Alternative Reference Rates Committee (ARRC)
Minutes for the May 17, 2018 Meeting

1. CME provided an update on the May 7th launch of SOFR futures contracts, noting that market activity was developing in-line with expectations and at a faster pace than either fed funds or Eurodollar futures had developed in their initial periods of trading. CME reported that fourteen thousand contracts had been traded in the first 10 trading days by a broad range of market participants. CME highlighted a strong degree of market interest in the SOFR futures product and noted an expectation that liquidity in the contracts will continue to grow over time.

2. ISDA noted it recently published a new “floating rate option” for SOFR in the 2006 ISDA Definitions to facilitate transacting in cleared and uncleared SOFR-linked OTC derivatives. ISDA highlighted that the new definition incorporates a waterfall of three fallback rates, making it the first floating rate option in the 2006 ISDA Definitions to include fallbacks to specific rates. ISDA noted that the new floating rate option for SOFR incorporated input from the Market Structure working group of the ARRC as well as feedback from ISDA’s own working groups.

3. The Chair of the Regulatory working group noted that a draft letter to regulators would soon be circulated to the ARRC for feedback. The letter is intended to note a range of issues where regulators might usefully adapt or clarify certain positions in order to avoid any unintended hurdles to a transition from LIBOR.

4. The Chair of the Paced Transition working group discussed the group’s meeting on April 30th and highlighted the successful launch of SOFR futures ahead of the planned schedule. The Chair reiterated that SOFR futures were being traded by a diverse set of market participants. The ARRC Chair noted that the Committee had already accomplished parts of the paced transition plan ahead of schedule, including the launch of SOFR futures, and that the Committee should continue to strive toward more quickly reaching the milestones outlined in the plan. Several members highlighted that a term rate continues to dominate market discussion and that robust liquidity in SOFR derivatives is a prerequisite to establishing a term rate.

5. The Chair of the Outreach and Communications working group outlined its efforts to maintain consistent engagement with the public on ARRC-related matters and noted that background materials would be forthcoming in order to help members address frequently asked questions. It was also noted that important work was being performed by the various working groups and that this work should be highlighted to the public. The ARRC Chair requested that members inform the Outreach and Communications working group about their speaking engagements in order to track the Committee’s interaction with the public.

6. The ARRC discussed a revised draft of the guiding principles for developing more robust contract language for newly issued instruments referencing USD LIBOR that came from the cash-product working groups. ARRC members discussed the edits and approved the guiding principles. The document was sent to the Outreach and Communications group to ensure that

it was written in a way that would be accessible to a wide range of market participants and will then be released to the public in order to provide a set of guiding principles that market participants could refer to as they seek to incorporate new contract language into their own documents.

7. Federal Reserve staff noted that ISDA plans to publish a consultation soon on seeking public comment on fallback rates and spread adjustment methodologies that will be incorporated in new definitions for a number of the IBORs. Although the consultation will not directly include proposals for USD LIBOR, Federal Reserve staff noted that the proposed methodologies could eventually be incorporated into USD LIBOR definitions and emphasized the importance of the consultation and the need for market participants to fully inform themselves about the proposed methodologies in order to make informed responses. Staff shared some initial thoughts on issues that market participants should consider and asked that ARRC members review the proposed methodologies and share their own thoughts.

8. ARRC members discussed the progress of the Floating Rate Notes, Business Loans and CLOs, and Securitizations working groups in developing recommendations for more robust contract language. In order to help the ARRC members develop their own thinking on issues such as whether contractual triggers for cash products should be consistent with ISDA's proposed triggers for derivatives, or whether fallback rates should be hardwired in to contract language or more flexibility was appropriate, a survey was circulated to ARRC members (Attachment 1) asking for their thoughts on a number of the questions being considered by the working groups. The ARRC agreed it was important that contractual triggers be consistent across the range of cash instruments.

9. The Vice Chairman for Supervision of the Board of Governors of the Federal Reserve System made closing remarks and noted the importance of the ARRC's work.

Attendance at the May 17, 2018 Meeting

ARRC Members

AXA	Charles Schwartz
Bank of America	Paul Scurfield
BlackRock	Jack Hattem
Citigroup	Deirdre Dunn
CME	Agha Mirza
CME	Fred Sturm
Deutsche Bank	Adam Eames
Deutsche Bank	Vishal Mahadkar
Fannie Mae	Nadine Bates
Fannie Mae	Wells Engledow
Freddie Mac	Ameez Nanjee
GE Capital	Michael Taets
Goldman Sachs	Scott Rofey
Government Finance Officers Association	Pat McCoy
HSBC	Gregory Pierce
Intercontinental Exchange	Raymond Kahn
International Swaps and Derivatives Association	Ann Battle
JP Morgan	Sandie O'Connor
JP Morgan	Terry Belton*
JP Morgan	Alice Wang
JP Morgan	Emilio Jimenez
LCH	Phil Whitehurst*
Met Life	Jason Manske
Met Life	Alex Strickler*
Morgan Stanley	Tom Wipf
Morgan Stanley	Maria Douvas-Orme
National Association of Corporate Treasurers	Tom Deas
Pacific Investment Management Company	William De Leon
TD Bank	Paul Beltrame
The Federal Home Loan Banks, through FHLBNY	Phil Scott
The Independent Community Bankers of America	Chris Cole
The Loan Syndications and Trading Association	Meredith Coffey*
The Loan Syndications and Trading Association	Tess Virmani
The Securities Industry and Financial Markets Association	Randy Snook*
The Securities Industry and Financial Markets Association	Chris Killian*
Wells Fargo	Brian Grabenstein
World Bank Group	Don Sinclair

Ex-Officio ARRC Members

Commodity Futures Trading Commission	Sayee Srinivasan*
Consumer Financial Protection Bureau	Abhishek Agarwal
Federal Deposit Insurance Corporation	Irina Leonova
Federal Housing Finance Agency	Dan Coates

Attendance at the May 17, 2018 Meeting

Federal Reserve Bank of New York	Josh Frost
Federal Reserve Bank of New York	Ray Check
Federal Reserve Bank of New York	William Riordan*
Federal Reserve Bank of New York	Caren Cox
Federal Reserve Bank of New York	Laura Macedo*
Federal Reserve Bank of New York	Justine Hansen
Federal Reserve Bank of New York	Adhiraj Dutt
Federal Reserve Board of Governors	Randal Quarles
Federal Reserve Board of Governors	Evan Winerman
Federal Reserve Board of Governors	David Bowman
Federal Reserve Board of Governors	Chiara Scotti
Federal Reserve Board of Governors	Erik Heitfield
Federal Reserve Board of Governors	Joshua Louria
Office of Financial Research	Matt McCormick
Office of the Comptroller of the Currency	Kevin Walsh
U.S. Securities and Exchange Commission	Michelle Danis
U.S. Treasury	Chloe Cabot

Observers

American Bankers Association	Barry Mills
Bank of Canada	Sheryl King
BNP Paribas	Simon Winn
CRE Finance Council	Lisa Pendergast
Morgan Lewis	Jon Roellke
Structured Finance Industry Group	Richard Johns*

*Indicates participation by telephone

ATTACHMENT 1

SURVEY DISTRIBUTED TO THE ARRC

Triggering Events

The following questions will ask for opinions on potential trigger events.

1. ISDA Triggers

ISDA's list of proposed triggers may be relatively set at this stage. Thus market participants considering contract language in other products will need to decide whether to include the ISDA triggers verbatim or to alter them for the purposes of a non-derivative product.

1.a Do respondents agree that contract language should, at a minimum, include the ISDA triggers? Are there any changes that should be considered or any triggers that should be dropped in contracts for non-derivatives products?

2. No Public Announcement

While ISDA's trigger events are all based on some form of public announcement, PIMCO's draft language for FRNs also envisions a situation in which LIBOR has effectively stopped but there is no announcement, specifying a final trigger event if LIBOR is not published by the relevant LIBOR administrator for 5 consecutive business days:

> A new, current LIBOR rate is not published by the relevant LIBOR administrator for 5 consecutive business days that is not a result of a temporary moratorium, embargo or disruption declared by the LIBOR administrator or any regulator

2.a Do respondents believe that such an additional trigger event is needed, and if so, is 5 days sufficient? Should the event only trigger in the absence of any public statement by IBA or FCA that LIBOR will resume publication?

3. Synthetic LIBOR

If fewer than five banks submit rates for a given currency, then IBA states that it "would be likely" to re-publish the previous day's published rate for all tenors in that particular currency but also notes that it would consult with public authorities and that consideration might be given as to whether it would be appropriate to publish the previous day's LIBOR as adjusted by the delta of an observable related rate.[1] IBA does not specify how long it might consider publishing such numbers as LIBOR.

[1] See the ICE LIBOR Reduced Submissions Policy

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In addition, Andrew Bailey and FCA have discussed the possibility of producing some form of "synthetic LIBOR" as a last resort if LIBOR could no longer be produced in the standard manner. If enacted, such a rate could conceivably continue to be published as LIBOR for some period of time.[2]

3.a Do respondents believe that a trigger event should be included in contract language that would allow for a move to another rate if IBA or FCA were to permanently or indefinitely move to publishing LIBOR based on a fallback procedure rather than through the standard method?

3.b If no, do respondents consider that ISDA's trigger allowing FCA to state that LIBOR may no longer be used is sufficient to control for this risk? Or do respondents believe that any fallback should only be triggered at a permanent stop to LIBOR regardless of the methodology used to produce it?

4. Zombie LIBOR

IBA's policies currently state that it will produce LIBOR with the standard methodology for a given currency if five or more banks submit rates at all tenors for that currency. However, some market participants are concerned that LIBOR's quality could appreciably diminish if a significant number of banks stopped submitting even if at least five panel banks remained, or that IBA could adjust its policies to allow it to continue to produce LIBOR based on banks submissions with a lower number of banks ("zombie LIBOR").

4.a Do respondents believe that a trigger event should be included in contract language that would allow for a move to a another rate if the number of submitting banks fell below 6 (or more) banks? Or do they believe that IBA's current policy should be hard wired in to contracts to allow a trigger if the number of submitting banks fell below 5 in order to control for the possibility that IBA might change its policies?

4.b If your answer to 4.a is no, do respondents consider that ISDA's trigger allowing FCA to state that LIBOR may no longer be used is sufficient to control for this risk? Or do respondents believe that any fallback should only be triggered at a permanent stop to LIBOR regardless of the number of submitters that underlie it?

5. Early Trigger

For some market participants and some products, it could be appropriate to consider the potential for an earlier trigger to an alternative rate, for example, in the event that LIBOR was no longer a market standard or the alternative rate had become a standard. Or, potentially, after an announcement that LIBOR will stop but before it actually has stopped. Allowance for an early trigger might also help to control for a zombie LIBOR, although it would likely be more general.

[2] See item 5 in the March 28, 2018 Minutes of the Working Group on Sterling Risk-Free Reference Rates

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For some, an earlier trigger might help alleviate some of the operational difficulties that could be encountered from a sudden and collective switchover. This might particularly be the case for products/participants where any associated hedges or other terms can be renegotiated easily. For situations where those terms cannot be renegotiated and where it would cause its own set of operational difficulties to trigger at an earlier date than ISDA might for derivatives, an early trigger may not be appropriate.

5.a Do respondents believe that clauses allowing for an early trigger are worth considering in fallback language for some products?

5.b If yes, please specify which types of products it could be appropriate for and what aspects of those particular markets might allow for consideration of an early trigger.

5.c For products where an early trigger might be considered appropriate, how should such triggers be formulated? Would respondents consider a trigger at a fixed date, such as Jan 3, 2022? When LIBOR is no longer a "market standard" for new issuance or when SOFR has become such a standard? At some other stage identified by the borrower/agent and agreed to by lenders?

5.d If early triggers are to be considered, how would counterparties guarantee that any related hedges (which might otherwise be triggered at a later date) would be adequately protected? Would early trigger need to be conditional on a trigger of other related contracts or an ability of counterparties to negotiate and agree that the trigger event should cause a switch from LIBOR?

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Fallback Rates for Business Loans and CLOs

The following questions will ask for opinions on fallback rates for business loans, floating rate notes, and securitizations.

6. *Negotiation/Consent versus Hardwired/Unilateral Rate Selection*
   Some products, for example syndicated and bilateral loans, may be more amenable to either direct negotiation or some form of negative consent/positive assent by lenders. In other products, floating rate notes may be an example, allowing for negative consent or an investor vote may be too complicated to be practical and therefore would require either the fallback to be hardwired in to the contract or for one party to be allowed to unilaterally select the fallback rate.

   For each of the following product types, specify whether you believe it would be (1) amenable to some form of Negotiation/Consent process or (2) should be considered to require a Hardwired/Unilateral rate selection:

6.a Syndicated corporate loans

6.b Bilateral corporate loans

6.c Floating Rate Notes

6.e Securitizations (if differences are seen across securitization types, please specify)

7. Please select which of these options your firm or organization would view as most appropriate as a basic statement of what the primary fallback should be in products where a hardwired or unilateral rate choice is considered appropriate:

7.a With reference to a successor rate, the primary fallback rate in new contract language should be a publicly-quoted rate based on a compound average of overnight SOFR but should also include further fallbacks in case the relevant SOFR-based rate has not been developed by the time the fallback has been triggered.

7.b With reference to a successor rate, the primary fallback rate in new contract language should be a publicly-quoted rate of equivalent maturity based on SOFR that is endorsed or recommended by a public regulator, central bank, or committee thereof but should also include further fallbacks in case the relevant SOFR-based rate has not been developed by the time the fallback has been triggered.

7.c With reference to a successor rate, the primary fallback should not refer directly to SOFR or a publicly endorsed rate but allow for any rate choice as judged appropriate by the borrower or Calculation Agent at the time the fallback has been triggered.

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7.d With reference to a successor rate, the primary fallback should not refer directly to SOFR or a publicly endorsed rate but should refer to a rate that is recognized as a market standard as judged by the borrower or Calculation Agent at the time the fallback has been triggered.

7.e Other (please specify).

8. Please select which of these options your firm or organization would view as most appropriate as a basic statement of what the primary fallback should be in products where a negotiated or consent process is considered appropriate:

8.a With reference to a successor rate, the primary fallback should refer directly to either to a compound average of SOFR or a publicly-quoted rate of equivalent maturity based on SOFR <u>while allowing the choice to be blocked with some form of negative consent by a specified proportion of lenders and falling back to Prime or the last value or LIBOR if the proposal fails.</u>

8.b With reference to a successor rate, the primary fallback should not refer directly to SOFR or a publicly endorsed rate, but allow for any rate choice as judged appropriate by the borrower or Calculation Agent at the time the fallback has been triggered <u>while allowing the choice to be blocked with some form of either negative consent or positive asset by a specified proportion of lenders and falling back to a publicly-quoted rate based on SOFR with a spread adjustment if the proposal fails.</u>

8.c With reference to a successor rate, the primary fallback should not refer directly to SOFR or a publicly endorsed rate, but allow for any rate choice as judged appropriate by the borrower or Calculation Agent at the time the fallback has been triggered <u>while allowing the choice to be blocked with some form of either negative consent or positive assent by a specified proportion of lenders and falling back to Prime or the last value or LIBOR if the proposal fails.</u>

8.d Other (please specify).

9. If your firm is currently uncomfortable citing a rate based on SOFR as a primary fallback, is there a time at which or conditions under which you would be willing to consider doing so?

10. If a publicly-quoted term rate based on SOFR were unavailable, would respondents be willing to fallback to an interpolated rate (to be calculated by individual counterparties) based on publicly available data?