

Alternative Reference Rates Committee (ARRC)

Minutes for the April 17, 2018 Meeting

1. The ARRC discussed several administrative items: The ARRC approved retaining Morgan Lewis as outside anti-trust counsel. The ARRC approved chairs or co-chairs for two workgroups. A current list of working group members and chairs is attached (Attachment 1 to these minutes). The ARRC also discussed a clarification to its Terms of Reference regarding the sharing of materials and information circulated to ARRC members; no ARRC member expressed concerns about the clarification of the Terms of Reference (Attachment 2).
2. The ARRC discussed the issue of incorporating a potential fallback rate to the Secured Overnight Financing Rate (SOFR) in the forthcoming ISDA SOFR definition. It was noted that ISDA would conduct its standard consultation processes in formulating a SOFR definition, but would welcome the views of the ARRC. The ARRC discussed several potential fallback rates to the SOFR, events that would trigger the transition to a SOFR fallback rate, and whether there was a need to incorporate a spread adjustment if the use of a fallback rate was triggered. The ARRC agreed that it was important for ISDA to finalize a definition for SOFR quickly to facilitate growth in trading of SOFR derivatives contracts.
3. Federal Reserve staff summarized statements that were published on the Federal Reserve Bank of New York's (FRBNY) website on [April 10, 2018](#), and [April 16, 2018](#), regarding the publication of Treasury repo reference rates. Shortly after publication of the SOFR began, the FRBNY received feedback that the bilateral volumes underlying the SOFR appeared to be higher than some had expected. Following a thorough review of this issue with the data provider, it was discovered that forward-settling overnight Treasury repo transactions were inadvertently included in the source data provided to the New York Fed. Starting with the April 16, 2018 publication, these transactions were excluded from the SOFR Calculation (FRBNY subsequently released updated [daily historical indicative rates and volumes](#) that cover the period prior to SOFR publication). The ARRC chair noted that the issue had been identified before any trading of SOFR instruments had taken place, that the FRBNY had quickly addressed and rectified the issue demonstrating its ongoing commitment to the transparent production of reference rates consistent with best practices, and that the impacts on the rate were quite small.
4. The CME provided an update on plans to launch SOFR futures contracts on May 7, 2018. The ARRC chair noted that this development is a critical step in the Paced Transition Plan, and emphasized the need for ARRC members to promote the development of the market by actively participating in SOFR futures contracts.
5. ISDA discussed its plan to publish a consultation on changes to ISDA's LIBOR, EURIBOR, TIBOR, and other interbank rates definitions in order to incorporate more robust fallback language.

6. The ARRC discussed potential guiding principles that the ARRC's cash product working groups should follow as they develop more robust language for newly-written contracts referencing U.S. dollar LIBOR and noted draft fallback language that PIMCO had circulated for floating rate notes (a version is included as Attachment 3) as useful in helping to spur discussion within the ARRC and the working groups.¹ The potential guiding principles presented by the cash-product working groups covered areas such as the process for formulating potential contract language; broad guidelines related to successor rates, spreads, and trigger events; consistency of language across asset classes; and feasibility and fairness of implementation. The ARRC agreed to review and provide feedback on the potential guiding principles in hopes that they could be ratified at the next ARRC meeting.

7. The chairs of the ARRC's cash product working groups presented preliminary work plans and timelines for the development of potentially more specific recommendations on more robust language for newly-written contracts referencing U.S. dollar LIBOR. The chairs of the four cash product working groups agreed to continue developing their work plans and suggested they would aim to finalize potential new contract language that the ARRC could consider before the end of 2018.

¹ The ARRC has four cash product working groups: Floating Rate Notes, Mortgages & Consumer Loans, Business Loans & CLOs, and Securitizations.

Attendance at the April 17, 2018 Meeting

ARRC Members

AXA	Charles Schwartz
Bank of America	Alex van Voorhees
Bank of America	Paul Scurfield
BlackRock	Jack Hattem
Citigroup	Daniel Leadbetter
CME	Agha Mirza
CME	Fred Sturm
Deutsche Bank	Adam Eames
Deutsche Bank	Vishal Mahadkar
Fannie Mae	Nadine Bates
Freddie Mac	Ameez Nanjee
GE Capital	Michael Taets
Goldman Sachs	Scott Rofey
Government Finance Officers Association	Pat McCoy
Government Finance Officers Association	Emily Brock
HSBC	Shirley Hapangama
Intercontinental Exchange	Chris Edmonds
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	Kevin Budd
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	Greg Moore
The Federal Home Loan Banks, through FHLBNY	Phil Scott
The Independent Community Bankers of America	James Kendrick
The Loan Syndications and Trading Association	Meredith Coffey
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	Ron Borzekowski
Federal Deposit Insurance Corporation	Irina Leonova
Federal Housing Finance Agency	Dan Coates
Federal Reserve Bank of New York	Matt Lieber

Attendance at the April 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	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*
Office of the Comptroller of the Currency	Michael Killick*
U.S. Securities and Exchange Commission	David Metzman
U.S. Securities and Exchange Commission	Michelle Danis*
U.S. Treasury	Brian Smith

Observers

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

* Indicates participation by telephone

Attachment 1 – ARRC Working Group Members

Paced Transition	Market Structure
Bank of America	AXA
Barclays	Bank of America
BGC Partners	Barclays
Bloomberg	BGC Partners
BNP Paribas	BlackRock
BNY Mellon	Bloomberg
Citigroup	BNP Paribas
CME Group	BNY Mellon
Credit Suisse	Citigroup
Depository Trust & Clearing Corporation	CME Group
Deutsche Bank	Credit Suisse
Federal Home Loan Mortgage	Deutsche Bank
Goldman Sachs	Federal Home Loan Mortgage
HSBC	Federal National Mortgage Association
ICAP	GE Capital
Intercontinental Exchange	Goldman Sachs
International Swaps and Derivatives Association	HSBC
JP Morgan Chase & Co.	ICAP
LCH	Inter-American Development Bank
Morgan Lewis	Intercontinental Exchange
Morgan Stanley	International Swaps and Derivatives Association
MUFG	JP Morgan Chase & Co.
Nomura	LCH
Pacific Investment Management Company	MetLife
Prudential Financial	Mizuho Financial Group
Royal Bank of Canada	Morgan Lewis
Royal Bank of Scotland	Morgan Stanley
Societe Generale	Nomura
TD Bank	Pacific Investment Management Company
UBS	PNC Financial Services Group
Wells Fargo	Prudential Financial
	Royal Bank of Scotland
	Securities Industry and Financial Markets Association
	Societe Generale
	TD Bank
	UBS
	Wells Fargo
	World Bank Group

**Red indicates working group chair.*

**Red indicates working group co-chairs.*

Attachment 1 – ARRC Working Group Members

Regulatory Issues	Legal
Bank of America	AXA
BNP Paribas	Bank of America
BNY Mellon	Barclays
Citigroup	BlackRock
Deutsche Bank	BNP Paribas
Federal National Mortgage Association	BNY Mellon
Goldman Sachs	Citigroup
HSBC	Credit Suisse
Intercontinental Exchange	Deutsche Bank
International Swaps and Derivatives Association	Federal Home Loan Bank of Atlanta
JP Morgan Chase & Co.	Federal National Mortgage Association
Morgan Lewis	GE Capital
Morgan Stanley	Goldman Sachs
National Association of Corporate Treasurers	HSBC
Pacific Investment Management Company	International Swaps and Derivatives Association
Royal Bank of Scotland	JP Morgan Chase & Co.
Securities Industry and Financial Markets Association	MetLife
Wells Fargo	Mizuho Financial Group
	Morgan Lewis
	Morgan Stanley
	Nomura
	Pacific Investment Management Company
	Royal Bank of Scotland
	Securities Industry and Financial Markets Association
	Societe Generale
	TD Bank
	UBS
	Wells Fargo
	<i>*Red indicates working group co-chairs.</i>

Attachment 1 – ARRC Working Group Members

Floating Rate Notes

Bank of America
BlackRock
Citigroup
Covenant Review
Deutsche Bank
Federal Farm Credit Banks Funding Corporation
Federal Home Loan Mortgage
Federal National Mortgage Association
Federated
FHLB Office of Finance
Goldman Sachs
HSBC
Inter-American Development Bank
International Swaps and Derivatives Association
JP Morgan Chase & Co.
Morgan Lewis
Morgan Stanley
Pacific Investment Management Company
PNC Financial Services Group
Schroders
Securities Industry and Financial Markets Association
Swap Financial Group
TD Bank
Wells Fargo

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Mortgages/Consumer Loans

AXA
American Bankers Association
Bank of America
BlackRock
Citigroup
Deutsche Bank
Federal Home Loan Mortgage
Federal National Mortgage Association
Goldman Sachs
HSBC
JP Morgan Chase & Co.
Morgan Lewis
Morgan Stanley
Navient
PNC Financial Services Group
Prudential Financial
Quicken
Securities Industry and Financial Markets Association
TD Bank
U.S. Bancorp
Wells Fargo

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Attachment 1 – ARRC Working Group Members

Business Loans/CLOs	Securitizations
AXA	AIG
American Bankers Association	Bank of America
Banc of California	BlackRock
Bank of America	Cadwalader
BlackRock	Chatham Financial
BNY Mellon	Citigroup
BP	CRE Finance Council
Capital One	Credit Suisse
Chatham Financial	Dechert
Citigroup	Deutsche Bank
Comerica	Federal Home Loan Bank of Cincinnati
Covenant Review	Federal Home Loan Mortgage
Credit Suisse	Federal National Mortgage Association
Deutsche Bank	Goldman Sachs
HSBC	HSBC
Inter-American Development Bank	JP Morgan Chase & Co.
JP Morgan Chase & Co.	KeyBank
Loan Syndications and Trading Association	MetLife
MetLife	Mizuho Financial Group
Mizuho Financial Group	Morgan Lewis
Morgan Lewis	Morgan Stanley
Morgan Stanley	Navient
PNC Financial Services Group	PNC Financial Services Group
Prudential Financial	Prudential Financial
Rockland Trust	Royal Bank of Canada
Royal Bank of Canada	Securities Industry and Financial Markets Association
Schroders	Structured Finance Industry Group
Securities Industry and Financial Markets Association	U.S. Bancorp
Structured Finance Industry Group	Wells Fargo
Swap Financial Group	
TCF National Bank	
TD Bank	
U.S. Bancorp	
Wells Fargo	

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Attachment 1 – ARRC Working Group Members

Term Rate	Accounting/Tax
AXA	American Bankers Association
Bank of America	Bank of America
Barclays	Barclays
BNP Paribas	BNP Paribas
Citigroup	Chatham Financial
CME Group	Citigroup
Deutsche Bank	Deutsche Bank
Federal Home Loan Mortgage	Federal National Mortgage Association
Federal National Mortgage Association	HSBC
HBSC	International Swaps and Derivatives Association
HSBC	JP Morgan Chase & Co.
Intercontinental Exchange	Loan Syndications and Trading Association
International Swaps and Derivatives Association	MetLife
JP Morgan Chase & Co.	Morgan Lewis
LCH	National Association of Corporate Treasurers
Morgan Lewis	TD Bank
Morgan Stanley	Wells Fargo
Pacific Investment Management Company	<i>*Red indicates working group chair.</i>
PNC Financial Services Group	
Royal Bank of Scotland	
TD Bank	
Wells Fargo	

**Red indicates working group co-chairs.*

Attachment 1 – ARRC Working Group Members

Outreach/Communications

American Bankers Association

AXA

CFPB

CFTC

CME Group

CRE Finance Council

Ernst & Young

FDIC

FHFA

Government Finance Officers Association

Independent Community Bankers of America

Inter-American Development Bank

International Swaps and Derivatives Association

JP Morgan Chase & Co.

Loan Syndications and Trading Association

Morgan Lewis

National Association of Corporate Treasurers

OCC

OFR

Oliver Wyman

SEC

Securities Industry and Financial Markets Association

Structured Finance Industry Group

U.S. Treasury

World Bank Group

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Attachment 2

Clarification to the ARRC's Terms of Reference

This Clarification is for the Alternative Reference Rates Committee's Terms of Reference, revised March 7, 2018, which is available on the ARRC's website at the following link:
<https://www.newyorkfed.org/medialibrary/microsites/arrc/files/ARRC-TOR.PDF>

Representatives to the ARRC may share any materials and information circulated by the ARRC within their organization (the ARRC member), however, in accordance with the Terms of Reference, ARRC members are not authorized to speak on behalf of the ARRC without the consent of the Chair, and any information disclosed, opinions expressed, or statements made during ARRC meetings and working group meetings shall be treated as strictly confidential, unless the Chair of the ARRC has authorized release or disclosure is required by law. However, associations acting as ARRC members are free to inform their members about the general issues being addressed by the ARRC and its workgroups, express their own views on those issues, and solicit their members' views in order to better inform their own participation. Further, all ARRC members can discuss with their members or members of the public specific information that has been published on the ARRC web site, including the minutes of the ARRC meetings.

Attachment 3

Draft Language for Floating Rate Notes Circulated by PIMCO

LIBOR Discontinuance Event.

Upon the occurrence of a LIBOR Discontinuance Event, on the Business Day immediately following the LIBOR Event Discontinuance Date, LIBOR shall be replaced with:

- (1) A [X] month SOFR rate (“[X] Month SOFR”) published by the central bank, reserve bank, monetary authority or any similar institution or an administrator designated by the central bank, reserve bank, monetary authority or any similar institution plus a Replacement Floating-Rate Spread, if any
- (2) If no [X] Month SOFR exists, an equivalent term interpolated SOFR rate selected, endorsed or recommended by the central bank, reserve bank, monetary authority or any similar institution (including any committee or working group thereof) as a replacement for [X] month LIBOR that is consistent with accepted market practice plus a Replacement Floating-Rate Spread, if any (the “**Adjusted SOFR Interpolated Rate**”); or
- (3) if no such Adjusted SOFR Interpolated Rate exists, SOFR plus a Replacement Floating-Rate Spread, if any; or
- (4) if no such Adjusted SOFR Interpolated Rate or SOFR exists, an alternative, substitute or successor rate selected, endorsed or recommended by the central bank, reserve bank, monetary authority or any similar institution (including any committee or working group thereof) as a replacement for [X] month LIBOR that is consistent with accepted market practice plus a Replacement Floating-Rate Spread, if any.

LIBOR Discontinuance Event shall mean the occurrence of one or more of the following events:

- 1) A public statement by the supervisor of the relevant LIBOR administrator of the insolvency of such LIBOR administrator (and there is no successor administrator); or
- 2) A public statement by the relevant LIBOR administrator that it will cease publishing the relevant LIBOR permanently or indefinitely (and there is no successor administrator); or
- 3) A public statement by the supervisor of the relevant LIBOR administrator that the relevant LIBOR has been permanently or indefinitely discontinued; or
- 4) A public statement by the supervisor of the relevant LIBOR administrator that the relevant LIBOR may no longer be used; or
- 5) 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; or
- 6) Any regulator in the jurisdiction of the Issuer declares it unlawful or prohibits the Issuer from referencing LIBOR in its [bond or loan] documentation;
- 7) The number of contributing banks submitting to the LIBOR administrator for ICE LIBOR falls to less than six (6)

Attachment 3

LIBOR Discontinuance Event Date: For LIBOR Discontinuance Event 1 and 6 the date of such public statement, and for 2, 3, 4 and 6 the date the relevant LIBOR administrator designates as the final date of such publication, discontinuance or deadline (as applicable) and for 5, the 6th Business Day LIBOR is not published.

“Replacement Floating-Rate Spread” shall mean:

- (1) [A spread negotiated and set between borrower and investor at time of deal]
Note: If this is not negotiated at the time of deal then move to the following:
- (2) Any such alternative base rate modifier as designated as the industry standard replacement spread or methodology to calculate the replacement spread by the central bank, reserve bank, monetary authority or any similar institution (including any committee or working group thereof) or by ISDA that is consistent with accepted market practice which may consist of an addition to or subtraction from such unadjusted alternative base rate; *provided, however, that* if a standardized Replacement Floating-Rate Spread is not available or not selected by the central bank, reserve bank, monetary authority or any similar institution (including any committee or working group thereof) then the spread shall be the credit spread applicable to the LIBOR Replacement Benchmark in the ISDA definitions for interest rate derivatives; *provided, however, that* if a standardized Replacement Floating-Rate Spread is not available or not designated by the central bank, reserve bank, monetary authority or any similar institution (including any committee or working group thereof) or available in the ISDA definitions for interest rate derivatives, then the spread will be set based on the historical average LIBOR-SOFR-OIS spread for the [Y] year period prior to the LIBOR Discontinuance Event Date; *provided, however, that* if the sum of the LIBOR Replacement Benchmark and the Replacement Floating Rate Spread yields a negative number, such number shall be deemed to be zero.

“LIBOR Replacement Benchmark” shall mean any LIBOR replacement rate designated under this section.

LIBOR Replacement Benchmark Discontinuance Event.

If, after replacing LIBOR under this agreement, the LIBOR Replacement Benchmark has been permanently discontinued (in the same manner as a LIBOR Discontinuance Event), the LIBOR Replacement Benchmark shall be replaced with the Broad General Collateral Rate (“BGCR”) plus a Replacement Floating-Rate Spread, if any; *provided, however,* if the BGCR ceases to be published permanently by the New York Fed, one of the following rates shall be selected in the following order (in the case that any of such rates ceases to be published by the New York Fed on a permanent basis): Tri-party General Collateral Rate (“TGCR”), Overnight Bank Funding Rate (“OBFR”), or Effective Federal Funds Rate (“FFE”). In each case, a Replacement Floating -Rate Spread shall be applied (except that references in that definition to “LIBOR” shall be to the “LIBOR Replacement Benchmark”).