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The following information was prepared by PGIM Fixed Income

PGIM Fixed Income respectfully submits these comments in response to the Alternative Reference Rates Committee's (ARRC) Consultation on New Issuances of LIBOR Securitizations. PGIM Fixed Income, part of PGIM (the global asset management business of Prudential Financial) ranks among the largest institutional asset managers in the United States with \$729 billion of assets under management, including over \$80 billion of structured product investments.

We thank the ARRC for its leadership efforts and hope its proposed "best practices" are adopted industry-wide as the fixed income market begins to navigate the significant transition from LIBOR to SOFR. Prudential Fixed Income has proactively sought improvements to fallback provisions in new issue securitizations since the FCA announcement regarding LIBOR panel banks in July 2017 and we remain actively engaged in the ARRC and trade association LIBOR working groups to further these improvements. We look forward to continuing to work with the ARRC in refining and implementing these recommendations that we view as critical to ensuring the continuation of an efficient and liquid structured products market.

Question 1: Which securitization asset classes are you referring to in your response to this consultation if limited to only certain asset classes? If there are particular features of these asset classes that shape your responses to the questions in this survey, please describe them to the extent possible.

Our responses pertain to all securitization asset classes.

Question 2: The ISDA triggers contemplate a permanent cessation of LIBOR as of a date certain which may be announced in advance (the "Cessation Date"), at which point the transition from LIBOR to SOFR would occur. As there may be operational challenges for securitizations as both assets and liabilities will have to be transitioned, some have asked for the ability to transition in advance of the Cessation Date in order to address any operational issues that may arise. Specifically, the Designated Transaction Representative (as defined in Appendix I) will have the ability to pick one date within a 30-day period prior to the Cessation Date to facilitate an orderly transition. Do you feel the inclusion of this ability to transfer prior to the Cessation Date is needed? If so, please explain the specific, critical and tangible needs that support its inclusion?

We would prefer to avoid transaction party discretion in determining when the transition from LIBOR should occur and would rather rely on clear and prescriptive triggers. A few issuers have argued for this limited discretion to allow them the flexibility to transition assets prior to the Benchmark Replacement Date. However, the Asset Replacement Percentage (ARP) trigger is meant to address this issue and will automatically convert the securitization liabilities to the alternative index once a certain percentage (e.g., 50%) of the underlying assets have converted. As a result, the requested discretion appears to be redundant.

Question 3(a): Should fallback language for Securitizations include any of the pre-cessation triggers (clauses (3), (4), (5) and (6) of the Benchmark Discontinuance Event definition)? If so, which ones? Also, please identify any pre-cessation triggers that you do not believe should be utilized for a particular securitization product and explain why.

Yes, the fallback language for securitizations should include pre-cessation triggers outlined in the consultation:

- (a) Failure to Publish for Five (5) Days this trigger seems to be redundant with other triggers ("permanent discontinuation" and "Not Representative or Prohibition on Use"). If the index was not published for five days in a scenario that did not reflect permanent discontinuation, we expect that the LIBOR regulator/administrator would make a public statement: (1) indicating the temporary nature of the disruption or (2) deeming the index no longer suitable for use in the capital markets.
- (b) Insufficient Number of Submissions/Not Representative or Prohibition on Use we need to prepare for the possibility that LIBOR may continue to be published even though it might no longer be reflective of actual bank borrowing costs (effectively, "Zombie" LIBOR), particularly post 2021 when the panel banks will no longer be compelled to submit estimates. These precessation triggers ensure that transactions will switch to a more robust interest rate index even though a "weakened" LIBOR index continues to be published.
- (c) Basis Risk there are certain securitization transactions that would benefit from a basis risk trigger since the securitization prospectus generally defines and controls liability (bond) provisions while a separate loan agreement(s) controls the assets (loan provisions). If the issuer/originator chooses to convert the underlying loans to the alternate index prior to conversion of the securitization liabilities, the transaction would incur basis risk that could impair credit performance. A basis risk trigger that automatically converts the securitization liabilities once the percentage of assets referencing the alternate index exceeded a threshold (e.g., 50%), would serve to minimize basis risk and any resulting negative credit performance and potential ratings downgrades.

Question 3(b): Please indicate whether any concerns you have about these pre-cessation triggers relate to the differences between these securitization triggers and those for standard derivatives or whether your concerns relate specifically to the pre-cessation triggers themselves.



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We are concerned that the proposed triggers (cessation and pre-cessation) for securitization are different than those proposed for derivatives (only references cessation) and could potentially limit hedge effectiveness. For example, if the FCA announced that LIBOR was no longer representative post 2021 (assume only one panel bank remained), our securitization investments would convert to the alternate index yet our associated hedges (swaps/futures) would continue to reference "Zombie" LIBOR. We would then need to terminate the LIBOR derivatives (might be expensive/unachievable given limited liquidity) and replace with SOFR derivatives.

We prefer that ISDA adopt similar pre-cessation triggers that are consistent with securitizations, business loans, and floating rate notes to align the cash and derivatives markets.

Question 3(c): If you believe that the pre-cessation trigger in clause (6) (Asset Replacement Percentage) should not be retained, please note any specific concerns leading to this conclusion. If you believe that it should be retained, are there any changes you believe should be made to this trigger? Please explain.

We prefer to retain the Asset Replacement Percentage trigger. This trigger should only be used when both assets and liabilities are indexed to LIBOR and would be appropriate for both static and revolving pools. This trigger would not be appropriate for all transactions with examples including (1) credit card transactions where liabilities are indexed to LIBOR, but assets are indexed to the prime rate and (2) CMBS transactions where assets are fixed rate, but certain tranches are swapped to LIBOR (the associated swap is an asset of the trust).

Question 3(d): If you believe the pre-cessation trigger in clause (6) (Asset Replacement Percentage) should be retained, how would you address concerns that it could result in a transfer of value in a transaction where the Designated Transaction Representative has the ability to change the benchmark used on the underlying assets and, as a result, determine the timing of this pre-cessation trigger? Are there other changes that should be made to the Asset Replacement Percentage trigger? Note that this trigger relates to a mismatch between the securities and the Securitization assets that results from changes in the assets. A mismatch may also arise from a change in the securities due to a trigger event under these fallback provisions. Any concerns with the latter scenario can be addressed in responses to Question 16.

An issuer's economic interest in a securitization is generally the excess interest created by assets relative to liabilities. A transfer of value could occur in a scenario where the following occurs: (1) LIBOR spikes well above the historical relationship between LIBOR and the alternate index such that transitioning bonds to the alternate index would substantially reduce interest expense; and (2) a self-interested issuer transitions underlying assets in a sufficient percentage (e.g., 50%) solely to satisfy the basis risk trigger and does not convert the remainder of the assets in order to increase its excess spread.

The potential for such a scenario can be reduced by increasing the ARP threshold to minimize the economic benefit to the issuer. An ARP threshold of 95% would essentially eliminate the potential for value transfer given the above scenario but would limit its effectiveness in managing basis risk. We prefer a lower threshold and advocate avoiding transactions where we expect the issuer to engage in self-dealing.

Question 3(e): If pre-cessation triggers are not included, are there options available to market participants to manage the potential risks involved in continuing to reference a Benchmark in the circumstances contemplated by each of these pre-cessation triggers?

If the pre-cessation triggers are not included in the fallback language, we risk continuing to reference a "non-representative" index for the remaining life of the transaction and introduce a potential source of systematic risk in our portfolios that the FCA/Federal Reserve is seeking to eliminate through its work on alternative reference rates. Without these pre-cessation triggers, we could perhaps alter the amendment process (currently requires 67-100% bond holder approval to change a "money" term) to permit a transition to an alternate index. Use of an amendment rather than triggers to transition is a suboptimal solution and would require deal-by-deal legal analysis, unique structuring, and potential varying amendment outcomes.

Question 4: Should the proposed securitization fallback language permit the Designated Transaction Representative to transition the securities after a trigger has occurred but before the Benchmark Replacement Date? Should any limitations be placed on its use? Should there be a limited date range (e.g., 60 days) prior to the Benchmark Replacement Date in which this could be used? Should the Designated Transaction Representative be limited in the circumstances under which it could elect to utilize the additional time? If so, what standard should be utilized to assess whether the additional time is necessary? In each case, please explain why.

Please refer to our response to question 2.

Question 5(a): If the ARRC has recommended a forward-looking term rate, should that rate be the primary fallback for the securities referencing LIBOR even though derivatives are expected to reference overnight versions of SOFR? Please explain why.

Yes, we prefer a forward-looking term rate for a variety of reasons, including:



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- (1) Operational simplicity the forward-looking term rate is known in advance, is represented by a single number, and avoids computational complexity.
- (2) Superior theoretical basis a forward-looking index is the best representation of the expectation of the interest rates for the corresponding interest rate period.
- (3) Hedging a forward looking term rate that is widely accepted is easily hedged in the derivatives market with no corresponding basis risk.
- (4) Market convention the securitization industry, since its inception, has indexed floating rate liabilities to the forward-looking term rate. A change to market standard could result in trading disruptions and reduced liquidity, at least during an interim period.

We would prefer that the derivatives market also employ the forward-looking term rate to reduce potential basis risk with the cash market. Basis risk will be created if the securitization market references a forward-looking term rate while the derivatives market references compounded overnight SOFR (in arrears). As an example, an owner of a securitization cash bond that receives a forward-looking three-month term rate can only hedge in the derivatives market by paying the overnight rate for the next 90 days (assuming ISDA selects compounded SOFR in arrears as the fallback) that might be higher or lower than the term rate received.

Question 5(b): Is there a specific reason that the securitization market should first fallback to forward-looking term SOFR instead of another rate? Please explain why.

Please refer to our answer to question 5(a).

Question 5(c): Is the use of an Interpolated Period appropriate in the securitization markets? Please explain any limitations that should be applied to the use of an Interpolated Period.

Yes, interpolation would be acceptable where a term rate for the target tenor is not endorsed by the ARRC, but ARRC-endorsed term rates are available for shorter and longer tenors. Generally, an interpolation solution would be superior to compounded SOFR unless the endorsed tenors are significantly longer/shorter than the target tenor or if the interpolation provides a rate that isn't representative of the observed (but not ARRC-endorsed) term rate.

Question 5(d): In the event a Replacement Benchmark is determined other than under Step 1 of the waterfall, should the waterfall provide that the Replacement Benchmark be changed in the future as soon as a rate can be established under Step 1 of the waterfall?

Yes. If the forward-looking term rate is not yet endorsed by ARRC, we recommend periodically re-testing Step 1 of the waterfall. When/if the term rate is subsequently endorsed by the ARRC, the securitization should transition to that forward-looking term rate. Without the re-testing feature, we potentially risk creating a bifurcated market where earlier transactions transition to a more complicated/suboptimal replacement index (e.g., compounded SOFR) while later transactions transition to a simple/optimal forward-term rate solution. We speculate that the compounded SOFR deals would trade at wider spreads and potentially with less liquidity given computational complexity, operational issues, and non-market standard features.

Question 6(a): Should Compounded SOFR be the second step in the waterfall? Would this preference be influenced by whether ISDA implements fallbacks referencing Compounded SOFR or overnight SOFR?

Yes, while our primary preference is for term-SOFR, we recommend compounded SOFR if a term rate is not available. We do not support the use of a single overnight SOFR as a reference index given substantial volatility in the overnight rate and the failure of that rate to reflect the appropriate term premium.

Question 6(b): If you believe that Compounded SOFR should be included, which compounding period is preferable ("in arrears" or "in advance")? Please explain why. Would this preference be influenced by whether ISDA implements fallbacks referencing Compounded SOFR "in arrears" or "in advance?" Please explain whether your preference is based on operational concerns in implementing a particular approach or on economic concerns.

We prefer compounding in arrears since this option best reflects the actual interest rate applicable to the interest period. While compounding in arrears creates operational issues since the rate isn't known until the end of the interest rate period, we should focus on making recommendations that maximize economic efficiency and then craft operational solutions rather than letting operational challenges lead to suboptimal economic decisions. These operational issues can be solved by introducing a payment delay, utilizing a lockout, or lagging the in-arrears lookback period.

Question 6(c): If it was necessary to calculate Compounded SOFR and a third party was not available to perform those calculations, are there parties to the Securitization transactions with sufficient resources to perform those calculations accurately and



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efficiently? Are there other considerations relating to the calculation of Compound SOFR that would make it an undesirable Replacement Benchmark without the availability of a third party provider?

The compounded SOFR formula is clearly defined by ISDA and should be included in every securitization prospectus. A calculation agent should be able to perform the calculations without the need for a third-party provider. There appears to be substantial consternation on the part of servicers/trustees/calculation agents regarding perceived complexity of a compound SOFR formula, but this calculation is far more simple than other deal calculations that are currently performed (in CMBS, the process by which a yield maintenance payment on a prepaid loan is allocated to principal and interest-only tranches is described over several pages in the deal prospectus).

Question 7: As noted, this consultation does not include Spot SOFR as a third step in the waterfall. Do you believe that Spot SOFR is an appropriate fallback reference rate for Securitization contracts or should the second step in the replacement rate waterfall be Compounded SOFR, after which the replacement rate would be, first, recommended by the Relevant Governmental Body, second, default to then-current ISDA Definitions, and third, proposed by the Designated Transaction Representative?

We do not support the use of spot SOFR for the fallback reference rate given substantial volatility of the overnight rate coupled with the failure of the spot rate to incorporate an appropriate term premium. If compounded SOFR is not available then it would seem that spot SOFR would also not be available and would therefore represent an irrelevant fallback. If SOFR ceases to be published, it would seem appropriate for the fallback waterfall to reference subsequent ARRC/ISDA recommendations.

Question 8: In the future circumstance where there is no SOFR-based fallback rate, is the replacement rate determined by the Relevant Governmental Body the best alternative at this level of the waterfall? Please explain why.

Yes. The ARRC has proven to be effective in its recommendations to transition away from LIBOR and would seem to represent a viable model to coordinate any potential future transition away from SOFR. Without the leadership of the ARRC or a similar regulatory body, standardization within structured products and across various fixed income sectors would be far more difficult.

Question 9: In the future circumstance where there is no SOFR-based fallback rate and the Relevant Governmental Body has not recommended a replacement rate for Securitizations, is the fallback for SOFR-linked derivatives set forth in the ISDA definitions at the time of cessation, the best alternative at this level of the waterfall? Is this fallback appropriate if ISDA Definitions only include overnight fallback rates? Please explain why.

In the highly unlikely scenario where SOFR no longer exists (\$800+bb daily trading) and the relevant government body remains silent despite the significant implications of the elimination of the treasury repo market, it would seem appropriate to then rely on ISDA recommendations (Overnight Bank Funding Rate as provided by the Federal Reserve Bank of New York, if available, otherwise the FOMC Target Rate).

Question 10(a): Since it is unlikely that there will be no ISDA fallback (clause (a) above), this provision is more likely to occur (if at all) when the ISDA fallback is deemed not appropriate for securitization securities (clause (b) above). In that scenario, is this provision appropriate as the final step in the Replacement Benchmark waterfall? Please explain why.

This scenario (no SOFR, no subsequent ARRC recommendation, and issuer prefers not to use the ISDA fallback) has such a low probability of occurrence that it represents a distraction. We prefer to simply rely on ISDA (OBFR or FOMC target) rather than incorporate the complexity associated with the final step in the proposed waterfall.

Question 10(b): Should the provision allow for "re-testing" the waterfall to determine whether another Replacement Benchmark has become available in the scenario where investors have rejected the Proposed Replacement Benchmark? Should the waterfall be re-tested in any other circumstances (e.g., any time the Replacement Benchmark has been determined under a "less-desirable" clause)? How often? Please explain why.

Please refer to our re-testing comments in response to question 5(d).

Question 11: Are there any concerns if a spread adjustment was utilized with cash products that was calculated by a spot rate comparison of the difference between LIBOR and the Replacement Base Rate at the time of conversion? Should this option be included in the spread waterfall? If so, where?

We do not support a spot adjustment given substantial volatility of the overnight SOFR rate. In addition, LIBOR quotations at the time of conversion may not be representative of bank borrowing and should not be utilized to compute a credit spread adjustment.

We prefer that the credit spread adjustment be computed based upon a long-term (10+years) SOFR/LIBOR differential. While SOFR has only been published since April 2018, the NY Fed reconstructed SOFR through 2014. In addition, the NY Fed has



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provided historical data based on its Overnight Treasury GC Repo Primary Dealer Survey Rate series that dates to 1998 that should provide a reasonable proxy for SOFR.

Question 12: Do you believe that the ARRC should consider recommending a spread adjustment that could apply to cash products, including Securitizations?

Yes, a recommendation from the ARRC will hopefully lead to standardization of the credit spread adjustment across securitization cash products, derivatives, and all other impacted fixed income sectors. Absent a recommendation from a relevant government body, various trade associations would most likely try to provide direction, but sector-by-sector and deal-by-deal differences could lead to market disruption given likely pricing and liquidity differentials depending upon the unique credit spread adjustment employed within each deal (similar to the deal variation we see in legacy LIBOR fallback provisions).

Question 13(a): Is a spread adjustment applicable to fallbacks for derivatives under the ISDA definitions appropriate as the second priority in the spread waterfall? Please explain why.

Yes. We support an historical mean approach (relevant tenor-LIBOR compared to compounded SOFR) to compute the credit spread adjustment with a sufficiently long lookback period (10 years). ISDA recently published its "final findings" regarding its consultation and determined that it"... expects to proceed with developing fallbacks based on the compounded setting in arrears rate and the historical mean/median approach for all of the benchmarks covered by the ISDA Consultation for inclusion in the 2006 ISDA Definitions."

Question 13(b): If the ARRC has recommended a forward-looking term SOFR but has not recommended a corresponding spread adjustment under Step 1 above, do you believe that the ISDA spread adjustment described in Step 2 (which may be intended to apply to a different Replacement Base Rate) should apply to Securitizations? Please explain why.

Yes, we agree with ISDA's conclusion regarding its agreed-to approach to compute the credit spread adjustment (please refer to our response to question 13(a)).

Question 13(c): Given that ISDA has not yet decided upon the spread calculation methodology16, should Step 2 be excluded from the waterfall? Please explain why.

No. ISDA has concluded that it will utilize our preferred approach to computing the credit spread adjustment (historical mean/median approach). While details of the calculation, such as the lookback period and whether to use the mean or median of the differences have not yet been resolved, we are comfortable following ISDA recommendations (we do not expect the unresolved details to have a material impact upon the final spread adjustment for each tenor).

Question 14(a): What type of institution can and should take on the responsibility to (i) determine whether the proposed triggers have occurred, (ii) select screens where reference rates or spreads are to be found, (iii) make calculations of a rate or spread in the absence of published screen rates, (iv) interpolate term SOFR if there is a missing middle maturity and/or (v) elect to cause an early transition under the proviso to the definition of Benchmark Replacement Date?

The trustee and/or calculation agent should take the responsibility of determining (i) through (iv) (we prefer to avoid providing transaction party discretion to cause an early transition (item v above). It will be critical to coordinate with the ARRC and ISDA to ensure clear definitions in the prospectus with respect to each aspect of the transition listed in question 14(a) (triggers and how to determine if each has occurred, where screen rates will be located, and all potential calculations including compounding and interpolation). Alternatively, the operating advisor (found in CMBS deals) could also perform these duties.

In CLO deals, the collateral manager should not be responsible for determining (i) through (v) above. The collateral manager's duty is managing the portfolio, not determining the economic terms of the CLO's securities. Further, collateral managers often invest in the equity of their deals and, those that do invest in equity tranches may be conflicted.

Question 14(b): Whether as issuer, sponsor, servicer or calculation agent, would your institution be willing to (i) determine whether the proposed triggers have occurred, (ii) select screens where reference rates or spreads are to be found, (iii) make calculations of a rate or spread in the absence of published screen rates, (iv) interpolate term SOFR if there is a missing middle maturity and/or (v) elect to cause an early transition under the proviso to the definition of Benchmark Replacement Date?

PGIM Fixed Income serves as collateral manager for various CLOs. As a collateral manager, PGIM Fixed Income does not believe it should be responsible for determining (i) through (v) above. We believe the trustee and/or calculation agent should take the responsibility for performing these duties. Current practice in the CLO market is for the calculation agent to calculate interest payments (which includes finding published LIBOR screen rates, interpolating such rates when necessary, and adding appropriate spreads), and the calculation agent should continue to be responsible for performing these duties after LIBOR is replaced by an alternative rate.



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Question 15: Is there any provision in the proposal that would significantly impede Securitization issuances? If so, please provide a specific and detailed explanation.

We don't believe there are any provisions in the proposal that would significantly impede securitization issuances.

Question 16: Given the fallback language for the Securitization and the underlying assets may operate independently, please identify any sources of misalignment between those components that are not addressed in the consultation.

Please refer to our comments on the basis risk trigger in questions 3(a) through 3(e).

Question 17: Are there specific operational challenges that implementing the proposed fallback language might create for securitizations? If so, what are those challenges and under what circumstances might they occur? How might they be mitigated?

Selection of a fallback reference rate other than term SOFR will create potential operational issues (e.g., compounding in arrears/advance) that must be addressed through the introduction of a payment delay, lagged lookback period, or lockout.

Question 18: Please provide any additional feedback on any aspect of the proposal.

Since the FCA's announcement in July 2017 regarding LIBOR panel banks, we have attempted to modify LIBOR fallback provisions in new issue CLO, CMBS, and ABS deals with varying degrees of success. Generally, our recommendations have been reflected in the prospectus in deals where our orders represent a substantial portion of the capital stack; our recommendations receive less focus when we are a less significant participant. Additionally, we've heard an opinion expressed in the market that even when the ARRC/industry groups publish "best practices" as reflected in this consultation, some issuers with a deep investor base may choose to ignore those recommendations and may proceed with their own unique solution.

Standardization of fallback provisions, including triggers and the alternate index rate for all sectors within structured products and, more broadly, across all fixed income sectors is critical to ensure that market efficiency and liquidity are not impaired. Bespoke solutions across deals and sectors could: (a) result in operational complexities; (b) slow the trading process given the need to understand unique deal-by-deal interest rate calculations; and (c) complicate the hedging process.

Once the best practices are published, we recommend that the ARRC, along with industry trade groups encourage broad adoption and standardization of fallback provisions to minimize the potential for market disruption during the market's transition from LIBOR to SOFR.

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