

**ARRC CONSULTATION**  
**REGARDING MORE ROBUST LIBOR FALLBACK CONTRACT LANGUAGE FOR**  
**NEW CLOSED-END, RESIDENTIAL ADJUSTABLE RATE MORTGAGES** July  
12, 2019

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Part II: Fallback Language for New Closed-End, Residential Adjustable-Rate Mortgage Consultation

**Part I: ARRC Consultation Overview**

**A. Background**

The Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York convened the [Alternative Reference Rates Committee](#) (“ARRC”) in 2014 to identify alternative reference rates for U.S. dollar (USD) LIBOR (“LIBOR”), identify best practices for contract robustness in the interest rate market, and create an implementation plan to support an orderly adoption of new reference rates. After accomplishing its initial set of objectives by selecting an alternative reference rate (which is the Secured Overnight Financing Rate or “SOFR”) and setting out a Paced Transition Plan with respect to derivatives, the ARRC was reconstituted by the Board of Governors of the Federal Reserve System and the Federal Reserve Bank of New York in 2018 with an expanded membership to help ensure the successful implementation of the Paced Transition Plan and to serve as a forum to coordinate cash and derivatives markets as they address the risk that LIBOR may not exist beyond 2021. The ARRC now serves as a forum to address the impact of a possible LIBOR cessation on market participants currently using LIBOR and the development of SOFR-based products across cash and derivatives markets.

The [ARRC's Second Report](#) noted that most contracts referencing LIBOR do not appear to have envisioned a permanent or indefinite cessation of LIBOR and have fallbacks that would not be economically appropriate if this event occurred. To meet its mandate to act as a forum for coordinating voluntary transition, the ARRC formed a number of working groups to focus on various markets and published its [Guiding Principles for More Robust LIBOR Fallback Contract Language](#) to create a framework for fallback language in cash products. The ARRC has already consulted on and [recommended fallback language](#) for floating-rate notes, syndicated and bilateral business loans, and securitizations. These recommendations set forth robust fallback provisions that define the trigger events<sup>1</sup>, and allow for the selection of a replacement index<sup>2</sup> and a spread adjustment between LIBOR and the replacement index to account for differences between these two benchmarks.

The ARRC formed its Consumer Products Working Group (Working Group) this year. As the only working group of the ARRC whose stakeholders include retail consumers, the ARRC also established a set of [guiding principles](#) that it believes are uniquely applicable for consumer loan products. In order to meet its mandate, the Working Group includes a diverse array of lenders, consumer groups, investors, and servicers.

Current contract language in closed-end, residential mortgages and other consumer products allows lenders to replace the index if LIBOR is no longer available, but provides little guidance to the parties about the process for making any such replacement. As a result, both consumers and investors may benefit from contract language that more clearly specifies what they should expect to happen if LIBOR is no longer published or is materially disrupted. The Working Group was therefore tasked with recommending modified language for new loans, and several key principles were set out to guide that work:

- In determining proposed fallbacks for LIBOR in consumer products, the choice of the replacement index, spread or margin adjustment to the replacement index, succession timing, and mechanics should be easily comprehensible in order to be effectively communicated to all stakeholders in advance of the transition away from LIBOR, and should seek to minimize expected value transfer based on observable, objective rules determined in advance.
- Where flexibility or discretion are incorporated in fallbacks, it should be carefully considered and limited to the extent possible to ensure ease of application and to minimize the potential for disputes.

The Working Group has developed proposed language for use in new consumer LIBOR closed-end, residential adjustable-rate mortgages ("ARMs"). The proposed language is set out in Appendix I, using red font to highlight the proposed changes for the reader showing against the current form of uniform note commonly used in ARMs today. This consultation provides an opportunity for all interested parties to submit any comments or feedback on the proposed language and related issues. The ARRC will consider any feedback received in response to this consultation before recommending contract language for use in new consumer ARMs. The extent to which any market participant decides to implement or adopt any suggested contract language is completely voluntary. Therefore, each market

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<sup>1</sup> A trigger event is an occurrence that precipitates the conversion from LIBOR to a new reference rate. <sup>2</sup> The replacement index is the reference rate that would replace LIBOR in contracts.

participant should make its own independent evaluation and decision about whether or to what extent any suggested contract language is adopted.

As noted above, the language proposed in Appendix I is for *new* ARM loans. The Working Group will turn its attention to the transition for *existing* LIBOR ARMs later in 2019.

## **B. An Explanation of SOFR and Differences between SOFR and LIBOR**

A key component of the proposed fallback language set out in Appendix I is the proposal that the replacement index will be “selected or recommended by the Federal Reserve Board, the Federal Reserve Bank of New York, or a committee endorsed or convened by the Federal Reserve Board or the Federal Reserve Bank of New York,” (e.g., the ARRC). The ARRC discussed the merits of and sought feedback on alternative rates in its 2016 [Interim Report and Consultation](#) and in a public roundtable, and after evaluating and incorporating feedback from the consultation and from the broad set of end users on its [Advisory Group](#), selected SOFR as its recommended alternative to U.S. dollar LIBOR in 2017. The Federal Reserve Bank of New York began publishing SOFR in April 2018 and has stated that it plans to begin publishing averages of SOFR in the first half of 2020.

SOFR is a broad measure of the cost of borrowing cash overnight collateralized by U.S. Treasury securities. SOFR is determined based on transaction data composed of: (i) tri-party repo, (ii) General Collateral Finance (GCF) repo, and (iii) bilateral Treasury repo transactions cleared through Fixed Income Clearing Corporation (FICC). In terms of the transactions underpinning SOFR, SOFR has the widest coverage of any Treasury repo rate available. Averaging over \$800 billion of daily trading since it began publication, transaction volumes underlying SOFR are far larger than the transactions in any other U.S. money market and dwarf the volumes underlying LIBOR. Additional information about SOFR and other Treasury repo reference rates is available at <https://www.newyorkfed.org/markets/treasury-reporeference-rates-information>. The FRBNY, as the administrator and producer of SOFR, began publishing SOFR on April 3, 2018. SOFR is published on a daily basis on the FRBNY’s website at approximately 8:00 a.m. eastern time.<sup>2</sup>

SOFR is representative of general funding conditions in the overnight Treasury repo market. As such, it reflects an economic cost of lending and borrowing relevant to the wide array of market participants active in the financial markets. However, there are some key differences between SOFR and LIBOR. SOFR is a secured, risk-free, overnight rate, while LIBOR is an unsecured rate published at several different maturities (overnight/spot, one week, one month, two months, three months, six months and one year). As described in the User’s Guide to SOFR, many derivative and cash products should be able to reference averages of SOFR, and many products are already doing so. However, as described in the Paced Transition Plan, the ARRC has also set a goal for the development of forward-looking term rates based on SOFR derivatives markets by the end of 2021.<sup>3</sup>

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<sup>2</sup> To view the rate, visit: <https://apps.newyorkfed.org/markets/autorates/sofr>.

<sup>3</sup> Heitfield and Park (2019) have calculated *indicative* forward-looking term rates that may provide some sense as to how these eventual forward-looking term reference rates might behave.

<https://www.federalreserve.gov/econres/notes/feds-notes/indicative-forward-looking-sofr-term-rates20190419.htm>

Because LIBOR is unsecured and includes an element of bank credit risk, it is likely to be higher than SOFR and prone to widen when there is severe credit market stress. In contrast, because SOFR is secured and nearly risk-free, it is expected to be lower than LIBOR and may stay flat (or potentially even decline) in periods of severe credit market stress. For this reason, the ARRC has committed to recommending spread adjustments to SOFR for cash products that are intended to reflect the key differences between LIBOR and SOFR. These spread adjustments would be set upon occurrence of a specific event based upon observable data at that time and the ARRC will consult on any proposed adjustments before making any recommendations.

It is important to also be aware that the ARRC has committed to see that any rates and any spread adjustments it recommends are published and made publicly available. This will include seeing the rate and spread adjustment published jointly as a single “spread-adjusted” rate. As described below, these published spread adjusted rates, which could be either based on averages of SOFR or on a SOFR term rate, could be considered as a potential replacement index for LIBOR in ARMs.

### **C. Differences between Proposed Fallback Provisions for Cash Products and Derivatives**

As described in the ARRC’s guiding principles, there are several benefits to consistency across cash and derivatives products. Specifically, if fallbacks are aligned across the derivatives, loan, bond, and securitization markets so that products operate in a consistent fashion upon a LIBOR cessation, then operational, legal, and basis risk (particularly where derivatives are used to hedge interest rate risk in cash products) will be reduced. Therefore, the fallback language developed by the ARRC working groups for cash products is intended to be consistent in certain respects with the approach ISDA intends to take for derivatives.

However, ISDA has not analyzed the appropriateness of its proposed fallbacks for non-derivatives and it may be the view of market participants that cash product fallbacks should differ in some respects from derivative fallback provisions. For example, ISDA is currently consulting on the possible inclusion of pre-cessation triggers but may ultimately elect not to include such triggers in its definition amendments, while respondents to the ARRC’s consultations have so far shown a clear preference for the inclusion of a pre-cessation trigger that would move to a replacement index if the U.K. Financial Conduct Authority determined that LIBOR was no longer representative, and the ARRC’s recommended fallback language for other cash products includes this type of trigger. Also, derivatives are generally expected to reference an average of the overnight rate calculated over the interest period (“in arrears”), while an “in arrears” replacement index may be difficult to implement in a manner consistent with applicable consumer regulations for ARMs.

## **Part II: Fallback Language for New Closed-End, Residential Adjustable-Rate Mortgages Consultation Questions**

### **A. General Approach of the ARM Fallback Provisions**

Based on the recommendations of its Consumer Products Working Group, the ARRC is proposing an approach to more robust fallback language for new ARMs. The proposed fallback language for ARMs is set forth in Appendix I hereto. This **Part II** contains a description of the ARM fallback provisions and specific questions that market participants are asked to consider.

Note that in most current ARM notes or ARM riders, there is existing fallback language that specifies that “if the Index is no longer available, the Note Holder will choose a new index that is based upon comparable information.” This language has been used several times in the past for other index replacements, but (a) does not provide much clarity to stakeholders about when an index is no longer available or the process to select a replacement index, and (b) does not explicitly state that it may be necessary to make an adjustment to reflect differences between the current and replacement indices in order for the replacement index to be “comparable.” The ARRC’s proposed contract language is meant to address these issues.

The ARM fallback provisions proposed in this consultation try to balance several goals of the ARRC principles described in **Part I: ARRC Consultation Overview**. To provide clarity and consistency, the ARM fallback proposal uses clear and observable triggers and uses a replacement index selected or recommended by the Federal Reserve or a body convened or endorsed by the Federal Reserve, if such rate is available. If such a rate is not available, the Note Holder will continue to be responsible for choosing a replacement index as is the case in current fallback language for ARMs; however, the ARRC’s proposal includes language addressing any necessary adjustment of loan’s margin and provides a standard of reasonableness and good faith for the Note Holder’s choice of the replacement index and margin.

Investors often enter into interest rate swaps to offset or hedge their floating rate exposure. In order to reduce a mismatch between ARMs and swap instruments, the proposed fallback language for ARMs is generally consistent with the approach ISDA presently anticipates implementing for derivatives for cessation triggers. However, the proposal for ARM fallbacks differs in some respects, which are covered below.

*Future-Proofing:* It is important to note that the fallback provisions refer to the “Index” throughout and define the Index as, initially, LIBOR; provided that if LIBOR has been replaced in the contract, then the term “Index” means the applicable “Replacement Index”. This drafting is intended to allow the fallback provisions to apply again in the unlikely event that during the term of a mortgage loan, the replacement to LIBOR is later discontinued. Nonetheless, since most mortgages are 30-year term contracts, the language must be able to stand the test of time.

## **B. Triggers**

A “trigger” is an objective, observable event that will require the Note Holder to convert from LIBOR (or another “Index”<sup>4</sup>) to a new reference rate. The triggers are set out in the definition of “Replacement Events” in the proposal (See Appendix I, section 4(G)). The ARRC’s proposal sets out three separate

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<sup>4</sup> In the consultation proposal, a “Index” is defined as LIBOR or its replacement, including any spread adjustments thereto (the “Replacement Index”).

triggers that define when an Index is no longer available for purposes of calculating the interest rate on an ARM loan.

As described in greater detail below, the first trigger would only be invoked if LIBOR ceased publication. The second and third triggers would apply in situations in which LIBOR may still be published, but its quality had materially deteriorated in objectively measurable ways or had been rendered unusable because of a newly adopted law or regulation.

#### *Index is Unavailable*

The first trigger in the ARRC's proposed ARM fallback provisions ("Replacement Event" clause 4(G)(i)) would move to a replacement index in the event that the Administrator of the current Index has stopped providing the Index to the general public. It is intended to be consistent with the first two fallback triggers in the ARRC's recommended fallback language for other cash products and that ISDA anticipates incorporating into its definition for USD LIBOR. Those ARRC-recommended fallback triggers would move to a replacement index in the event that the Administrator of the current Index "has ceased or will cease to provide the Benchmark, permanently or indefinitely, provided that, at the time of such statement or publication, there is no successor administrator that will continue to provide the Benchmark." Relative to the ARRC's recommended language in other cash product or ISDA documents, the proposed ARM fallback trigger is written more simply and emphasizes the need for the Index to be provided to the general public (i.e., observable by the borrower) if it is to be used in an ARM product.

#### *Index is No Longer Reliable or Representative*

The second trigger in the ARRC's proposed ARM fallback provisions ("Replacement Event" clause 4(G)(ii)) would occur if the Administrator of the Index or the regulator with authority over the administrator of the Index announces that the Index is no longer representative or is unreliable. This trigger is modeled after language in Article 20(3) of the EU Benchmark Regulation, under which EUsupervised entities may be prohibited from new use of a Benchmark if it is determined that the Benchmark is "no longer representative of the underlying market or economic reality." In the case of LIBOR, the relevant regulator is the UK Financial Conduct Authority. As such, a determination by another regulator (such as a US regulator) would not satisfy the trigger in section 4(G)(ii) of the proposed ARM fallback provision.

This trigger is consistent with the pre-cessation trigger included in the ARRC's recommended fallback language for other cash products. Note that ISDA is currently consulting on pre-cessation triggers and may elect to include one trigger of this nature; however, if ISDA does not include any pre-cessation trigger, then including such triggers in ARMs could result in basis risk with standard derivatives (i.e. if the LIBOR-based interest rate was hedged, the hedge may no longer match the new SOFR-based interest rate, unless parties bilaterally agree to include the same pre-cessation triggers in the hedge).

#### *Federal & State Law Trigger*

The third trigger in the ARRC's proposed ARM fallback provisions ("Replacement Event" clause 4(G)(iii)) allows the contract to move away from an index that becomes prohibited by federal or state laws or regulations. This trigger takes into account the fact that ARM products can face a variety of Federal and State regulations. This particular type of pre-cessation trigger is not included in the ARRC's recommended fallback language for other cash products or in the ISDA definitions. Like the precessation

trigger discussed above, including such a trigger in ARMs could result in basis risk with standard derivatives.

### Questions about Triggers

**Question 1:** *Should fallback language for ARMs include either of the pre-cessation triggers (triggers 4(G)(ii) and 4(G)(iii))? If so, which ones?*

The market cannot rely only on a statement from a supervisor to stop using LIBOR, but rather on a legally binding decision, pursuant to which firms will not be allowed to use the IBOR and will have to switch to a fall back rate. If the supervisor is not clear enough in its decision, it will create uncertainty in the market. We need a common approach for the transition path decided between supervisor, administrator and industry. There is no need of pre-cessation trigger but what the industry needs is a clear transition path decided by all parties to the transition.

**Question 2:** *Please indicate whether any concerns you have about these pre-cessation triggers relate to differences between these triggers and those for standard derivatives or relate specifically to the pre-cessation triggers themselves.*

Please see response to question #1

**Question 3:** *If pre-cessation triggers are not included, what options would be available to market participants to manage the potential risks involved in continuing to reference a Benchmark whose regulator has publicly determined that it is not representative of the underlying market?*

Please see response to question #1

**Question 4:** *The ARM language proposed uses simplified language in an effort to be more comprehensible for the consumer market. Is the simplified language appropriate or are there concerns with the language not matching ISDA or other cash product language precisely?*

The simplified language is appropriate for a consumer product, and there should not be a need for it to precisely match a document like an ISDA.

### **C. Replacement Index and Margin**

In the proposed contract language in this consultation, references to LIBOR will be replaced by references to an alternative rate upon a “Replacement Event.” As described below, the proposed ARM

fallback provisions contain a waterfall within the defined term “Replacement Index” to select the particular index to be used as a replacement. The table below displays the ARM fallback Replacement Index waterfall:

<b>ARM Replacement Index Waterfall</b>
<b>Step 1:</b> Replacement index selected or recommended by the Federal Reserve Board, the Federal Reserve Bank of New York, or a committee endorsed or convened by the Federal Reserve Board or the Federal Reserve Bank of New York
<b>Step 2:</b> Replacement index determined by the Note Holder

Step 1: ARRC Replacement Index

The first step of the proposed waterfall is a replacement index selected or recommended by the Federal Reserve Board, the Federal Reserve Bank of New York, or a committee endorsed or convened by the Federal Reserve Board or the Federal Reserve Bank of New York (e.g., the ARRC).

It is anticipated that the ARRC will work with all stakeholders to develop and recommend a spread adjustment and corresponding spread-adjusted SOFR-based replacement that reflects and adjusts for the differences between LIBOR and SOFR; thus, minimizing the impact to the borrower’s interest rate at resets following a Replacement Event.

**Question 5:** *Is the replacement index determined by the Federal Reserve Board, the Federal Reserve Bank of New York, or a committee endorsed or convened by the Federal Reserve Board or the Federal Reserve Bank of New York the best choice as the first step of the waterfall? Why or why not?*

The FRB is best positioned to make an impartial determination of a replacement index. Furthermore, it would enhance uniformity and standardization in the market and reduce liability on individual institutions.

**Question 6:** *As noted in the narrative, the ARRC has committed to recommending spread adjustments for cash products that reflect the general difference between various tenors of LIBOR and SOFR. In addition, the ARRC has committed to seeing all-in, “spreadadjusted” rates published for use in cash products (e.g., a SOFR-based spread-adjusted replacement index for 1-year LIBOR). Should the ARRC recommend a spread adjustment for LIBOR ARMs and other consumer products, and should the corresponding spreadadjusted rate be the replacement index for the LIBOR ARMs?*

Yes, designating a spread adjusted rate as the replacement index would reduce the potential for value transfer between borrower and lender at the time of replacement.



**Question 7:** *As noted in the narrative, in addition to recommending SOFR, the ARRC may recommend forward-looking term SOFR rates if it is satisfied that a robust, IOSCO-compliant term rate that meets its criteria can be produced. If the ARRC recommends forward-looking term rates (e.g., 1-month, 3-month, 6-month, etc.) and a corresponding spread adjustment, should a spread-adjusted term rate be the replacement index for LIBOR ARMs, or would a spread-adjusted average (simple or compounded) of SOFR be more appropriate? Please provide support for your answer.*

Forward looking rates are always preferable, as they are a better indicator of current marginal borrowing costs. A spread adjustment still may be appropriate for the reasons mentioned above.

### Step 2: Note Holder Determined Replacement Index and Margin

If there is not a rate selected or recommended as outlined in the first step, then the second step of the proposed waterfall would require the Note Holder to choose a replacement index, similar to the language in current LIBOR ARM fallbacks. The proposed ARM fallback provision explicitly spells out the possibility that the Note Holder may determine an adjustment to be made to the loan's margin to bring LIBOR and the Replacement Index (or a future Index and its replacement) more in line with each other.

**Question 8:** *Should the Note Holder have the responsibility as the 2<sup>nd</sup> and last step of the waterfall? Why or why not?*

Yes as it is aligned with the final close-out methodology included in ARM notes.

**Question 9:** *Should the Note Holder have the ability to make adjustments (positive or negative) to the loan's margin to more closely approximate LIBOR at the time of replacement? Why or why not? If you do not believe the Note Holder should make adjustments to the loan's margin, and potential replacement indices diverge from the value of the current Index, what provision or step should be taken to preserve that consistency?*

Yes, allowing the Note Holder to adjust the Margin in addition to selecting the replacement index seems appropriate to make sure the fully-indexed rate remains consistent with what was originally agreed to by the borrower for the remaining term of the loan, and "comparable" status is met.

Potential Concern: it seems the Note Holder should also have the ability to adjust the Margin for the same reason even under the first step of the proposed waterfall where the Fed determines the replacement Index.

**Question 10:** *If the Note Holder is a trust (for example, as may occur in private label MBS), is there some entity other than the Note Holder that should be responsible for identifying the Replacement Index if Step 1 of the waterfall fails? Please provide sufficient rationale for your answer.*

Servicer of the loan should make the determination if the MBS trustee can't do it.

## E. Other Questions

**Question 11:** *Will this language have unintended consequences not considered by the ARRC working group, such as title insurance restrictions, state law endorsement or filing restrictions, etc.? If so, please explain and provide information about why this language would present challenges. If there are concerns with this proposed language, please be sure to specify if concerns relate to this proposed language, or index replacement language in general.*

The ARM notes already include a rudimentary fallback provision; it doesn't seem like a more prescriptive provision like that being proposed should raise any additional issues of the nature described.

## F. General Feedback

**Question 12:** *Isa there any provision in the proposal that would significantly impede ARM originations? If so, please provide a specific and detailed explanation.*

Given its lack of term structure and credit spread component, the SOFR replacement will result in increased hedging costs and increased basis risk for lenders.

Lenders will require compensation for these added risks by increasing costs for borrowers either through higher margins or deeper discounts at origination.

These factors will tend to decrease the relative attractiveness of ARM products for lenders and borrowers and will have the potential to curtail future ARM production (vs. fixed mortgages).

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**Question 13:** *Please provide any additional feedback on any aspect of the proposal.*

Nothing else to add at this point in time.

## G. Response Procedures/ Next Steps

Interested parties may submit responses to the consultation questions by email to [arcc@ny.frb.org](mailto:arcc@ny.frb.org) until September 10, 2019. Please attach your responses in a PDF document and clearly indicate "Consultation Response – ARMs" in the subject line of your email. Please coordinate internally and provide only one response per institution.

Responses will be posted on the ARRC's website as they are received without alteration except when necessary for technical reasons. Comments will be posted with attribution unless respondents request

anonymity. If your institution is requesting anonymity, please clearly indicate this in the body of your email and please ensure that the PDF document you submit is anonymized

Following this market-wide consultation, the ARRC plans to recommend fallback language for ARMs for voluntary adoption in the marketplace. The expectation is that market participants will choose whether and when to begin using the ARM fallback language in new issuances of LIBOR transactions as they deem appropriate.

## **Appendix I Draft Fallback Language for New Closed-End, Residential Adjustable Rate Mortgages**

### **[Excerpts from] FIXED/ADJUSTABLE RATE NOTE (LIBOR One-Year Index (As Available Via *The Wall Street Journal*)–Rate Caps)**

*[Sections Intentionally Omitted]*

#### **2. INTEREST**

Interest will be charged on unpaid principal until the full amount of Principal has been paid. I will pay interest at a yearly rate of \_\_\_\_\_%. The interest rate I will pay may change in accordance with Section 4 of this Note.

The interest rate required by this Section 2 and Section 4 of this Note is the rate I will pay both before and after any default described in Section 7(B) of this Note.

*[Sections Intentionally Omitted]*

#### **4. ADJUSTABLE INTEREST RATE AND MONTHLY PAYMENT CHANGES**

##### **(A) Change Dates**

The initial fixed interest rate I will pay will change to an adjustable interest rate on the first day of \_\_\_\_\_, \_\_\_\_\_, and the adjustable interest rate I will pay may change on that day every 12th month thereafter. The date on which my initial fixed interest rate changes to an adjustable interest rate, and each date on which my adjustable interest rate could change, is called a “Change Date.”

##### **(B) The Index**

Beginning with the first Change Date, my adjustable interest rate will be based on an **Index that is calculated and published by an administrator (the “Administrator”).** The “Index” is **a benchmark, known as one-year U.S. dollar–Dollar (USD) LIBOR index. The Index is published in, or on the website of, *The Wall Street Journal*.** The most recent Index value available as of the date 45 days before each Change Date is called the “Current Index,” provided that if the Current Index is less than zero, then the Current Index will be deemed to be zero for purposes of calculating my interest rate.

If the Index is no longer available, **it will be replaced in accordance with Section 4(G) below.**

##### **(C) Calculation of Changes**

Before each Change Date, the Note Holder will calculate my new interest rate by adding \_\_\_\_\_ percentage points ( \_\_\_\_\_%) (the “Margin”) to the Current Index. **The Margin may change if the Index is**

replaced by the Note Holder in accordance with Section 4(G)(2) below. The Note Holder will then round the result of the Margin plus the Current Index to the nearest one-eighth of one percentage point (0.125%). Subject to the limits stated in Section 4(D) below, this rounded amount will be my new interest rate until the next Change Date.

The Note Holder will then determine the amount of the monthly payment that would be sufficient to repay the unpaid principal that I am expected to owe at the Change Date in full on the Maturity Date at my new interest rate in substantially equal payments. The result of this calculation will be the new amount of my monthly payment.

**(D) Limits on Interest Rate Changes**

The interest rate I am required to pay at the first Change Date will not be greater than \_\_\_\_\_% or less than \_\_\_\_\_%. Thereafter, my adjustable interest rate will never be increased or decreased on any single Change Date by more than [two] percentage points from the rate of interest I have been paying for the preceding 12 months. My interest rate will never be greater than \_\_\_\_\_% or less than \_\_\_\_\_%.

**(E) Effective Date of Interest Rate Changes**

My new interest rate will become effective on each Change Date. I will pay the amount of my new monthly payment beginning on the first monthly payment date after the Change Date until the amount of my monthly payment changes again.

**(F) Notice of Interest Rate Changes**

The Note Holder will deliver or mail to me a notice of any changes in my initial fixed interest rate to an adjustable interest rate and of any changes in my adjustable interest rate before the effective date of any change. The notice will include the amount of my monthly payment, any information required by law to be given to me and also the title and telephone number of a person who will answer any question I may have regarding the notice.

**(G) Replacement Index and Replacement Margin**

The Index is deemed to be no longer available and will be replaced if any of the following events (each, a “Replacement Event”) occur: (i) the Administrator has stopped providing the Index to the general public; (ii) the Administrator or its regulator issues a public statement indicating that the Index is no longer reliable or representative; or (iii) the effective date of an applicable federal or state law, or applicable federal or state regulation that prohibits use of the Index.

If a Replacement Event occurs, the Note Holder will select a new index (the “Replacement Index”) and may also select a new margin (the “Replacement Margin”), as follows:

- 1) If a replacement index has been selected or recommended by the Federal Reserve Board, the Federal Reserve Bank of New York, or a committee endorsed or convened by the Federal Reserve Board or the Federal Reserve Bank of New York at the time of a Replacement Event, the Note Holder shall select that index as the Replacement Index.
- 2) If 1) is not available at the time of a Replacement Event, the Note Holder will make a reasonable, good faith effort to select a Replacement Index and a Replacement Margin that, when added together, the Note Holder reasonably expects will minimize any change in the cost of the loan, taking into account the historical performance of the Index and the Replacement Index.

The Replacement Index and Replacement Margin, if any, will be operative immediately upon a Replacement Event and will be used to determine my interest rate and monthly payments on Change Dates that are more than 45 days after a Replacement Event. The Index and Margin could be replaced more than once during the term of my Note. For the avoidance of doubt, all references to the “Index” and “Margin” shall be deemed to be references to the “Replacement Index” and “Replacement Margin.”

The Note Holder will also give me notice of my Replacement Index and Replacement Margin, if any, and such other information required by applicable law and regulation.

*[Sections Intentionally Omitted]*