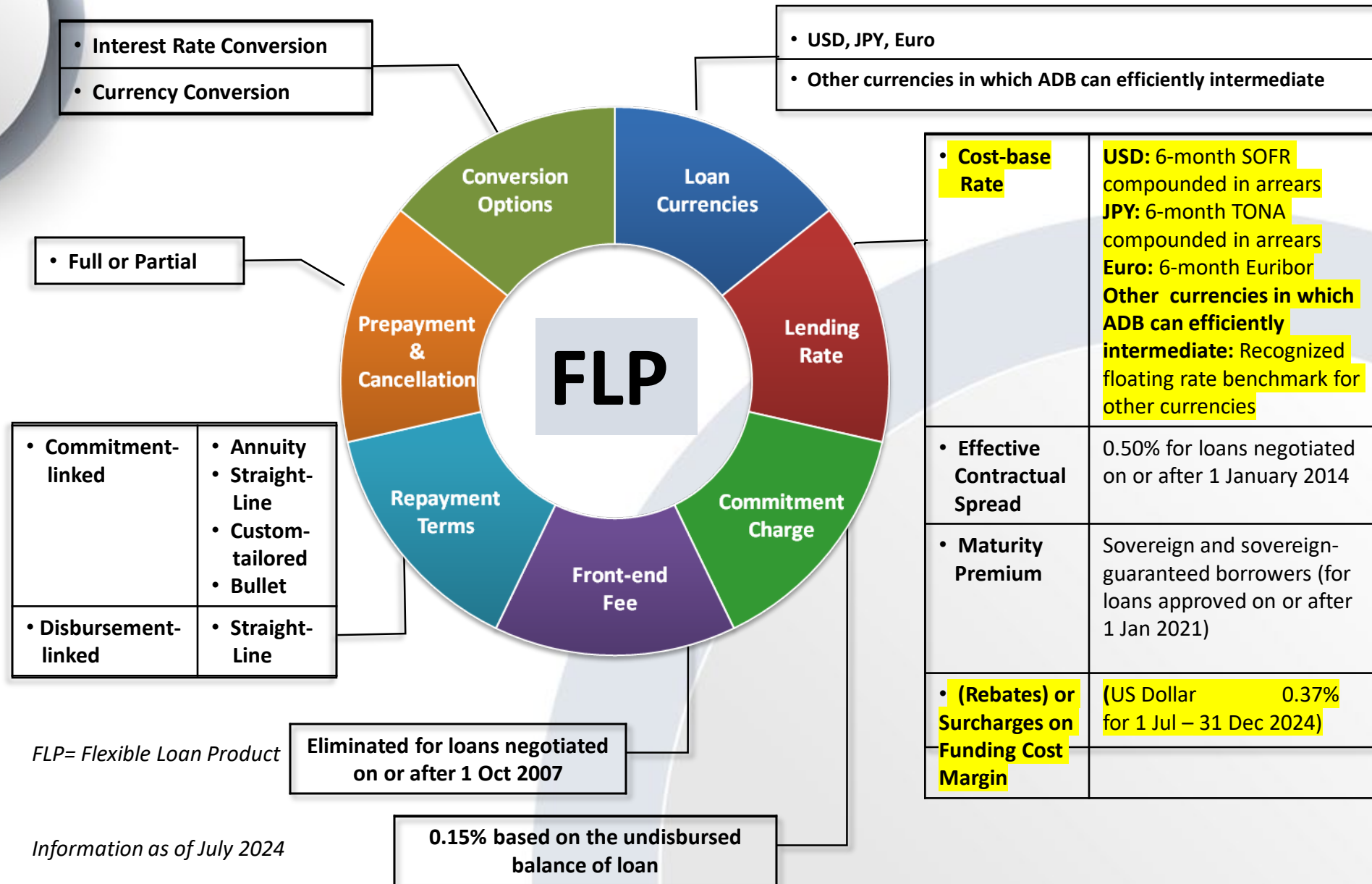
Lending Terms of Concessional Assistance Countries

Item	Group A (Concessional Assistance-only Countries)		Group B (OCR Blend Countries)	Group A (CA-only) and Group B (OCR Blend) SIDS	Emergency Assistance
	Project	Program			
Maturity (years)	32	24	25	40	40
Grace Period (years)	8	8	5	10	10
Principal Repayment	Equal	Equal	Equal	2.0% : Year 11–20 4.0% : Year 21–40	2.0% : Year 11–20 4.0% : Year 21–40
Interest Rate	1.0% : Year 1–8 1.5% : Year 9–32	1.0% : Year 1–8 1.5% : Year 9–24	2.0%	1.0%	1.0%
Currency *	SDR/USD/EUR JPY/GBP	SDR/USD/EUR JPY/GBP	SDR/USD/EUR JPY/GBP	SDR/USD/EUR JPY/GBP	SDR/USD/EUR JPY/GBP
Commitment Fee	None	None	None	None	None

* From 1 Jan 2017, in addition to SDR as liability currency, ADF borrowers may also choose any of the SDR constituent currencies as liability currency, subject to ADB's confirmation of the availability of such currency. Presently, the currencies that ADB can efficiently intermedicate are: United States dollar (\$), Japanese yen (¥), euro (€), and British pound (£).

Note: Information as of January 2024

FLP Main Features – Sovereign Borrowers



Loan Charges (USD, JPY & EUR) – Sovereign FLP

Loan Charges	Basis	USD	JPY	EUR																														
A. Lending Rate																																		
Cost Base Rate	Adjusted every 6 months for floating rate loans	6-month SOFR compounded in arrears	6-month TONA compounded in arrears	6-month EURIBOR																														
Effective Contractual Spread	Fixed for the life of the loan (<i>Formal Loan Negotiation Date</i>)	0.50%																																
Maturity Premium <i>(for loans approved on or after 1 Jan 2021)</i>	Fixed for the life of the loan (<i>Average Loan Maturity</i>)	<table border="1"> <thead> <tr> <th>Average Maturity</th> <th>C0</th> <th>B & C1</th> <th>C2</th> <th>C3</th> <th>C4</th> </tr> </thead> <tbody> <tr> <td>< 9 years</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>9 years to 13 years</td> <td>0</td> <td>0</td> <td>10</td> <td>20</td> <td>40</td> </tr> <tr> <td>> 13 years to 16 years</td> <td>0</td> <td>10</td> <td>20</td> <td>30</td> <td>50</td> </tr> <tr> <td>> 16 years to 19 years</td> <td>0</td> <td>20</td> <td>30</td> <td>50</td> <td>75</td> </tr> </tbody> </table>			Average Maturity	C0	B & C1	C2	C3	C4	< 9 years	0	0	0	0	0	9 years to 13 years	0	0	10	20	40	> 13 years to 16 years	0	10	20	30	50	> 16 years to 19 years	0	20	30	50	75
Average Maturity	C0	B & C1	C2	C3	C4																													
< 9 years	0	0	0	0	0																													
9 years to 13 years	0	0	10	20	40																													
> 13 years to 16 years	0	10	20	30	50																													
> 16 years to 19 years	0	20	30	50	75																													
Rebate/Surcharge on Funding Cost Margin	Adjusted every 6 months <i>(ADB calculation)</i>	+ 0.37% <i>(Applicable for 1 Jul – 31 Dec 2024)</i>	- 0.24% <i>(Applicable for 1 Jul – 31 Dec 2024)</i>	+ 0.08% <i>(Applicable for 1 Jul – 31 Dec 2024)</i>																														
B. Commitment Charge	Based on undisbursed balance	0.15%																																
C. Front-End Fee	Not applicable*	-	-	-																														

* In general, front-end fee is not applicable for most lending modalities
Information as of July 2024

Example: Lending Rates (USD, JPY & EUR Floating Rate) for Sovereign FLP

(Indicative lending rate: Average Loan Maturity = 18.75 years)

Item	USD	JPY	EUR
Cost Base Rate <i>(Adjusted every 6 months)</i>	SOFR compounded over 6-month interest periods determined in arrears	TONA compounded over 6-month interest periods determined in arrears	6-month EURIBOR
Effective Contractual Spread <i>(Fixed)</i>	0.50%	0.50%	0.50%
Maturity Premium <i>(Fixed)</i>	0.20%	0.20%	0.20%
Rebate/Surcharge on Funding Cost Margin <i>(Adjusted every 6 months - ADB calculation)</i>	0.37%	-0.24%	0.08%
Net Lending Rate *	6-month SOFR compounded in arrear+ 1.07 %	6-month TONA compounded in arrears+ 0.46 %	6-month EURIBOR + 0.78%
Net Lending Rate as of 8 Aug 2024** <i>(varies)</i>	a** + 1.07% 4.82% (estimated) + 1.07% = 5.89%	b** + 0.46% 0.21% (estimated) + 0.46% = 0.67%	3.488% + 0.78% = 4.268%

* Floor rate of zero will apply if the net lending rate is negative.

**6-month SOFR / TONA compounded in arrear will only be determined after the end of interest period

Note: The net lending rate varies over the life of the fixed rate loan since rebate/surcharge is adjusted every 6 months.

Maturity Premium

- The average loan maturity and country classification will determine how much maturity premium is applied. **(Pakistan is under Group B)**
- Fixed for the entire term of the loan.

Average Maturity	Loans Approved before 1 Jan 2021	Loans Approved after 1 Jan 2021					Pakistan Portfolio - (ALM) No. of Loans
		C0	B & C1	C2	C3	C4	
Years	B & C	C0	B & C1	C2	C3	C4	
< 9	0	0	0	0	0	0	0
9 to 13	0	0	0	.10%	.20%	.40%	25
> 13 to 16	.10%	0	.10%	.20%	.30%	.50%	25
> 16 to 19	.20%	0	.20%	.30%	.50%	.75%	7
> 19	Not allowed						

Average Loan Maturity

Average loan maturity is the average number of years to repay, weighted by repayment amounts.

$$\text{Average Loan Maturity} = \frac{\text{Sum of Weighted Repayments}}{\text{Sum of Total Repayments}}$$

For example, a 20-year loan with 2 equal repayments in years 10 and 20 will have an average maturity of 15 years $(10 \times 50\% + 20 \times 50\%) = (5+10 = 15)$

Average Loan Maturity – Straight-line Method

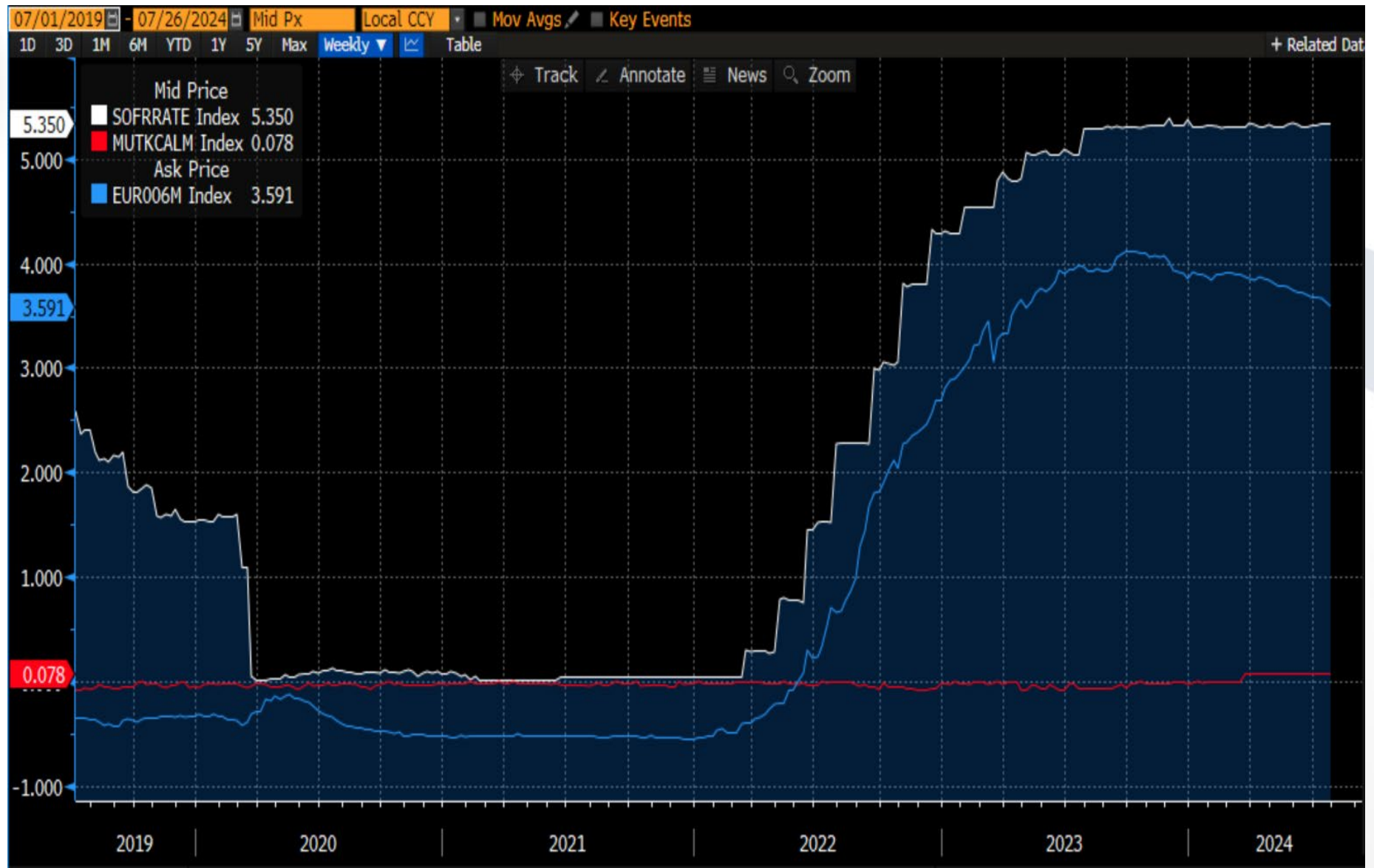


Straight-line															
Grace	1 yr.	2 yrs.	3 yrs.	4 yrs.	5 yrs.	6 yrs.	7 yrs.	8 yrs.	9 yrs.	10 yrs.	11 yrs.	12 yrs.	13 yrs.	14 yrs.	15 yrs.
Terms*															
5 Years	3.25	3.75	4.25	4.75	-	-	-	-	-	-	-	-	-	-	-
6 Years	3.75	4.25	4.75	5.25	5.75	-	-	-	-	-	-	-	-	-	-
7 Years	4.25	4.75	5.25	5.75	6.25	6.75	-	-	-	-	-	-	-	-	-
8 Years	4.75	5.25	5.75	6.25	6.75	7.25	7.75	-	-	-	-	-	-	-	-
9 Years	5.25	5.75	6.25	6.75	7.25	7.75	8.25	8.75	-	-	-	-	-	-	-
10 Years	5.75	6.25	6.75	7.25	7.75	8.25	8.75	9.25	9.75	-	-	-	-	-	-
11 Years	6.25	6.75	7.25	7.75	8.25	8.75	9.25	9.75	10.25	10.75	-	-	-	-	-
12 Years	6.75	7.25	7.75	8.25	8.75	9.25	9.75	10.25	10.75	11.25	11.75	-	-	-	-
13 Years	7.25	7.75	8.25	8.75	9.25	9.75	10.25	10.75	11.25	11.75	12.25	12.75	-	-	-
14 Years	7.75	8.25	8.75	9.25	9.75	10.25	10.75	11.25	11.75	12.25	12.75	13.25	13.75	-	-
15 Years	8.25	8.75	9.25	9.75	10.25	10.75	11.25	11.75	12.25	12.75	13.25	13.75	14.25	14.75	-
16 Years	8.75	9.25	9.75	10.25	10.75	11.25	11.75	12.25	12.75	13.25	13.75	14.25	14.75	15.25	15.75
17 Years	9.25	9.75	10.25	10.75	11.25	11.75	12.25	12.75	13.25	13.75	14.25	14.75	15.25	15.75	16.25
18 Years	9.75	10.25	10.75	11.25	11.75	12.25	12.75	13.25	13.75	14.25	14.75	15.25	15.75	16.25	16.75
19 Years	10.25	10.75	11.25	11.75	12.25	12.75	13.25	13.75	14.25	14.75	15.25	15.75	16.25	16.75	17.25
20 Years	10.75	11.25	11.75	12.25	12.75	13.25	13.75	14.25	14.75	15.25	15.75	16.25	16.75	17.25	17.75
21 Years	11.25	11.75	12.25	12.75	13.25	13.75	14.25	14.75	15.25	15.75	16.25	16.75	17.25	17.75	18.25
22 Years	11.75	12.25	12.75	13.25	13.75	14.25	14.75	15.25	15.75	16.25	16.75	17.25	17.75	18.25	18.75
23 Years	12.25	12.75	13.25	13.75	14.25	14.75	15.25	15.75	16.25	16.75	17.25	17.75	18.25	18.75	19.25
24 Years	12.75	13.25	13.75	14.25	14.75	15.25	15.75	16.25	16.75	17.25	17.75	18.25	18.75	19.25	19.75
25 Years	13.25	13.75	14.25	14.75	15.25	15.75	16.25	16.75	17.25	17.75	18.25	18.75	19.25	19.75	20.25
26 Years	13.75	14.25	14.75	15.25	15.75	16.25	16.75	17.25	17.75	18.25	18.75	19.25	19.75	20.25	20.75
27 Years	14.25	14.75	15.25	15.75	16.25	16.75	17.25	17.75	18.25	18.75	19.25	19.75	20.25	20.75	21.25
28 Years	14.75	15.25	15.75	16.25	16.75	17.25	17.75	18.25	18.75	19.25	19.75	20.25	20.75	21.25	21.75
29 Years	15.25	15.75	16.25	16.75	17.25	17.75	18.25	18.75	19.25	19.75	20.25	20.75	21.25	21.75	22.25
30 Years	15.75	16.25	16.75	17.25	17.75	18.25	18.75	19.25	19.75	20.25	20.75	21.25	21.75	22.25	22.75
31 Years	16.25	16.75	17.25	17.75	18.25	18.75	19.25	19.75	20.25	20.75	21.25	21.75	22.25	22.75	23.25
32 Years	16.75	17.25	17.75	18.25	18.75	19.25	19.75	20.25	20.75	21.25	21.75	22.25	22.75	23.25	23.75

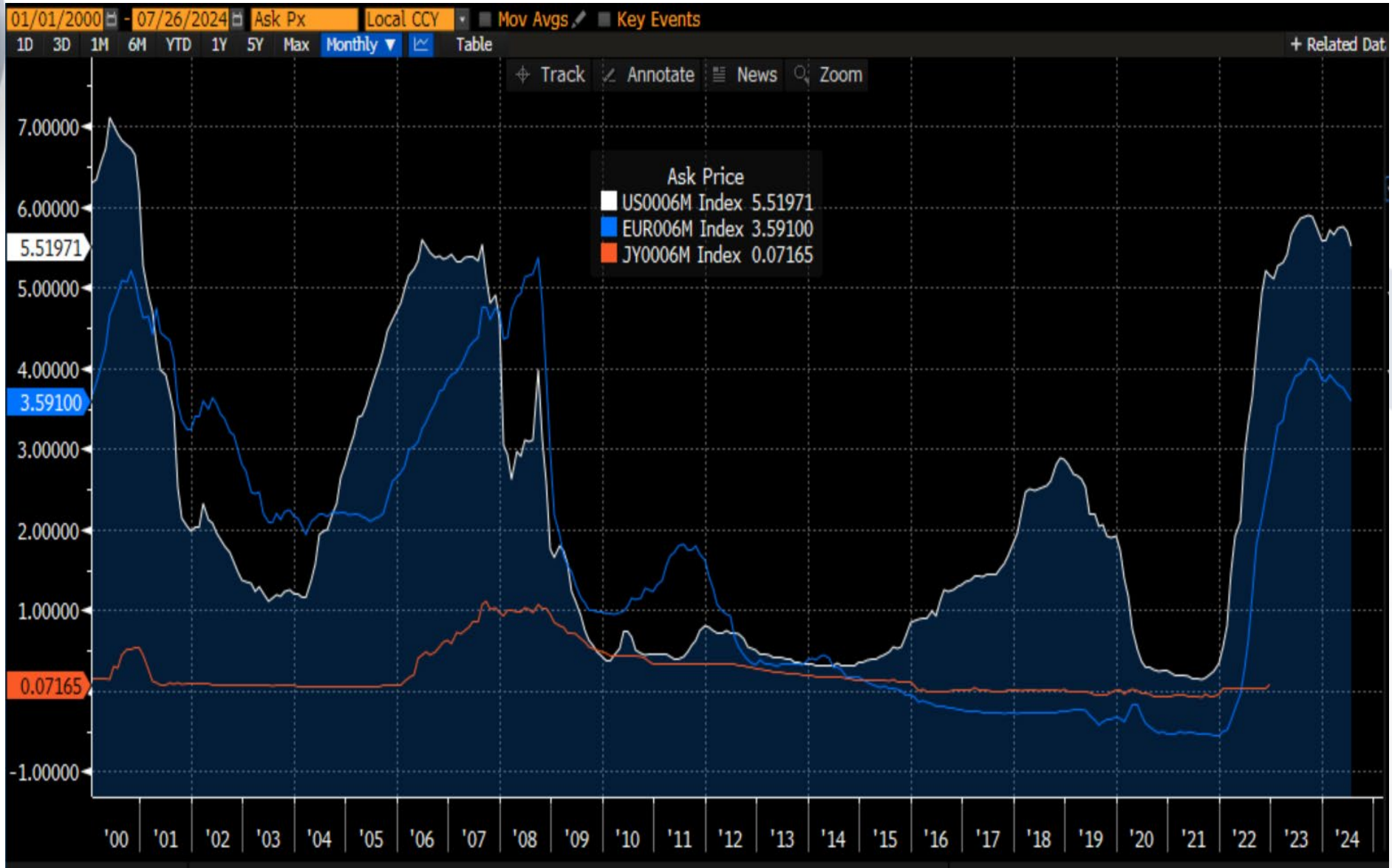
Average Loan Maturity	Maturity Premium
< 9 Years	NIL
9 Years to 13 Years	0-20 bps
> 13 Years up to 16 years	0-30 bps
> 16 Years up to 19 years	0-20 bps
> 19 years	Not allowed by ADB



SOFR, 6-month EURIBOR, TONA, Jul 2019- Jul 2024



6-month USD LIBOR, 6-month EURIBOR, 6-month JPY LIBOR, Jan 2000- Jul 2024



Conversion Options

- Borrowers may change the original selection of currency choice and interest basis of their loan
- Borrowers can use the conversion provisions in the Loan Agreement, subject to relevant provisions of;
 - Ordinary Operations Loan Regulations
 - Conversion Guidelines

Interest Rate Conversion

With FLP, borrowers may change the interest rate basis of their loan:

- For all or part of disbursed balance, and
- For all or part of the remaining life

Borrowers may request a conversion:

- At disbursement
- Anytime after disbursement
- Through a Specified Rate Fixing schedule
 - At regular time intervals (Specified Rate Fixing by Period)
 - When disbursement reaches a threshold amount (Specified Rate Fixing by Amount)

After conversion new lending rates would reflect cost of corresponding hedge transaction

Example: Lending Rate – FLP – Fixed Swap Rate

(Indicative lending rate: Average Loan Maturity = 18.75 years)

Item	USD	EUR	JPY
Cost Base Rate	Fixed Swap Rate**	Fixed Swap Rate**	Fixed Swap Rate** -
Effective Contractual Spread <i>(Fixed)</i>	0.50%	0.50%	0.50%
Maturity Premium <i>(Fixed)</i>	0.20%	0.20%	0.20%
Rebate/Surcharge on Funding Cost Margin <i>(Adjusted every 6 months -ADB calculation)</i>	0.37%	0.08%	-0.24%
Net Lending Rate *** <i>(varies)</i>	Fixed Swap Rate + 1.07%	Fixed Swap Rate + 0.78%	Fixed Swap Rate + 0.46%
Net Lending Rate as of 8 Aug 2024 *** <i>(varies)</i>	3.57% + 1.07% = 4.87%	2.60% + 0.78% = 3.38%	1.25% + 0.46% = 1.71%

* 6-month SOFR/TONA compounded in arrear will only be determined at the end of the interest period.

** Interest rate can be fixed on disbursement or any time after disbursement.

***Floor rate of zero will apply if the net lending rate is negative.

Currency Conversion

Borrowers may change the denomination of their original loan (and converted loan) to Euro, JPY, USD, GBP, AUD, NZD or any currency that ADB can successfully intermediate.

Available for:

- Undisbursed and/or disbursed balances
- Full or partial maturity

Currency Conversion of the Disbursed / Withdrawn Balance

(Indicative lending rate for Loan No. XXXX-DMC from 15 Sep 2024 till final maturity- 15 Sep 2035

Item) Before conversion		After conversion	
	US Dollar	JPY– Fixed rate	EUR – Fixed rate	
Cost Base Rate	6-month SOFR compounded in arrears	Fixed cost base Rate	Fixed cost base Rate	
Effective Contractual Spread <i>(Fixed)</i>	0.50%	0.50%	0.50%	
Maturity Premium <i>(Fixed)</i>	0.00%	0.00%	0.00%	
Rebate/Surcharge on Funding Cost Margin <i>(Adjusted every 6 months -ADB calculation)</i>	0.37 %	0.34%*	0.36%*	
Conversion Spread	N.A.	N.A.	N.A.	
Net Lending Rate **	6-month SOFR compounded in arrears + 0.87%	Fixed cost base rate+ 0.84%	Fixed cost base rate+ 0.86%	
Net Lending Rate as of 8 Aug 2024**	a** + 0.87%= 4.82% (estimated) + 0.87% = 5.69%	0.24%+ 0.84 % = 1.08%	2.32%+ 0.86 % = 3.18%	

* Applicable USD and EUR equivalent rebate/surcharge for withdrawn balances of the converted loan

**Floor rate of zero will apply if the net lending rate is negative.

*** Exchange rate : EUR/USD =1.0900 ; USD/JPY = 147.00

Note: The net lending rate varies over the life of the loan since rebate/surcharge is adjusted every 6 months

Conclusion

- Borrowers can focus on three key loan terms that are central to external debt management strategy:
 - Currency
 - Interest rate basis
 - Repayment Method
- Borrowers may change the original selection of currency choice and interest basis of their loan
- While ADB staff are not permitted to recommend loan options or make decisions for borrowers, they are available to explain alternatives within the FLP package, as well as assist in the evaluation of the possible risks these entail.



ADB

Thank you.

ADB



Appendix

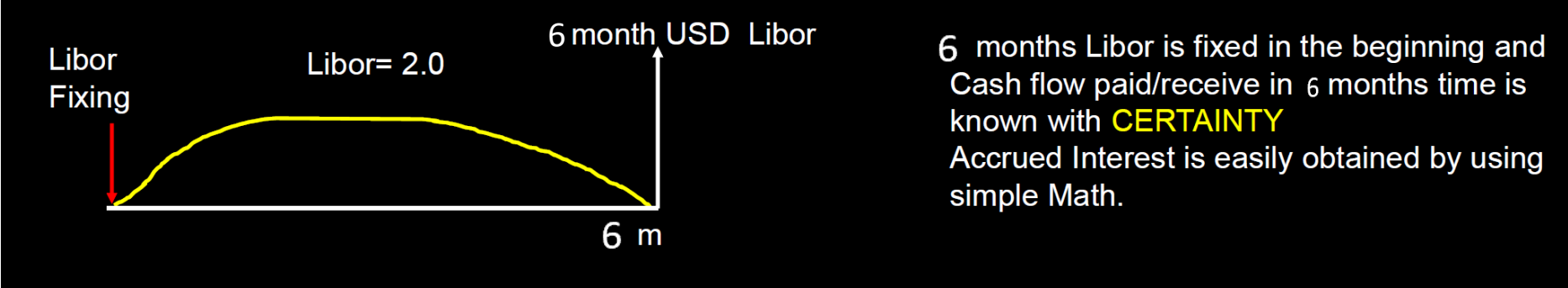
- LIBOR vs SOFR
- Federal Funds Rate vs SOFR

LIBOR vs SOFR

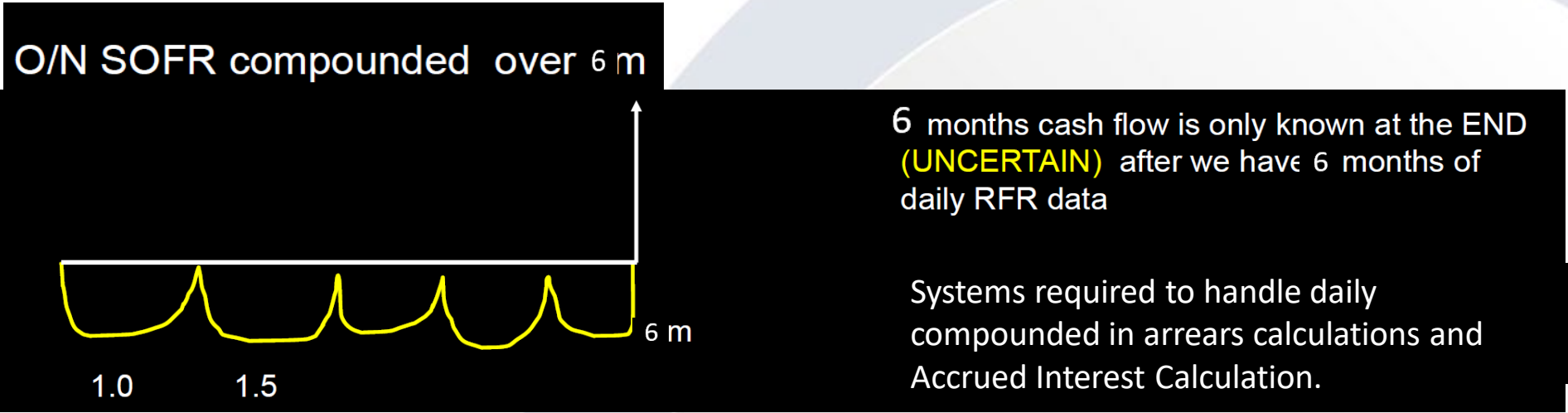


LIBOR	SOFR
<p>LIBOR measures the average rates at which those banks <u>submitting</u> to LIBOR could obtain <u>wholesale unsecured funding</u> for set periods. (<u>expert judgement</u>)</p> <p>LIBOR is a term rate consisting of a risk-free interest rate <u>plus</u> credit risk, term and liquidity premium.</p>	<p>SOFR measures the <u>broad cost of borrowing USD overnight</u> collateralised by US Government securities. (<u>transaction based</u>)</p> <p>SOFR <u>does not incorporate</u> bank and term credit risk in the same way as LIBOR. Over an equivalent period, SOFR is likely to be lower than LIBOR.</p>
<p><u>Forward looking term rate</u> –for periods of different maturities</p>	<p><u>Backward looking</u> –measures interest charged the previous day</p>
<p>LIBOR has a single administrator -ICE Benchmark Administration Limited.</p>	<p>SOFR administered by the Federal Reserve Bank of New York</p>
<p>LIBOR is published around 11.55 am London time prior to the period to which it relates (e.g. 2 business days prior for USD)</p>	<p>SOFR is published at 8am (EST) on following New York business day</p>

LIBOR vs SOFR



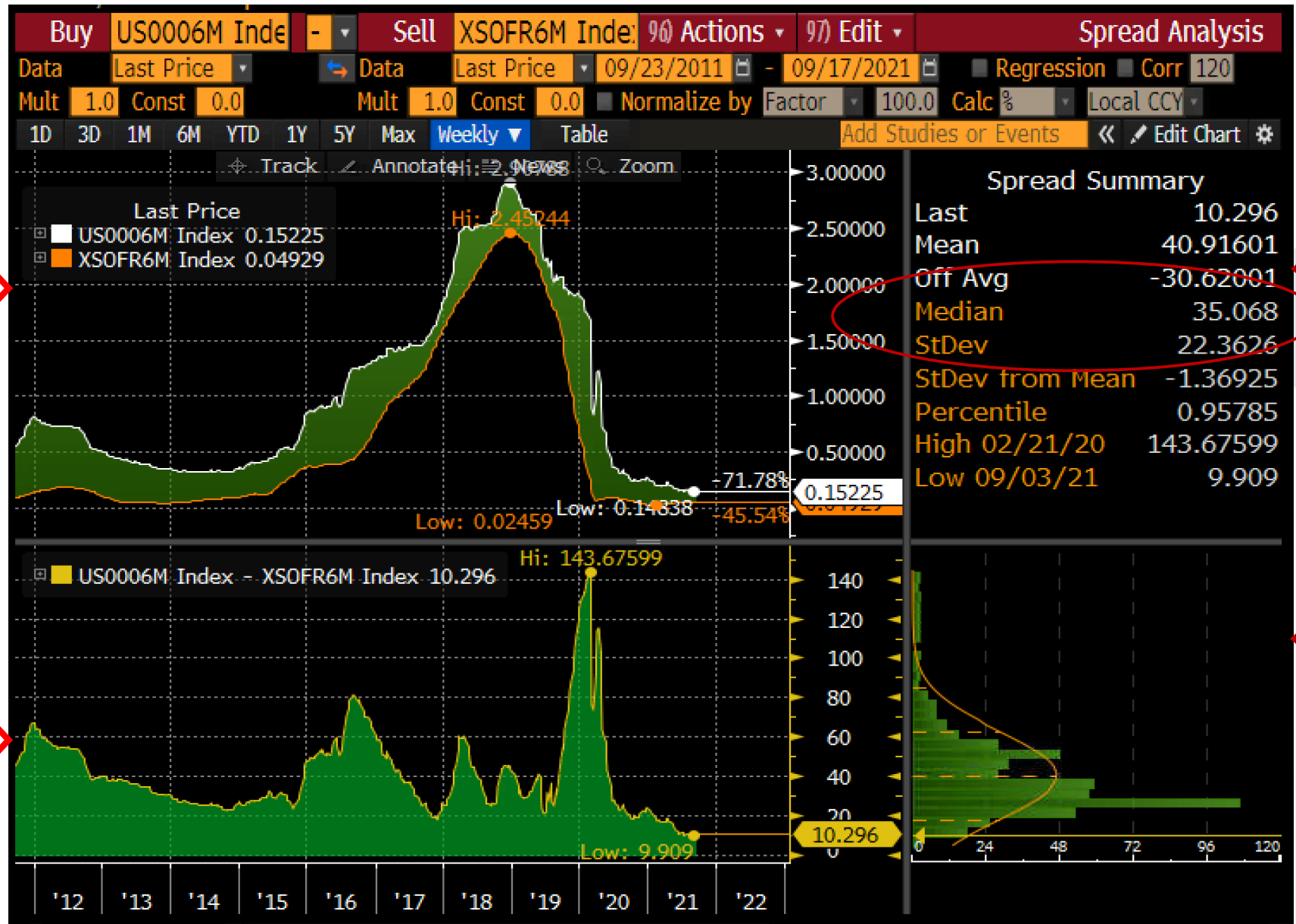
6 months Libor is fixed in the beginning and Cash flow paid/receive in 6 months time is known with **CERTAINTY**
Accrued Interest is easily obtained by using simple Math.



6 months cash flow is only known at the END (**UNCERTAIN**) after we have 6 months of daily RFR data

Systems required to handle daily compounded in arrears calculations and Accrued Interest Calculation.

Spread summary of 6m \$LIBOR vs 6m SOFR compounded in arrears : Sep 2011- Sep 2021



1

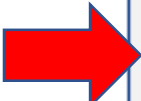
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3


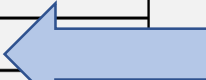
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Credit Adjustment Spread: ISDA Protocol

In accordance with its consultations and its protocol, following the March 5, 2021 announcement by the UK Financial Conduct Authority that USD LIBOR would end, Bloomberg, as the vendor for the fallbacks in ISDA documentation, [published](#) the following values as the long-term spread adjustments, based on historical 5-year median spreads for between USD LIBOR and compounded averages of SOFR:



LIBOR tenor being replaced	Spread applied to SOFR based rate (bps)
1-week USD LIBOR	3.839
1-month USD LIBOR	11.448
2-month USD LIBOR	18.456
3-month USD LIBOR	26.161
6-month USD LIBOR	42.826
1-year USD LIBOR	71.513





Federal Funds Rate

- The term federal funds rate refers to the target interest rate set by the Federal Open Market Committee (FOMC). This target is the rate at which the Fed suggests commercial banks borrow and lend their excess reserves to each other overnight.
- The FOMC, which is the policymaking body of the Federal Reserve System, meets eight times a year to set the target federal funds rate, which is part of its monetary policy.
- Note that while the Fed sets the target rate, the rate itself is determined in the overnight lending market based on the supply and demand of short-term reserves held by commercial banks. The central bank may intervene in the open market to influence this rate if the market strays too much.
- As an overnight rate for (effectively risk free) lending in US dollars, **the dynamics of SOFR are closely linked to the dynamics of the Fed Funds overnight rate**, which in turn is the interest rate most directly impacted by US monetary policy decisions

Effective Fed Funds Rate

FEDERAL FUNDS CHART

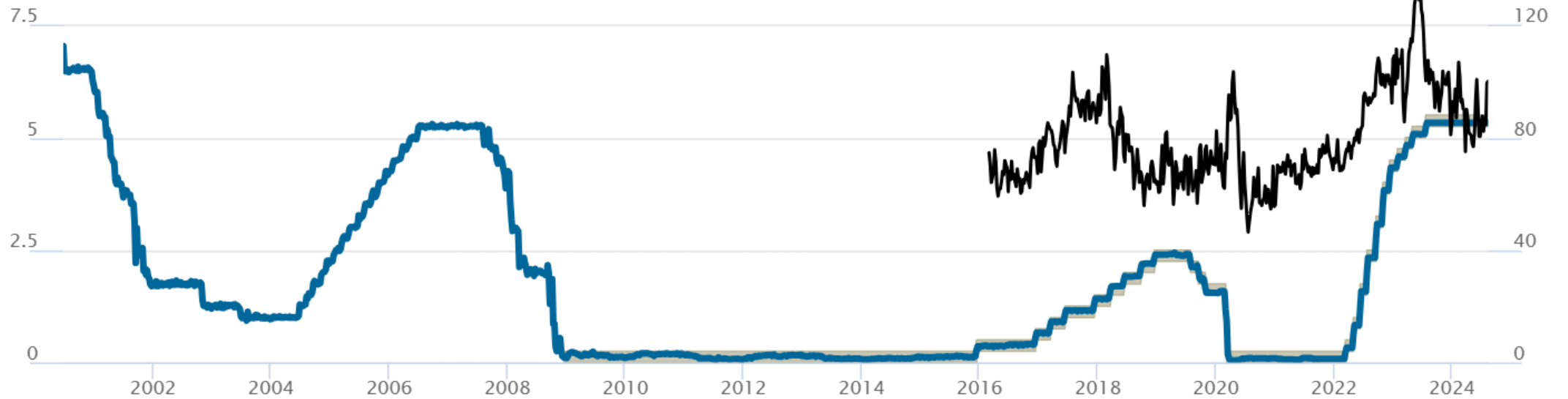
1m 3m 1y **All**

From Jun 26, 2000 To Aug 12, 2024

● Target Rate/Range — EFFR — Volume

Percent

\$Billions



Effective Fed Funds Rate

Fed Rate Hikes 2022-2023: Taming Inflation

FOMC Meeting Date	Rate Change (bps)	Federal Funds Rate
July 26, 2023	+25	5.25% to 5.50%
May 3, 2023	+25	5.00% to 5.25%
March 22, 2023	+25	4.75% to 5.00%
Feb 1, 2023	+25	4.50% to 4.75%
Dec 14, 2022	+50	4.25% to 4.50%
Nov 2, 2022	+75	3.75% to 4.00%
Sept 21, 2022	+75	3.00% to 3.25%
July 27, 2022	+75	2.25% to 2.50%
June 16, 2022	+75	1.50% to 1.75%
May 5, 2022	+50	0.75% to 1.00%
March 17, 2022	+25	0.25% to 0.50%