Life Actuarial (A) Task Force

June 9, 2022

Updated Exposure of APF 2022-04

Swap Spreads and London Inter-Bank Offered Rate (LIBOR)

Transition to the Secured Overnight Financing Rate (SOFR)

This exposure of APF 2022-04 provides two options for moving forward with the transition to SOFR. Option A is applicable if the availability of SOFR data is limited to a single data source. Option B is applicable if SOFR data is available from multiple data sources.

Parties are also asked to opine on whether the APF should use the word “companies” or the term “appointed actuary” in option A for VM-20 Appendix 2.F.

Note this revised APF is complemented by a May 26, 2022 memo from NAIC staff to LATF on a recommended replacement to LIBOR swap spreads effective [TBD, potentially June 30, 2022].

*Please send comments to*[*Reggie Mazyck*](mailto:rmazyck@naic.org)*@* [RMazyck@NAIC.Org](mailto:RMazyck@NAIC.Org) *by close of business on June 21, 2022.*

**Life Actuarial (A) Task Force/ Health Actuarial (B) Task Force**

**Amendment Proposal Form**

1. Identify yourself, your affiliation and a very brief description (title) of the issue.

**Identification:**

Alan Routhenstein, on behalf of the American Academy of Actuaries’ Life Reserves Work Group, Annuity Reserves and Capital Work Group, and Variable Annuity Reserves and Capital Work Group

Pat Allison, NAIC staff

**Title of the Issue:**

Swap Spreads and London Inter-Bank Offered Rate (LIBOR) transition to the Secured Overnight Financing Rate (SOFR) - Updated VM-20 prescribed swap spreads guidance in light of the LIBOR transition to SOFR.

2. Identify the document, including the date if the document is “released for comment,” and the location in the document where the amendment is proposed:

VM-20 Section 9.F.8.d, VM-20 Appendix 2.F, VM-20 Appendix 2.G

January 1, 2022 NAIC *Valuation Manual*

3. Show what changes are needed by providing a red-line version of the original verbiage with deletions and identify the verbiage to be deleted, inserted or changed by providing a red-line (turn on “track changes” in Word®) version of the verbiage. (You may do this through an attachment.)

Proposed edits to VM-20 for LIBOR transition to SOFR are shown in the attached Appendix

4. State the reason for the proposed amendment? (You may do this through an attachment.)

1. Bank regulators and a group of swap market participants have agreed that for interbank interest rate swaps executed after 2021, the floating rate needs to be based on an index other than LIBOR.
2. During 2021 the swap market evolved such that the definition of a standard n-year interest rate swap changed in January 2022 to be a SOFR swap (for which the floating rate is based on SOFR) from the historical LIBOR swap (for which the floating rate is LIBOR).
3. As a result, VM-20 instructions for how the NAIC will calculate and publish swap spreads needs to be updated for:
   1. Current Benchmark swap spreads (as of each month end); and
   2. Long-Term Benchmark swap spreads (as of each quarter end)
4. The associated presentation provides further background and rationale for this proposal.

NAIC Staff Comments:

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#### Appendix

#### Proposed amendments to VM-20 for APF 2022-04 on Swap Spreads and LIBOR transition to SOFR

#### VM-20 Section 9.F.8.d Procedure for Setting Prescribed Gross Asset Spreads……:

1. Interest rate swap spreads over Treasuries shall be prescribed by the NAIC for use throughout the cash-flow model wherever appropriate for transactions and operations including, but not limited to, purchase, sale, settlement, cash flows of derivative positions and reset of floating rate investments. A current and long-term swap spread curve shall be prescribed for year one and years four and after, respectively, with yearly grading in between.
   1. The current prescribed swap spread curve shall be the Secured Overnight Financing Rate (SOFR) swap curve.
   2. The long term SOFR swap spread curve, given that the SOFR swap market did not emerge before late 2021 and that SOFR is an index for which there is no official data before April 2, 2018, shall be calculated based on 15 year moving averages of prescribed estimates of historical SOFR swap spreads for valuation dates prior to June 30, 2037.

**Guidance Note:** Actuarial judgment may be required in the use of prescribed swap spreads (for example, in the case where companies have a financial instrument with floating rate payments based on an index that is not prescribed by the NAIC [e.g., 1-month SOFR or 3-month LIBOR]).

#### VM-20 Appendix 2.F Current Benchmark Swap Spreads:

Option A – For use if the NAIC does not publish current benchmark swap spreads. Replace Section F with the language shown below.

F. Current Benchmark Swap Spreads

For tenors of 3 months, 6 months, and one year through 30 years, companies (the appointed actuary) shall use swap spread data determined as of the last business day of the month by maturity from a nationally recognized provider of this data.

Option B – For use if the NAIC publishes current benchmark swap spreads based on at least two data sources.

F. Current Benchmark Swap Spreads

1. For tenors of 3 months, 6 months, and one year through 30 years, extract swap spread data determined as of the last business day of the month by maturity from at least two nationally recognized providers of this data. If the data source provides swap rates rather than swap spreads, convert the swap rate for each maturity to a swap spread by subtracting the corresponding maturity Treasury yield from the swap rate.

2. Average the swap spreads from the data sources by maturity determined as of the last business day of the month.

3. Publish the Current Benchmark Swap Spreads by maturity in a table.

#### [Drafting Note: The tables will be labeled to indicate they contain SOFR swap spreads.

#### Guidance Note: 3-month and 6-month SOFR swap rates are defined herein as the fixed rate one party pays at the end of three months or six months in exchange for receiving at such time 3-month SOFR or 6-month SOFR, calculated on a compounded in arrears basis.

#### VM-20 Appendix 2.G Long-Term Benchmark Swap Spreads:

G. Long-Term Benchmark Swap Spreads

Option A

1. Extract daily swap spread data over the prescribed observation period (rolling 15-year period) ending on the last business day of the quarter from a nationally recognized provider of this data. If the data source provides swap rates rather than swap spreads, convert the daily swap rate for each maturity to a swap spread by subtracting the corresponding maturity Treasury yield from the swap rate.

Option B

1. Extract daily swap spread data over the prescribed observation period (rolling 15-year period) ending on the last business day of the quarter from at least two nationally recognized providers of this data. If the data source provides swap rates rather than swap spreads, convert the daily swap rate for each maturity to a swap spread by subtracting the corresponding maturity Treasury yield from the swap rate.

1. For a valuation date during or after 2023 and before 2037, calculate SOFR swap spreads as follows for each business day on or after the effective date of the adoption by the Life Actuarial (A) Task Force of SOFR swap spreads as the replacement for swap spreads previously prescribed:
   1. For each maturity “m” = 0.25, 0.5, 1 … 30 years, and business day “u”:

SOFR swap spread(m,u) = SOFR swap rate(m,u) - Treasury yield(m,u).

1. For a valuation date during or after 2023 and before 2037, for each business day before the effective date of the adoption by the Life Actuarial (A) Task Force of SOFR swap spreads as the replacement for swap spreads previously prescribed, utilize Bloomberg’s 2021-03-05 published USD Spread Adjustments as follows:
2. For each maturity “m” = 3 or 6 months, and business day “u”:
   * 1. SOFR swap spread(3 months,u) = LIBOR swap spread(3 months,u) - 0.26161% (the USD 3-month Spread Adjustment)
     2. SOFR swap spread(6 months,u) = LIBOR swap spread(6 months,u) - 0.42826% (the USD 6-month Spread Adjustment)
   1. For each maturity “m” = 1 … 30 years, and business day “u”:

SOFR swap spread(m,u) = LIBOR swap spread(m,u) - 0.26161% (the USD 3-month Spread Adjustment)

1. For a valuation date during or after 2037, calculate SOFR swap spreads as follows for each business day:
   * 1. For each maturity “m” = 0.25, 0.5, 1 … 30 years, and business day “u”:

SOFR swap spread(m,u) = SOFR swap rate(m,u) - Treasury yield(m,u).

Option A

Delete item 5 below. It would not apply, since data would come from one source.

Option B

Keep item 5 below, since data would come from more than one source and averaging would apply.

1. Average the swap spread data from the data sources by maturity over the prescribed observation (rolling 15-year period).
2. Calculate the Long-Term Benchmark Swap Spreads as the 85% conditional mean for each of the 32 maturity categories (three-month, six-month, one-year, two-year, … 30-year) using the same business trading days as were used in the 85% conditional mean for long-term bonds spreads.
3. Publish the Long-Term Benchmark Swap Spreads in a table. Among tables published on the NAIC website (See Subsection H), Table J shows Long-Term Benchmark Swap Spreads.