MINUTES OF THE TENTH MEETING OF THE U.S. COMMODITY FUTURES TRADING COMMISSION'S MARKET RISK ADVISORY COMMITTEE JULY 12, 2018

The Market Risk Advisory Committee ("MRAC") convened for a public meeting on Thursday, July 12, 2018, at 10:05 a.m., at the U.S. Commodity Futures Trading Commission's ("CFTC" or "Commission") Headquarters Conference Center, located at Three Lafayette Centre, 1155 21st Street N.W., Washington, DC. The meeting consisted of three panels. Panel I discussed the role of interest rate benchmarks in the economy, the impetus for London Inter-bank Offered Rate ("LIBOR") reform, and the current status of global reform initiatives. Panel II discussed the latest developments in LIBOR Reform, including efforts by the Intercontinental Exchange, Inc. ("ICE") Benchmark Administration to improve LIBOR, as well as the development of the Secured Overnight Financing Rate ("SOFR") and SOFR derivatives. Panel III discussed the effect of LIBOR reform on the derivatives markets including discussions addressing key risk management and governance considerations for market participants. End-user and dealer representatives discussed the risk their firms and clients face with respect to LIBOR reform and how they are preparing to mitigate those risks.

MRAC Members in Attendance

B. Salmon Banaei, Executive Director, Global Head of Clearance and Settlement, IHS Markit
Stephen Berger, Managing Director and Global Head of Government & Regulatory Policy, Citadel
Lee Betsill, Managing Director and Chief Risk Officer, CME Group
Isaac Chang, Managing Director and Co-Head of Trading, AQR Capital Management, LLC
Biswarup Chatterjee, Global Head of Electronic Trading & New Business Development, Credit Markets, Citigroup
Alicia Crighton, Chief Operating Officer, Prime Services, US Clearing, Goldman Sachs, Futures Industry Association
William De Leon, Managing Director and Global Head of Portfolio Risk, PIMCO
Matthias Graulich, Member of the Executive Board and Chief Strategy Officer, Eurex Clearing AG
Frank Hayden, Vice President, Trading Compliance, Calpine Corporation
Lindsay Hopkins, Clearing House Counsel, Minneapolis Grain Exchange
Annette Hunter, Senior Vice President and Director of Account Operations, Federal Home Loan Bank of Atlanta
Demetri Karousos, Chief Risk Officer, Nodal Clear LLC and Managing Director, Market Administration and Surveillance, Nodal Exchange LLC
Laura Klimpel, Managing Director, The Depository Trust and Clearing Corporation
Sebastiaan Koeling, Chief Executive Office, Optiver US LLC, Futures Industry Association – Principal Traders Group
Kevin McClear, Corporate Risk Officer, Intercontinental Exchange Inc.
Dennis McLaughlin, Chief Risk Officer, LCH Group
Craig Messinger, Senior Advisor, Virtu Financial
Dale Michaels, Executive Vice President, Financial Risk Management, The Options Clearing Corporation

John Murphy, Managing Director and Global Head of the Futures Division, Mizuho Americas, Commodity Markets Council
Dr. Thomas Philippon, Max L. Heine Professor of Finance, New York University, Leonard N. Stern School of Business (Special Government Employee)
Jonathan Raiff, Senior Director Head of Global Markets Americas, Nomura Securities International Inc.
Marnie Rosenberg, Managing Director and Global Head of Clearinghouse Risk & Strategy, JP Morgan
James Shanahan, Vice President – Financial Regulatory Compliance, CoBank ACB
Lisa Shemie, Associate General Counsel, Chief Legal Officer, Cboe FX Markets and Cboe SEF, Cboe Global Markets
Dr. Betty Simkins, Head of Finance Department, Professor and Williams Companies Chair in Business, Oklahoma State University, Spears School of Business (Special Government Employee)
Tyson Slocum, Director, Energy Program, Public Citizen
Dr. Marcus Stanley, Policy Director, Americans for Financial Reform
Robert Steigerwald, Senior Policy Advisor, Financial Markets, Federal Reserve Bank of Chicago
Janine Tramontana, Vice President and Senior Counsel, Federal Reserve Bank of New York
Suzy White, Chief Risk Officer, Global Banking & Markets and Commercial Banking, Americas, HSBC
Scott Zucker, Chief Administrative Officer, Tradeweb

MRAC Members on the Phone
Derek Kleinbauer, Global Head – Rates and Equity e-Trading, Bloomberg LP and Vice President, Bloomberg SEF LLC
Carey Mendes, Chief Executive Officer, Global Oil-Americas, BP Integrated Supply and Trading
Dr. Sam Priyadarshi, Head of Portfolio Risk and Derivatives, Vanguard
Luke Zubrod, Director of Strategic Initiatives, Chatham Financial

CFTC Commissioners and Staff in Attendance and Speakers
J. Christopher Giancarlo, Chairman, CFTC
Rostin Benham, Commissioner and MRAC Sponsor, CFTC
Brian D. Quintenz, Commissioner, CFTC
Michael Gill, Chief of Staff, CFTC
Alicia Lewis, Special Counsel to Commissioner Rostin Benham and MRAC Designated Federal Officer, CFTC
Mauricio Melara, Associate Director, Office of International Affairs, CFTC

Invited Speakers in Attendance
David Bowman, Advisor, Federal Reserve Board of Governors
Robert Mangrelli, Director, Global Real Estate Hedging and Capital Markets Team, Chatham Financial
Agha Mirza, Managing Director and Global Head of Interest Rate Products, CME Group.
Sandra O'Connor, Chair Alternative Reference Rates Committee, Chief Regulatory Affairs Officer, J.P. Morgan Chase & Co.

Scott O'Malia, Chief Executive Officer, ISDA
Subadra Rajappa, Managing Director, Head U.S. Rates Strategy, Societe Generale
Scott Rofey, Managing Director, Goldman Sachs
Charles Schwartz, Head of Derivatives, AXA Equitable Life
Emma Vick, Director, ICE Benchmark Administration
Philip Whitehurst, Executive Director, Product, LCH
Thomas Wipf, Vice Chairman, Institutional Securities, Morgan Stanley (Facilitator)

I. Opening Remarks

Alicia Lewis, the Designated Federal Officer for the MRAC, called the meeting to order. Commissioner Rostin Benham then gave his opening remarks welcoming all existing and new members and thanked all for attending. Among others, he specifically thanked Thomas Wipf, a member of the Alternative Reference Rates Committee ("ARRC") sponsored by the Federal Reserve Board for facilitating the day's panels, and emphasized the importance of the ARRC's work in relation to the MRAC meeting. He also set the stage for the panels by discussing the erosion of the unsecured interbank term borrowing market underlying LIBOR, and discussed the CFTC's enforcement actions related to LIBOR fraud. Finally, he previewed the panels.

Next, Chairman J. Christopher Giancarlo gave his opening remarks. He stated that the discontinuation of LIBOR and transition to SOFR and other risk-free rates is a certainty and that the CFTC and the industry must be ready to adopt this change in order to support and not jeopardize economic stability. He then discussed the history of the ARRC and its membership (which includes the CFTC). He stated that the two goals of ARRC are: 1) to identify an alternate reference rate to replace LIBOR; and 2) to develop a market strategy to make that transition. After considerable deliberation, the ARRC selected SOFR as a replacement for LIBOR. SOFR began to be published in April 2018 and trading in SOFR futures began in May of 2018. The ARRC is now focused on education and implementation related to the transition.

Following Chairman Giancarlo, Commissioner Brian D. Quintenz gave his remarks. He stated that it is incumbent upon the Commission, its international counterparties, and the markets to carefully consider how the widespread adoption of SOFR and other risk-free reference rates ("RFRs") could be accomplished, in a manner that avoids unnecessary confusion, fragmentation, and disruption. He further stated that the Commission can and should look to providing market participants with regulatory certainty regarding the treatment of legacy LIBOR-based contracts that are amended to reference new RFRs, including how margin, trading, and clearing requirements would apply to such contracts.

II. MRAC Discussion Regarding Committee Priorities and Agenda

Following the opening remarks, Commissioner Behnam then discussed the first topic on the agenda—the MRAC committee priorities. He noted the importance of hearing from members about the critical market-risk issues that they are facing as they will directly influence the path the Commission takes. The floor was then opened up to the MRAC for discussion. Many members commented on LIBOR reform. For example, members suggested that the MRAC should have a working group focused on LIBOR and clearinghouse risk. Several

members suggested that the MRAC consider the risk associated with CCPs and the amount of skin in the game that they have. Members emphasized that the MRAC consider the cost of LIBOR reform to various parties including end-users. Additionally, members emphasized that the MRAC consider operational and systemic risks. Finally, members suggested the MRAC focus on improving the mechanisms for risk transfer for transactions between parties and trading risks more generally.

(Break)

III. Panel I: Overview of LIBOR reform

Following the break, Ms. Lewis called the meeting back to order and introduced Mr. Wipf as the facilitator for the day's panels starting with the overview of LIBOR reform panel. Mr. Wipf thanked all for attending and emphasized the importance of private and public coordination to successfully reform LIBOR. He also gave an overview of interest rate benchmarks. He then introduced the speakers on the first panel. David Bowman presented first. He stated that the public sector has worked closely with the private sector on LIBOR issues; however, LIBOR remains in a potentially unstable position and that it could be forced to stop publication. He also stated that support of the ARRC is necessary because most financial market participants have not adequately considered that LIBOR might stop and the contracts written on LIBOR, in most cases, do not adequately protect against this possibility. Further, he stated that ARRC is seeking to recommend safer language for these contracts, and although better contract language will help, the stock of contracts that reference LIBOR needs to be reduced to fully address this risk.

Sandy O'Connor presented next and stated that the Financial Stability Board wanted to do its best to ensure resilient and robust benchmarks. She provided a detailed explanation of the ARRC process. She then stated that the purpose of ARRC 1.0 was to identify alternative risk free rates; determine an implementation plan that was usable non-disruptive, and would enable support of the voluntary adoption of this new rate; and to work on some new improved contract language regarding this rate. She then stated that ARRC 2.0 needed to deliver a paced-implementation plan, a term curve, and contract fallback language.

Mauricio Melara presented next. He noted that the regulatory and industry members are entering a phase of important advocacy all around the table and that the International Organization of Securities Commissions ("IOSCO") can help facilitate the collaboration. He also stated that in terms of the transitional period leading up to 2021, that 2020 is target date for IOSCO to revisit and contemplate where its various objectives and agenda are.

The panel then turned to a question and answer session. Generally, the concerns and discussions raised in this session included: the status of the term curve and what it would take to build the term curve, whether the systemic risk could be adequately managed through fallback contract language, the rate differential between LIBOR an SOFR and the impact it has on legacy portfolios, the need for additional time for certain contracts to transition and potentially keeping LIBOR around for longer, the need to adequately coordinate within the ARRC so that there is adequate coordination regarding the implementation of LIBOR reform in the cash and derivatives markets, and the need for further education on LIBOR reform.

(Break)

IV. Panel II: The Latest Developments with LIBOR, SOFR, and SOFR derivatives.

Following the lunch break, Ms. Lewis called the meeting back to order. Mr. Wipf introduced the speakers for the second panel. Emma Vick presented first. She stated that her organization had two jobs: 1) to protect the integrity of the LIBOR benchmarks; and 2) evolve LIBOR. She stated that LIBOR in 2018 is very different from LIBOR in 2008. She explained that there is currently, much more oversight and governance, and more new technology related to surveillance. She also noted that since 2018 the U.K. has introduced legislation which makes any attempt to manipulate LIBOR a criminal offense. Additionally, with regard to evolving LIBOR, the ICE Benchmark Administration ("IBA") has produced a three-tiered waterfall methodology to standardize waterfalls across banks. The IBA has also surveyed and is in the process of surveying interested parties regarding LIBOR related issues.

Agha Mirza presented next and stated that the CME believes that development and introduction of SOFR, a fully transactions-based, interest rate benchmark consistent with IOSCO principles, is highly constructive for the marketplace. He then discussed the details of CME's successful launch of SOFR futures in May of 2018. He stated that CME expects SOFR markets to grow further. He also noted that over long time spans, SOFR dynamics are positively correlated with other familiar money-market interest rates. However, over shorter intervals, SOFR futures are able to trade alongside highly liquid Eurodollar and Fed Fund futures.

Scott Rofey presented next and discussed three topics. First, he described how SOFR is fundamentally different from LIBOR and also explained term rates and term structure. Second, he discussed the potential attachment point for SOFR-based swaps in the derivatives markets. Third, he discussed the placement of LIBOR transition into a risk management construct.

Phil Whitehurst was the final panelist in the group. He stated that to fulfill its role as a LIBOR alternative, SOFR needs to be adopted as an actively-traded swaps benchmark. In this regard, he explained that LCH supports ARRC's adoption of its Paced Transition Plan that seeks to enable industry-wide adoption of the SOFR benchmark and its adoption in derivatives contracts. Mr. Whitehurst also stated that LCH intends to begin clearing SOFR swaps in July 2018.

The panel then turned to a question and answer session. Generally, the concerns and discussions raised in this session included: whether LIBOR could be continued beyond 2021, whether counterparties could be incentivized to renegotiate their credit spread adjustment ("CSA"), the development of liquidity in cleared and uncleared SOFR swaps, how SOFR and other SOFR-based derivatives will fit into portfolio margining programs across the interest rate complex generally, the planning that CCPs are doing to deal with legacy contracts in the event of a cessation of LIBOR, and how the default management process will work during the interim period in transitioning to SOFR.

(Break)

V. Panel III: The Effect of LIBOR Reform on the Derivatives Markets

Following the break, Ms. Lewis called the meeting back to order. Mr. Wipf introduced the speakers for this panel. Scott O'Malia presented first and discussed the various steps ISDA has undertaken to bring the market forward to develop a seamless and effective solution to the cessation of the benchmark, much of it through educational efforts. This included a survey of interested parties, solutions to the various issues that came up, and a report summarizing these findings. He also discussed the fallback consultation in depth.

Bill De Leon presented next and stated that the transition to SOFR is complex and cannot be accomplished simply with a big bang protocol as various dependencies across products will likely result in scenarios where transition timelines diverge across products and jurisdictions, resulting in basis risk across the industry. He also stated that PIMCO believes that the market needs certainty and very prescriptive guidance to ensure clarity.

Robert Mangrelli presented next and discussed three main topics. First, from and end-user perspective, he stated that a key issue is minimizing basis risk and value transfer. When considering the topics of triggers and fallbacks, he stated that it was important to keep in mind the impact the cash side will have on the derivative side. Second, with regards to figuring out fallbacks, he stressed that access to the data and inputs used in any of these fallbacks needs to be made widely available, accessible, and at a fair price. Third, with regard to lifecycle events, he stressed that a major topic for end-users is to consider what happens to their financial statements in the event that LIBOR is degraded and replaced.

Following this presentation, Subadra Rajappa discussed two main topics. First, she discussed the concern around the transition of legacy contracts before 2021. Even though there is work underway on fallbacks, a sudden cessation of LIBOR and potential for large value transfers on legacy contracts is an important concern and these risks should be minimized. Second, she remarked that end-users are concerned about the development of a term rate and would like more input regarding such a rate.

Finally, in Charles Schwartz's presentation, he expressed concern regarding the danger of discontinuing LIBOR too quickly without sufficient preparations. He stated the end-users would need years to prepare.

The panel then turned to a question and answer session. Generally, the concerns and discussions raised in this session included: the illiquidity of SOFR markets and the lack of history and depth of these markets, what a reasonable timeframe to transition would be so that there was not a premature cessation of LIBOR, the transition for legacy swaps and what that would like, what the process to transfer to a non-ISDA agreement would look like and whether it could be done quickly and successfully, how to ensure the change in value transfer with respect to legacy positions in cash and derivatives instruments is minimized when a fall back is triggered, and how to ensure relevant documentation is adequately repapered to reflect the transition.

Mr. Wipf stated that the market has developed and is developing the tools necessary to transition to SOFR and other risk free rates. There is a real opportunity for the industry to take the collective action required to solve the risk management issues that arise in this transition. Fallbacks are on the horizon and there is now tradable product and a new benchmark.

VI. MRAC New Business-Establishment of LIBOR Reform Subcommittee

Ms. Lewis noted that the invited speakers indicated that there are Title 7 issues with respect to the transition for which the ARRC will need input from the CFTC. She stated that if the MRAC feels that it is important to examine these issues and provide recommendations to the Commission, a motion from the body to establish a LIBOR subcommittee would be necessary. Mr. De Leon so motioned. Mr. Shanahan seconded the motion. Ms. Lewis then called a vote on the motion. All those present in person and on the phone voted yes. There were no oppositions or abstentions. The motion passed to recommend to the Commission the establishment of a LIBOR reform subcommittee. Ms. Lewis stated that the necessary paperwork would be submitted to the Commission to establish the subcommittee and that MRAC and non-MRAC members will be solicited to serve on the subcommittee. A Federal Register notice would be issued seeking those non-MRAC members interested in serving.

VII. Closing Remarks

In closing, the Chairman and Commissioners all expressed optimism that the transition to SOFR will be successful with coordination and team work.

Ms. Lewis adjourned the meeting at 3:53 p.m.

Alicia Lewis

Alicia L. Lewis
Acting Chair and Designated Federal Officer

12/13/18
Date