The Credit Roundtable
In association with the Fixed Income Forum

January 22, 2018

Ref: Industry standard for LIBOR fallback language

Ann E. Misback
Secretary, Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue, NW
Washington, DC 20551

Sandra O'Connor, ARRC Chair
C/O Andrew S. Gray
JP Morgan Chase & Co

Dear Sir or Madam:

The Credit Roundtable's[1] LIBOR Alternative Working Group appreciates the opportunity to work with regulators, issuers and underwriters to recommend LIBOR fallback language for the corporate credit market. We propose updating the conventional variable rate fall back pricing mechanism to include recent developments related to the expected discontinuation of LIBOR. We also request that you consider including an industry representative from the corporate credit markets on the Alternative Reference Rate Committee (ARRC).

In addition to being the base rate for most derivative transactions, LIBOR is the reference rate for a substantial portion of the credit markets. Beyond almost $10 trillion

[1] Formed in 2007, The Credit Roundtable ("CRT"), organized in association with the Fixed Income Forum, is a group of large institutional fixed income managers including investment advisors, insurance companies, pension funds, and mutual fund firms, responsible for investing more than $3.8 trillion of assets. The Credit Roundtable advocates for creditor rights through education and outreach and works to improve fixed income corporate actions, ineffective covenants, and the underwriting and distribution of corporate debt. Its mission is to improve risk assessment and management through education and seeks to benefit all bond market participants through increasing transparency, market efficiency, and liquidity.

of securitized credit risk, the base rate is also critically important to the corporate credit market, including – especially - capital securities issued by financial companies.

As the figure below details, the two biggest segments of the corporate credit markets that reference LIBOR are syndicated loans and investment-grade floating rate notes (FRNs). Most of the FRNs and syndicated loans will mature or refinance (loans have an average life of 2.5 years) before the expected LIBOR end date of December 2021. Although US bank total loss-absorbing capacity (TLAC) debt generally matures after 2021, the risk of issues with LIBOR is limited because the securities only pay one year of floating coupons.

However, US bank preferred stock, Yankee bank alternative tier 1 securities and hybrids are significantly more exposed to LIBOR. After an initial period of fixed rate payments, if not called out of the market, these securities reset to a floating rate. In addition to a long floating rate period beyond December 2021, pre-crisis step-ups or coupon resets are relatively low, which make it more likely that the securities will be left outstanding well after the call date.

US Credit Market Exposure to LIBOR

Market	Amount Outstanding ($bn)	Average Maturity	% Maturing after Dec 2021
Syndicated Loans	$928	Oct-22	68%
IG FRNs	$403	Mar-20	19%
Corporate/insurance hybrids	$100	Aug-58*	100%
US bank perpetual preferreds	$94	Perpetual	100%
USD CoCos	$94	Perpetual	100%
US bank TLAC debt	$58	Mar-17	96%

* average maturity for dated securities - 37% is perpetual
Source: Bloomberg, Bloomberg Barclays Indices, Barclays Research

Fallback pricing methodology

The corporate bond mechanics of observing a reference rate are governed by the issuer/investor agreement or bond indenture. Although bond indentures are inconsistent across companies and can even vary across the capital structure of the same company, we generally find the following language:

> *Your notes will bear interest for each interest period in the Floating Rate Period at a per annum rate equal to the applicable LIBOR (or alternative, as described below) rate plus the spread. The rate will be determined by the calculation agent on the second London business day (as defined in the accompanying prospectus) immediately preceding the first day of such interest period in the*

following manner:

1. LIBOR will be the offered rate per annum for three-month deposits in U.S. dollars, beginning on the first day of such period, as that rate appears on Reuters screen LIBOR01 (or any successor or replacement page) as of approximately 11:00 A.M., London time, on the second London business day immediately preceding the first day of such interest period.

2. If the rate described above does not so appear on the Reuters screen LIBOR01 (or any successor or replacement page), then LIBOR will be determined on the basis of the rates, at approximately 11:00 A.M., London time, on the second London business day immediately preceding the first day of such interest period, at which deposits of the following kind are offered to prime banks in the London interbank market by four major banks in that market selected by the calculation agent: three-month deposits in U.S. dollars, beginning on the first day of such interest period, and in a Representative Amount. The calculation agent will request the principal London office of each of these banks to provide a quotation of its rate. If at least two quotations are provided, LIBOR for the second London business day immediately proceeding the first day of such interest period will be the arithmetic mean of the quotations.

3. If fewer than two of the requested quotations described above are provided, LIBOR for the second London business day immediately preceding the first day of such interest period will be the arithmetic mean of the rates for loans of the following kind to leading European banks quoted, at approximately 11:00 A.M., London time, on the second London business day immediately preceding the first day of such interest period, by major banks in New York City selected by the calculation agent: three-month loans of U.S. dollars, beginning on the first day of such interest period, and in a Representative Amount.

4. <u>If no quotation is provided as described in clauses (1)-(3) above, then LIBOR for the second London business day immediately prior to the first day of such interest period will be equal to LIBOR for the interest period immediately preceding such date.</u>

The above Section 4 causes issuers and investors to face the risk of floating rate securities converting to a fixed rate. To mitigate this risk, the Credit Roundtable proposes the following fall back language for securities issued now until an alternative rate is established. Our language replaces the underlined language above (section 4) with the following;

4. (A) If no quotation is provided, then

(i) unless the provisions of clause (ii) have become effective, LIBOR for the second London business day immediately prior to the first day of such interest period will be equal to LIBOR for the interest period immediately preceding such date and

(ii) following the earliest of:

a. the date set by the Financial Conduct Authority (or any successor responsible for regulating banks in the United Kingdom ("FCA")) in a public statement for the discontinuation of LIBOR, but solely to the extent that the notice or statement from the FCA announcing such date has not been rescinded or revoked,

b. the date set by the LIBOR benchmark administrator (currently Intercontinental Exchange Benchmark Administration ("IBA")) in a public statement as the last day for publication of LIBOR either permanently or indefinitely, but solely to the extent that the notice or statement from the IBA has not been rescinded or revoked and there is no successor administrator that will continue publication of LIBOR, and

c. the date on which the calculation agent has notified the issuer and each holder that LIBOR (or the publication thereof) has otherwise been permanently discontinued or is otherwise no longer in effect,

the base rate applicable to the notes for such interest period shall be the Secured Overnight Financing Rate ("SOFR") recommended by the Alternative Reference Rates Committee ("ARRC") or any successor to the ARRC convened by the Federal Reserve Board; provided that if holders of a majority of the outstanding principal amount of the notes notify the Trustee no later than five business days prior to the first day of the first interest period commencing on or after the date specified in clause 4(A)(ii)(a), 4(A)(ii)(b), or 4(A)(ii)(c) above that such holders do not agree to the new base rate, the base rate applicable to the notes for such interest period and each subsequent interest period commencing prior to the date on which such notice is rescinded or each holder of the notes consents to *a new base rate, will be the rate specified in clause 4(A)(i). SOFR will include a forward-looking term structure and a risk spread quoted by the Federal Reserve Bank of New York or such other person designated by the ARRC or the International Swap Dealers Association ("ISDA").*

(B) Notwithstanding the foregoing, for so long as any of the following shall have occurred on or prior to the date specified in clauses 4(A)(ii)(a), 4(A)(ii)(b), or 4(A)(ii)(c) and be continuing thereafter, the base rate during such period will be the rate specified in clause 4(A)(i) unless the issuer and each holder of the notes have agreed on a new base rate:

(i) the ARRC has published data establishing that the average daily difference between three-month LIBOR and SOFR (with a three-month forward-looking term structure and risk spread) for the six-month period immediately prior to such date was greater than 0.01%,

(ii) neither the ARRC nor ISDA has published a standard methodology to calculate a forward-looking term structure and a risk spread for SOFR, or

(iii) ISDA has not replaced LIBOR with SOFR (including a forward-looking term structure and risk spread) in its standard documentation for swaps and other derivatives.

If any of the events specified in this clause 4(B) has occurred but no such event is thereafter continuing, then the base rate will be the rate specified in clause 4(A)(ii).

(C) Notwithstanding the foregoing, on any date following the occurrence and continuance of any event specified in clause 4(A)(ii)(a), 4(A)(ii)(b), or 4(A)(ii)(c), the calculation agent is authorized to choose a new base rate (including SOFR), but solely to the extent that the calculation agent has delivered a certification that during the six-month period ending on such date, (i) such new base rate is used in at least 66% of floating rate notes issuances consummated by companies

included in the S&P 500 (as of the first day of such six-month period) and (ii) the average daily difference between such new base rate and the base rate in effect immediately prior to such date (using comparable interest periods) was less than or equal to 0.01%.

5. The calculation agent will be an independent investment banking or commercial banking institution (other than the issuer or an affiliate of the issuer) of international standing appointed by the issuer. The issuer can change the calculation agent, but only with the consent of the holders of a majority of the outstanding principal amount of the notes. In addition, subject to the consent of the holders of a majority of the outstanding principal amount of the notes, the issuer will appoint a new calculation agent if the calculation agent makes a public statement that it cannot perform its duties, becomes insolvent, or becomes an affiliate of the issuer. The calculation agent is authorized to amend the indenture without the consent of any holder of the notes or the issuer in order to cure any ambiguity, omission, defect, or inconsistency resulting from the replacement of LIBOR with SOFR or any other new base rate, but solely to the extent that such amendment is not adverse in any material respect to any holder of the notes.

We also ask that the FRB NY and the ARRC engage market participants to develop market standard approaches and protocols to ensure a more predictable and smooth transition to a new floating base rate and to avoid market disruptions in the event of a unexpected Libor discontinuation.

We also welcome the opportunity to discuss our concerns, opinions and recommendations in greater detail. Please direct any questions to Cathy Scott, Director of the Fixed Income Forum, on behalf of The Credit Roundtable.

Kind Regards,

M C Scott

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