

This explanation and general risk warning is provided for customers of First Abu Dhabi Bank PJSC and each of its affiliates (collectively, 'FAB') who may have a conventional product or agreement which uses the London Interbank Offered Rate ('LIBOR') or another inter-bank offered rate (together with LIBOR, the 'IBORs') as a benchmark rate.

This explanation and general risk warning is provided for information purposes only and is subject to change. This explanation and general risk warning is indicative only and not binding. Where information in this explanation and general risk warning has been obtained from third party sources, we believe those sources to be reliable, but we do not guarantee the information's accuracy, and you should note that it may be incomplete or condensed.



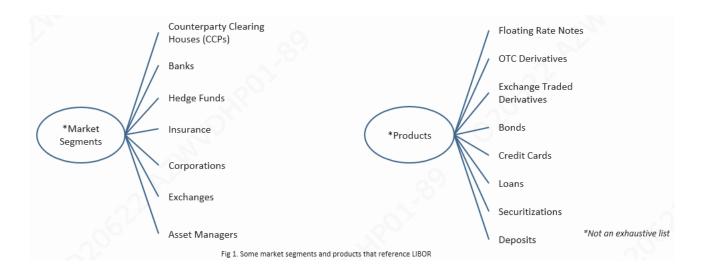
1. Brief Introduction to LIBOR

The London Interbank Offered Rate (LIBOR) existed in the market for more than 30 years. LIBOR rates have been embedded in various products and market segments across the global financial system. The LIBOR methodology was designed to produce an average rate at which designated "LIBOR panel banks" (HSBC, Citi, Bank of America, Barclays, etc.) could both borrow and lend in the interbank market in certain currencies for certain tenors.

Prior to 31 December 2021, LIBOR was published for 5 currencies (USD, GBP, EUR, JPY & CHF) each with 7 maturities (overnight / spot next, 1W, 1M, 2M, 3M, 6M, 12M).

Post 31 December 2021:

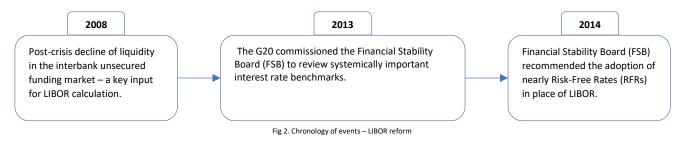
- CHF & EUR: all 7 tenors of LIBOR ceased to exist.
- JPY: all tenors ceased to exist by 31 December 2022
- GBP: Overnight, 1W, 2M and 12M tenors of LIBOR ceased to exist. 1M, 3M and 6M LIBORs published using a "synthetic methodology", applicable only to legacy contracts, except cleared derivatives (explained further n section10). 1M and 6M LIBORs using synthetic methodology have ceased on 31 March 2023. 3M LIBOR is expected to cease by end of March 2024.
- USD: 1W and 2M tenors of LIBOR ceased to exist. Overnight and 12M tenors continue to be published until 30 June 2023. 1M, 3M, 6M LIBORs will continue to be published, using synthetic methodology, until 30 Sep 2024.



2. LIBOR Reform Drivers

The major interest reference rates (such as LIBOR, EURIBOR and TIBOR), have been widely used in the global financial system as benchmarks for a large volume and broad range of financial products and contracts.

Amongst other factors, the post-crisis decline of liquidity in the interbank unsecured funding markets undermined confidence in the reliability and robustness of existing interbank benchmark interest rates. Uncertainty surrounding the integrity of these reference rates represented a potentially serious source of vulnerability and systemic risk. This resulted in global regulators recommending reformation of the rates including a shift towards alternative rates, such as "Risk Free Rates" (RFRs) that are more closely related to underlying transactions (e.g. derivative contracts). (Source: <u>FSB Report on "Reforming Major Interest Rate Benchmarks", 2014</u>)





3. Alternatives to LIBOR - nearly Risk-Free Rates (RFRs) and other alternatives (e.g. Term RFRs)

Regulators in different jurisdictions set up specific working groups to develop robust alternatives to LIBOR. To name a few examples, the Alternative Reference Rates Committee (ARRC) was set up under the Federal Reserve Bank of New York and the Working Group on Sterling Risk-Free Reference Rates was set up under the Bank of England (UK RFR WG). RFRs are "nearly" credit risk free considering that they are overnight rates only. It is important to note that RFRs are floating rates and can move up or down.

Currency	Outgoing rates	Alternative RFRs	Transaction type	Working Group link	
	USD LIBOR	SOFR (Secured Overnight Financing Rate)	Secured	Federal Reserve Bank of New York	
	GBP LIBOR	SONIA (Sterling Overnight index Average)	Unsecured	Bank of England	
\bigcirc	EUR LIBOR / EONIA	€STR (Euro Short-Term Rate)	Unsecured	European Central Bank	
	JPY LIBOR	TONAR (Tokyo Overnight Average Rate)	Unsecured	Bank of Japan	
•	CHF LIBOR	SARON (Swiss Average Rate Overnight)	Secured	Swiss National Bank	

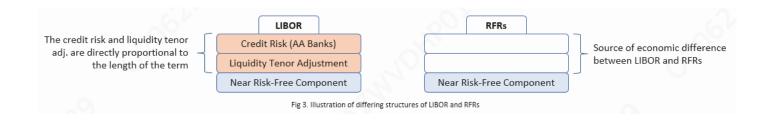
Table 1. Recommended RFRs for the respective LIBOR setting

The various jurisdictional working groups each recommended the use of an overnight compounded in arrears RFR for the transition away from LIBOR, although the use of overnight compounded in arrears RFRs as an alternative rate is not mandatory and there may be cases where it is more appropriate to replace LIBOR with a different rate (for example, RFR term rates).

RFRs are fully transaction based, which means that these rates are based on the actual rates used for the transactions in the selected overnight markets. For example, SOFR is based on the transactions in the Treasury repo market. RFRs could be either "secured" or "unsecured". When the rates are based on collateralized (secured) money market instruments, they are referred to as a secured rate. For example, SOFR is a secured rate as it is based on transactions that involve collateral, in the form of Treasuries.

4. Difference in the Structure of LIBOR and RFRs and its Impact

The basis for calculating LIBOR and RFRs is fundamentally different. LIBOR represented an average of the rates at which panel banks borrow money in the interbank market, reflecting both the credit and liquidity risk involved in lending in the interbank market. LIBOR was "forward looking", meaning that the rate took future cost and risk into account, and was a "term rate", meaning that it was calculated in advance over seven terms or "tenors" (overnight, 1 week, 1 month, 2 months, 3 months, 6 months and 12 months). Additionally, LIBOR was produced on the basis of quotes obtained through submissions by panel banks. By contrast, RFRs are "backward-looking rates", meaning that they are calculated on the basis of observed transactions over a certain period. LIBOR was an unsecured borrowing rate and included the credit risk of the panel banks' submissions, as well as a liquidity premium related to the term of the interest rate (meaning that lenders got effectively compensated for longer term lending). RFRs may be secured or unsecured, and do not include the pricing of the credit risk element, nor do they include a premium for liquidity related to the length of the term as they are overnight rates.

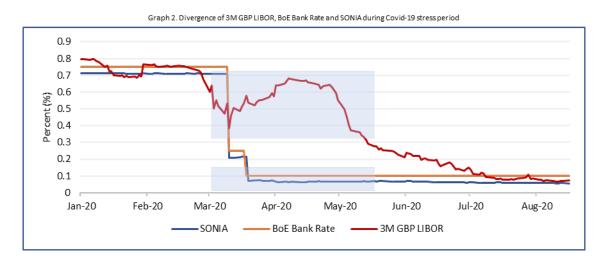


Graph 1. Historical comparison of 3M GBP LIBOR, BoE Bank Rate, SONIA, and 3M compounded SONIA





The fact that LIBOR and RFRs were calculated on a different basis has a direct impact on their economic value. As seen in Graph 1, historically SONIA, which is a Sterling RFR, has tended to track the Bank of England (BoE) Bank Rate, while LIBOR tended to be higher because liquidity and credit premiums are built into the rate. The impact of the differing composition of the rates is more pronounced during financial stress periods. The two rates have been observed to diverge in stressed economic conditions because LIBOR tried to measure the market for unsecured wholesale term lending to banks that was no longer sufficiently active while RFRs continued to reflect only the risk-free rate. Please note that from 01 January 2022 onwards, 3M GBP LIBOR is being calculated using a "synthetic methodology" – explained in section 10 (JPY 1M, 3M and 6M LIBORs using synthetic methodology ceased on 31st March 2023, and 3M GBP LIBOR is expected to cease by end of March 2024).



As an example, at the onset of the Covid-19 pandemic large outflows of money market funds were observed in mid-March 2020. Investments were kept short-dated or backed by government securities, rather than LIBOR. As seen in Graph 2, GBP LIBOR increased in the second half of March, while the BoE reduced its policy rates. 3M GBP LIBOR remained at elevated levels; only ~0.15-0.2% below February levels, compared to a 0.65% fall in Bank Rate. SONIA, on the other hand, remained closely in line with the BoE Bank Rate throughout.

The examples noted above are illustrative only and we note that past performance may not be indicative of future performance.

5. Timing for Calculating Interest Payments for RFR Facilities

LIBOR was a forward-looking, unsecured term rate that was published in 7 tenors. This setup allowed the parties to calculate the interest payable for a specific period at the start of that interest rate period itself.

On the other hand, RFRs are backward-looking overnight rates. This means that on every RFR Banking Day, a new rate will be published. These daily RFRs are then compounded in arrears to arrive at an effective interest rate for a given period. Hence, for RFR-linked facilities, the banks will not be able to determine the interest rates until the end of the interest rate period. In limited cases, RFR Simple rates and Term Rates are also used. Please refer to the <u>Calculation.pdf (bankfab.com)</u> for worked examples, and section 12 below for further details on RFR term rates.



To allow banks to calculate the payable interest and generate interest payment notices prior to the due date, a lag period will be introduced between the interest rate period and the cashflow period. The expected market convention for this lag as applied to loans is a 5 RFR Banking Day (5 BD) lookback.

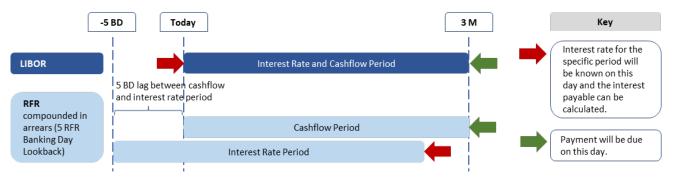


Fig 4. Illustration of the "Lookback" concept applicable to the use of overnight RFRs



Weight: 3

6. Interest Rate Calculation Methodology for RFR Facilities

RFRs are backward-looking overnight rates. This means that on every RFR Banking Day, a new rate is published. Regulatory working groups in each jurisdiction recommended, as an alternative to LIBOR, that these daily RFRs are compounded in arrears to arrive at an effective interest rate for a given period. Hence, for RFR-linked facilities, the banks will not be able to determine the interest rate until the end of the interest rate period. In two notes prepared by the ARRC Business Loans Working Group, it was noted that "the recommended "in arrears" structures are: (i) Daily Simple SOFR and (ii) Daily Compounded SOFR. These structures allow for interest accruals to be calculated daily, however, unlike forward-looking term LIBOR rates, they are not set in advance and fixed during each interest period" (Source: ARRC SOFR "In Arrears" Conventions for Syndicated Business Loans, ARRC SOFR "In Arrears" Conventions for Use in Bilateral Business Loans). To learn more about the use of Term RFRs as an alternative to compounding in arrears, please see section 12.

ookback <u>without</u> observation shift A lookback gives counterparties more notice by applying the RFR from some fixed number of banking days prior to the given interest date. If the lookback is for *k* days, then the observation date is *k* banking days prior to the interest date. In a lookback without an observation shift, all other elements of the calculation are kept the same and the reference to a previous RFR is the only change made.

obsei										weight: :	2				weight: 1		
9 6					Non-Banking Days			As Thu. 09 is followed Non-Bank			As Tue. 14 is followed by 1 banking day						
	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Mon	Tue	Wed	Thu
	31	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
ц									As Thu. 02 by 1 bank	is followed ing day	1	•		,	As Fri. 03 is by 2 bank		

Lookback <u>with</u> observation shift

A lookback with observation shift applies the RFR from some fixed number of banking days prior to the given interest date, but in contrast to a lookback without a shift, it applies that rate for the number of calendar days until next banking date following the observation date.

Weight: 1

Please refer to the example above, using k (or lookback days) = 5, for both settings. Source: ARRC Syndicated Loan Conventions Technical Appendices

There are various ways in which one can perform the interest rate compounding calculations. 3 key methodologies have emerged in the market, namely:

- 1. Accumulated Compounded Interest (ACI): daily overnight RFR is multiplied with the outstanding balance and the unpaid accrued interest.
- 2. Cumulative Compounded Rate (CCR): uses the Compound Interest Formula below:

Compound Interest Formula:
$$\left[\prod_{i=1}^{a_0} \left(1 + \frac{DailyRate_{i-LP} \times n_i}{N}\right) - 1\right] \times \frac{N}{d}$$

Resulting in an annualized compounded rate for a particular interest rate period which is then multiplied by the principal over the number of calendar days in the interest period.

3. Non-Cumulative Compounded Rate (NCCR): applies the difference of the CCR of a given day and the prior day to the principal, resulting in a daily compounded accrual.

The Cumulative Compounded Rate (CCR), and the Non-cumulative Compounded Rate (NCCR) equations are special cases of the Balance Compounding approach (Source: <u>ARRC Syndicated Loan Conventions Technical Appendices</u>). It is important to note, that each of the above-mentioned methodologies result in the exact same interest accrual. Please see the worked examples below for further understanding of each of the methods.

Other methodologies, which are less prevalent in the market, include:

- 4. Simple Interest Calculation Method (referred as Simple Interest (SI))
- 5. Interest Calculation based on Term Risk Free Rate (TRFR); and
- 6. Interest Calculation based on Bank of England Rate (BoEI).

Please note that depending on your product with us, at any given point, one of the methodologies could be adopted to calculate the due interest amount.

Please click Calculation.pdf (bankfab.com) for a detailed set of worked examples showcasing the interest accruals using the different methods.





7. Introduction to Credit Adjustment Spread (CAS)

As explained in section 4, there are fundamental economic differences between LIBOR and RFRs which means that RFRs perform differently to LIBOR. Hence, an interest rate comprising of "LIBOR + Client Margin" is not economically equal to "Compounded RFR + Client Margin". Therefore, to minimize any value transfer while transitioning a facility from LIBOR to RFRs (which are near risk-free), a Credit Adjustment Spread (CAS) will be used to address the issue of potential transfer of economic value from one party to another as a result of changing the Reference Rate. Fig 5. is an illustration of this concept. An important point to note is that for all transitioning facilities, the client margin remains unchanged.

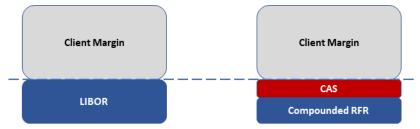


Fig 5. Illustration of the concept of CAS for transitioning facilities

Therefore, the quotation of the interest rates for transitioning facilities would move from "LIBOR + Margin" to "RFR + CAS + Margin".

CAS reflects a portion of the structural differences between LIBOR and the RFRs used as a basis for the fallbacks. LIBORs incorporate a credit risk premium and other factors, while RFRs are risk-free or nearly risk-free.

For new RFR linked facilities, this CAS will be implicitly incorporated in the client margin, as illustrated by Fig 6. Hence, any new RFR linked facilities will continue to be quoted as a "Compounded RFR + Client Margin".

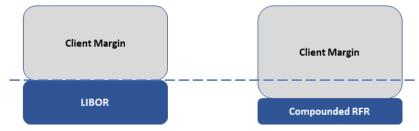


Fig 6. Illustration of the concept of CAS for transitioning facilities

Following multiple industry consultations by the International Swaps and Derivatives Association (ISDA), an agreed possible methodology for calculating this Credit Adjustment Spread was by using a historical median approach over a five-year lookback period from the date of an announcement on cessation or non-representativeness. The calculation of this spread was fixed for ISDA contracts when the FCA announced the cessation and/or non-representativeness dates for all tenors and for all LIBOR currencies on 05 March 2021. The transition spread has been calculated and published for each LIBOR tenor based on the historical differences between LIBOR for that tenor and the compounded RFR over the relevant tenor.

Bloomberg Index Services Limited ("Bloomberg") was responsible for calculating and publishing the spread adjustment using the historical median approach over a five-year lookback period from the date of the FCA's LIBOR announcement (on 5 March 2021). Since July 2020, Bloomberg has been publishing the spreads, compounded RFRs and the all-in fallback rates (compounded RFR + spread). For more information, please visit: "<u>Bloomberg</u> <u>Begins Publishing Calculations Related to IBOR Fallbacks</u>" to see the spread adjustment for all 35 LIBOR settings which is now fixed and not subject to further change.

Application of ISDA Median Spread in derivatives

The application of the ISDA Median Spread is automatically applied wherever the ISDA 2020 IBOR Fallbacks Protocol (this Protocol) is triggered. The protocol was created to enable parties to Protocol Covered Documents to amend the terms of each such Protocol Covered Document to include:

- (i) in respect of a Protocol Covered Document which incorporates or references a rate as defined in a Covered ISDA Definitions Booklet, either the terms of, or a particular defined term included in, the Supplement to the 2006 ISDA Definitions, finalized on Friday, October 23, 2020 and published by ISDA and effective on Monday, January 25, 2021 (the IBOR Fallbacks Supplement); and
- (ii) in respect of a Protocol Covered Document which otherwise references a Relevant IBOR, new fallbacks for that Relevant IBOR.

Source: ISDA 2020 IBOR Fallbacks Protocol – International Swaps and Derivatives Association



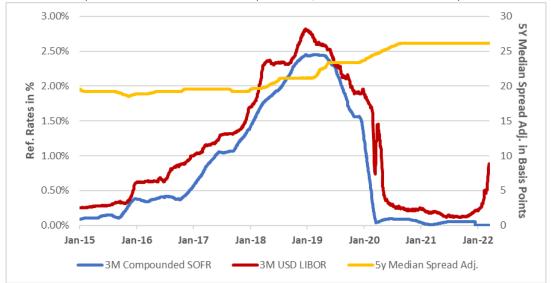
Application of ISDA Median Spread in cash products

Although there is no ISDA equivalent for cash products, the Alternative Reference Rates Committee (ARRC) and BoE have recommended the use of the same ISDA five-year historical median approach as a basis for fallbacks in legacy transactions.

While using the 5Y median approach is one of the options available to calculate the credit spread adjustment, regulators have agreed that this adjustment is a "commercial agreement" and hence, FAB may adopt alternative methodologies/formulae to compute the spread adjustment.

Historical differences between 5-year rolling ISDA Median Spread, 3-month compounded SOFR and 3-month USD LIBOR

The historical median approach derives a single value for the transition spread (Refer to the orange line on the graph).



Graph 3. Historical differences between 3M Compounded SOFR, 3M USD LIBOR and ISDA 5Y Median Spread

As seen in Graph 3, the 5Y median spread adjustment for 3M compounded SOFR has remained between 18 – 27 basis points (1 basis point = 0.01%). In July 2019, ISDA announced that Bloomberg would officially publish the 5Y median spread adjustments. Since July 2020, Bloomberg has been publishing the spreads, compounded RFRs and the all-in fallback rates (compounded RFR + spread).

On 05 March 2021, FCA announced the dates on which particular tenors and currencies of LIBOR would cease to be provided by any administrator or no longer be representative of the underlying market and economic reality that they are intended to measure, and that such representativeness would not be restored post cessation and non-representativeness dates. Since then, the ISDA 5Y median spreads were fixed for all the tenors of LIBORs. <u>Please refer to this link for more details on the same</u>.

CAS – key conduct risk principle & regulatory guidance

The transition should not be used to move borrowers with continuing contracts to replacement reference rates that are expected to be higher than what LIBOR would have been. However, when transitioning loan contracts, lenders receiving LIBOR-linked interest are not expected to give up the difference between this and RFRs (resulting from the absence of the term credit risk premium). The transition to RFRs should, as much as possible, be one which mitigates any transfer of value between the parties. For further reference, please see Credit adjustment spread methods for active transition of GBP LIBOR referencing loans – December 2020 (bankofengland.co.uk)

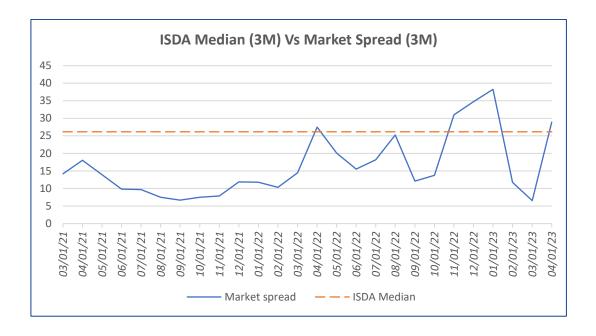
Key notes for ISDA 5Y median spread and Forward-looking market spread							
ISDA 5Y median spread	Forward-looking market spread						
Median of the 5-year historical spread between LIBOR and RFRs	Calculated using linear interpolation between differing tenors of LIBOR vs RFR forward looking basis swaps						
Recommended by Bank of England and market precedent set by some of the syndicated loans that have been made public	Consistent with current market spreads						
Consistent with derivatives markets as defined in the ISDA fallback protocol	Has been used in bilateral loans						



ISDA 5Y median spreads for key tenors of GBP and USD								
LIBORs								
Curren	су	Tenor			ISDA 5Y median spread (bps) fixed as of 05 March 2021			
			3 Months			11.93		
GBP			6 Months		27.66			
			12 Months		46.44			
		3 Months			26.161			
USD		6 Months			42.826			
		12 Months			71.513			
Spreads bet	ween 3N	/I LIB	OR basis swap	s as	of 05 N	larch		
			2021					
Currency	LIBOR Tenor		Swap Maturity	Q	wap uote bps)	Swap vs ISDA 5Y Median Spread		
	3 Mon	ths	1Y	2.690		9.240		
GBP	3 Months		3Y	8.640		3.290		
	3 Mon	ths	5Y	9.720		2.210		
	3 Mon	ths	1Y	13	3.250	12.911		
USD	3 Mon	ths	3Y	16	5.150	10.011		
	3 Mon	ths	5Y	19.750		6.411		

Note: The tables above may not reflect the current market spreads.

The below graph shows market spreads of ISDA 3M Vs Market spread (3M) for past 2 years. The Market Spread varies between 10 and 40 bps, while ISDA median is fixed at 26.161 bps. Due to rising interest rates, high inflation etc. the spreads have now increased to 28 bps. (Source: Bloomberg)



8. LIBOR Cessation and Regulatory Milestones Supporting the LIBOR Transition

The FCA, on 05 March 2021, announced the dates on which particular tenors and currencies of LIBOR would cease to be provided by any administrator or no longer be representative of the underlying market and economic reality that they are intended to measure, and that such representativeness would not be restored post cessation and non-representativeness dates. Please refer to the table below for details. The complete FCA announcement can be found at https://www.fca.org.uk/news/press-releases/announcements-end-libor.



In accordance with the FCA announcement, 31 December 2021 was the last date of publication for all 7 settings of EUR and CHF LIBOR, 4 settings (O/N, 1W, 2M, 12M) of GBP and JPY LIBOR and 2 settings (1W, 2M) of USD LIBOR. The date also marked the last date of representativeness for the remaining 3 settings (1M, 3M, 6M) of GBP and JPY LIBOR which, as per the FCA announcements dated 16th Nov 2021 and 4th Jan 2022, continued to be published on a synthetic basis until 31 December 2022, in order to facilitate the transition completion of legacy contracts. In addition, the FCA announced on 29th September 2022, after performing a consultation in June 2022, that 1M and 6M synthetic GBP LIBOR permanently cease after final publication on 31st March 2023. 3-month Sterling LIBOR is expected to cease at the end of March 2024. On 3rd April 2023 FCA announced that LIBOR's administrator, ICE Benchmark Administration Limited (IBA), will continue the publication of the 1-, 3- and 6-month US dollar LIBOR settings for a short period after 30 June 2023, using an unrepresentative 'synthetic' methodology ('synthetic US dollar LIBOR') until September 2024. Information on the publication and use of synthetic LIBORs has been detailed in *section 10*. Please read the information provided in the table below, in conjunction with the details provided in the FCA's announcement above.

LIBOR Cessation and Non-Representativeness Dates							
	Last date of LIBOR		Non-				
Currency	publication and/or	Cessation Tenors	Representativeness				
	Representativeness		Tenors				
	31-Dec-2021	O/N, 1W, 2M, 12M	1M, 3M, 6M				
GBP	31-Mar-2023	1M, 6M synthetic	-				
	31-Mar-2024	3M synthetic	-				
	31-Dec-2021	1W, 2M	-				
USD	30-Jun-2023	O/N, 12M	1M, 3M, 6M				
	30-Sep-2024	1M, 3M, 6M synthetic	-				
JPY	31-Dec-2021	O/N, 1W, 2M, 12M	1M, 3M, 6M				
JPT	31-Dec-2022	1M, 3M, 6M synthetic	-				
EUR	31-Dec-2021	All 7 LIBOR settings	-				
CHF	31-Dec-2021	All 7 LIBOR settings	-				

The "Last date of LIBOR publication" refers to the permanent cessation of publication of the respective LIBOR rates. The "Last date of LIBOR representativeness" refers to the FCA announcement that the respective LIBOR is no longer representative of the underlying market that it is intended to measure, and that representativeness will not be restored.

Please see the cessation timelines of other IBORs in the table below.

Cessation of other IBORs						
Reference	Last date of LIBOR publication and/or Representativeness	Cessation Tenors				
CIDOD	31-Mar-2022	6M				
SIBOR	End of 2024	1M, 3M				
SOR	30-Jun-2023	All tenors				
Fallback Rate (SOR) ¹	End of 2024	All tenors				
EONIA	03-Jan-2022	O/N				
тирсих	31-Dec-2021	1W				
THBFIX	30-Jun-2023	All tenors				
Fallback Rate THBFIX	31-Dec-2025	All tenors				
MIFOR	30-Jun-2023	All tenors				
CDOD	14-May-2021	6M, 12M				
CDOR	28-Jun-2024	All tenors				

Please refer to the table below for other Regulatory milestones.

¹By way of background, Fallback Rate (SOR) was designed only as an interim fallback solution for contracts that cannot be transitioned to SORA before SOR ceases. The Steering Committee for SOR & SIBOR Transition to SORA has decided to retain the original end-2024 end-date for Fallback Rate (SOR).



Jurisdiction	2021	2022	2023	2024/25
	<u>31 Dec 2021</u>	<u>01 Jan 2022</u>	<u>30 June 2023</u>	30 September 2024
	 Permanent cessation of 	 No new USD LIBOR 	Permanent cessation of	Permanent cessation of
***	1W & 2M USD LIBORs	contracts (exceptions	O/N & 12M USD LIBORs.	1M, 3M & 6M USD LIBOR
	 Contracts issued before 	allowed for risk mgmt.	• 1M, 3M & 6M USD LIBOR	synthetic rates
_	31-Dec-2021 to have	of existing positions)	to be published using	
	adequate contractual		"synthetic methodology"	
	fallbacks			
	<u>31 Dec 2021</u>	<u>01 Jan 2022</u>	31 March 2023	31 March 2024
	• Permanent cessation of	• 1M, 3M & 6M GBP	• 1M & 6M GBP LIBOR	• 3M GBP LIBOR synthetic
	0/N, 1W, 2M, 12M GBP	LIBOR to be published	synthetic rates to cease	rate to cease
	LIBORs	using "synthetic	permanently	permanently
		methodology"		
		GBP LIBOR synthetic		
		rates were published		
		beyond 2022 (max. 10		
		yrs.), subject to annual		
		review		
	<u>31 Dec 2021</u>			
63	• Permanent cessation of			
	all CHF LIBORs			
	<u>31 Dec 2021</u>	<u>3 Jan 2022</u>		
£ 2	• Permanent cessation of	Permanent cessation		
***	all EUR LIBORs	of EONIA		
	<u>31 Dec 2021</u>	<u>01 Jan 2022</u>		
	• Permanent cessation of	• 1M, 3M & 6M JPY LIBOR		
	all JPY LIBORs	to be published using		
		"synthetic		
		, methodology"		
(-)		• JPY LIBOR synthetic		
		rates published until		
		end of 2022		
	<u>31 Dec 2021</u>			
ula l	• Permanent cessation of			
24	issuance of new LIBOR			
	facilities			
		<u>31 Mar 2022</u>	<u>30 Jun 2023</u>	<u>31 Dec 2024</u>
		 6M SIBOR to be 	All tenors of SOR to be	• 1M & 3M SIBOR to be
		discontinued	discontinued	discontinued
				 SOR fallback rate to be
		<u>31 Dec 2022</u>		discontinued
C:		Complete transition of		
		>80% of corporate cash		
		and derivatives		
		exposures that mature		
		after June 2023		
		 Incorporate fallbacks in 		
		all remaining SOR		
		exposures		
	<u>31 Dec 2021</u>	<u>01 Jul 2022</u>	<u>30 Jun 2023</u>	<u>31 Dec 2025</u>
	 Permanent cessation of 	 No new derivatives to 	All tenors of THBFIX to	 Fallback rate (THBFIX) to
	1W THBFIX	be issued using THBFIX	be discontinued	be discontinued
		(except for risk mgmt.	 Fallback rate (THBFIX) 	THOR with term
		purposes of legacy	to be effective post-	structure adjustment will
_		contracts)	cessation/non-	replace Fallback Rate
			representativeness of	(THBFIX)



		USD LIBOR – only for use in legacy contracts	
	31 Dec 2021 • RBI encourages Banks/FIs & customers to cease entering into new LIBOR/MIFOR contracts	30 Jun 2023 MIFOR to cease to exist with cessation of USD LIBOR	
*	 <u>17 May 2021</u> Publication of the 6-month and 12-month CDOR tenors cease. The last day of publication for the 6-month and 12-month CDOR tenors was 14th May 2021. This is Non-Rep. of 1M, 2M, 3M Tenors 		29 Jun 2024 Permanent cessation of all remaining tenors of CDOR, last date of publication on 28 June, 2024

In various jurisdictions, legislation has been proposed which may allow regulatory authorities to designate statutory successors for certain benchmarks and/or amend the calculation methodology for certain IBORs and/or create certain synthetic IBOR rates. The precise scope of these powers and the impact on your products may be subject to change. As a result of this uncertainty, we are seeking to transition customers actively, rather than relying on these legislative proposals.

FAB cannot give any assurance as to the outcome of any legislative proposals in connection with LIBOR and how it might impact your product. However, working to transition your product actively away from an IBOR rate will provide certainty as to the rate of your product after the cessation of that IBOR rate.

Sources:

- <u>https://www.bankofengland.co.uk/-/media/boe/files/markets/benchmarks/rfr/best-practice-guide-for-gbp-loans.pdf</u>
- https://www.newyorkfed.org/medialibrary/microsites/arrc/files/2020/arrc-best-practices.pdf
- <u>https://www.newyorkfed.org/medialibrary/Microsites/arrc/files/2021/USD-LIBOR-transition-progress-report-mar-21.pdf</u>
- <u>PowerPoint Presentation (newyorkfed.org)</u>
- <u>ARRC_Press_Release_Amendment_to_Swaptions_Recommendations.pdf (newyorkfed.org)</u>
- <u>https://www.fca.org.uk/publication/documents/future-cessation-loss-representativeness-libor-benchmarks.pdf</u>
- <u>https://www.lch.com/Services/swapclear/benchmark-reform</u>
- <u>https://www.finma.ch/en/news/2020/12/20201204-am-libor/</u>
- <u>roadmap.pdf (boj.or.jp)</u>
- <u>https://www.hkma.gov.hk/eng/key-functions/banking/banking-regulatory-and-supervisory-regime/reform-of-interest-rate-benchmarks/</u>
- <u>https://www.boj.or.jp/en/finsys/libor/index.htm/</u>
- <u>https://abs.org.sg/docs/library/timelines-to-cease-issuance-of-sor-derivatives-and-sibor-linked-financial-products-version-1-1.pdf</u>
- <u>https://www.abs.org.sg/benchmark-rates/rates-sibor</u>
- <u>https://www.refinitiv.com/content/dam/marketing/en_us/documents/policies/cdor-change-consultation.pdf</u>
- https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/future-of-cdor-consultation.pdf
- https://www.refinitiv.com/content/dam/marketing/en_us/documents/methodology/cdor-cessation-notice.pdf
- https://www.bankofcanada.ca/wp-content/uploads/2021/12/CARR-Review-CDOR-Analysis-Recommendations.pdf
- Thai Reference Rate and LIBOR Transition (bot.or.th)
- <u>Transition_Milestones.pdf (bot.or.th)</u>
- FBIL MIFOR Revision of Annual Subscription Fess af1cb475cc.pdf
- https://www.fca.org.uk/news/news-stories/fca-announces-decision-synthetic-us-dollar-libor

9. Term SOFR*

CME Term SOFR rates are forward-looking interest rate estimates of overnight SOFR for reference periods starting T+2 from the date of publication, calculated and published for 1M, 3M, 6M and (since 21 September 2021) 12M tenors. Term SOFR is calculated by compounding and annualising futures (the daily overnight SOFR rate) on the basis of an Actual/360 day count convention over the applicable reference period. (For more information can be found on https://www.cmegroup.com/market-data/cme-group-benchmark-administration/term-sofr.html)



Term SOFR, is expected to be less volatile and provide stable pricing of financial products. Like other RFR term rates, it reflects market expectations on the future movement in the (overnight) SOFR rate over a (future) reference period. Like RFRs in contrast to LIBOR, it does not contain any credit sensitivity component or term liquidity premium.

Please refer to the disclaimer at the end of the page.

10. Synthetic LIBORs

The FCA announced (on the 16 November 2021) that it would require the ICE Benchmark Administration (IBA) to continue to publish the 1-, 3- and 6month LIBOR rates for GBP and JPY on a synthetic basis for a period of 12 months starting on 1 January 2022, to avoid disruption to legacy contracts and allow market participants more time to complete transition². Since then, publication of the 1-, 3- and 6-months synthetic JPY LIBOR settings ceased after 30th December 2022 and 1- and 6-months synthetic GBP LIBOR ceased after 31st March 2023. The FCA has indicated that the publication of the 3-months synthetic GBP rates will continue until the end of March 2024.

On 3rd April 2023, FCA announced its decision on the publication of USD synthetic LIBOR.

- FCA will require LIBOR's administrator, IBA, to continue publishing 1-, 3-, and 6-month US Dollar LIBOR settings until 30 September 2024, referred to as "Synthetic US Dollar LIBOR".
- Synthetic US Dollar LIBOR will be calculated as CME Term SOFR Reference Rate plus ISDA Fixed Spread Adjustment.
- Synthetic US Dollar LIBOR will be allowed for all legacy LIBOR deals except cleared derivatives. It will not be permitted for new transactions.

The methodology for calculating the synthetic LIBOR rates is based on the relevant RFR Term Rates and <u>ISDA median spreads</u> published by Bloomberg. It is consistent with voluntary transition arrangements in the market and has been endorsed by <u>international authorities</u>.



It is important to note that the synthetic rates published are not considered 'representative' as defined in the Benchmarks Regulation (BMR) and that the FCA encourages parties to transition their contracts to alternative rates as soon as possible, wherever practicable.

Please refer to the link for further details : FCA announces decision on synthetic US dollar LIBOR | FCA

11. Information on other key announcements

11.1. Impact of the FCA Announcement on 05 March 2021 in relation to the cessation of Derivatives, Loans and Notes

Derivatives

ISDA has <u>confirmed</u> that the FCA announcement constituted an index cessation event under the ISDA IBOR Fallbacks Supplement and the ISDA 2020 IBOR Fallbacks Protocol. The fallback spread adjustments <u>published by Bloomberg</u> are fixed as at the date of the announcement for all 35 LIBOR currency-tenor settings.

The fallback rates and spreads are applied to outstanding derivatives transactions, covered by the Supplement and/or Protocol, when the relevant LIBOR setting ceases to be published or ceases to be representative.

FAB has also adhered to December 2021 Benchmark Module for the purposes of the ISDA 2021 Fallbacks Protocol (the "Protocol"). In addition to benchmarks covered in protocol it covers BKBM Bid, BKBM FRA, NIBOR, MIFOR, PHIREF, KLIBOR, STIBOR and SIOR.

Loans

Most USD LIBOR-linked loan contracts with an expiry date post 30 June 2023 (except 1W and 2M USD LIBOR tenors), will need to be amended before USD LIBOR cessation to facilitate transition from LIBOR to an appropriate alternative rate (i.e., Compounded SOFR or Term SOFR). This may

² <u>FCA confirms rules for legacy use of synthetic LIBOR rates and no new use of US dollar LIBOR | FCA</u>



require an amendment to any existing terms and conditions which may in turn require the completion of updated agreements. Most LIBOR linked loan contracts with an expiry date after 31 December 2021 have undergone amendments, where applicable, before the cessation of the respective LIBOR currencies and transitioned from LIBOR to appropriate alternative rates.

Notes

The impact of the FCA's announcement on cash products depends on the terms contained within the relevant documentation; the fallback provisions can vary widely in such contracts:

- Where contracts reference 'permanent cessation' triggers for the LIBOR currency-tenor settings that will permanently cease to be published (refer to section 8 for details), the FCA announcement may constitute a trigger event for each type of reference listed above.
- Where contracts reference 'pre-cessation' triggers for the LIBOR currency-tenor settings that will no longer be representative as of a future date (refer to section 8 for details), the FCA announcement may constitute a trigger event for each type of reference listed above.

This information on product impact is not exhaustive; in addition, there may be implications for other products and services you may hold that are not covered by the above product information.

11.2. Legacy Contracts and Fallbacks

In a scenario where IBORs cease to exist or cease to become representative, fallback wording in your product may be engaged (fallback wording is discussed in more detail below). You should ensure you understand how this fallback wording operates and when it might be triggered, taking independent advice if appropriate. If your product does not contain fallback wording, FAB will contact you and intends to follow applicable regulatory and industry guidelines when effecting transition to a new rate.

Definition of Fallback language

Fallback language refers to the legal provisions in a contract that apply if the underlying reference rate in the product (e.g. LIBOR), is discontinued, is unavailable or ceases to be representative. The FSB's Official Sector Steering Group (OSSG) has recommended that market participants both understand their contractual fallback arrangements and ensure that those arrangements are robust enough to prevent potentially serious market disruptions in a LIBOR cessation event. Fallback language typically involves 2 main components: the trigger and benchmark replacement. The triggers define scenarios that allow the fallback language to come into effect. Benchmark replacement defines the rates that the facility falls back on.

ISDA fallback rate applicability to all tenors of a particular IBOR

The same ISDA fallback rate applies to all tenors of a particular IBOR, even though the fallback rates are overnight rates and the IBORs have a variety of terms. However, to account for the move from a 'term' rate (i.e. the IBOR), to an overnight rate (i.e. the overnight RFR), the fallbacks ISDA implements applies an adjustment to the relevant overnight RFR so that it is more comparable to the relevant IBOR. (Source: <u>ISDA – IBOR Fallbacks</u> for 2006 ISDA Definitions – FAQs)

ISDA fallbacks applicability to cleared derivative trades

CCPs will adopt the ISDA fallbacks in relation to cleared interest rate derivatives, but CCPs do have discretion in the matter.

ISDA has provided the following explanation:

CCPs that clear over the counter (OTC) interest rate derivatives generally incorporate the 2006 ISDA Definitions. Therefore, once the relevant rate options are amended (by ISDA), to include triggers and fallbacks, these triggers and fallbacks would generally apply to OTC derivatives subsequently cleared at such CCPs. However, LCH and CME have confirmed that they may use the discretion they have in their rulebooks to implement the amended rate options (i.e. the rate options with the index cessation event trigger and fallbacks), in existing transactions that they have cleared.

Source: (ISDA - Consultation on pre-cessation issues for LIBOR and certain other IBORs)

It should be noted that LCH and CME have used the discretion they have in their rulebooks to implement an amended rate other than the ISDA fallback for legacy transactions that they cleared prior to the cessation of GBP and JPY LIBOR in 2021.

11.3. LMA documentation mechanisms are available to facilitate LIBOR transition

Whereas the Loan Market Association (LMA) has made available recommended forms of documentation such as "Rate Switch Agreements" that may be used by market participants to facilitate the transition of LIBOR-referencing facilities to overnight RFRs compounding in arrears, it is



important to note that these recommended forms are relatively new to the market and are accompanied by guidance notes on the elective decisions which remain open for further commercial (and other) consideration by the users of such recommended forms.

The ARRC has proposed fallbacks for loans (both bi-lateral and syndicated), securitizations, private student loans, adjustable-rate mortgages and floating rate notes. The ARRC's proposals typically involve a waterfall that includes the use of a Term RFR, or otherwise a backward-looking compounded/daily RFR if a Term RFR is not available. The ARRC has also aligned itself with ISDA in terms of the selection of the spread adjustment.

For more information on ARRC's fallback recommendations for bilateral loans, click: <u>here</u>. For more information on ARRC's fallback recommendations for syndicate loans, click: <u>here</u>.

Please note that the above is only a brief outline of some of the template forms of documentation which are available in the market. These options may or may not be adopted by FAB, and by providing this information FAB is not recommending a particular fallback position to customers.

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12. Additional Information for Personal & Private Banking Clients

Availability and Use of RFR Term Rates

There are currently forward-looking term RFRs (so-called "Term RFRs" or "RFR Term Rates") in three currencies which have been made available by recognized benchmark administrators. These are:

- 1. Term Sterling Overnight Index Average (Term SONIA);
- 2. Term Secured Overnight Financing Rate (Term SOFR); and
- 3. Tokyo Term Risk Free Rate (TORF).

Please note that for Personal and Private Banking clients, depending on your product with us, we shall primarily apply Term RFRs to a new contract or transitioning contracts.

Term SONIA

On 11 January 2021, <u>Refinitiv</u> and <u>ICE Benchmark Administration</u> launched Term SONIA for use as a regulated benchmark in financial instruments. Term SONIA is currently published in 1M, 3M, 6M and 12M tenors.

The Working Group on Sterling Risk-Free Reference Rates (the Sterling RFR Working Group) has stated that the use of the Term SONIA should be limited. Based on the Sterling RFR Working Group's guidance, the need for alternative rates (such as Term RFRs) to overnight RFRs compounding in arrears has been <u>acknowledged</u> for the following product/client segments:

- 1. Export Finance / Emerging Market Lending
- 2. Mid Corporate / Private & Retail Banking
- 3. Trade & Working Capital Products
- 4. Islamic Finance

The Term Rate Use Case Task Force set up by the Sterling RFR Working Group <u>stated</u> that "use of SONIA compounded in arrears was appropriate and is likely operationally achievable for approximately 90% of new loan deals by value and that alternative rates would likely be required for 10% of new loan deals by value based on the anonymous survey carried out".

The Sterling RFR Working Group has also published a summary of the key attributes of Term SONIA which can be found: here.

Term SOFR

On 21 April 2021, <u>CME Group</u> launched Term SOFR for use in cash market products. Term SOFR is currently published in 1M, 3M, 6M and 12M tenors.

On 29 July 2021, the Alternative Reference Rates Committee (ARRC) formally recommended the Term SOFR rates published by the CME Group.

Even though Term SOFR is available for use, as a general principle, the ARRC recommends that market participants use overnight SOFR and SOFR averages given their comparative robustness over Term SOFR. The ARRC also <u>recommends</u> the use of overnight SOFR and SOFR averages in cases where a party wishes to hedge in the most efficient and transparent manner. The ARRC <u>supports</u> the use of Term SOFR in addition to other forms of SOFR (such as overnight SOFR and SOFR averages) for the following product classes:

- 1. Multi-Lender Facilities
- 2. Middle Market Loans
- 3. Trade Finance Loans
- 4. Other cases where use overnight SOFR or SOFR averages may be difficult

The ARRC <u>does not support</u> the use of Term SOFR for the vast majority of the derivatives markets, because these markets already reference SOFR compounded in arrears and transitioning derivatives markets to the more robust overnight RFRs is essential to ensure financial stability as emphasized by the Financial Stability Board.

TORF

On 26 April 2021, <u>QUICK Benchmarks Inc. (QBS)</u> started publishing the TORF production rates. TORF is currently published in 1M, 3M and 6M tenors.



In March 2021, the Cross-Industry Committee on Japanese Yen Interest Rate Benchmarks <u>noted</u> that the Tokyo Overnight Average rate (TONA) should be the main alternative benchmark for the JPY interest rate swaps market. However, market participants would not be necessarily precluded from using other alternative benchmarks including the Tokyo Term Risk Free Rate (TORF) and TIBOR, as demand for those benchmarks was expected to remain depending on the purpose of trade.

FAB will continue to adhere to the regulatory guidance, where available, of its applicable regulators where FAB uses overnight RFRs compounded in arrears and whether it offers products in Term RFRs.

Key Considerations when Opting for facilities that reference RFRs and other alternatives

Except where we otherwise agree with you in writing, FAB does not provide advice, or recommendations on the suitability of your product choice or financing solution. You should consider whether you need to obtain professional independent advice (legal, financial or otherwise), prior to entering into any agreement or investing in a product which references a benchmark rate such as an IBOR. FAB does not owe you any duties or have any liability to you if an IBOR rate ceases to be published or becomes unavailable; has its use restricted; is adjudged by a regulator to be non-representative of the market that it represents; ceases to be in customary market usage; is calculated in a materially different way and/or ceases to be appropriate for your product or arrangements with us and other related products, nor in relation to the transition of such products from IBOR benchmark rates to alternative rates. FAB cannot give any assurance as to the outcome of any legislative proposals in connection with IBOR rates and how it might impact your product. As a general matter, working to transition your product actively away from an IBOR rate will provide certainty as to the rate of your product after the cessation of that IBOR rate.

You should consider now, and continue to keep under review, the potential impact of any future changes to IBOR rates (including the matters set out above) on your product, any linked product or your portfolio which may include:

(a) the fallback interest calculation in the product becoming operative;

(b) amendments to the calculation of the relevant payments payable under the product, which may change the amount that you are required to pay or receive;

(c) consequential changes to other provisions of the product, including those related to the calculation of the relevant payments under a new reference rate;

(d) a mismatch between the reference rate(s) under the product and the reference rate(s) under any linked products; and

(e) practical implications, such as changes to systems and accounting practices. Please refer to the <u>IFRS – IASB responses to IBOR reform</u> for further details.

This is not an exhaustive list and there are likely to be other factors for you to consider.

FAB does not accept any responsibility for, and shall not have any liability with respect to, the administration, submission or any other matter related to benchmark rates such as IBORs or any alternative rate including, without limitation, whether the composition or characteristics of any alternative rate will be similar to, or produce the same value or economic equivalence as, the original benchmark rates (including IBORs) or whether any alternative rate will have the same volume or liquidity as the original benchmark rate prior to its discontinuance or unavailability. Except where we otherwise agree with you in writing, FAB does not provide advice, or recommendations on the suitability of your product choice or financing solution. You should consider whether you need to obtain professional independent advice (legal, financial, tax or otherwise), prior to entering into any agreement or investing in a product which references a benchmark rate such as an IBOR. FAB does not owe you any duties or have any liability to you in relation to its management of the transition from IBOR benchmark rates to alternative rates. FAB is not under an obligation to update the information in this explanation and general risk warning.



[*Disclaimer:

Reference is made to (a) First Abu Dhabi Bank PJSC's IBOR transition website (https://www.bankfab.com/en-ae/libor-ibor-transformation); and (b) any communications from First Abu Dhabi Bank PJSC and its affiliates (collectively, "FAB") in relation to the transition away from IBOR based rates.

Non-reliance

You acknowledge and agree that you are acting for your own account, and have made your own independent decision in relation to transitioning away from IBOR, based upon your own judgment and upon advice from such advisers as you have deemed necessary. You are not relying on any communication (written or oral) from FAB as investment advice or as a recommendation to transition away from IBOR based rates in respect of any products, it being understood by you that any information and explanations on this website will not be considered investment advice or a recommendation. No communication (written or oral) received from FAB will be deemed to be an assurance or guarantee as to the expected performance of any products.

Assessment and Understanding

You acknowledge and agree that you are capable of assessing the merits of and understanding (on your own behalf or through independent professional advice), the risks of a transition away from IBOR-based rates in respect of any products.

No Fiduciary

You acknowledge and agree that FAB is not acting as a fiduciary for or an adviser to you in respect of the transition away from IBOR-based rates in respect of any products.

Not All Information

We encourage you to keep up to date with the latest industry developments in relation to IBOR benchmark transition. Further information is also available on our website at https://www.bankfab.com/en-ae/libor-ibor-transformation/update-corporate-investment-banking and https://www.bankfab.com/en-ae/libor-itransformation/faqs.

Own Advice

You should consider whether you need to obtain professional independent advice (legal, financial or otherwise), prior to entering into any agreement or investing in a product which references a benchmark rate such as an IBOR.

No Liability

You acknowledge and agree that FAB does not accept any responsibility for, and shall not have any liability with respect to, the administration, submission or any other matter related to benchmark rates such as IBORs or any alternative rate including, without limitation, whether the composition or characteristics of any alternative rate will be similar to, or produce the same value or economic equivalence as, the original benchmark rates (including IBORs) or whether any alternative rate will have the same volume or liquidity as the original benchmark rate prior to its discontinuance or unavailability.]

This communication does not deal with every important topic pertaining to LIBOR transition. It is not designed to provide legal, financial or other advice. By reviewing this communication, you agree that First Abu Dhabi Bank and each of its affiliates (collectively, 'FAB') is not acting as your advisor and is not providing advice or making any recommendation regarding LIBOR transition; it being understood that any information or explanations pertaining to LIBOR transition provided via this communication shall not be considered advice or a recommendation. Each recipient of this communication will make its own independent decisions regarding LIBOR transition, based upon its own judgement and upon advice from such advisors as it has deemed necessary. This communication should be read in conjunction with <u>IBOR Transition</u>.

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